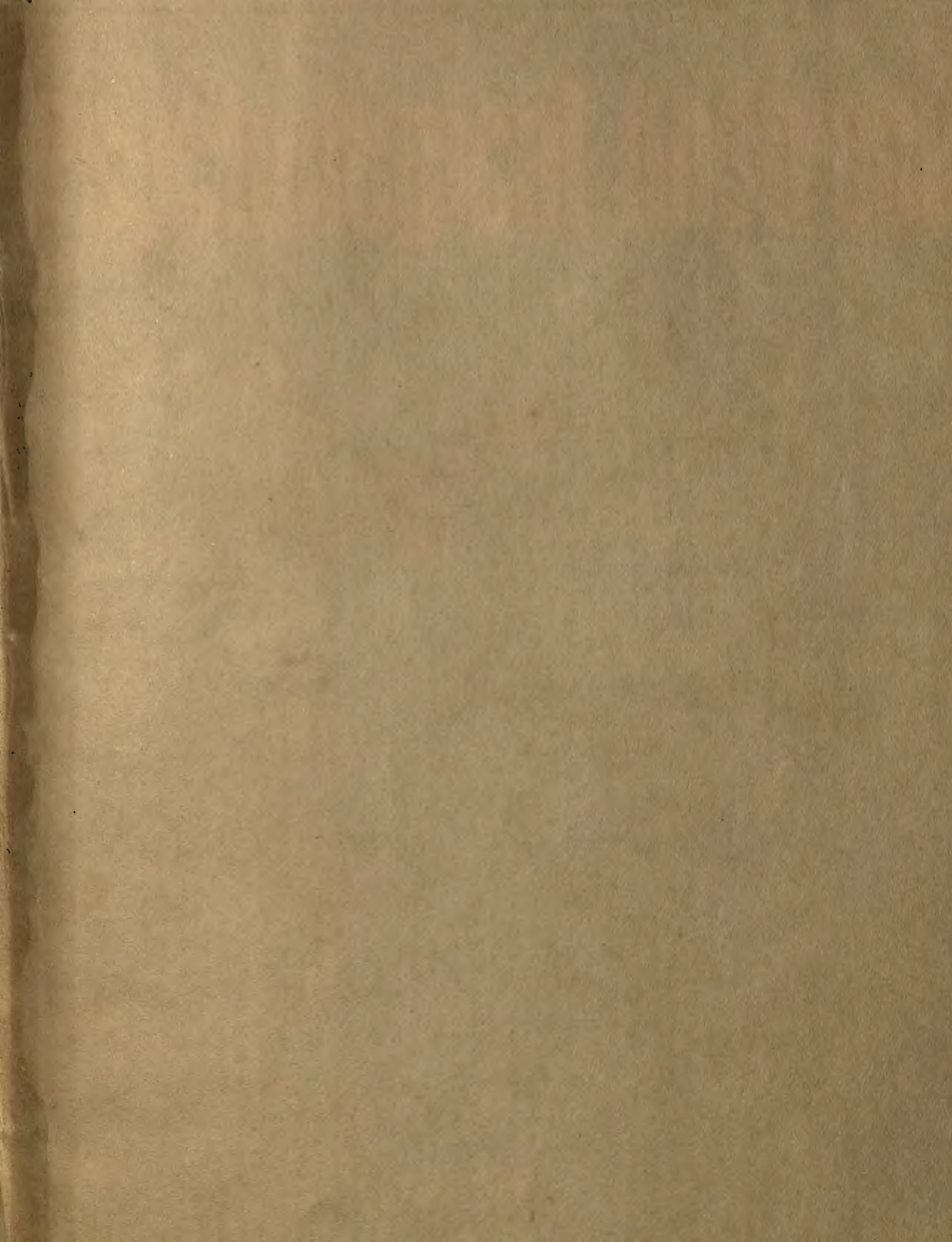


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Nonevaluative summaries of the world's literature in psychology and related disciplines

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Number 1

January 1971

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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

Psychological Abstracts (PA) attempts to cover the world's literature in psychology and related topics. PA publishes abstracts of published primary documents such as technical reports, journals, and monographs. Books and separates are covered by bibliographic citation with an additional annotation if the title is not definitive.

PA is published in two volumes per year (effective January 1971), six issues per volume. A cumulative index is published for each six-month volume.

A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

A cumulative index issue contains: Table of Contents for the six-month volume; complete list of all journals regularly searched by PA; list of volunteer abstractors; list of abbreviations used in the abstracts; the cumulative author index for the six-month volume; list of subject index heading terms; and cumulative subject index for the six-month volume, which consists of index heading terms, descriptive phrases for each abstract, four-letter abbreviations indicating languages other than English and abstract numbers.

Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

PA is computer-printed and because of necessary production procedures there is a possibility that on occasion the abstracts representing articles from a single issue of a primary journal may appear in several issues of PA.

The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.)—(10) *Journal abstract*.

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., [Parapsychology].

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA—*Psychological Abstracts*.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, in one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA—*Psychological Abstracts*.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

A READER'S GUIDE TO LINGUISTIC LITERATURE

Psychological Abstracts, Psychiatry Abstracts, and other abstracting services are available for the study of the human mind. The reader is advised to consult these sources for the latest information on the state of the art in the various branches of the study of the human mind.

The following is a list of the most important works in the field of linguistics, arranged in alphabetical order of the author's name. The list is intended to be a guide to the literature, and not a bibliography. It is not intended to be exhaustive, but to give the reader a general idea of the state of the art in the various branches of the study of the human mind.

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BOOK ENTRY

(1) *Journal of the American Linguistic Association*, Vol. 1, No. 1, 1951, pp. 1-100.

(2) *Journal of the American Linguistic Association*, Vol. 1, No. 2, 1951, pp. 101-200.

(3) *Journal of the American Linguistic Association*, Vol. 1, No. 3, 1951, pp. 201-300.

(4) *Journal of the American Linguistic Association*, Vol. 1, No. 4, 1951, pp. 301-400.

(5) *Journal of the American Linguistic Association*, Vol. 1, No. 5, 1951, pp. 401-500.

(6) *Journal of the American Linguistic Association*, Vol. 1, No. 6, 1951, pp. 501-600.

(7) *Journal of the American Linguistic Association*, Vol. 1, No. 7, 1951, pp. 601-700.

(8) *Journal of the American Linguistic Association*, Vol. 1, No. 8, 1951, pp. 701-800.

(9) *Journal of the American Linguistic Association*, Vol. 1, No. 9, 1951, pp. 801-900.

(10) *Journal of the American Linguistic Association*, Vol. 1, No. 10, 1951, pp. 901-1000.

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Psychological Abstracts

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EDITORIAL NOTE

The publishers of *Revue de Psychologie et des Sciences de l'Education* are interested in establishing exchange subscriptions between their journal and other similar psychological journals. Interested publishers may contact Miss M. F. Voisin, Exchange Department, *Revue de Psychologie et des Sciences de l'Education*, Groupe de Louvain, A.S.B.L., 104, Tienestraat, 3000 Leuven-Louvain, Belgique.

ERRATUM

In the abstract of the S. I. Shapiro and Irene Ponce article (see PA, Vol. 44:11804), the subject population should have been 200 undergraduates rather than 191 undergraduates.

GENERAL

OBITUARIES

1. Zangwill, O. L. **Obituary notice: Sir Frederic Bartlett (1886-1969).** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 77-81.—Describes F. Bartlett's contributions to experimental psychology and his influence on the study of social factors, memory, thinking, and skill and human performance.

HISTORY

2. ———. **Some unpublished letters of Freud.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 419-427.—These 9 unpublished letters, written when Freud was between the ages of 16-18, were to his friend Emil Fluss and describe Freud's adolescent adventures and thoughts.—J. Chyatte.

3. Crannell, Clarke W. **Wolfgang Köhler.** *Journal of the History of the Behavioral Sciences*, 1970 (Jul), Vol. 6(3), 267-268.—An eyewitness report by an American student at the time (1933) of Köhler's extraordinary courage in his defiance of the Nazis during his career as Director of the Psychological Institute in Berlin.—C. M. Franks.

4. Harms, Ernest. **Awareness: A new psychological category.** *Journal of the History of the Behavioral Sciences*, 1970 (Jul), Vol. 6(3), 263-264.—"It would appear that we are now witnessing the emergence of a new psychological category the importance of which lies especially in the fact that it challenges 1 of the most basic psychological concepts of the past hundred years, i.e., the concept of consciousness."—C. M. Franks.

5. MacLeod, R. B. (Cornell U.) **Newtonian and Darwinian conceptions of man, and some alternatives.** *Journal of the History of the Behavioral Sciences*, 1970 (Jul), Vol. 6(3), 207-218.—Over the past century or so, the psychologist's conception of man has slipped into

2 molds, patterned after either Newtonian physics or Darwinian biology. While both have served their purposes, alternative models—still within the realm of science—exist. Discussed here are verstehende Psychology and field theory.—C. M. Franks.

6. Merrifield, Marilyn & Watson, Robert I. (U. New Hampshire) **Eminent psychologists: Corrections and additions.** *Journal of the History of the Behavioral Sciences*, 1970 (Jul), Vol. 6(3), 261-262.—Clerical errors in the reporting of biographical data (see E. L. Annin, E. G. Boring, & R. I. Watson, PA, Vol. 43:3229) pertaining to certain eminent psychologists have now come to light. Corrections are noted and some additions made.—C. M. Franks.

7. Yaroshevskii, M. G. (Inst. of the History of Science & Technology, Moscow, USSR) **V. I. Lenin i krizis psikhologii na rubezhe XX stoletiya.** [V. I. Lenin and the crisis of psychology at the turn of the century.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 46-58.—Presents a historical discussion of the criticism of the idealist notions of Wundt and Brentano by Mach and Avenarius and of Lenin's criticism of the views of the latter 2 as idealistic despite their seemingly materialistic flavor. (English summary)—L. Zusne.

PHILOSOPHY

8. Bloor, David. **Is the official theory of mind absurd?** *British Journal for the Philosophy of Science*, 1970 (May), Vol. 21(2), 167-183.—Examines Ryle's arguments to the effect that the "official theory of mind" is absurd. The theory of mind is likened to postulated theoretical entities in physical science. As such the theory becomes an "embryonic explanatory theory" of behavior with a status much like that of atomism before Dalton. By showing the ineffectiveness of Ryle's arguments when applied to atomism the author is able to throw into question the same arguments when used against the theory of mind. The theory of mind is defended against the charge that it is logically absurd, but no attempt is made to demonstrate that the theory is true.—P. E. Lichtenstein.

9. Ghosal, Hironmoy. **Jean-Paul Sartre.** *Samiksa*, 1967, Vol. 21(4), 169-179.—Presents an analysis of Sartre's personality from a study of his autobiography and discusses how this relates to his existential philosophy.

10. Kolbanovskii, V. N. (Inst. of Psychology, Moscow, USSR) **V. I. Lenin o roli sotsial'no-psikhologicheskogo faktora v obshchestvennoi zhizni.** [V. I. Lenin on the role of social psychological factors in social life.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 124-142.—Presents an analysis of how Lenin used social psychological insights to decide on the suitability of the various social classes and groups for his revolutionary purpose as well as in winning them over to his ideas. (English summary) (20 ref.)—L. Zusne.

11. Korotkova, G. P. *Printsipy tselostnosti*. [The principles of wholeness.] Leningrad, USSR: Leningrad U., 1968. 160 p.—Analyzes several general philosophical and methodological problems arising in the development of contemporary biological science.—I. D. London.

12. Pitcher, George. (Princeton U.) *Pain perception*. *Philosophical Review*, 1970 (Jul), Vol. 79(3), 368-393.—Argues "that in standard cases to feel a pain is to be (directly) aware of a perfectly objective state of affairs ... [i.e.] a part of one's body that is in a damaged, bruised, irritated, or pathological state, or that is in a state that is dangerously close to being one or more of these kinds of states."—H. Rujia.

13. Ricoeur, Paul. (U. Paris, France) *Freud and philosophy: An essay on interpretation*. Trans. D. Savage. New Haven, Conn.: Yale U. Press, 1970. xiii, 573 p. \$15.

14. Shorokhova, E. V. (Inst. of Philosophy, Moscow, USSR) *Leninskie idei o potrebnostyakh lyudei*. [Lenin's ideas concerning human needs.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 97-109.—While Marxism recognizes the importance of ideas in the historical progress of mankind, it seeks the roots of ideas in the needs of people. The thesis that thought and feelings are determined by the social and historical conditions is a point of departure for the psychological analysis of human motivation within the framework of dialectic materialism. An account of Lenin's ideas concerning this problem area is given. (English summary) (28 ref.)—L. Zusne.

15. Shorokhova, E. V. (Ed.) *Metodologicheskie i teoreticheskie problemy psikhologii*. [Methodological and theoretical problems of psychology.] Moscow, USSR: Nauka, 1969. 376 p.—Presents a collection of 11 contributed papers in the form of chapters, presenting the results of studies on the philosophical problems of psychology. Chapters: "[a] the principle of determinism in psychology, [b] the methodology of psychology and the principle concerning the connection of consciousness and activity, [c] the principle of development in psychology, [d] on the interconnection of the theory and history of psychology, [e] the individual approach as a principle of psychology, [f] methodology and methods of psychological research, [g] on some methods of constructing models in psychology, [h] physiological methods of studying psychic activity, [i] the methodological significance of medical [pathological] psychology, [j] the methodological aspect of the problem of the subjective, [and k] man and the world (excerpts from a manuscript [by S. L. Rubinshtein])."—I. D. London.

16. Smirnov, A. A. (Inst. of Psychology, Moscow, USSR) *A. I. Gertsen i problemy psikhologii*. [A. I. Gertsen and the problems of psychology.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 25-33.—On the occasion of the 100th anniversary of A. I. Gertsen's (1812-1870) death some of the psychological ideas of this early Russian revolutionary-philosopher are discussed. (English summary)—L. Zusne.

17. Smirnov, A. A. (Inst. of Psychology, Moscow, USSR) *Leninskaya teoriya otrazheniya i psikhologiya*. [Lenin's theory of reflection and psychology.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(2), 3-33.—Discusses the importance of Lenin's theory of reflection as the philosophical foundation of psychology and his criticism of idealistic views of sensations. The view of sensations as symbols that inadequately reflect reality is

contrasted with Lenin's view according to which symbols ultimately reflect objective reality. The thesis that the reflection of reality is an active process has the corollary that mind and activity form a unitary whole, mental processes being different kinds of activity. (English summary) (61 ref.)—L. Zusne.

18. Spicker, Stuart F. (Ed.) *The philosophy of the body: Rejections of Cartesian dualism*. Chicago, Ill.: Quadrangle, 1970. x, 367 p. \$15(cloth), \$2.95(paper).

19. Vedenov, A. V. (Inst. of Psychology, Moscow, USSR) *V. I. Lenin i stanovlenie lichnosti rabochego kak aktivnogo deyatelya obshchestvennogo razvitiya*. [V. I. Lenin and the formation of the personality of the worker as an active participant in societal development.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 110-123.—Discusses Lenin's idea that the personality of the working man is formed in the process of his active participation in the various phases of the revolutionary struggle to overthrow the capitalist order. (English summary) (16 ref.)—L. Zusne.

PARAPSYCHOLOGY

20. Beloff, J., Cowles, M., & Bate, D. (U. Edinburgh, Scotland) *Autonomic reactions to emotive stimuli under sensory and extrasensory conditions of presentation*. *Journal of the American Society for Psychical Research*, 1970 (Jul), Vol. 64(3), 313-319.—20 schoolboys were tested for their GSR reactions on being presented unexpectedly with their self-image or own name. Presentation was sensory (by means of slides), and extrasensory, using a set of photoprints with 1 author acting as agent. Scoring was done blind by another author who had to pick out the most salient deflections of the polygraph record. On this basis 2×2 stimulus response contingency matrices were set up and analyzed. The sensory runs gave an overall phi contingency coefficient of .453, which is overwhelmingly significant, but the extrasensory runs gave a phi of only .008, which is almost exactly at chance expectation.—*Journal abstract*.

21. Eisenbud, Jule, et al. (U. Denver) *Two camera and television experiments with Ted Serios*. *Journal of the American Society for Psychical Research*, 1970 (Jul), Vol. 64(3), 261-276.—In the 2 experiments Ted Serios succeeded in putting onto videotape (by no known mechanical means) images corresponding to those he put onto camera film in the experiments in question. A detailed study of the appearance and dissolution of the video images obtained is possible through a 24 frame/sec filmstrip made of the videotape record. The significance of various aspects of the data, including the relation of the images to a hidden target provided in 1 of the experiments, is discussed.—*Journal abstract*.

22. Krippner, Stanley. (Maimonides Medical Center W. C. Menninger Dream Lab., Brooklyn, N.Y.) *Electrophysiological studies of ESP in dreams: Sex differences in seventy-four telepathy sessions*. *Journal of the American Society for Psychical Research*, 1970 (Jul), Vol. 64(3), 277-285.—An analysis was made of 74 telepathy sessions involving 14 male and 9 female agents and 41 male and 32 female Ss. There was a total of 55 "hits" and 22 "misses," producing a (significant) chi-square ($p < .001$, 1 degree of freedom). When a male served as S, there were 31 hits and 10 misses ($p < .001$) but when a female served as S, the chi-square was no

statistically significant. The data were not significant when a female agent and a female S were paired; neither were they significant when a male agent and a female S were paired. However, significant results were obtained when a male agent and a male S were paired ($p < .03$) and when a female agent and a male S were paired ($p < .05$). (15 ref.)—*Journal abstract*.

23. **Morris, Robert L.** (Psychical Research Foundation, Durham, N.C.) **Psi and animal behavior: A survey.** *Journal of the American Society for Psychical Research*, 1970 (Jul), Vol. 64(3), 242-261.—Presents a survey of evidence of psi in animals (homing and psi-trailing, hive behavior, "thinking" animals, and experimental evidence based on choice and emotional behavior), and discusses methodological problems likely to be met by anspsi researchers. "The guidelines offered ... are intended to bring together the methodologies of animal behavior research and parapsychology." (39 ref.)—*R. A. White*.

24. **Moss, Thelma; Paulson, Morris J., Chang, Alice F., & Levitt, Marc.** (U. California, Center for the Health Services, Los Angeles) **Hypnosis and ESP: A controlled experiment.** *American Journal of Clinical Hypnosis*, 1970 (Jul), Vol. 13(1), 46-56.—Teams of transmitter and receiver (in isolated rooms) used "emotional episodes" as stimulus material for the transmitter to "send" the receiver in order to learn if hypnosis would facilitate telepathic rapport. 8 teams of 14 "hypnotized" and 9 "nonhypnotized" teams completed the required 6 sessions of 24 trials; the 4 teams achieving statistical significance all belonged to the "hypnotized" group.—*M. V. Kline*.

25. **Stanford, Rex G. & Pratt, J. G.** (U. Virginia) **Extrasensory elicitation of sensorially acquired response patterns?** *Journal of the American Society for Psychical Research*, 1970 (Jul), Vol. 64(3), 296-302.—An ESP S, in guessing whether the white or green side of a concealed card was upward, developed guessing habits related to the sides of the outer cover enclosing each colored card. These covers were themselves then randomized as to order and side upward and concealed in opaque containers. This was done in most series by a 2nd E out of sight of the S and the testing E. The responses associated with each cover side as shown by the ratios of "white" to total guesses were related in the sensory and concealed situations as shown by high positive correlations between test series. These results are compatible with the hypothesis that habits formed in a sensory situation can also function when the relevant stimulus is presented extrasensorially.—*Journal abstract*.

26. **Turner, Malcolm E. & Osis, Karlis.** (Emory U.) **A probability model for symbol-calling experiments.** *Journal of the American Society for Psychical Research*, 1970 (Jul), Vol. 64(3), 303-312.—"A new mathematical model is needed which would more comprehensively indicate the ESP processes in whatever measure they might occur (psi-missing or psi-hitting; direct hits or displacements). We hope that more stable relationships between ESP and other variables—personality traits, moods, hypnosis, distance, etc.—will emerge if comprehensive measures which more adequately represent the ESP processes become available. The probability model which follows is not the final solution; it is rather our contribution toward the development of more comprehensive assessment methods for use in ESP research."—*R. A. White*.

THEORY & SYSTEMS

27. **Bibring, Edward.** **The development and problems of the theory of the instincts.** *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 293-308.—The biological life instincts which create tensions, the sexual instincts, the ego instincts, with their aim of maintaining life, and the pleasure principle are related to each other; the death instincts which seek to cancel out tensions, the instincts of destruction at work within, aggressiveness directed outwards, the trend towards a state of rest (Nirvana), and the inclination to suffer are also related to each other. Instinct operates in a directive fashion on biological events. It becomes differentiated and concentrated into centers of tension which are somehow bound to organic phenomena as sources; it turns outwards on an object, strives after an aim which consists externally in a particular kind of behavior towards that object and internally in removal of a state of excitation. How it operates is not clear. What it is doing when it is directed towards objects on which it carries out purposive actions can be seen. Concepts are vague and ill defined. Some advance into this field is advocated even if there is an unawareness of facts or if there are operational definitions.—*Journal summary*.

28. **Kernberg, Otto F.** **A contribution to the ego-psychological critique of the Kleinian school.** *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 317-333.—Summarizes a recapitulation of various critics of Kleinian theory. These concern acceptance of the inborn death instinct which determines anxiety, innate knowledge of genitals and intercourse, general lack of consideration of biological development, the "pushing back" of intrapsychic development, neglect of environmental factors, lack of structural differentiation within both ego and superego formation, lack of differentiation of normal from pathological development, vagueness of terminology, application of identical techniques to all patients regardless of illness, neglect of the reality of the analytic situation, neglect of defense organization of the patient and neglecting to deepen the analytic situation through interpretation, and peculiar use of terms regarding infantile development. Acceptable aspects include importance of early object relations, importance of defensive constellations known as paranoid-schizoid, depressive, manic, importance of aggression in early development, early superego development, application of analytic techniques to children, early defensive operations as contributors to borderline or psychotic behavior, and focus on regressive features in the opening phase of analysis. (43 ref.)—*J. Chyatte*.

29. **Schmeck, Ronald R. & Bruning, James L.** (Southern Illinois U.) **Frustration theory and quality of performance: Elicitation and elimination of competing responses.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 987-994.—Within a Hull-Spence framework, attempts to elucidate the implications of frustration theory regarding the quality of complex task performance. The specific and nonspecific effects of frustration are distinguished. Specific effects relate to the compatible or incompatible nature of the responses directly elicited by the stimulus properties of frustration. Nonspecific effects relate to the increase in the probability of occurrence of competing responses due to the general drive increase produced by frustration. It is proposed that the number and habit strengths of the competing

responses will determine whether the motivational increase produced by frustration is beneficial or detrimental to performance. Further, the competing responses will produce more frustration which will raise the general drive level of the organism and increase the probability that more competing responses will occur. At the same time, the possibility exists that the association of the competing responses with a frustration reaction will cause them to acquire classically conditioned inhibitory properties leading to a decrease in the probability that those particular competing responses will occur again. Finally, the correct response could reduce the frustration produced by the competing responses and produce an increase in the probability of that response recurring. (2 p. ref.)—*Journal abstract.*

30. Tarantino, Santo J. (Florida Atlantic U.) **Toward a conception of behavior based on concepts of approach-withdrawal and adaptation level.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 767-776.—Emphasized the basic responding nature of organisms in an integration of concepts from comparative, physiological, and social psychology. A formulation was offered which states that organisms will make expansive approach responses to stimuli slightly or moderately deviant from the adaptation level and that such responses involve innervation of extensor muscles and are associated with positive affect. Conversely, stimuli strongly deviant from the adaptation level will evoke restrictive withdrawal responses which involve innervation of flexor muscles and are associated with negative affect. An integration of these concepts is used to explain phenomena and data from various areas of psychology. (24 ref.)—*Journal abstract.*

31. van der Leeuw, P. J. **On Freud's theory formulation.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 573-581.—Psychoanalysis has given science a new area of experience (unconscious), a new instrument, and a new experiment in vivo (psychoanalytic situation). Freud's metapsychological way of thinking is a multidimensional approach. The number of viewpoints can be increased when the psychoanalytic situation necessitates it. Only this scientific viewpoint makes empirical science possible. Only then can further development be encouraged. When this is lost we create speculative theories, not science, and we become rigid and closed-minded. It is herein stated that Freud's multidimensional attitude is the purest form of this capacity. (32 ref.)—*J. Chyatte.*

32. Wallerstein, Robert S. & Smelser, Neil J. **Psychoanalysis and sociology: Articulations and applications.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 693-709.—Life is both psychological and social and both forces affect our behavior. Society permits expression and restriction of individual needs. Psychoanalysis and sociology should mesh their aims toward common goals but do not do so because of difficulties in communication. When knowledge is accumulated it is difficult to direct it to purposive action due to value differences, policies, strategies, etc. The task is not to determine value positions but to disseminate scientific knowledge which can act as guidelines for value judgments. (27 ref.)—*J. Chyatte.*

EDUCATION & TRAINING

33. Earley, L. W., et al. (Eds.) (U. Pittsburgh, Medical School) **Teaching psychiatry in medical school: The**

working papers of the Conference on Psychiatry and Medical Education, 1967. Washington, D.C.: American Psychiatric Assn., 1969. ix, 589 p.

34. Tornatzky, Louis G., Fairweather, George W., & O'Kelly, Lawrence I. (Michigan State U.) **Psychology in action: A PhD program aimed at survival.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 884-888.—Discusses the current involvement of psychology in social problems in terms of the citizen-scholar, and the social clinician. It is argued that these roles are inadequate to solve current social problems, since they either have no community experimentation, or have a naive conception of the social change process. A new PhD training program is described in which innovative social subsystems are set up experimentally in the community, evaluated longitudinally, and, if successful, implemented on a wide scale. The focus of such training is described as problem-oriented, experimental, and with a strong interdisciplinary flavor. Details of such a program at a state university are presented.—*Author abstract.*

PROFESSIONAL DEVELOPMENTS

35. Archer, E. James. (U. Rhode Island) **Proceedings of the Forty-Second Annual Meeting of the Midwestern Psychological Association.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 806-816.

36. Barry, John R. (U. Georgia) **Criteria in the evaluation of consultation.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 363-366.—Reviews studies concerned with identifying criteria for judging effectiveness of psychological consultation. It is suggested that a 1st necessity is to identify ultimate goals, and that both the consultee and consultant should take part in formulating them. It is concluded that establishing research controls for measuring effectiveness remains difficult and new methodologies are needed. (17 ref.)—*P. McMillan.*

37. Blackstone, William T. (U. Georgia) **Proceedings of the Sixty-Second Annual Meeting of the Southern Society for Philosophy and Psychology.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 869-873.

38. Dutcher, Mary A. (Colorado State U.) **Proceedings of the Fortieth Annual Meeting of the Rocky Mountain Psychological Association.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 839-845.

39. Elder, S. Thomas. (Louisiana State U., New Orleans) **Proceedings of the Seventeenth Annual Meeting of the Southwestern Psychological Association.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 846-854.

40. Iverson, Marvin A. (Adelphi U.) **Proceedings of the Forty-First Annual Meeting of the Eastern Psychological Association.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 817-838.

41. Jacoby, Jacob. (Purdue U.) **The plight of the uniformed Air Force psychologist.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 383-387.—States that the recent report by the ad hoc committee on career status of military psychologists does not reflect adequately the state of affairs for Air Force psychologists. Cross-service pay and grade differences exist, and there are also class distinctions among Air Force psychologists. Recommendations for improving conditions for all uniformed psychologists are (a) adequate and uniform entry levels for all PhD psychologists, (b) entitlement to "incentive" pay, (c) available preinduction counseling concerning psychological work being conducted within the service.

(d) establishment of a program in which all uniformed psychologists could discuss their research and problems in military psychology, and (e) compilation by the American Psychological Association of a publication on professional military opportunities.—*A. M. Berg.*

42. Mayer, Ronald W. (San Francisco State Coll.) **Proceedings of the Fiftieth Annual Meeting of the Western Psychological Association.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 787-805.

43. Prescott, Suzanne. (American Psychological Association, Washington, D.C.) **The utility of communications media for practitioners.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 389-391.—Reports selected results of a larger survey of information needs of psychologist practitioners. In a 1969 survey, 292 practitioners named the areas in which they most recently needed information. 39% of the respondents indicated a need for method and procedure for diagnosing and treating disorders, and 36% indicated specific data, conclusions, or general points about a topic. In another survey, a comparison between books and journals showed a preference for books as more useful in meeting information needs. The role of workshops and other informational media, including audiovisual materials, is reviewed.—*P. McMillan.*

44. Reiff, Robert. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Psychology and public policy.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 315-330.—Presents the thesis that the growth of psychology as a profession and an applied science during the last 50 yr. has been related to its activities during and following World War I and II. Problems associated with psychology's participation in the resolution of social issues is reviewed. It is concluded that psychology has a responsibility to respond to public and government need for "more knowledge about how to make human institutions more effective for human development." Comments by M. B. Smith and G. A. Miller and a response by R. Reiff are included.—*P. McMillan.*

45. Simon, Leonard J. (City Coll., City U. New York) **The political unconscious of psychology: Clinical psychology and social change.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 331-341.—Discusses the position that psychology, especially as a mental health profession, may have difficulty distinguishing between its professional and political roles. It is suggested that while clinical psychology has many liberals among its practitioners, its emphasis on intrapsychic causation has resulted in its movement away from active involvement in social change. (37 ref.)—*P. McMillan.*

46. Simpkins, Gary & Raphael, Phillip. (California State Coll., Los Angeles) **Black students, APA, and the challenge of change.** *American Psychologist*, 1970 (May), Vol. 25(5), xxi-xxvi.—Presents a revised and expanded version of a report of the joint committee, composed of members of the Association of Black Psychologists, the Black Students Psychological Association (BSPA), and the American Psychological Association (APA) to the APA Council of Representatives. 5 areas of major concern and plans for their implementation are outlined. These areas include: (a) "recruitment of Black students into psychology," (b) "recruitment of Black faculty members into psychology," (c) "gathering and disseminating of information concerning the availability of various sources of financial aid for Black students," (d) "the design and provision of programs offering meaningful community experience for Black

students in the field of psychology," and (e) "the research and development of terminal programs at all degree levels that equip Black students with the tools necessary to function within the black community." It is suggested that APA members in all fields can assist the implementation of these goals by providing professional expertise to students, using the influence of APA to accomplish academic reforms, and aiding in establishing and funding. Possible funding sources are envisioned as foundations, federal government, philanthropic individuals, and industrial donations. The governmental structure of the BSPA and the purpose for which funds will be used are also outlined.—*M. Maney.*

47. Spears, William D. (Auburn U.) **Proceedings of the Sixteenth Annual Meeting of the Southeastern Psychological Association.** *American Psychologist*, 1970 (Sep), Vol. 25(9), 855-868.

48. Van Cott, Harold P. (American Psychological Assn., Washington, D.C.) **National Information System for Psychology: A proposed solution for a pressing problem.** *American Psychologist*, 1970 (May), Vol. 25(5), i-xx.—Describes the existing system of information exchange within psychology, discusses how effectively it functions in terms of quantity, quality, relevance, timeliness, and efficiency, and outlines the development and organization of a new plan, the National Information System for Psychology (NISP). This system, as now envisioned, will consist of 3 components: (a) a primary publication system with 4 publication channels—scientific memoranda, psychological dissemination, journals, and "The Archives of Psychology"; (b) a system of bibliographic services and publications, characterized by a centralized machine-readable data base and a capability to selectively retrieve and repackage material from this data base; and (c) supports to the informal process of communication which would amplify existing channels, develop new ones, alleviate producer burden, and reduce the amount of redundant requests in the channels. It is emphasized that all these proposals are based on the philosophy that: (a) changes will be introduced slowly and evaluated carefully, (b) all permanent modifications will be contingent on approval of the governing structure of the American Psychological Association, (c) periodic feedback from those affected by changes will be obtained, and (d) ultimately the income from NISP's information services will cover the costs of operation. (34 ref.)—*M. Maney.*

49. Wright, Logan. (U. Oklahoma) **The Albee Report and the professional psychologist.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 377-380.—Discusses unfavorable implications to professional psychology of an affirmative vote on the final recommendations of the 1967 Commission on the Composition of Council (Albee Report). Special attention is given to Recommendation 9, which if approved would eliminate representation from state associations on the American Psychological Association Council of Representatives. It is concluded that a "fair and acceptable solution" should include such representation.—*P. McMillan.*

50. Yaker, Harold E. (Hofstra U.) **A note on the question: How well known are APA award winners?** *Journal of the History of the Behavioral Sciences*, 1970 (Jul), Vol. 6(3), 265-266.—27 1st-yr graduate students in psychology were asked to rate the extent of their knowledge concerning the 39 Winners of the American Psychological Association Award for Distinguished Scientific Contributions. At 1 extreme, all 27 students

were familiar with the names Tolman and Skinner; at the other extreme, the relatively total unknowns were Birren, Nancy Bayley, and Richter.—C. M. Franks.

INTERNATIONAL PSYCHOLOGY

51. Batsan, V. Na rodine S. S. Korsakova. [In the home town of S. S. Korsakov.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 135.—Presents details of a commemoration of the Russian psychiatrist's birthplace.—J. D. London.

52. Krylov, N. I., Krutova, E. M., & Yakobson, P. M. *Vsesoyuznoe soveshchanie po sotsial'noi psikhologii*. [All-Union Conference on Social Psychology.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 173-177.—Presents the proceedings of a 1969 conference organized by the Moscow Institute of Psychology. Of the 250 who attended, 45 presented papers.—L. Zusne.

53. Rozanova, T. V., Chuprikova, N. I., Lubovskii, V. I., & Farapova, E. A. XIX mezhdunarodnyi psikhologicheskii kongress. [19th International Psychological Congress.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 173-184.—To complement previously published accounts of the proceedings of this Congress as a whole, a more detailed report is presented on the papers read and symposia held in the areas of thinking, speech, memory, emotions, generalization, RT, abnormal psychology, and exceptional children.—L. Zusne.

54. Zavalishina, D. N. Ocherednaya sessiya tsentral'nogo soveta obshchestva psikhologov SSSR. [Regular meeting of the Central Committee of the USSR Psychological Association.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 170-172.—Presents the proceedings of a 1969 meeting held in Moscow.—L. Zusne.

GENERAL BOOKS & REFERENCE WORKS

METHODOLOGY & RESEARCH TECHNOLOGY

55. Brozek, Josef. (Lehigh U.) A note on historians' unhistoricity in citing references. *Journal of the History of the Behavioral Sciences*, 1970 (Jul), Vol. 6(3), 255-257.—Illustrated with examples from key American texts in psychology, strong objection is made to "(a) Citing only the publication date of the edition the author happened to use, without reference to a classical work's initial publication date. (b) Citing the works published in a foreign language, especially in Russian, by giving only the translated title—whether or not the work has actually been translated—with no information on the language in which the work has actually been published."—C. M. Franks.

56. de Groot, Adriaan D. (U. Amsterdam, Netherlands) *Methodologies: Foundations of Inference and research in the behavioral sciences*. Hague, Netherlands: Mouton, 1970. xviii, 400 p.—Presents a problem-oriented methodology based on a conception of science as a system of activities rather than a system of concepts, statements, and facts. The book is a revised translation of a widely used Dutch text in the area of behavioral sciences.

57. Kalish, Richard A. (U. California, Los Angeles) I am, therefore I think. *Professional Psychology*, 1970 (Sum), Vol. 1(4), 392-394.—Discusses problems that can arise from assigning causality to relationships that may

only be correlated. Several instances are offered "in which the reversal of implicit causal relations would produce new—and sometimes productive—possibilities." Examples are given from educational, child, clinical, and industrial psychology. Some "suspect" reversals are also cited.—P. McMillan.

MODELS & MATHEMATICAL MODELS

58. Gupta, V. P. & Srivastava, S. R. (Panjab U., Advance Center for Research in Mathematics, Chadi-garh, India) Inference for a linear hypothesis model using two preliminary tests of significance. *Trabajos de Estadística y de Investigación Operativa*, 1968, Vol. 19(3), 75-105.—Studies the "behavior of the power function of the test when the proposed... sometimes pool test procedure involving 2 preliminary tests of significance is used for testing the hypothesis of no treatment effects in a linear hypothesis model." 4 mean squares are given in the problem. The aim is to test the hypothesis $H_0: E(V_1) = E(V_2)$ vs. the 1-sided alternative $H_1: E(V_1) > E(V_2)$. It is known that $E(V_1)$ and/or $E(V_2) \geq E(V_3)$. Ways of testing the 2 hypotheses are examined, including the size and power of the test for certain combinations of degrees of freedom. A comparison of the power of the proposed test procedure with that of a never pool test of the same size is also presented.—H. Singer.

59. Williams, Gloria K. (U. Washington) A model of memory in concept learning. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5271.

60. Smith, Douglas K. (Purdue U.) A dynamic component suppression algorithm for the acceleration of vector sequences. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5010.

MATHEMATICS & STATISTICS

61. Anderson, Andy B. (Purdue U.) Brief report: The effect of aggregation on nonmetric multidimensional scaling solutions. *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 369-373.—Conducted a nonmetric multidimensional scaling analysis on similarities between 12 objects on data gathered from 42 Ss. Each S's data were used to produce a separate configuration. Then, data were aggregated over all Ss and a single solution configuration was obtained. Comparisons between the 2 approaches were made. It was found that aggregation did not produce a configuration which differed greatly from those obtained by analyzing each S's configuration separately. However, the aggregate stress figures consistently indicated a far better fit than did the corresponding individual stress values.—Journal abstract.

62. Barton, D. E. (London U., Inst. of Computer Science, England) The solution of stochastic integral relations for strongly-consistent estimators of an unknown distribution function from a sample subject to variable censoring and truncation. *Trabajos de Estadística y de Investigación Operativa*, 1968, Vol. 19(3), 51-73.—Simple and complicated types of censoring that occur in practice are illustrated in 3 typical cases involving: (a) the varying duration of clinical treatment for diverse Ss, (b) the measurement of track lengths from 1 nuclear event of Type A (initial) to Type B (terminal), and (c) in microphotography where both terminal and initial events may occur outside the system. In addition to the "reduced sample" and "product limit" estimators

noted in the literature of these problems, the advantages and disadvantages of a new "unbiased" estimator are reported. Estimators constructed from stochastic integral relations, the merits of estimators under certain sampling conditions, and the significance of a proposed method for dealing with separate or combined difficulties posed by variable truncation and censoring are also discussed. —H. Singer.

63. **Claudy, John G.** (U. Tennessee) **An empirical investigation of small sample multiple regression and cross-validation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5273.

64. **Greenhouse, Samuel W.** (National Inst. of Mental Health, Theoretical Statistics & Mathematics Section, Bethesda, Md.) **On the meaning of discrimination, classification, mixture, and clustering in statistics.** *Public Health Service Publication*, 1968, No. 1584, 197-201.

65. **Jain, H. C.** (Defense Science Lab., New Delhi, India) **Availability of a complex system with preemptive repeat repair discipline.** *Trabajos de Estadística y de Investigación Operativa*, 1968, Vol. 19(3), 107-115.—Discusses the behavior of a complex system with 2 types of components (L_1, L_2): the failure of L_1 type contributes to the complete failure of the system, while the failure of L_2 type reduces its efficiency; the failure of L_1 type preempts L_2 type, if the latter is under repair; the L_2 type is repaired on reentering under preemptive repeat repair discipline. The Laplace transforms for various joint probabilities were calculated under the assumptions that the failure occurs in Poisson stream and repair time follows general distribution. The system's availability in normal and reduced efficiency was derived. A comparison of its long run efficiency is represented graphically. —*Journal abstract.*

66. **Johnson, Norman L. & Kotz, Samuel.** (U. North Carolina) **Discrete distributions: Distributions in statistics.** New York, N.Y.: Houghton Mifflin, 1969. xvi, 328 p. \$12.50.

67. **Malhotra, N. K.** (Directorate of Scientific Evaluation, New Delhi, India) **Operational readiness of a complex system having two types of components.** *Trabajos de Estadística y de Investigación Operativa*, 1968, Vol. 19(3), 117-130.—Examines the exponential failure and the waiting and repair time distributions of a complex system having components of Class R_1 with m components and Class R_2 with n components. Differential equations governing the system's behavior are presented and used to derive "the probabilities that the system is operating under normal efficiency, reduced efficiency, waiting to repair or is under repair..." The behavior of a complex system under "steady state" is also considered. —H. Singer.

68. **McNeil, Keith A.** (Southern Illinois U.) **Meeting the goals of research with multiple linear regression.** *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 375-386.—Discusses multiple linear regression as it relates to several goals of research: predictability, parsimony, replication, and validity generalization. These goals are presented with the development of a well established physical law. The emphasis is upon the per cent of variance accounted for in the criterion under investigation, rather than on statistical significance from random events. Additional remarks concerning curvilinear relationships and data snooping are also presented. H. F. Dingman's (see PA, Vol. 44:9546) canons of reproducibility are discussed within the framework of

multiple linear regression and the goals of research.

69. **Oshanin, D. A.** (Inst. of Psychology, Moscow, USSR) **Predmetnoe deistvie kak informatsionnyi protsess.** [Action on objects as an informational process.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 34-50.—Proposes an algorithm to describe those actions which are directed by the actor at objects or concrete events and which result in their modification. The algorithm represents an ordered sequence of operations whereby information about the current state of the object of action is transformed into purposeful acts by the actor which are directed at the object to achieve a change. This "psychological functional system of object action" is contrasted with such concepts as "motor action," "motor act," and "behavioral act." (English summary) (33 ref.). —L. Zusne.

70. **Poch, Francisco Azorin.** **Algunas aplicaciones de los criterios de espaciamento óptimo.** [Some applications of optimal spacing criteria.] *Trabajos de Estadística y de Investigación Operativa*, 1968, Vol. 19(3), 3-49.—Extends previous results on the determination of optimal allocation of experimental data. Different optimum criteria are possible by combining several measures of the deviation or discrepancy between the true value and the estimate (variance, mean square error, etc.) with different averages of said measures or with the maximum value, so that the measure attains a certain range of values, which need not always coincide with the observational range. Diverse applications are reviewed and solutions are obtained or indicated for several criteria combinations. (25 ref.). —*English summary.*

71. **Robinson, Jens J.** (U. Oregon) **The effect of non-homogeneous within-group regression coefficients and sample size on the distribution of the F statistic in the analysis of covariance.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4836.

72. **Zimmerman, Donald W.** (Carleton U., Ottawa, Ontario, Canada) **Expected values of correlated measurements and correction for attenuation.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 907-911.—The correlation between scores on 2 measurements or test procedures in a population is attenuated by variability of the individual measurements. If S 's scores are uncorrelated random variables, X_i and Y_i , the correction for attenuation provides an estimate of the correlation between the expected values, EX_i and EY_i , in the population. However, if S 's scores are correlated random variables, the usual correction formula is not applicable. A general formula which includes correlation between expected values of correlated measurements and which reduces to the usual correction for attenuation in the case of uncorrelated measurements is derived. —*Journal abstract.*

Factor Analysis

73. **Boruch, Robert F.** (American Council on Education, Office of Research, Washington, D.C.) **Extensions of a multitrait-multimethod model to experimental psychology.** *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 351-367.—Presents a simplified description of restricted maximum likelihood factor analysis of multitrait-multimethod data. The series of hypothetical examples and data are taken from motivational-experimental psychology. Implications of the model and the relations between this approach and other multitrait-multimethod analytic techniques are discussed briefly. (18 ref.). —*Journal abstract.*

74. Fritz, Kentner V. (U. Wisconsin) **Indices of the adequacy of factor extraction suggesting a general function in factor analysis.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 683-688.—In a systematic study of factor-extraction-termination criteria, computer generated data were arranged in matrices having 4, 8, and 16 true factors with 16, 32, and 48 variables for sample sizes of 50, 100, 200, and 500. Results of 4 graphical methods of data treatment involving residuals, factor loadings, number of variables, and sample sizes suggest the possibility of a mathematical approach to factor extraction termination.—*Journal abstract*.

COMPUTERS & PROGRAMING

75. Berkinblit, M. B., et al. (Inst. for Problems of Information-Transmission, Moscow, USSR) **Modelirovanie na ETsVM povedeniya membrany nervnogo volokna pri ritmicheskom razdrazhenii.** [Computer simulation of the behavior of nerve fiber membrane under rhythmic stimulation.] *Biofizika*, 1970 (Jan), Vol. 15(1), 147-155.—Utilized the Hodgkin-Huxley model in this mathematical study. It was possible, using this model, to reproduce the effect of summation of sub-threshold stimuli—a process shown to be determined mainly by the time constant of resting membrane. The periodic falling off of impulses and the character of the ionic processes, responsible for this effect, are investigated in detail. The existence of maximal frequencies, produced by the membrane on high-frequency stimulation, lying in the range of 140-170 responses/sec, is demonstrated. A hypothesis is examined which makes change of fiber ionic gradients the cause of its "fatigue" and the gradual transition from long cycles to shorter ones in the process of sustained rhythmic stimulation.—*I. D. London*.

76. Brix, V. H. **You are a computer: Cybernetics in everyday life.** New York, N.Y.: Emerson Books, 1970. 146 p. \$4.95.—Deals with the workings of the human brain as a computer and compares the decision-making process to computer functions. Nontechnical illustrations are provided of cybernetics as a practical science of trial and error.

77. Liu, C. N. & Shelton, G. L. (IBM, Watson Research Center, Yorktown Heights, N.Y.) **Computer-assisted fingerprint encoding and classification.** *IEEE Transactions on Man-Machine Systems*, 1970 (Sep), Vol. MMS-11(3), 156-160.—Describes a man-machine system for encoding fingerprint ridge characteristics. The fundamental concept underlying the proposed system is to use an operator to recognize the ridge characteristics and to impart to a computer the ability to manipulate and compare the digitized locations and directions of these characteristics for single-fingerprint classification. The proposed system and encoding schemes were simulated using a RAND tablet and an IBM 1800 computer. Sample input prints were encoded and stored on a magnetic tape. Results on human factors and multiple-impression file searches illustrate the feasibility of computer-assisted fingerprint encoding and classification.—*Journal abstract*.

78. Wright, Albert D. (Texas Christian U.) **Schematic concept formation: An extension of previous models.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5271-5272.

TESTING

Construction & Validation

79. Matteson, Michael T. (U. Houston) **An exploratory investigation of a methodology for constructing homogeneous keys for a biographical inventory.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5274.

EXPERIMENTATION & OBSERVATION

80. Gorman, Benjamin. (U. Florida) **Respondent accessibility and respondent surfeit: Refusal rate bias in sampling.** *Rural Sociology*, 1969 (Mar), Vol. 24(1), 75-80.—Hypothesized that refusal rates among respondents to surveys is related to levels of surfeit, i.e., frequency of being contacted by a survey interviewer. Indirect indices of number of callers were accessibility of residence location and social class. 349 dwellings from an estimated universe of 21,800 were contacted from a study of rural and small town residences in the southwest plains. Results suggest that refusal rate is significantly higher in the more accessible dwellings, accessibility being classified along a continuum ranging from town, outlying areas and state highways, main farm roads, secondary farm roads, and isolated dwellings. Refusals within towns by social class was not statistically demonstrated, although the trend was in the right direction.—*P. McMillan*.

APPARATUS

81. Huggins, A. W. (Massachusetts Inst. of Technology, Research Lab. of Electronics) **Apparatus: An electronic tape-splicer and synchronizer.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 337-340.

EXPERIMENTAL PSYCHOLOGY

PERCEPTION

82. Ross, Helen E. & Gregory, R. L. (U. Stirling, Scotland) **Weight illusions and weight discrimination: A revised hypothesis.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 318-328.—Reports results of 2 experiments with 24 and 3 undergraduate and research students which suggest that there is an optimum density for weight discrimination. This density corresponds to the nonillusory density, as determined by the density at which a visible weight is correctly matched with a hidden weight. The greater the illusion the poorer the discrimination. It is pointed out that similar changes in discrimination occur as a result of peripheral sensory adaptation in many modalities; but that the size-weight illusion, and the associated discrimination changes, is due to a central scaling process. A theoretical model is suggested. (22 ref.)—*Journal abstract*.

Illusion

83. Anstis, S. M. & Moulden, B. P. (U. Bristol, England) **After effect of seen movement: Evidence**

for peripheral and central components. *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 222-229.—In Exp. I, the left eye viewed a sectorized disc rotating to the left, and the right eye viewed a disc rotating to the right, on corresponding retinal areas. When each eye in turn then viewed a stationary disc, the left eye saw a movement aftereffect (MAE) to the right, and the right eye an MAE to the left. It is concluded that these MAEs must be peripheral. In Exp. II, the movement information was shared between the eyes, using a ring of lights which were switched on and off to give rotating phi movement. Each eye saw a random flashing oscillation but the 2 eyes together saw rotation anticlockwise. It is concluded that the clockwise MAE must be central. In Exp. III, the switching program was modified so that each eye saw rotation clockwise, but the 2 eyes together saw rotation anticlockwise. A clockwise MAE was seen, which is concluded to be central. (19 ref.)—*Journal abstract*.

84. Coren, Stanley. (New School for Social Research) Lateral inhibition and geometric illusions. *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 274-278.—Tested the hypothesis that lateral inhibitory processes, operating through the mutual inhibition and displacement of spatially adjacent contours imaged on the retina, account for many of the classical geometric illusions. 2 experiments, with 10 and 12 Ss. were conducted, 1 using an alternative form of the Poggendorff illusion, and 1 an alternative form of the Müller-Lyer. In both instances the illusion was still found to exist, although somewhat reduced in magnitude. Results indicate that lateral inhibition plays a contributory role in illusion formation, but it is not the primary causal mechanism.—*Journal abstract*.

Time

85. Handel, Stephen & Lewis, William E. (Kansas State U.) Effect of practice on the perception of temporal patterns. *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 97-108.—Presented patterns consisting of a set of 8 dichotomous left-right elements in auditory, tactual, or visual modalities, or in modality pairs. In some conditions, all pattern elements were presented in 1 modality; in other conditions, 4 elements were presented in 1 modality and the remaining 4 elements were presented in the 2nd modality. Ss were 8 undergraduates. When all pattern elements were presented in 1 modality, naive Ss organized the sequence into a well-structured pattern while practiced Ss organized the sequence into a pattern beginning at the starting element. When 4 pattern elements were presented in each of 2 modalities, naive Ss organized elements in each modality separately while practiced Ss disregarded the modality structure and organized the sequence into a well-structured pattern. These changes in organization suggest a hierarchy of perceptual modes; perception by modality, i.e., by sensations, is least complex, perception by pattern structure is intermediate, and perception by start point is most complex. Changes in pattern identification rate confirm this hierarchy. Changes in organization and identification found for highly practiced patterns were also found for novel patterns.—*Journal abstract*.

VISION

86. Chainova, L. D., Komarova, I. A., & Zonabend, F. I. Kompleksnaya psikhofiziologicheskaya otsenka chitaemosti znakovoi informatsii. [Complex psychophysiological evaluation of the readability of symbolic information.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 163-168.—Slides of conventional cartographic symbols varying in number were exposed for 2 sec. and their recognition difficulty determined. 12 such symbols were selected experimentally to cover the range of difficulty. Recordings were then made in 10 Ss of their EEG, GSR, EMG, and electrooculogram (EOG) in a recognition task in which the number and difficulty of the symbols were varied. The GSR, EOG, and EEG measures were found to reflect the condition of the visual system best. The results obtained make it possible to make decisions regarding informational "saturation" of the visual field, ways of representing symbols, exposure time, and the individual differences. (25 ref.)—*L. Zusne*.

87. Egorov, A. S. & Yakovets, B. N. (Academy of Military Medicine, Leningrad, USSR) Ob osobennostyakh informatsionnogo polska v svyazi s razlichnoi prochnostyu zapominaniya informatsii. [Characteristics of information search as a function of differential stability of memory for that information.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 160-162.—Studied the search time for 6 2-digit numbers among other such numbers distributed in a 64-sq checkerboard field as a function of the degree of memorization of the numbers to be searched. Success in search was influenced by the goodness of memory indirectly. When memory was incomplete search occurred on a conscious verbal level; this produced certain sequentiality in the functioning of the cognitive processes, which seldom coincided with the objective display characteristics. It also decreased search efficiency. When retention was good, search occurred automatically, suggesting parallel functioning of several cognitive systems. In this condition the order in which information was encountered was immaterial, leading to a higher level of efficiency in information search.—*L. Zusne*.

88. Engel, G. R. (U. Waterloo, Ontario, Canada) An investigation of visual responses to brief stereoscopic stimuli. *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 148-166.—Describes an analytic model of the temporal properties of visual responses to brief stimuli. The model is based on the notion that visual responses persist for some time after the occurrence of brief stimuli. The model is quantified from data on stereopsis obtained with alternating brief monocular presentations of disparate stimuli with 7 college students as Ss. The relevance of the analysis for the data of experiments using tachistoscopic techniques is discussed.—*Journal abstract*.

89. Grigor'eva, L. P. & Sokolov, E. N. Issledovanie kriticheskogo intervala diskretnosti zritel'nogo analizatora. [Study of the critical interval of discreteness of the visual analyzer.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 61-67.—Studied the critical interval of discreteness—the minimal interval of time for which discrimination of successive visual stimulation is possible and which is a characteristic of the restoration cycle of excitability of the visual system—as a function of place of stimulation in the visual field, flash brightness, and conditions of adaptation. 74 Ss participated. A consid-

erable shortening of the critical interval of discreteness occurred on (a) increase in the density of the retinal receptor-nerve elements, (b) increase in the intensity of the afferent signal, and (c) application of rhythmic stimulation of the visual system. The restoration cycle was lengthened with pathological changes in the retina and optic nerve. It is suggested that the mechanisms of inhibition and posttetanic potentiation participate in its formation, and its duration is an index of "temporary visual acuity."—*I. D. London.*

90. Ivanov, A. I. (All-Union Research Phototechnical Inst., Moscow, USSR) **Metod postoyannykh periodov.** [The method of constant periods.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 171-176.—Discusses the "principle and technique of the method of constant periods" for determining visual thresholds. The relationship, experimentally established in the range of 2.5-8 sec. between magnitude of threshold and the period for reporting sensation makes it possible to procure all thresholds with the same period.—*I. D. London.*

91. Khitun, V. A., Korzun, P. A., Shostak, V. I., & Ohukhova, E. A. **Vosstanovlenie ostroty zreniya posle yarkoi kratkovremennoi vspyskh svetla.** [Restoration of visual acuity after a bright brief flash of light.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 142-143.—Restoration time of visual acuity was determined in 2 series of experiments: (a) after illumination of the whole retina with a flash at 2 levels of brightness; and (b) after illumination, at 1 level of brightness, of the whole retina and of only its central part (6°). Screening out the retinal periphery had no effect on restoration.—*I. D. London.*

92. Kozyr'kova, M. G. **Izuchenie dinamicheskoi ostroty zreniya.** [Study of dynamic visual acuity.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 138-141.—130 20-40 yr. olds were used to study visual acuity in viewing a test object undergoing angular displacement in a horizontal plane. With velocity of $20^\circ/\text{sec}$ and exposition time of 1 sec., visual acuity was the same as in the case of a stationary object. With increase to $40^\circ/\text{sec}$ or decrease in observation time to .5 sec., visual acuity declined by .1. Each successive increase in velocity by $20^\circ/\text{sec}$ lowered visual acuity by .1-2. The presence of a range of individual differences suggests the advisability of using the experimental procedures as a means of selecting personnel for work involving the perception of moving objects.—*I. D. London.*

93. Mitkikh, D. I. **Primenenie polarizovannogo sveta dlya izucheniya anatomii, fiziologii i patologii glaznogo dna.** [Application of polarized light for study of the anatomy, physiology and pathology of the ocular fundus.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 164-167.—Analysis of the results of ophthalmoscopic examinations of 60 patients shows that the structure of the ocular fundus is better differentiated in polarized light, thereby assisting in the early diagnosis of different affections of the optic nerve and macula lutea.—*I. D. London.*

94. Petrov, Yu. P. **Vliyanie faktorov kosmicheskogo poleta na zritel'nye funktsii.** [Influence of space-flight factors on visual functions.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 124-127.—Examined the visual tasks which face astronauts during flight, and the influence on their performance of physiological and physical factors, operative at various stages of flight—on projection into orbit, during flight, and on return to earth. Discussed are the methods by

means of which the action of these factors can be ameliorated, or the ensuing disturbances of the visual functions may be compensated for.—*I. D. London.*

95. Shostak, V. I. **O nekotorykh osobennostyakh vozdeistviya kratkovremennykh sverkh'yarkikh svetovykh vspyshek na fone polnoi temnovoi adaptatsii.** [On several features characterizing the action of brief superbright light flashes against a background of complete dark adaptation.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 144-146.—7 Ss were used to study photic sensitivity after illumination of the eye by superbright light flashes, along with electrical sensitivity of the eye, electroretinogram, EEG, and critical frequency of disappearance of electrical phosphene. Certain averaged curves of dark and light adaptation were procured. When the central part of the retina was screened out, photic sensitivity of the periphery was restored more rapidly, providing evidence for the inhibitory influence of the photopic afferent system upon the scotopic under the action of superintense stimuli.—*I. D. London.*

96. Sychev, A. A. (Medical Inst., Kharkov, USSR) **O metodike issledovaniya vremeni akkomodatsii u cheloveka.** [On a method for studying time of accommodation in man.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 168-170.—Describes the operation of a newly designed apparatus, which made it possible to procure data on accommodation time in shifting view from object to object placed at different distances from 3 emmetropic and 2 myopic Ss.—*I. D. London.*

97. Tamarova, R. M. (All-Union Research Inst. of Medical Instrumentation, Moscow, USSR) **Ob issledovanii glaznogo dna v polarizovannom svete.** [On examination of the ocular fundus in polarized light.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 158-163.—Presents a detailed description of the ocular fundus, examined in polarized light: vessels, optic nerve disc, macula lutea; followed by a mathematically developed "optic model of the retinal yellow spot," consisting of optically anisotropic layers.—*I. D. London.*

98. Zinchenko, T. P. (Leningrad U., USSR) **O modeli informatsionnogo poliska.** [On modeling informational search.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 151-154.—Visual search experiments were conducted with 20 Ss, in which a number of stimulus parameters were varied. Search time was not affected by the number of symbols within subsets. It was affected by the total number of symbol subsets in the visual field, location of the critical subset in the field, degree of organization in the field, and the direction of eye movements. In all experiments variance of search time correlated positively and significantly ($p < .01$) with mean search time. It is suggested that the observed increase in response variance with increasing information content in the visual field must be taken into consideration in formulating any mathematical models of information search.—*L. Zusne.*

Perception

99. Kitaev-Smyk, L. A. **Znachenie zritel'noi informatsii v formirovani prostranstvennogo vospriyatiya v nevesomosti.** [The effect of visual information on space perception under conditions of weightlessness.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 155-159.—Tested space perception in 33 Ss during the 25-30 sec. of weightlessness in a power dive of an airplane. In previous tests of weightlessness 10 of the Ss had

experienced the feeling that they were falling, 13 felt that the plane was flying upside down, and 10 had no illusions. In this experiment, blindfolding enhanced the feeling of fear and of falling in Group 1. In Group 2, 9 Ss reported that they no longer felt they were upside down as long as they remained seated. In Group 3, 4 Ss did not report any change when blindfolded, 2 felt as if they were falling when floating freely, and 4 experienced fear. The results are interpreted in terms of differential utilization of visual and gravitational clues by individuals under conditions where these compete or are in contradiction. (19 ref.)—*L. Zusne.*

100. Lacher, Miriam R. & Riegel, Klaus F. (U. Michigan) **Word recognition thresholds as a function of instructions, type of word relations, and associative frequency.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 23-33.—Investigated the effects of restricted association parameters on tachistoscopic recognition threshold ($N = 70$). Specificity of clues, frequency of restricted association between clue and response word, and the interaction between these 2 were statistically significant. Differences in the effect of particular relations (superordinate, coordinate, and attribute) were of borderline significance. No consistent correlation was found between the last finding and type-token ratio, response overlap among the 3 types of relations, or free associative frequency reported in norms. Specificity of clues was related to the correlations between free associative frequency and recognition threshold, the number of whole-word prerecognition responses, and the distribution of prerecognition responses within restricted association distributions. (27 ref.)—*Author abstract.*

101. Lansford, Theron G. & Baker, Howard D. (Tri-State Coll.) **Dark adaptation: An interocular light-adaptation effect.** *Science*, 1969 (Jun), Vol. 164(3885), 1307-1309.—Reports that presentation of light to the left eye simultaneously with adaptation of the right eye to light may accelerate dark adaptation in the right eye. Ss were 1 man and 3 women. The result is that the rod-cone-break and the final threshold of the rods are achieved earlier than when the right eye alone is adapted to light.—*Journal abstract.*

102. Remole, A. (Indiana U.) **The effect of wave length on subjective intermittence patterns.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5264.

103. Zinchenko, V. P. & Vergiles, N. Yu. **Formirovanie zritel'nogo obraza.** [Formation of the visual image.] Moscow, USSR: Moscow U., 1969. 107 p.—Presents the results of research on the "activity of the visual system" in this monograph. Chapters: (a) "methods of studying the activity of the visual system under conditions of image stabilization and under those of free scrutiny," (b) "new data on perception under conditions of stabilization," (c) "manipulative capacity of the visual system and the problem of image invariance," (d) "investigation of vicarious actions in the context of problems of thinking [problem solving]," and (e) "a [proposed] functional model of the sensory link in the visual system."—*I. D. London.*

Size & Distance & Depth Perception

104. Kamenshchikov, Yu. V. **Rol' konvergentsii v vospiryatii udalennosti pri posadaka samolëta.** [Role of convergence in the perception of distance in landing

an airplane.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 134-137.—Ss were 100 flight personnel with normal binocular vision, emmetropic refraction, and visual acuity. In 75% of the Ss, convergence increased the accuracy of gauging the distance of an object (range = 30-50 m.) from 20-50%; however, in 25% of the Ss, convergence had no influence on the threshold of absolute distance.—*I. D. London.*

105. Pantle, Allan & Sekuler, Robert. (Northwestern U.) **Size-detecting mechanisms in human vision.** *Science*, 1968 (Dec), Vol. 162(3858), 1146-1148.—Conducted an experiment to determine whether the human visual system can directly encode the area of retinal images produced by objects of different sizes. Inspecting a pattern of alternating dark and light bars makes it difficult to see a similar pattern presented afterward. This phenomenon can be used to isolate mechanisms responsive to bars of a given width. Results suggest that the human visual system contains several different classes of size detectors, each maximally sensitive to visual targets with sizes in a particular range.—*Journal abstract.*

106. Petrov, K. S. **K voprosu issledovaniya prostranstvennogo zreniya u létного sostava.** [On the study of spatial vision in flight personnel.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 128-129.—Reports results of a study on the perceptual evaluation of absolute distance (determination of the distance of an object from the O) in 100 gunners and navigators with emmetropic refraction and flight experience from 5-25 yr. It is shown that threshold magnitudes for the perception of graded changes in absolute distance range from 10-12 m. It is suggested that this be taken as the standard of spatial vision required of flight personnel.—*I. D. London.*

Color Vision

107. Fol'b, R. L. & Voronina, S. V. (All-Union Research Phototechnical Inst., Moscow, USSR) **Svetovye i tsvetovye porogi ognei na fone raznoi yarkosti.** [Photic and chromatic thresholds of light sources against backgrounds of various brightness.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 49-53.—7 Ss were used to determine achromatic and chromatic binocular thresholds involving steady and flashing light sources against backgrounds of various brightness for 4 colors—yellow, green, blue, and red. Where the achromatic interval for red light is taken as 1, that for blue light attains the value of 1000 and more. With growth of brightness of background, the achromatic interval decreases for all colors. Against a dark background the noticeability of blue and yellow flashing light sources improves as compared with steady light sources.—*I. D. London.*

108. Hepler, Norva. (McGill U., Montreal, Quebec, Canada) **Color: A motion-contingent aftereffect.** *Science*, 1968 (Oct), Vol. 162(3851), 376-377.—After 16 Os alternately viewed green stripes moving up and red stripes moving down for $\frac{1}{2}$ -4 hr. periods, they saw a pink aftereffect when white stripes moved up and a green aftereffect when white stripes moved down. Longer exposures produced aftereffects which were visible 20 hr. after stimulation. Thus, experience which pairs simple attributes (color and motion) of visual stimulation can result in a lasting modification of perception.—*Journal abstract.*

109. Kitaev-Smyk, L. A. *Issledovanie akhromaticheskoi i khromaticheskoi chuvstvitel'nosti pri kratkovremennom deistvii nevesomosti.* [Study of achromatic and chromatic sensitivity under the brief action of weightlessness.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 130-133.—Weightlessness was created for 28-30 sec. by an airplane following a parabolic trajectory, and was studied with and without preceding increase in gravity pull (1.5-1.8 g.). In 5 of 28 Ss studied, photic sensitivity and the visual field were also investigated. In weightlessness, sensitivity to yellow and, to a lesser extent, to red increased, while in a number of cases sensitivity to blue-violet declined. The threshold of scotopic vision also decreased, but the visual field remained unchanged.—I. D. London.

110. Lobanova, N. V. (State Optic Inst., Leningrad, USSR) *Vozmozhnye formy tsvetovogo zreniya.* [Possible forms of color vision.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 39-42.—26 Ss were used to study the spectral sensitivity of the retinal receptors of normal and nonnormal trichromats, using M. M. Bongard and M. S. Smirnov's method for determining the spectral sensitivity of retinal receptors from composition curves. The data suggest the hypothesis that in man there are a total of 4 kinds of spectral sensitivity curves for the receptors of the eye which, combining in 2s or 3s, determine all investigated forms of color vision: normal trichromasia, 3 forms of nonnormal trichromasia (prot-, deuter-, and tritanomalias), 3 forms of normal dichromasia (prot-, deuter-, tritanopia), and 3 forms of almost unstudied nonnormal dichromasia. An 11th form of color vision may logically be added, for which the presence of all 4 retinal receptors is characteristic (tetrachromasia).—I. D. London.

111. Makarov, P. O. (Leningrad State U., USSR) *Mikrointerval'nyi analiz razvitiya zritel'nykh oshchushchenii u cheloveka.* [Microinterval analysis of the development of visual sensation in man.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 57-60.—Microinterval analysis of the emergence of color sensations in man discloses the regular phasic character of their arising: presensation, achromatic sensation, and chromatic sensation. The phasic dynamics are distinctively manifested in color discrimination when 2 stimuli are presented successively. Thus, when 2 short stimuli—1st red, then green—successively stimulate the same retinal area, then on intensification of the one (e.g., green), it will mask the appearance of the other (the weaker red). With a 20-msec interval between flashes, a sensation of mixed color arises; with a 35-55 msec. interval between flashes, the more intense flash dominates with respect to color; with increase of the interval to 75 msec. or more, 2 successive color stimuli are seen—red and green. With the action of 2 color stimuli, a discontinuity emerged in the electroretinogram in the potentials, corresponding to the time that discontinuity was perceived.—I. D. London.

112. Shabanov-Kushnarenko, Yu. P. (Inst. of Radioelectronics, Kharkov, USSR) *Deduktivnoe postroenie modeli nizshei metriki tsвета.* [Deductive construction of a model for the lower measure of color.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 27-29.—Presents a new formulation of Grassman's 3 laws in which the operation of color composition is not utilized, along with a demonstration of the logical equivalence of a mathematically formulated model of the statics of vision and Grassman's laws. The former can be generalized to the case where an image is presented which undergoes change in time and in the visual field.—I. D. London.

Form & Pattern Discrimination Eye Movement

113. McFarland, William H. (U. Washington) *An investigation of ocular response to various methods of sound field auditory stimulation.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5277.

114. Podd'yakov, N. N. (Inst. of Preschool Education, Moscow, USSR) *O genezise protsessa upodobleniya v zritel'noi sisteme.* [On the genesis of the process of comparison in the visual system.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 139-141.—24 Ss performed a motor task that simulated eye movements. A shape was traced on a sheet of paper with invisible ink. When a lever-activated beam crossed a contour it would show up in purple. 85% of the Ss used fanning strokes to find the contour when they lost it, the axis of the fan being in the assumed general direction of the contour; only 15% used "cross-hatching" movements when they lost the contour, although this method was more efficient. When instructed to compare the size of the shape with that of a sample, all Ss used a very different type of movement, scanning the whole extent of the sheet with long strokes that went in all directions. The results are thought to support the hypothesis that scanning movements of the eye are of 2 types: 1 is used to locate visual objects, the other serves to judge size, proportions, and other attributes of spatial distribution.—L. Zusne.

Brightness & Contrast Discrimination

AUDITION

115. Brown, Evan L. (U. Washington) *Decline of the echoic trace while shadowing.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5250.

116. Craig, James R. (Iowa State U.) *Selective attention and immediate memory in dichotic listening.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5253-5254.

117. Spreen, Otfried; Spellacy, Frank J., & Reid, J. R. (U. Victoria, British Columbia, Canada) *The effect of interstimulus interval and intensity on ear asymmetry for nonverbal stimuli in dichotic listening.* *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 245-250.—Investigated the question of ear asymmetry in 48 undergraduates for musical and pitch pattern stimuli with 1-sec interstimulus intervals (ISIs). Results were compared with those obtained in a 1970 study by F. J. Spellacy, using 5- and 12-sec ISIs. Also the effect of intensity on ear asymmetry was examined. Results confirm previous findings of D. Kimura (see PA, Vol. 39:6584) and Spellacy of a left ear superiority for musical stimuli. The size of the difference between ears for music and tonal pattern decreases with increasing length of the ISI. Overall performance level showed a monotonic decrease with increasing length of the ISI. No significant effect of intensity level (50 and 70 db.) was obtained. Results are discussed in relation to a temporary storage model and a perceptual model. (French & German summaries) (28 ref.)—*Journal abstract.*

Perception

118. Massaro, Dominik W. (U. Wisconsin) *Pre-perceptual auditory images.* *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 411-417.—4 female

and 2 male undergraduates in 4 experiments identified the pitch of a 20-msec test tone which was followed by a masking tone after a variable silent intertone interval. The masking tone interfered with the perceptual processing of the test tone such that pitch identification performance improved with increases in the silent intertone interval. Results also indicate that: (a) the amount of interference produced by the masking tone was relatively independent of the similarity of the test and masking tones, (b) dichotic (contralateral) masking was as effective as the binaural case, and (c) presenting the masking tone before the test tone did not disrupt pitch-identification performance. It is concluded that the experiments demonstrate the existence of a central auditory image that remains after a short tone burst is terminated. (17 ref.)—*Journal abstract*.

119. Perl, N. T. (Royal Belfast Hosp. for Sick Children, Child Guidance Clinic, Ireland) **The application of the verbal transformation effect to the study of cerebral dominance.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 259-261.—Demonstrated the phenomenon of illusory perception of aurally presented repeated words and tones, with a sample of 48 adults. When the material was presented monaurally, with masking noise to the contralateral ear, an ear effect analogous to that found in dichotic listening experiments was produced. (French & German summaries) (17 ref.)—*Journal abstract*.

120. Stanaway, R. G., Morley, Tania, & Anstis, S. M. (U. Bristol, England) **Tinnitus not a reference signal in judgments of absolute pitch.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 230-238.—Hypothesized that judgments of absolute pitch rely on a subliminal tinnitus (ringing in the ears) which is used as a reference tone. In a series of 144 pairs of trials, S, an undergraduate, alternately measured his own tinnitus and made absolute judgments of pitch by setting a variable tone to match the frequency of a named (target) note. S judged the frequency of the 48 notes spanning the 4 octaves from A flat = 106 Hz. to G = 1584 Hz. It was found that judgments of the pitch of named notes were significantly more accurate ($p < .01$) than had been predicted from the variability of the pitch of tinnitus. There was a low correlation ($r = .246$) between absolute pitch judgments and tinnitus settings made on the same trial. Thus the hypothesis is false. Nevertheless, it is argued that absolute pitch judgments may not require a channel capacity of more than 3 bits/decision. (27 ref.)—*Journal abstract*.

121. Zurif, E. B. & Sait, P. E. (Sir George Williams U., Montreal, Quebec, Canada) **The role of syntax in dichotic listening.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 239-244.—Compared in 16 undergraduates identification of dichotically presented pairs of meaningless sequences presented under 2 different conditions—structured and unstructured. The dichotic sequences in both conditions contained the same nonsense syllable stems, English bound morphemes, and English function words. The sequences in the structured condition were grammatically ordered in the sense that if the nonsense stems were replaced by English stems a grammatical sentence would result; as well, the structured sequences were characterized by the acoustic correlates of constituent structure. In contrast, the elements of the unstructured sequences were randomly rearranged and delivered in list form containing none of the overt rhythms of speech. Total accuracy of recognition was found to be significantly superior in the structured condition. In addition,

although right-ear superiority was observed in both conditions, the laterality effect was significant only in the structured condition. (French & German summaries) (19 ref.)—*Journal abstract*.

Speech Discrimination

Audiometry

122. Murphy, E. H. & Venables, P. H. (Birkbeck Coll., U. London, England) **Ear asymmetry in the threshold of fusion of two clicks: A signal detection analysis.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 288-300.—Describes 3 experiments comparing 2 methods of measuring the threshold of fusion of 2 clicks: a signal detection method, and a modified method of constants. Ss were 14, 15, and 20 adults. The former method reveals a significant ear asymmetry effect, which is accentuated when a burst of white noise is presented contralaterally with the clicks. Results are discussed with reference to differentiation of function of the cerebral hemispheres. (22 ref.)—*Journal abstract*.

CHEMICAL SENSES

123. Mitchell, M. J. & Gregson, R. A. (U. Canterbury, Christchurch, New Zealand) **A re-examination of the value of the olfactory power law exponent.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 301-304.—Reexamines the exponent value of the psychophysical power law for olfactory intensity by olfactometric methods over 2 levels of standard stimulus and 2 types of magnitude estimation procedure. 42 undergraduates served as Ss. Neither the method of measurement nor the level of the standard significantly influenced the exponent. A value of .80 was obtained, not significantly different from a value of .72 previously determined by category scaling methods. Both values are considerably greater than exponents previously reported. The differences between studies are attributed to the degree of stimulus control available in the different methods of stimulus presentation.—*Journal abstract*.

124. Smith, David V. (U. Pittsburgh) **The effect of area of stimulation on the intensity of human gustatory responses.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5268.

SOMESTHESIA

125. Martin, Stephen L. (U. Southern California) **Patterning and magnitude of after-effects following kinesthetic stimulation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4812-4813.

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

126. Honorton, Charles. (Maimonides Medical Center, William C. Menninger Dream Lab., Brooklyn, N.Y.) **Some current perspectives on the hypnotic dream.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1969 (Jul), Vol. 16(3), 88-92.—Discusses a number of methodological problems, and suggests that future studies in the area should be directed

toward: (a) further exploration of electrophysiological concomitants of nocturnal and induced dreams, and (b) comparison of nocturnal and hypnotic dreams from the same Ss.—*M. V. Kline.*

HYPNOSIS & SUGGESTIBILITY

127. Goldstein, Marvin S. & Sippelle, Carl N. **Hypnotically induced amnesia versus ablation of memory.** *International Journal of Clinical & Experimental Hypnosis*, 1970 (Jul), Vol. 18(3), 211-216.—Divided 33 hypnotizable undergraduates, all capable of achieving the criterion of amnesia for a 7-digit number, into 3 groups: 2 hypnotized and 1 pretend. The distributions of errors for an amnesic performance of these groups were compared with the theoretical chance distribution of errors expected in an amnesic performance. Both hypnotized groups differed significantly from the pretend group and from the theoretical distribution, while the performance of the pretend group did not differ significantly from the chance distribution. The performance of the pretend group conformed to the expectancy for amnesia significantly better than did the performance of either of the hypnosis groups. (Spanish & German summaries)—*Journal abstract.*

128. Hall, James A. & Crasilneck, Harold B. (712 N. Washington, Dallas, Tex.) **Development of a hypnotic technique for treating chronic cigarette smoking.** *International Journal of Clinical & Experimental Hypnosis*, 1970 (Oct), Vol. 18(4), 283-289.—4 hypnotic sessions were found successful, in the majority of cases, in eliminating cigarette smoking without undesirable substitution symptoms. Patients were strongly motivated by the referring physicians and by various nonhypnotic techniques incorporated into the treatment program. Examples are given of the specific nature of both the hypnotic and the nonhypnotic suggestions employed. (German & Spanish summaries)—*Journal abstract.*

129. Mitchell, Meredith B. **Hypnotizability and distractibility.** *American Journal of Clinical Hypnosis*, 1970 (Jul), Vol. 13(1), 35-45.—Results suggest that hypnotic susceptibility involves an ability which operates in the tracking situation to enable establishment of optimal sympathetic and psychomotor means for overriding effects of exposure to the irrelevant, unexpected stimuli. Evidence from a multiple choice questionnaire indicated that the susceptible S does not ignore distracting stimuli; instead he seems to render them ineffectual as interfering with goal achievement.—*M. V. Kline.*

130. Nuland, William & Field, Peter B. (42 Bretton Rd., Scarsdale, N.Y.) **Smoking and hypnosis: A systematic clinical approach.** *International Journal of Clinical & Experimental Hypnosis*, 1970 (Oct), Vol. 18(4), 290-306.—Compared 2 methods of helping cigarette smokers stop smoking using 181 patients. After 6 mo., 60% of those treated with an active, personalized approach were not smoking. This approach emphasized: (a) the feedback, under hypnosis, of the S's own reasons for quitting, (b) maintaining contact with the S by telephone, (c) use of meditation during hypnosis to obtain individualized motives, and (d) self-hypnosis. Only 25% of Ss were successfully treated by an earlier hypnotic procedure that did not systematically employ these features. (German & Spanish summaries)—*Journal abstract.*

131. Podolnick, Edward E. & Field, Peter B. (Youth Development Clinic, Newark, N.J.) **Emotional involve-**

ment, oral anxiety, and hypnosis. *International Journal of Clinical & Experimental Hypnosis*, 1970 (Jul), Vol. 18(3), 194-210.—48 undergraduates were randomly assigned to either a high or low emotional arousal manipulation and then underwent a tape-recorded hypnotic induction and test of depth. The high-arousal group was exposed to infantile oral objects and were led to believe that they would have to suck on them as part of a physiological psychology experiment in which the cutaneous sensitivity of the human mouth was being mapped. The low-arousal group believed they only had to blow on whistles or pipes. While both groups were anticipating these experiences, hypnosis was induced. Ss in the high-arousal group were significantly more hypnotizable ($p < .001$) than their counterparts in the low-arousal group. Ss in the high-arousal group were significantly less anxious after hypnosis than they were before hypnosis, while the low-arousal Ss did not show a reduction in anxiety. The groups did not differ on several background personality tests given as checks on the randomization. (Spanish & German summaries) (22 ref.)—*Journal abstract.*

132. Swiercinsky, Dennis & Coe, William C. (Fresno State Coll.) **Hypnosis, hypnotic responsiveness, and learning meaningful material.** *International Journal of Clinical & Experimental Hypnosis*, 1970 (Jul), Vol. 18(3), 217-222.—Compared 3 antecedent conditions for their ability to enhance recall of meaningful material. Ss were 35 male and 10 female upperclass undergraduates. The conditions were: (a) group hypnotic instruction followed by posthypnotic suggestions of enhanced concentration and recall ability, (b) task motivation instructions to Ss to imagine and try their best, and (c) no special instructions (control). No differences in recall ability were found. Also, high and low susceptible Ss performed essentially the same. (Spanish & German summaries)—*Journal abstract.*

MOTIVATION & EMOTION

133. Gentry, William D. (Florida State U.) **The effects of differential antecedent conditions on physiological and behavioral measures of aggression: Frustration and attack.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5237-5238.

134. Moon, W. Harold & Lair, Charles V. (Auburn U.) **Manifest anxiety, induced anxiety and digit symbol performance.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 947-950.—Divided 2 groups ($N = 144$) of female undergraduates into 3 subgroups with different drive levels according to scores on the Taylor MA scale. A group having viewed a stressful film showed a significant depression in Digit Symbol scores when compared with controls which observed a nonstressful film, regardless of MA scale scores. Also, differences in gain scores across pre- and posttest trials were noted, with moderate MA scale Ss showing significantly greater improvement regardless of stress condition. Interpretation of impaired Digit Symbol performance on the WAIS and the WISC as a response to situational stress is more conservative than predicting motivational levels based on a single 90-sec trial.—*Journal abstract.*

ATTENTION & EXPECTANCY & SET

135. Chase, Wendell D. (NASA, Ames Research

Center, Mountain View, Calif.) **Evaluation of several TV display system configurations for visual simulation of the landing approach.** *IEEE Transactions on Man-Machine Systems*, 1970 (Sep), Vol. MMS-11(3), 140-149.—Examines the effects of several variations of 2 types of visual display systems on subjective evaluations of 7 professional pilots and objective measures of performance in the landing approach. 2 types of flight approaches were made with either a projector or collimated monitor visual display: (a) the instrument approach, and (b) the visual approach without the normal cockpit instrumentation assistance. The variables examined were color, differences between displays due to collimation, and reduced resolution. Ss were more critical of the black and white variation for either display, and favored more use of a color system. Advantages cited for a color system included greater S relaxation, decreased fatigue, better picture quality, and more realistic depth perception, particularly with the monitor display. With regard to the reduced-resolution monitor display, Ss also noted a loss in depth perception and height references, increased visual fatigue, and increased efforts for a reasonable approach, in comparison with the projector display. The objective performance measures of the study were consistent with the Ss' subjective evaluations and comments.—*Journal abstract*.

136. Jones, E. C. & Schuster, D. H. (Iowa State U.) **Design and development of an adaptive, auditory, and distractive stressor.** *IEEE Transactions on Man-Machine Systems*, 1970 (Sep), Vol. MMS-11(3), 161-163.—Developed an auditory, distractive stressor that automatically adjusts its rate of presenting random digits to human Ss. The rate of digit presentation serves as an inverse index of the amount of attention S can spare from a primary task. The auditory pattern recognition of the device was evaluated under several speaking conditions and for a variety of human speakers. The distractive stressor has a satisfactory digit recognition accuracy, and adapts its digit presentation rate quickly according to how well an S repeats its given numbers.—*Journal abstract*.

137. Paul, Daniel A. (U. California, Los Angeles) **Adaptive and maladaptive preparations for stress.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5242.

138. Petrovskii, A. V. Nikolaï Fedorovich Dobrynin. *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 166-167.—Presents an appreciation on the occasion of Dobrynin's 80th birthday. Dobrynin is a Soviet psychologist known for his work on attention.—*L. Zusne*.

MOTOR PERFORMANCE

139. Whiting, H. T. (U. Leeds, England) **Acquiring ball skill: A psychological interpretation.** Philadelphia, Pa.: Lea & Febiger, 1969. 118 p.—Reviews research in the sociological and psychological effects of game playing with a view to its application in the acquisition of ball skill. Topics covered include systems analysis of perceptual motor skill performance, input and output characteristics, decision making, visual factors, acquiring skill in ball games, and individual differences.

140. Zullo, Thomas G. (U. Pittsburgh) **A multivariate analysis of perceptual and motor skills in dental students.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4793.

REACTION TIME

141. Dumas, Carol O. (U. Southern Mississippi) **Reaction time as a function of the duration and the intensity of the warning signal.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5254.

142. Engel, Stephen E. (U. Massachusetts) **The role of stimulus and response generalization in a two choice reaction time task.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5256.

143. Hinrichs, James V. & Krainz, Patricia L. (U. Iowa) **Expectancy in choice reaction time: Anticipation of stimulus or response?** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 330-334.—24 undergraduates predicted the stimulus to be presented in a discrete 3-stimulus, 2-response RT experiment. Mean RTs were significantly faster only when the stimulus was correctly predicted. Mean RTs to an incorrectly predicted stimulus with the same response as the predicted stimulus did not differ from the RTs to a stimulus with a different response. Results are interpreted as indicating a stimulus expectancy effect in choice RT. Factors influencing relative contributions of stimulus and response components in choice RT are discussed. (17 ref.)—*Journal abstract*.

144. Jeffrey, Dwight W. (U. Southern California) **Age differences in serial reaction time as a function of stimulus complexity under conditions of noise and muscular tension.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5258.

145. Ornstein, Howard B. (U. Cincinnati) **Reaction time as a function of perceptual bias, response bias, and stimulus discriminability.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5261.

LEARNING

146. Frankel, Fred; Levine, Marvin, & Karpf, David. (U. California, Irvine) **Human discrimination learning: A test of the blank-trials assumption.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 342-348.—M. Levine's (see PA, Vol. 40:5014) general hypothesis (H) model of discrimination learning consists of 3 assumptions: (a) on any trial, an adult human S holds an H which serves as a basis for responding on that trial; (b) when S receives a blank trial (i.e., a trial without feedback), the same H is held on the next trial; and (c) the H set is finite and is known to E. These assumptions were tested in 2 experiments with 32 and 48 undergraduates. A series of 30 consecutive blank trials (30-probes) was interposed once within 4-dimensional discrimination problems. Data which support these assumptions are: (a) with few exceptions, Ss showed an overwhelming tendency to respond on the basis of a single H throughout the 30-probe; and (b) with increasing degree of pretraining, the proportion of 30-probes showing a simple H increased, while the number of discrepancies in responding to a single H on these 30-probes decreased.—*Journal abstract*.

Conditioning

147. Conger, Judith C. & Conger, Anthony J. (U. Western Ontario, London, Canada) **Internal consistency of verbal response classes.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 777-778.—Questioned the traditional determination of adequacy of measurement in verbal conditioning studies. Reliance on the single

criterion of interrater reliability ignores other critical aspects, i.e., the internal consistency of response classes and problems intrinsic to derived scores. Illustrative data are presented in which interrater reliabilities are respectable but the typical significance test for experimental effects would be applied to a measure that contained little nonerror variance because of low internal consistency. In such a case, experimental effects could not be detected.—*Journal abstract.*

148. Dawson, Michael E. (Andrew Norman Research Center, Gateways Hosp., Los Angeles, Calif.) **Cognition and conditioning: Effects of masking the CS-UCS contingency on human GSR classical conditioning.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 389-396.—A discrimination classical conditioning paradigm was embedded in a masking task and presented to 75 undergraduates to attenuate learning of the CS-UCS contingency without affecting perception of the individual CSs. $\frac{1}{2}$ of the Ss were instructed about the CS-UCS contingency, while the other $\frac{1}{2}$ were not. Results were that instructed Ss conditioned, while the noninstructed Ss failed to condition. Results were confirmed whether the CS-UCS interval was 1 or 8 sec. and whether the number of trials was 30 or 60. These findings, in conjunction with other reports, suggest that the ability to verbalize the CS-UCS contingency is an important, perhaps even essential, variable in human GSR classical conditioning. (21 ref.)—*Journal abstract.*

149. Edwards, Joseph S. & Peek, Vickie. (U. Kansas, Medical Center, Bureau of Child Research) **Conjugate reinforcement of radio listening.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 787-790.—Used 4 conjugate contingencies to evaluate radio listening as a reinforcer for operant responding. Radio volume was a direct function of S's response rate. Results from 2 males, 13 and 26 yr. old, demonstrated that radio listening can be used to reinforce response rates. The method of directly recording the listening response was also sensitive to commercials.—*Journal abstract.*

150. Kennedy, John J. (Ohio State U.) **Response measure efficiency in verbal conditioning research.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 898.—Assessed the relative efficiency of 15 response measures (RMs) generated from a Taffel-type task. Frequency of self-reference response for each of 4 20-trial-blocks was obtained on 80 Ss who comprised 2 groups demonstrating conditioning and failure to condition. 1-way analyses of variance between groups, with associated eta coefficients, were calculated for each RM. Results suggest that selected RMs are not equally efficient.—*Author abstract.*

151. Vandament, William E. (State U. New York, Binghamton) **Generalization and the ISI in human eyelid conditioning.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 717-718.—Following 80 eyelid conditioning trials with a 400-, 600-, or 800-msec interstimulus interval (ISI), 60 undergraduates were given 20 extinction trials to a test stimulus, then shifted to the acquisition CS for 10 extinction trials. Generalized extinction was found negatively related to ISI with no systematic ISI trends observed for generalization of positive response tendencies.—*Journal abstract.*

Verbal Learning

152. Birnbaum, Isabel M. (U. California, School of Social Sciences, Irvine) **Response selection and**

retroactive inhibition. *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 406-410.—After a 12-pair list (A-B) had been learned, either 0, 2, or 4 of the 12 stimuli were omitted during single- (A-C) or double-list (A-C, A-D) interpolated learning (IL) for 120 undergraduates. On an unpaced test of List 1 recall, double-list IL produced the greatest amount of retroactive inhibition (RI). Total RI was significantly greater in the 12-pair IL groups than in the 8-pair IL groups. RI for specific List 1 pairs was not differentially influenced by the presence or absence of the stimulus member of the pair on the IL list(s). These results were obtained for both single and double interpolation with either 8-pair or 10-pair interpolated lists. Results support the hypothesis that specific components of interference do not contribute to RI in the A-B, A-C paradigm.—*Journal abstract.*

153. Bourdene, Robert H. (U. Southern Mississippi) **An investigation of chained transfer of meaning.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5249-5250.

154. Dyer, Luann C. (U. California, Los Angeles) **The orienting reflex and semantic profile as predictors of semantic generalization.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5255-5256.

155. Hass, Wilbur A. & Doty, Dennis. (U. Chicago) **Change in the meaning of symbolic vehicle and referent as a result of word-object reference learning.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 53-60.—Investigated whether learning word-object pairs leads to changes in the learner's interpretation of the words or the objects or both. High school students rated nonsense words and nonsense objects on the semantic differential, learned 1 or another pairing of the words with the objects, and then rated them on the semantic differential again. The meanings of both the words and the objects converged toward the other member of the pair, although a greater effect was noted for the words than for the objects. The findings generally support Werner and Kaplan's view of symbol formation, but are also compatible with a view that there is simultaneous conditioning of mediators to both verbal and nonverbal items in reference learning.—*Author abstract.*

156. Hersen, Michel. (Fairfield Hills Hosp., Newtown, Conn.) **Controlling verbal behavior via classical and operant conditioning.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 3-22.—Surveyed the manipulation of verbal behavior in terms of the mediational framework, the concept-formation approach, attitude acquisition, and operant conditioning. Selected verbal operant conditioning experiments are reviewed with special attention directed towards the range of differences, limitations, and advantages of each type of paradigm employed. The nonlinearity of the control-compliance relationship is stressed and suggestions for further research are made. (77 ref.)—*Author abstract.*

157. Howe, Edmund S. (U. Missouri, St. Louis) **Transformation, associative uncertainty, and free recall of sentences.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 425-431.—8 sentences, each under a different transformation condition, were learned by 8 groups of 10 undergraduates each given different sentence \times transformation pairing. Free recall followed each of 16 presentations of a list. It was conjectured that learning of transformation conditions and learning of sentence contents should not interact. The conjecture was supported for total correct

recall data. However, while intralist intrusion errors were independent of transformation condition, transformation errors were partly a function of sentence content. The possibility is raised that syntactic and semantic errors are not wholly independent. While learning rate and number of intralist intrusion errors for the sentences were predictable from their free-associative uncertainty values, transformation errors were not.—*Journal abstract.*

158. Miller, Adam & Hood, Randolph. (St. Cloud State Coll.) **Awareness, social deprivation and verbal operant conditioning for adults.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 893-894.—In a $2 \times 2 \times 5$ factorial design the effects of social deprivation and reinforcement upon Taffel sentence construction were studied for 40 adults. Only reinforced Ss conditioned, and of them both aware and unaware Ss conditioned. Social deprivation did not affect conditioning or awareness.—*Journal abstract.*

159. Miller, Adam W. & Rumans, Jane. (St. Cloud State Coll.) **Taffel and Greenspoon: Comparative effects of obviousness of reinforcement and response structure.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 43-51.—Compared the Taffel and Greenspoon procedures for verbal operant conditioning in terms of effects from obviousness of reinforcement and response structure upon learning, awareness, and their relationship. For each procedure $1-2 \times 3$ factorial design was for learning and another for awareness. 10 undergraduates were used for each of the 12 groups. For each procedure obviousness of reinforcement was varied on 2 levels and response structure on 3 levels. Comparing the 2 procedures, obviousness of reinforcement had more pronounced effects on learning for Taffel, had similar effects on awareness for both procedures, and provided a more consistent relationship between awareness and learning for Taffel. Response structure had no significant effects.—*Journal summary.*

160. Palermo, David S. & Howe, Herbert E. (Pennsylvania State U.) **An experimental analogy to the learning of past tense inflection rules.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 410-416.—24 undergraduates learned 3 single-letter responses to 2-digit stimuli. The letter response was contingent upon the environment specified by the 2nd digit. 4 exceptions to the rule required different letter responses. Results indicate that 2 different strategies were employed and the resulting performance followed the pattern observed in the acquisition of past tense inflection by young children. The irregular forms were acquired 1st, by rote learning, and the rule-governed responses 2nd. Once the 2nd strategy was employed the rule was applied to the exceptions, and overgeneralization errors to the irregular forms occurred. Rate of acquisition of the irregular forms was positively related to frequency of presentation, and overgeneralization errors were inversely related to frequency of presentation.—*Journal abstract.*

161. Paul, Coleman; Hoffman, Charles D., & Dick, Stuart. (Adelphi U.) **Acquired (conditional) equivalence: A basis for response-set effects in verbal-discrimination reversal performance.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 361-367.—Reports 2 experiments on a 50% reversal shift. In Exp. I with 36 undergraduates, reversed and nonreversed pairs were discriminatively color coded during transfer, so that word-pair color could identify shift status (reversed-nonreversed) of each pair. In Exp. II with 48

Ss, reversed and nonreversed pairs were respective members of experimentally established equivalence classes; the equivalence mediator (label) could identify shift status of each pair. Results support a conditional equivalence analysis of verbal-discrimination shift tasks.—*Journal abstract.*

162. Trumbo, Don & Noble, Merrill. (Pennsylvania State U.) **Secondary task effects on serial verbal learning.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 418-424.—On the basis of prior studies involving pursuit tracking, it was predicted that performance of 60 right-handed male undergraduates in a serial verbal learning of CVC lists would be interfered with when a 2nd overlapping task required response-selection decisions. The hypothesis was confirmed using a 2×5 design with 2 CVC lists and 5 secondary task conditions. While tasks requiring the selection of anticipatory responses or responses in random sequences resulted in decrements in primary task performance, tasks requiring response execution or signal processing without overt responding produced no interference. Results are discussed in terms of a 4-stage information-processing model wherein the response-selection stage is seen as an important limitation on dual-task performance.—*Journal abstract.*

Verbal Paired Associate Learning

163. Hatano, Giyoo & Kuhara, Keiko. (Dokkyo U., Japan) [Experimental studies of meaningful learning: I. Effectiveness of meaningful learning.] *Japanese Journal of Psychology*, 1969 (Oct), Vol. 40(4), 192-200.—Defines the process of meaningful learning as identifying equivalence between incoming and stored information, by transforming the former. An experiment of successive paired-associate learning was conducted to compare the learning performance between 2 conditions of preceding learning. Although Ss of both conditions learned the same list, in 1 condition Ss could learn it meaningfully, by displacing components in the response term (using preceding associations) and integrating them by connectives; in the other condition, Ss could not find equivalence by such transformation and had to learn the list by rote. Results indicate that the effectiveness of meaningful learning was clearly shown.—*English abstract.*

164. Isaacs, Dan L. (Indiana U.) **The effect of learning of the color coding of pictorial stimuli.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5257-5258.

165. Johnson, Ronald E. (Purdue U.) **Differential availability of associative components in rehearsal.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 356-360.—After attaining a 7:12 criterion on 1 of 2 types of paired-associate lists, 88, 80, and 160 undergraduates in 3 experiments rehearsed for 5 min. and 24 sec. and then attempted recall on 5 postrehearsal trials. During rehearsal, Ss were allowed access to random listings of either the stimuli, the responses, or both the stimuli and responses. Antirehearsal groups engaged in reading. Generally, the availability of stimuli in rehearsal was more critical than the availability of responses. However, the meaningfulness of the available components was not a determinant of rehearsal effectiveness. The patterning of results supports the thesis that the effectiveness of rehearsal depends upon the similarity

of the rehearsal activity to the learning and criterion tasks.—*Journal abstract.*

166. Paivio, Allan & Foth, Dennis. (U. Western Ontario, London, Canada) **Imaginal and verbal mediators and noun concreteness in paired-associate learning: The elusive interaction.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 384-390.—40 undergraduates generated mediators for 30 concrete or 30 abstract noun pairs, in each case $\frac{1}{2}$ the pairs were linked by nonverbal images and $\frac{1}{2}$ by verbal mediators. The novel feature of the procedure was that the Ss explicitly produced the respective mediators by drawing the image and writing the phrase or sentence. A subsequent paired-associate recall test revealed an interaction such that imagery produced better recall than did verbal mediation in the case of concrete pairs whereas the reverse occurred with abstract pairs, as predicted from a 2-process theory of meaning and mediation. 2 further experiments confirmed these findings and supported the theory.—*Journal abstract.*

167. Raffeto, Allen M. (U. North Dakota) **Responsive and associative learning in warmup.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5263.

168. Richardson, John T. (St. John's Coll., Oxford, England) **Verbal learning: Incremental vs. all-or-none theory.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 196-204.—Compared the incremental and all-or-none theories of verbal learning by means of a little-used variation of the "drop-out" paradigm with paired associates using 16 undergraduates as Ss. Earlier experiments purporting to be relevant to the controversy were rejected as failing to offer a conclusive distinction between the 2 theories. Results support the incremental theory. It is suggested that irregularities in the results of this and other experiments are caused by several intrusive factors, and a "dual-factor" hypothesis which was put forward to account for these irregularities is questioned on logical and methodological grounds. (23 ref.)—*Journal abstract.*

169. Wichawut, Chalyaporn & Martin, Edwin. (U. Michigan, Human Performance Center) **Selective stimulus encoding and overlearning in paired-associate learning.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 383-388.—Studied the nature of stimulus cue selection and inclusion using a paired-associate list of 3-word stimuli and 1-word responses, together with a stimulated recall test. Results from 3 groups of 32 Ss each show that: (a) the number of selected cues increased with increasing degree of learning; (b) the effect of cue position was differential for different Ss; and (c) there was dependence among cues recalled, as well as between cues and responses recalled. It is concluded that stimulus cues are selected on a spatially determined attentional basis and that these cues are associated with the responses independently in a parallel fashion. (17 ref.)—*Journal abstract.*

Reinforcement

170. McGinley, Hugh. (U. Manitoba, Winnipeg, Canada) **The development of a conditioned reinforcer through direct and vicarious reinforcement.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 364-377.—Task learning Ss received response contingent reinforcement which followed either a red or a blue light by about 3 sec. Os watched the task Ss. Some Os merely observed the task S, others observed but

received reinforcements which depended upon the task S's responses. Conditioning was measured by S's preference for the color associated with reinforcement. Under similar conditions, task Ss showed conditioning while Os did not. 96 female undergraduates served as Os and Ss. Results suggest that the difference of conditioning in the 2 conditions may be interpreted as a difference in S involvement. (31 ref.)—*Journal abstract.*

171. Miller, Adam & Swan, John. (St. Cloud State Coll.) **Effects of four reinforcement schedules on the generalization gradient.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 828-830.—Compared the relative effects of 4 reinforcement schedules and a random control upon the gradient of generalization for 25 undergraduate volunteers. During color discrimination learning, ratios and intervals were selected to equalize response rates among schedules and overlearning established equal response latencies among schedules. Different schedules did not produce significantly different gradients.—*Journal abstract.*

172. Spence, Janet T. (U. Texas) **Verbal reinforcement combinations and concept-identification learning: The role of nonreinforcement.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 321-329.—Tested the hypothesis that the poorer performance on concept-identification tasks produced by a right-blank (rb) reinforcement combination than by wrong-blank (wb) is due to the tendency of some rb Ss to treat blank as signaling correct responses. Ss were 40 undergraduates. Observational learning problems were devised in which the solutions reached by members of wb and rb groups differed according to the informational characteristics, r or w, S attributed to blank. Wb Ss tended strongly to reach b = r solutions and were indistinguishable in performance from right-wrong Ss. Of 20 rb Ss, 9 consistently gave b = r solutions, 3 consistently gave b = w solutions, and 8 tended to vary in type of solution across problems.—*Journal abstract.*

MEMORY

173. Bobrow, Samuel A. (U. Washington) **Memory for words in sentences.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 363-372.—Presented noun pairs as the subject and object nouns of sentences. In Exp. I with 18 undergraduates noun pairs were repeated in 1 of 3 ways: (a) exact sentence repetition, (b) change in adjective and verbs which did not alter noun meanings, or (c) change in adjectives and verb which biased different noun meanings. In a cued-recall test, it was found that Conditions 1 and 2 resulted in equal recall, but Condition 3 recall was lower than the other conditions, supporting the hypothesis that semantic information about words is remembered. Exp. II with 36 undergraduates explored whether categorical or distinctive information about words is remembered.—*Journal abstract.*

174. Cornish, Elizabeth R. & Wason, P. C. (West Ham Coll. of Technology, London, England) **The recall of affirmative and negative sentences in an incidental learning task.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 109-114.—Presented positive and negative clues (N = 16) describing a nonexistent object to 40 Ss who identified the object and listed as many clues as they could recall. A significantly greater number of affirmative than negative clues were correctly recalled. The majority of errors were conver-

sions from negative to affirmative, independent of meaning. The difficulty associated with negative clues was attributed to the fact that they appeared inappropriate because there was no prior established condition for them to negate.—*Journal abstract.*

175. **Gumenik, William E. & Slak, Stefan.** (U. Toledo) **Denotative meaning isolation effect in multitrial free recall.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 434-435.—In a multitrial free recall task with fixed stimulus presentation order, isolating an item by embedding it in a list of items of a different superordinate category improved performance on that item. Isolation of an item did not affect performance on the nonisolated items on the list. 96 undergraduates served as Ss.—*Journal abstract.*

176. **Holding, Dennis H.** (U. Louisville) **Guessing behaviour and the Sperling store.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 248-256.—Measured recall of briefly exposed letters by whole and partial report procedures with 12 undergraduates. The cues for partial report were presented in advance, or in random, constrained or nonrandom sequences. The degree of statistical constraint determined S accuracy in guessing the cues. Results indicate that the amount of letter recall is largely dependent upon both sequential and spatial guessing accuracy. It is suggested that the data are adequately explained by cue anticipation with the visual storage hypothesis receiving no support.—*Journal abstract.*

177. **Howell, David C.** (U. Vermont) **Free association reliability as a function of response strength.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 431-433.—Investigated the reliability of the free association process over a 3-mo interval. 44 undergraduates free associated to the same 45 stimulus words on 3 separate sessions, separated by 1-mo intervals. Data demonstrate that the probability of repeating a response from 1 session to another is a function of the normative strength of that response. Instructing Ss to either free associate on subsequent sessions or to repeat their original responses did not have any important effect on the data. It is concluded that free association norms reflect individual response hierarchies moderately well.—*Journal abstract.*

178. **Jahnke, John C.** (Miami U.) **Probed recall of strings that contain repeated elements.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 450-455.—Examined the relation of intraserial repetition to memory under each of 4 conditions of probed recall where either the item or the pair of items preceding a target item, the item succeeding the target item, or the serial position of the target item were chosen as probes. Stimuli were 7-consonant strings, $\frac{1}{2}$ of which contained no repeated letters and $\frac{1}{2}$, a single repetition of a single letter. 80 female undergraduates served as Ss. In no instance was the recall of repeated letters significantly poorer than that of corresponding control letters. The failure to observe a Ranschburg effect (RE) supported the notion that the RE depends in part on the contribution of output interference.—*Journal abstract.*

179. **Kintsch, Walter.** (U. Colorado) **Recognition memory in bilingual subjects.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 405-409.—Gave 19 bilingual adults a continuous recognition memory test. All items were English or German nouns and were repeated twice, either in the same language or with a language change. Group I identified

each item as either new, repeated in the same language, or repeated in the other language. In Group II, Ss responded Yes only if an item was repeated in the same language, while in Group III, yes responses were given even when items were repeated with a language change. Results show that Ss could respond either on the basis of language-specific or general semantic cues. However, certain interference effects indicate that the 2 sets of cues were not independent.—*Journal abstract.*

180. **Klein, Gary A.** (U. Pittsburgh) **Stimulus representation in memory.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5259.

181. **Klein, Leslie S. & Arbuckle, Tannis Y.** (U. Manitoba, Ft. Garry, Canada) **Response latency and task difficulty in recognition memory.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 467-472.—Examined changes in response latency under conditions where task difficulty was varied by manipulating length of retention interval and formal similarity of test alternatives. The task was to select a previously shown CVC from 5 alternatives having 0-2 letters in common. Retention interval was varied by having S count backwards for 3.75 sec. from each of 0-5 successively presented 3-digit numbers. 84 undergraduates were each tested on all 42 combinations of 6 retention intervals and 7 degrees of similarity. Results indicate that correct recognitions decreased and latencies of correct recognitions increased with increasing length of retention interval and degrees of similarity. Data are discussed in terms of available information and search and decision processes. (19 ref.)—*Journal abstract.*

182. **Lachman, Roy & Mistler, Janet L.** (State U. New York, Buffalo) **Rehearsal, test trials, and component processes in free recall.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 374-382.—Exp. I investigated the improvement in free recall in 192 female undergraduates due to interpolated test trials. Rehearsal instructions and rehearsal prevention were varied independently of presence or absence of interpolated test trials. Overt recall was equivalent to covert rehearsal in influencing terminal recall, suggesting the operation of identical component processes. Exp. II with 200 female Ss attempted to conceptually identify and experimentally isolate 3 such component processes: implicit item generation, implicit item editing, and physical response. These were simulated in various combinations by the 5 treatments of Exp. II: test trial, with all 3 components present; physical response, with only the overt response; editing, with a simulation of item editing; rehearsal, with assumed generation and editing; and nonrehearsal, with 0 components present. Overall recall levels were: rehearsal = test trial > physical response = nonrehearsal > editing. Subject to explicitly stated assumptions, it is concluded that subsequent level of recall is raised by activation of the item generating system, unaffected by occurrence of the physical response, and reduced by activation of the editing mechanism. (17 ref.)—*Journal abstract.*

183. **Lesgold, Alan M. & Bower, Gordon H.** (Stanford U.) **Inefficiency of serial knowledge for associative responding.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 456-466.—Examined organization of serial memory. 36 adults learned a serial list chunked into triplets, then learned a paired associate (PA) task in which the pairs were consecutive items from the original series. Ss who were informed of the relationship between the tasks gave PA error patterns

that corresponded more closely to the transition-shift probabilities of the serial task than did the PA error patterns of uninformed Ss. Further, the informed Ss showed positive transfer on early PA trials but negative transfer on the later trials, with overall learning rates averaging $1/2-1/3$ of those of control Ss. The effects of the instructions show that (a) Ss have multiple PA strategies available, and (b) serial-recall memory may not always include direct links between consecutive items. (22 ref.)—*Journal abstract.*

184. Martin, David W. (New Mexico State U.) **Residual processing capacity during verbal organization in memory.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 391-397.—Used continuous compensatory tracking performed concurrently with a verbal memory task to monitor the information-processing demands of memory in 14 male undergraduate and graduate students. Tracking performance within 2 temporally defined memory stages reflected processing demands as the following variables were investigated: blocked vs. nonblocked presentation, association strength to a category, and number of list presentations. These variables were manipulated to isolate the memory stage in which organization occurs. Adding a memory task to the tracking task caused a consistent decrement in tracking performance. More processing was required for retrieval from memory than for encoding. Finally, retrieval of the blocked lists required less processing on succeeding trials, whereas retrieval of nonblocked lists required equal amounts of processing over trials. (19 ref.)—*Journal abstract.*

185. Matthews, W. A. & Manasse, K. (U. Southampton, England) **Associative factors in free recall.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 177-184.—Varied associative frequency, word frequency and the number, and therefore size, of the presented groups of 18-word lists. Recall efficiency was positively related to increasing associative frequency and larger presented group size. 24 college students served as Ss. Measures of clustering were obtained along with Ss' own reports of the associative labels helpful in organizing their recall. A 2-level storage model is proposed to account for results.—*Journal abstract.*

186. Nelson, Douglas L., Garland, Richard M., & Crank, Donald. (U. South Florida) **Free recall as a function of meaningfulness, formal similarity, form and amount of internal structure, and locus of contingency.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 417-424.—Determined the effects of meaningfulness and various conditions and levels of formal similarity on free recall acquisition, and identified processes involved in stimulus encoding under these treatments. 192 undergraduates served as Ss. Variations under conditions of high similarity included form and amount of internal structure, and locus of pairwise contingency. When stimulus sets were words, high similarity impaired recall, the extent of impairment depending upon the nature of the contingency. When stimuli were nonsense syllables, high similarity facilitated recall, with the exception that an interaction contingency significantly impaired acquisition. Both form and amount of structure affected performance to a greater extent under conditions of low than of high meaningfulness. (18 ref.)—*Journal abstract.*

187. Petrov, Y. I. (Inst. of Research in General Adult Education, Leningrad, USSR) **O strukture pamyati kak psikhicheskoi funktsii.** [Memory structure as a psychic

function.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 132-136.—Factor analysis of 14 measures of memory yielded 4 factors: verbal memory, iconic memory, long-term retention of verbal materials, and a bipolar factor of short-term fixation of visual images.—*L. Zusne.*

188. Postman, Leo. (U. California, Inst. of Human Learning, Berkeley) **Effects of word frequency on acquisition and retention under conditions of free-recall learning.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 185-195.—Compared 3 levels of frequency—high (HF), medium (MF), and low (LF). 24 undergraduates in each of 6 groups served as Ss. Original learning consisted of 4 study-test cycles. A retention test was given either 30 sec. or 7 days after original learning and was followed by 3 relearning cycles. List HF was learned and retained better than lists MF and LF. The latter 2 did not differ. Degrees of sequential organization in original learning increased with word frequency, as did the persistence on the tests of retention of the output orders which had occurred at the end of acquisition. For Ss learning a given type of list there was little relation between degree of sequential ordering and amount of recall. (20 ref.)—*Journal abstract.*

189. Rundle, Sarah A. (U. California, Los Angeles) **An experimental and theoretical study of recognition memory.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5265.

190. Sampson, Jeffrey R. (U. Alberta, Edmonton, Canada) **Free recall of verbal and non-verbal stimuli.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 215-221.—In 2 experiments, 40 and 72 male undergraduates viewed 24 items, $1/2$ as words and $1/2$ as drawings. In Exp. I, all Ss were given a learning set and free recall was tested immediately after stimulus presentation and 30 min. later. In Exp. II, $1/2$ the Ss were set and recall was tested immediately and/or 1 day later. Picture recall was superior to word recall in all conditions ($p < .005$). Major extensions to previous procedures involved incidental learning, mixed stimulus lists, nonverbal reporting of pictures and delayed recall. A double-encoding explanation for the superior non-verbal performance is discussed.—*Journal abstract.*

191. Sands, Harold R. (Pennsylvania State U.) **Acoustic and associative coding in short-term and long-term memory.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4837.

192. Shallice, T. & Warrington, Elizabeth K. (University Coll., London, England) **Independent functioning of verbal memory stores: A neuropsychological study.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 261-273.—Describes 5 experiments concerning verbal short-term memory (STM) performance of a patient with a markedly reduced verbal span. Results of the 1st 3, free recall, the Peterson procedure, and an investigation of proactive interference, indicate that S has a greatly reduced STM capacity, while the last 2, probe recognition and missing scan, show that this cannot be attributed to a retrieval failure. Since S's performance on long-term memory (LTM) tasks was normal, it is difficult to explain these results with theories of normal functioning in which verbal STM and LTM use the same structures in different ways. They also make the serial model of the relation between STM and LTM less plausible and support a model in which verbal STM and LTM have parallel inputs. (42 ref.)—*Journal abstract.*

193. Stelmach, George E. & Wilson, Mark. (U.

California, Santa Barbara) **Kinesthetic retention, movement extent, and information processing.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 425-430.—Using a lever response, kinesthetic recall of various movement lengths was studied under 3 retention interval conditions: immediate recall, 20-sec rest, and 20 sec. of information reduction activity (1.82 bits). 16 undergraduates served as Ss. The information reduction condition required S to accurately displace the lever to mimic and add pairs of angles. Increased absolute error was found in both delayed recall conditions. The information reduction condition was significantly larger than 20-sec rest. However, the main effect of conditions for constant error was not significant. Systematic undershooting characterized the recall responses. Inspection of the absolute error as a function of the movement length revealed a Movement Distance \times Information Reduction Activity interaction. The effect of occupying S's processing capacity was interpreted as making his responses more variable.—*Journal abstract*.

194. Straus, Erwin W. & Griffith, Richard M. (Eds.) **Phenomenology of memory: The Third Lexington Conference on Pure and Applied Phenomenology.** Pittsburgh, Pa.: Duquesne U. Press, 1970. xiv, 205 p. \$6.95.

Short Term & Immediate Memory

195. Holding, Dennis H. (U. Louisville) **Digit size in short-term memory.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 257-260.—During an experiment requiring the recall of 7-digit sequences it was noted that errors appeared more likely in lists composed of the larger digits. Ss were 18 undergraduates. Subsequent analysis confirmed that, with immediate recall, there was a significant association between error frequency and mean digit size. When recall was delayed by an unfilled 6-sec interval, the effect was abolished. It is suggested that interfering with rehearsal by interpolating a task of motor memory may reinstate the effect.—*Journal abstract*.

196. Morton, John & Holloway, C. M. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Absence of a cross-modal "suffix effect" in short-term memory.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 167-176.—Reported 3 experiments involving the presentation of lists of either letters or digits for immediate serial recall with 80 Ss. The main variable was the presence or absence of a suffix-prefix, tick or cross, occurring at the end of the list which had to be copied before recall of the stimulus list. With auditory stimuli and an auditory suffix-prefix there was a large and selective increase in the number of errors on the last few serial positions—the "suffix effect". The effect was not found with auditory stimuli and a visual suffix-prefix nor with a visual stimulus and an auditory suffix-prefix. Results are interpreted as supporting a model for short-term memory proposed by R. G. Crowder and J. Morton (see PA, Vol. 43:15225) in which it is suggested that with serial recall information concerning the final items following auditory presentation has a different, precategorical, origin from that concerning other items. (16 ref.)—*Journal abstract*.

197. Pinkus, Allen L. & Laughery, Kenneth R. (Carnegie-Mellon U.) **Recoding and grouping processes in short-term memory: Effects of subject-paced presentation.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 335-341.—Measured time requirements of recoding and grouping processes by allowing 9 undergraduates to pace the presentation of 12-letter lists arranged into 4 groups of words, CVCs, abbreviations, or random letters. Results indicate that Ss take less time on lists for which a recoding strategy is appropriate than on lists for which only grouping rules apply. Performance comparisons with constant-paced studies indicate that retention is superior for the S-paced procedure when total time is equated. The proper allocation of time, and not simply total time, appears to be the crucial factor for improving retention.—*Journal abstract*.

198. Smith, Edward E. & Nielsen, Gerald D. (Stanford U.) **Representations and retrieval processes in short-term memory: Recognition and recall of faces.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 397-405.—Combined recognition and probe recall tasks with 3 retention intervals, 1, 4, and 10 sec., to study 144 undergraduates' memory for faces. In recognition, Ss decided whether a test face was the same as or different from a previously presented original. In recall, Ss indicated the size of a probed-for feature (e.g., eyes) of a previously presented original face. The number of features relevant to S's memory decision, r , was varied in both tasks and RT was the dependent measure. In recognition, same RT increased with r only at the longer retention intervals while different RT decreased with the number of features that differed between test and original at all retention intervals, suggesting that different retrieval processes underlied same and different judgments. Recall RT increased with r but was unaffected by retention interval, suggesting that retrieval in recall was from a verbal representation. (21 ref.)—*Journal abstract*.

199. Tulving, Endel. (U. Toronto, Ontario, Canada) **Retrograde amnesia in free recall.** *Science*, 1969 (Apr), Vol. 164(3875), 88-90.—Describes 2 experiments with 40 university and 20 high school students, respectively, using a new method of demonstrating a phenomenon that resembles retrograde amnesia. The basic experimental paradigm was that of a single-trial free recall. It was found that supervention of high-priority events in a series of events constituting a free-recall task interferes with postexposure processing of mnemonic information about immediately preceding events, with the result that recall of these preceding events is impaired. Recall of immediately following events is not affected. This retrograde interference is time dependent.—*Journal abstract*.

200. Turvey, M. T., Brick, P., & Osborn, J. (U. Connecticut) **Proactive interference in short-term memory as a function of prior-item retention interval.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 142-147.—Examined the effect of prior-item retention interval on the retention of a given item in 5 short-term memory tests with 5 conditions each. Retention intervals for Tests 1-4 were constant for a condition but varied across conditions. These retention intervals were 5, 10, 15, 20 and 25 sec. In Test 5 the retention interval was 15 sec. for all 5 conditions. 5 consonant trigrams constructed from the set of letters sharing the vowel sound "e" were used for all conditions. Recall on Test 5 was a direct function of prior-item retention interval. Data indicate that the availability of prior items for proactive interference is an inverse function of prior-item retention interval.—*Journal abstract*.

201. Turvey, M. T. & Fertig, Joanne. (U. Connecticut) **Polarity on the semantic differential and release from proactive interference in short-term memory.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 439-443.—Used word triads rated on the semantic differential as the to-be-remembered items in 3 successive short-term memory tests with 108 undergraduates. The dimension of the semantic differential from which a triad was drawn varied on each of the 3 tests. In the control condition, polarity was held constant across the tests, and in the experimental condition, the polarity of the triad on the 3rd test differed from the polarity of the triads on the preceding 2 tests. A release from proactive interference was observed with change in polarity and proactive interference was observed to develop across the evaluative, activity, and potency dimensions of the semantic differential when polarity was held constant.—*Journal abstract*.

THINKING

202. Brooks, Lee R. (McMaster U., Hamilton, Ontario, Canada) **An extension of the conflict between visualization and reading.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 91-96.—Gave 10 undergraduate and graduate students sentences which described a set of spatial relations. After the spatial layout described by a given sentence had been deduced, Ss either read or listened to a final presentation of this same sentence. It was found that the modality of this presentation influenced the speed with which Ss performed a subsequent mental transformation of the spatial relations. The transformation was completed more slowly immediately after reading the sentence than after listening to it. Results confirm Ss' reports that visualization of the spatial relations is interrupted by reading the sentence, but not by listening to it. The relation between the visual and the analogical aspects of visualization is briefly discussed.—*Journal abstract*.

203. Collins, Allan M. & Quillian, M. Ross. (Bolt Beranek & Newman, Cambridge, Mass.) **Does category size affect categorization time?** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 432-438.—Conducted 2 experiments with 12 and 6 adult Ss. I a partial replication of an experiment by T. K. Landauer and J. L. Freedman (see PA, Vol. 43:1987) to disentangle 2 possible explanations for the fact that it takes longer to categorize object names into larger categories than into smaller categories. Several factors were found to affect categorization time: nesting, whether or not subcategories were utilized by Ss in the categorization task, and semantic relatedness or confusability. There was no evidence that larger categories, in and of themselves, required longer categorization times than smaller categories.—*Journal abstract*.

204. Goodman, Jerrold W. (U. Cincinnati) **Processing of meaningful material as related to personal relevance and personality type.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5222-5223.

205. Guilford, J. P., Fulgosi, Ante, & Hoepfner, Ralph. (U. Southern California) **A multivariate analysis of some controlled-association tasks.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 119-134.—4 pairs of controlled-association tasks were factor analyzed in order to determine what psychological functions they represent. Special interest was in the extent to which they involve divergent- vs. convergent-production abilities,

and the products of units, vs. relations, vs. classes of the structure-of-intellect model. The tasks were found to represent 2 semantic-cognition abilities for units and classes, and 4 production abilities for units and relations. Implications for understanding problem solving are suggested. The same procedure could lead to a taxonomy of intellectual tasks, including those used in the psychological laboratory.—*Author abstract*.

206. Helvey, T. Charles & Charles T. (U. Tennessee) **Cybernetic aspects of symbol processing in man.** *Acta Symbolica*, 1970 (Spr), Vol. 1(1), 53-56.—Discusses the computerizable aspects of symbol processing in man and the possibility of developing an amplifier for human intelligence. Artificial intelligence which can reproduce the symbol acquisition and manipulation of man insofar as primary interpretation is concerned seems feasible. The major barrier is posed by the secondary interpretations, involving the interaction of formed symbols with the emotional milieu.—*M. Cynamon*.

207. Roby, Thornton B. & Lyons, Teresa. (Tufts U.) **Use of state and transitional information.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 329-336.—Investigated relative human ability to digest information describing the state of the environment (σ) or state transitions (τ). The task required the summing or differencing of symbolically presented σ or τ information items. In Exp. I undergraduates were presented σ or τ information in mixed order and σ or τ queries at variable intervals. Exp. II entailed uniform translation from σ to τ or τ to σ modes. Results show that: (a) acquisition across modes— τ - σ or σ - τ —is more difficult than within mode acquisition; (b) τ - σ acquisition is superior to σ - τ acquisition; (c) both number of elements and number of phases or levels within elements add to task difficulty; and (d) the relative advantage of σ over τ acquisition decreases with an increasing number of presented items. Results are explained in part by the comparative economy of state information storage for normal decision making tasks.—*Journal abstract*.

208. Well, Arnold D. (U. Oregon) **The influence of irrelevant information on speeded classification tasks.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5270-5271.

Problem Solving

Concepts

209. Freedman, Jonathan L. (Yale U.) **The effect of involvement on concept maintenance.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5065-5066.

DECISION & CHOICE BEHAVIOR

210. Berger, Philip K. (Texas Christian U.) **Performance in a multiple alternative Bayesian decision task as a function of sample size and order of evidence.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5249.

211. Chapman, Clare R. (U. Denver) **The acquisition and use of biased prior probabilities in complex information seeking.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5251-5252.

212. Miller, Stephen H. (Purdue U.) **A study of risk taking in a computer simulation marketing game.**

Dissertation Abstracts International, 1970 (May), Vol. 30(11-B), 5274-5275.

213. Posner, Michael I. (U. Oregon) **On the relationship between letter names and superordinate categories.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 279-287.—Explored the sequence of processing steps in obtaining the classifications vowel-consonant and letter-digit using 32 undergraduates. The procedure involved measuring the RT to classify pairs of stimuli as same. Inferences were drawn from RTs to letters with the same name and from other differences between the RT structures obtained in the 2 classifications. When same was defined as both vowels or both consonants Ss seemed to determine the letter name and then classify the name into its superordinate category. When same was defined as both letters or both digits Ss appeared to classify the visual form directly into 1 of the 2 superordinate classes without 1st obtaining the name. The most likely explanation for the difference between conditions is the nature of training which Ss have had while learning the classifications.—*Journal abstract*.

214. Wallsten, Thomas S. (U. Pennsylvania) **Subjects' probability estimates and subjectively expected utility theory.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5269.

PHYSIOLOGICAL PSYCHOLOGY

215. Foss, B. M. (Ed.) (London U., Bedford Coll., England) **Determinants of infant behaviour: IV. Based on the Proceedings of the Fourth Tavistock Study Group on Mother-Infant Interaction held at the House of the Ciba Foundation, London, September 1965.** London, England: Methuen, 1969. xiv, 304 p. \$8.

216. Gabriel, M. & Ball, T. S. (U. California, Irvine) **Plethysmographic and GSR responses to single versus double-simultaneous novel tactile stimuli.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 368-373.—Following 9 tactile stimulations of 1 of 4 fingertips of 48 18-35 yr. old Ss, GSR and finger-plethysmograph (FPR) orientation responses (ORs) were observed at 3 novel fingertips. OR stimuli were either single stimulations (SSs) of the novel fingertip, or simultaneous stimulations of novel and original fingertips (DSSs). Trials of habituation to the original fingertip were interspersed among the test trials. The FPR data suggest that DSS is a more effective OR-producing stimulus than SS, and that OR magnitude is inversely related to proximity of habituation and test fingertips. The GSR showed reduction of the OR for some pairs of adjacent (highly proximate) habituation and test fingertips. This reduction depended upon an interaction of the stimulus factor with relative position of habituation and test loci. Even under adjacent conditions, ample GSR-ORs occurred when either the habituation or test fingertip had high localizability.—*Journal abstract*.

217. Kare, Morley R., Schechter, Paul J., Grossman, Sebastian P., & Roth, Lloyd J. (U. Pennsylvania, Monell Chemical Senses Center) **Direct pathway to the brain.** *Science*, 1969 (Feb), Vol. 163(3870), 952-953.—Demonstrated in whole-body autoradiographic studies with 12 male rats, that when isotopically labeled glucose is placed in the ligated oropharynx, there is a rapid movement of the isotope directly to the intracranial cavity. This passage involves nonspecific diffusion,

bypassing all recognized routes to the brain.—*Journal abstract*.

218. Kavanau, J. Lee & Rischer, Carl E. (U. California, Los Angeles) **Program clocks in small mammals.** *Science*, 1968 (Sep), Vol. 161(3847), 1256-1259.—Complex patterns of time, direction, and speed of running by small nocturnal mammals in activity wheels sometimes are duplicated almost exactly from night to night. It is concluded that these activity pattern repetitions disclose: (a) previously unknown capabilities of biological clocks to act as sequence programmers for behavior; (b) animals can retain a record of the sequence and timing of their activities covering an entire night, and (c) the activities of 1 night can bias an animal toward similar behavior on subsequent nights.—*Journal abstract*.

NEUROLOGY

219. Berestovskii, G. N., Liberman, E. A., Lunevskii, V. Z., & Frank, G. M. (Inst. of Biological Physics, Pushchino, USSR) **Opticheskie issledovaniya struktury membrany nerva pri prokhozhenii nervnogo impul'sa.** [Optical studies of changes in the structure of the nerve membrane during conduction of the nerve impulse.] *Biofizika*, 1970 (Jan), Vol. 15(1), 62-68.—Live nerves (abdominal nerve chain, giant axons of *Astacus astacus*, etc.) were employed to study the optical changes in nerve fibers and those which arise under certain conditions in the artificial phospholipid membrane. During action potential a change was noted in the double refraction of the nerve fiber membrane, connected with a change in the electrical field in the membrane. At the peak of action potential, the recorded optical effect was inversely proportional to axonal diameter.—*J. D. London*.

220. Brownstein, Michael J. & Heller, Alfred. (U. Chicago) **Hydroxyindole-O-methyl-transferase activity: Effect of sympathetic nerve stimulation.** *Science*, 1968 (Oct), Vol. 162(3851), 367-368.—Stimulation of the preganglionic nerve trunk to the superior cervical ganglion causes a reduction in pineal hydroxyindole-O-methyl-transferase levels which is time-dependent. Results provide direct evidence for a role of afferent input in the control of pineal enzymatic activity.—*Journal abstract*.

221. Collins, Robert L. & Fuller, John L. (Jackson Lab., Bar Harbor, Me.) **Audogenic seizure prone (ASP): A gene affecting behavior in linkage group VIII of the mouse.** *Science*, 1968 (Dec), Vol. 162(3858), 1137-1139.—Conducted an experiment using 940 C57BL/6J and DBA/2J mice as Ss. The incidence of initial audiogenic seizures in Ss from crosses between a susceptible and a resistant inbred strain is attributable to the effects of a single pair of alleles. The locus responsible for this behavioral variation is located in Linkage Group VIII of the mouse. Sensitization-dependent convulsions are influenced in whole or in part by alleles at an independent locus.—*Journal abstract*.

222. Corning, W. C. & Freed, Simon. (Fordham U., Animal Behavior Lab.) **Planarian behaviour and biochemistry.** *Nature*, 1968 (Sep), Vol. 219(5160), 1227-1229.—Analyses of nucleic acids from planarians removed at various stages of conditioning showed that the RNA/DNA specific activity ratios were significantly different in trained Ss during the middle stages of training when learning was not pronounced. The ratios

were, however, similar at the terminal stage when the conditioned response performance was high.—*Journal abstract.*

223. Deshcherevskii, V. I. (Inst. of Biological Physics, Pushchino, USSR) *Teoriya sokrashcheniya myshts.* [Theory of muscular contraction.] *Biofizika*, 1970 (Jan), Vol. 15(1), 53-61.—The kinetic theory of contraction for striped muscles, developed earlier for vertebrate skeletal muscles, is capable of accounting for the autooscillatory contractions of the flight muscles of several insects (asynchronous muscles, having the capacity to produce several contractions in response to a single stimulation—a capacity possessed also by glycerinated fibers), if the special features of their structural organization are considered. The theory yields a reasonable quantitative agreement with the experimental data. A large number of facts are explained for the 1st time within the frame of the kinetic model employed. The invariance of the "molecular parameters" of the model, on extrapolation from vertebrate skeletal muscles to insect flight muscles, is evidence of the "unity of their elementary contractile mechanisms."—*I. D. London.*

224. Fuller, John L. & Collings, Robert L. (Jackson Lab., Bar Harbor, Me.) *Mice unilaterally sensitized for audiogenic seizures.* *Science*, 1968 (Dec), Vol. 162(3859), 1295.—To test the possibility that the site of sensitization may be relatively localized, possibly in the ear itself, strain SJL/J mice were exposed to loud bell-ringing (primed) with 1 ear blocked. Ss did not convulse, but were susceptible to audiogenic seizures 48 hr. later when stimulated only through the ear open at priming. S stimulated through the ear blocked at priming did not convulse, but were convulsible when retested on the opposite ear. The site of sensitization appears to be either in the ear or in those portions of the auditory system receiving input only from 1 side.—*Journal abstract.*

225. Glagoleva, I. M., Liberman, E. A., & Khashaev, Kh. M. *Vliyanie razobshchitelei oksilitel'nogo fosforilirovaniya na vykhod atsetilkholina.* [Influence of the uncouplers of oxidative phosphorylation on the release of acetylcholine.] *Biofizika*, 1970 (Jan), Vol. 15(1), 76-83.—Studied the influence of different uncouplers of oxidative phosphorylation on the parameters of the miniature potentials of the neuromuscular union in the frog. The ability of the uncouplers to increase membrane conductance and to release Ca^{++} ions from the mitochondria and vesicles of the endoplasmic reticulum was used to introduce Ca^{++} ions into the nerve endings near the inner surface of the axon membrane. All the uncouplers studied increased miniature potential frequency by 2-3 times, and the mean amplitude (2-3 times) in both Ringer's solution and Ca^{++} -free solutions. Correlated effects of the uncouplers on bimolecular (artificial phospholipid) membrane conductance, mitochondrial respiration, and miniature potential frequency were observed. Data confirm an earlier proposed hypothesis that the secretion of acetylcholine from the nerve endings is connected with the adhesion of the synaptic vesicles to the membrane of the nerve ending under the action of van der Waals forces. The increase in the concentration of Ca^{++} ions, freed from the mitochondria under the action of the uncouplers of oxidative phosphorylation, led to screening out the surface negative discharges of the membranes and to an increase in the secretion of acetylcholine.—*I. D. London.*

226. Harth, E. M., Beek, B., Csermely, T. J., &

Lindsay, R. D. (Syracuse U.) *Compound net model of the cerebral cortex.* *USAF AMRL Technical Report*, 1969 (Jun), No. 68-189, 61 p.—Based on the belief that the CNS consists of a network of neurons, combining in its structure genetically determined design with probabilistic features, a model is described in which probabilistic nets are used as building blocks from which systems can be assembled. The operation of compound nets is based on the dynamics of single probabilistic nets and on a set of assumptions concerning the coding of sensory information into the language of central neuronal activity. Data describing the dynamics of simple nets are presented. It is found that various types of information processing can be explained by applying the hypothesis of synaptic facilitation to compound nets. Sustained neural activity is investigated, particularly the problem of ergodicity. Highly nonergodic types of reverberations were found both theoretically and by computer simulation for certain types of nets. (39 ref.)—*Journal abstract.*

227. Hess, V. *Hypothalamus und Thalamus.* [Hypothalamus and thalamus.] Stuttgart, W. Germany: Georg Thieme, 1968. 77 p.—Based on 25 yr. of research at the Physiological Institute in Zurich, the book presents experimental data on the physiology of the intermediate brain and their clinico-physiological analysis. The book serves as an atlas of the physiology and functional organization of the intermediate brain.—*I. D. London.*

228. Khodorov, B. I., Timin, E. N., Vilenkin, S. Ya., & Gul'ko, F. B. (Vishnevskii Inst. of Surgery, Moscow, USSR) *Teoreticheskiy analiz mekhanizmov provedeniya nervnogo impul'sa po neodnorodnomu aksonu: II. Provedenie odinochnogo impul'sa cherez oblast' volokna s izmenennymi funktsional'nymi svoistvami.* [Theoretical analysis of the mechanisms of conduction of the nerve impulse along a nonuniform axon: II. Conduction of a single impulse through a fiber region with altered functional properties.] *Biofizika*, 1970 (Jan), Vol. 15(1), 140-146.—Utilized a mathematical model of the squid giant axon. The separate actions on the membrane of the following are deduced: tetrodotoxin, narcotic agents, and excess of Ca^{++} ions.—*I. D. London.*

229. Kobakova, E. M. *Nervnaya regulyatsiya dvigatel'noi funktsii tonkogo kishechnika v ontogeneze.* [Nervous regulation of motor function of the small intestine in ontogenesis.] Leningrad, USSR: Nauka, 1968. 130 p.—A Monograph on the ontogenetic establishment of the nervous system as a controlling agent of small intestinal activity.

230. Liberman, E. A., Topaly, V. P., & Tsofina, L. M. (Inst. for Problems of Information-Transmission, Moscow, USSR) *Sravnienie svoistva bimolekulyarnykh membran iz fosfolipidov mozga, mitokhondrii i bakterii.* [Comparison of the properties of the bimolecular membranes of cerebral phospholipids, mitochondria and bacteria.] *Biofizika*, 1970 (Jan), Vol. 15(1), 69-75.—Studied the conductance of the bimolecular membranes of cerebral phospholipids, mitochondria, and *Micrococcus lysodeikticus* in the presence of a number of uncouplers of oxidative phosphorylation. The biochemical data are detailed.—*I. D. London.*

231. Markin, V. S. (Inst. of Electrochemistry, Moscow, USSR) *Elektricheskoe vzaimodeistvie parallel'nykh nemielinizirovannykh nervnykh volokon: I. Izmnenie vzbudimosti sosednego volokna.* [Electrical interaction of parallel unmyelinated nerve fibers: I.

Change in excitability of an adjacent fiber.] *Biofizika*, 1970 (Jan), Vol. 15(1), 120-129.—Presents a mathematical analysis of the conduction of nerve impulses along fibers adjacent to each other and bathed in a limited volume of conducting fluid. A system of equations was deduced for membrane potential differences, and its solution found. 2 stationary solutions were obtained for each fiber, corresponding to impulses with different rates of propagation. 1 of these impulses was stable; the other unstable. A case is analyzed in detail where the impulse of nervous excitation was propagated along only 1 of the fibers, while the 2nd one remained passive. As this occurred, a wave of membrane potential changes was propagated along the 2nd fiber, so that in the beginning it was hyperpolarized (increased) then depolarized (decreased), and finally again hyperpolarized (increased). Such a change in excitability has been experimentally observed. Conditions in another situation are analyzed, where the threshold of excitability was decreased. If it was diminished to zero, spontaneous excitation of the fiber occurred. Analysis shows that such excitation was practically impossible under normal conditions. It could only happen if the threshold of excitability of the 2nd fiber was artificially lowered, as a consequence, for example, of its injury or treatment by special chemical agents.—*I. D. London.*

232. Mogendovich, M. R. (Ed.) *Motorno-vistseral'nye refleksy v fiziologii i klinike*. [Motor-visceral reflexes in physiology and the clinic.] Perm, USSR: Perm Medical Inst., 1968. 294 p.—Presents a collection of 50 papers, representing the 8th in this series and constituting Volume 88 of *Sbornik Nauchnykh Trudov Permskogo Gosudarstvennogo Meditsinskogo Instituta* [Collected Scientific Papers of the Perm State Medical Inst.].—*I. D. London.*

233. Nummaev, G. M. (1st Medical Inst., Leningrad, USSR) *Vliyanie razdrazheniya vestibulyarnogo analizatora na mozgovoie krovobrashchenie cheloveka*. [Influence of stimulation of the vestibular analyzer on cerebral circulation in man.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1100-1104.—40 16-30 yr. old Ss were utilized in a rheoencephalographic study of changes in cerebral blood flow under angular acceleration. Single excitation of the ampullar apparatus by an adequate stimulus (angular acceleration) produced a pronounced and prolonged (up to 5-8 min.) change in cerebrovascular tonus. Impulsations, originating from the ampullae of the semicircular canals, produced 2 types of cerebrovascular reactions. In some Ss a pronounced and prolonged (up to 5-8 min.) constriction occurred in the internal carotid arterial system, while in others a temporary dilatation was followed by prolonged constriction. In the vertebrate arterial system, in some Ss a pronounced and prolonged (up to 5-8 min.) dilatation occurred; in others, constriction. The data broaden to a certain degree our ideas concerning the genesis of vestibulo-autonomic disorders, arising in persons suffering from different diseases of the vestibular analyzer and in healthy persons under specific conditions developing in flight." (English summary)—*I. D. London.*

234. Peters, Ronald H. & Kent, Michael A. (Iowa State U.) *Preoptic temperature during oral and intragastric feeding*. *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 135-136.—Recorded preoptic brain temperatures of 4 male Sprague-Dawley rats during oral and intragastric feeding. Oral ingestion of solid dry food was the only treatment that significantly increased preoptic

temperature. Oral ingestion of liquid food and infusion of either liquid food or water directly into the stomach via a cannula failed to produce a significant change in brain temperatures. These data are not consistent with J. R. Brobeck's thermoregulatory hypothesis which predicts that both ingested and infused liquid nutrients should also increase preoptic temperature.—*Journal abstract.*

235. Pirlot, P. & Stephan, H. (U. Montreal, Quebec, Canada) *Encephalization in Chiroptera*. *Canadian Journal of Zoology*, 1970 (May), Vol. 48(3), 433-444.—51 species representing 10 families of bats were compared using the relation of brain weight to body weight as an estimate of degree of encephalization. The degree of encephalization appeared to be more related to their particular feeding behavior rather than to their position on the scale. The insect-eating bats had the least amount of encephalization while those who were bloodsuckers and fruit eaters were the most encephalized.—*J. M. Roberts.*

236. Pozin, N. V. & Shul'pin, Yu. A. (Inst. of Automation & Telemechanics, Moscow, USSR) *Analiz raboty avtokolebatel'nykh neironnykh soedinenii*. [Analysis of the functioning of autooscillatory neuronal groupings.] *Biofizika*, 1970 (Jan), Vol. 15(1), 156-163.—Presents a theoretical analysis of a trineuronal autooscillatory circuit (multivibrator) with inhibitory connections. Experimental investigation of an octoneuronal autooscillatory circuit (commutator) demonstrates its stable operation and its capacity under the influence of external stimulation to change the frequency of generation of bundles of impulses (or the rate of excitatory flashes) by up to 70 times.—*I. D. London.*

237. Rabin, Edwin R., Jenson, A. Bennett, & Melnick, Joseph L. (Jewish Hosp., St. Louis, Mo.) *Herpes simplex virus in mice: Electron microscopy of neural spread*. *Science*, 1968 (Oct), Vol. 162(3849), 126-127.—Herpes simplex virus rapidly infected the trigeminal nerves of mice after intranasal inoculation. Centripetal neural spread was suggested by histologic evidence of encephalitis in the area of attachment of the trigeminal nerve. Furthermore, electron microscopy revealed virus replication primarily within Schwann cells of the trigeminal nerve, and neurons of the gasserian ganglion.—*Journal abstract.*

238. Wurtz, Robert H. (National Inst. of Mental Health, Lab of Neurobiology, Bethesda, Md.) *Visual cortex neurons: Response to stimuli during rapid eye movements*. *Science*, 1968 (Dec), Vol. 162(3858), 1148-1150.—While awake, unanesthetized rhesus monkeys held their eyes stationary, a motionless or slowly moving stimulus falling on the receptive field of striate cortex neurons produced an excitatory response. When a REM was made across the same stimulus, many of these neurons continued to give an excitatory response. The discharge of other neurons was unchanged or was suppressed during the eye movement.—*Journal abstract.*

Neuroanatomy

239. Harris, Fredric A. (U. Washington, Medical School) *Population analysis of somatosensory thalamus in the cat*. *Nature*, 1970 (Feb), Vol. 225(5232), 559-562.—Analyzed aggregations of neurons which have common natural stimulus sensitivity in anesthetized cats. Stimulus pulses were given to each forepaw via bipolar needle electrodes to evoke discharge and to identify

thalamic cells. Results of pooled data from 46 experiments demonstrated the isolation of 640 neurons of which 30% were classified as M neurons having irregular receptor fields on the contralateral forelimb and 1 or more other limbs. 68% were classified as S neurons. It is concluded that touch and hair cells and S and M neurons are segregated within the nucleus. In addition, hair cells outnumber touch cells in the set S by 50% as opposed to 30% in the M set.—*P. Shibelski.*

LESIONS

240. Colvin, Gerald B., Whitmoyer, David L., & Sawyer, Charles H. (State U. New York, Upstate Medical Center, Syracuse) **Circadian sleep-wakefulness patterns in rats after ovariectomy and treatment with estrogen.** *Experimental Neurology*, 1969 (Dec), Vol. 25(4), 616-625.—Obtained EEG records from 12 Sprague-Dawley unanesthetized freely moving rats with electrodes permanently implanted in the olfactory bulb, hippocampus, and frontal cortex while Ss were housed in large glass cylinders within a sound-, temperature-, and light-controlled chamber. EEG records were converted to percentages of alertness, slow-wave sleep, and paradoxical sleep for each 10-min interval around the clock and analyzed by computer. After ovariectomy, records showed greater amounts of slow-wave sleep/day largely because of major increases in nighttime slow-wave sleep levels. The circadian pattern of paradoxical sleep was altered by ovariectomy: the daily amounts of paradoxical sleep remained constant but the night-time hr. contained more and the daylight hr. concomitantly less, almost obscuring the circadian rhythm. Estrogen injections restored the circadian pattern by sharply reducing the amount of paradoxical sleep at night, resulting in significant diminution in total paradoxical sleep/24 hr. (23 ref.)—*Journal abstract.*

241. Glebovskii, V. D. & Zhdanov, V. A. (Pediatric Medical Inst., Leningrad, USSR) **Vliyaniye vagotomii na ventilyatsiyu legkikh pri spokoinom i usilennom dykhanii.** [Influence of vagotomy on pulmonary ventilation in quiet and increased respiration.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1118-1124.—Ss were 13 decerebrated cats. Hypercapnic hyperpnea after vagotomy was not accompanied by an increase in the rate of respiration; its decrease was often observed. When the vagal nerves were intact, increase in the rate of respiration was due to afferent impulses from the pulmonary mechanoreceptors. Depth and rate of respiration in hypercapnic hyperpnea were regulated by separate mechanisms and could change independently. CO₂ acted in an excitatory manner on the structures of the respiratory center, determining the depth of respiration. The maximal magnitude of pulmonary ventilation after vagotomy decreased by more than twofold. The pulmonary afferent system played an important role in securing high levels of pulmonary ventilation. The chemoreceptor mechanisms of the pontobulbar region of the brain were capable of securing, in the quiet state of the organism, a constant level of pulmonary ventilation independently of whether the vagal nerves were intact. (English summary) (19 ref.)—*J. D. London.*

Brain Lesions

242. Barnes, P. J., Smith, L. M., & Latta, R. M. (Psychological Lab., Cambridge, England) **Orientation**

to visual stimuli and the superior colliculus in the rat. *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 239-247.—Trained 12 naive female hooded rats in a 6-choice jumping stand apparatus to enter the dark door and avoid the 5 bright doors. Ss with bilateral superior collicular lesions were severely impaired, although further experiments showed that they were able to discriminate bright from dark stimuli and could perform correctly if allowed to approach each door in turn. It is suggested that the superior colliculus is important in orientation to visual cues, and there is some evidence that it is involved in orientation to brightness but not visual form cues. (20 ref.)—*Journal abstract.*

243. Buchtel, Henry A. (McGill U., Montreal, Quebec, Canada) **Visual learning deficits after cerebellar damage in rats.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5250.

244. Butter, Charles M., McDonald, John A., & Snyder, Daniel R. (U. Michigan) **Orality, preference behavior, and reinforcement value of nonfood object in monkeys with orbital frontal lesions.** *Science*, 1969 (Jun), Vol. 164(3885), 1306-1307.—Reports that 4 adolescent male rhesus monkeys with orbital frontal ablation, compared with 4 sham-operated controls, showed enhancement of oral tendencies toward nonfood items. Unlike controls, they persistently performed an instrumental response for 1 of these nonfood items. However, lesioned Ss did not show altered preferences for food vs. nonfood items. Findings suggest that reinforcement value and preferential ordering are dissociated by orbital frontal ablation.—*Journal abstract.*

245. Deets, Allyn C., Harlow, Harry F., Singh, Sheo D., & Blomquist, Allen J. (U. Wisconsin) **Effects of bilateral lesions of the frontal granular cortex on the social behavior of rhesus monkeys.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 452-461.—Observed 11 rhesus monkeys with bilateral lesions of the frontal granular cortex and 11 matched controls during pairings with each of 12 stimulus monkeys. Frontal Ss were more withdrawn and distressed than the controls. Operated Ss showed less proximity and contact with the stimulus Ss, directed less exploration toward the inanimate environment, and displayed more fear grimacing, screeching, and other disturbance behaviors. The stimulus Ss, in turn, interacted less with the frontal Ss than with the controls. They spent less time near the operated Ss, and less frequently mounted and presented to them. Overall, the operated Ss directed more challenges toward the male stimulus Ss, threatening them more than was appropriate for the circumstances, although levels of overt physical aggression were no higher, and in some cases depressed, in the monkeys with frontal lesions. (18 ref.)—*Journal abstract.*

246. Holdstock, T. L. (U. Witwatersrand, Johannesburg, South Africa) **Plasticity of autonomic functions in rats with septal lesions.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 147-160.—Presented 2 experiments in which both control and septal rats (total N = 24) rapidly developed clear-cut differential autonomic responses. In contrast to the nonreinforced stimulus which produced slight heart rate (HR) change and small GSR, the reinforced stimulus produced consistent deceleration of HR and larger magnitude GSR. In marked contrast to the control group, septal Ss consistently exhibited smaller overall GSR and higher base-line levels of skin resistance. Septal Ss also showed less accelerative HR response to shock, but greater persistence of response

with repeated shocks. The hypothesis was considered that the autonomic nervous system of septal animals was chronically imbalanced due to a decrease in sympathetic tonus. (French & German summaries) (3 p. ref.)—*Journal abstract.*

247. Iwai, Eichi & Mishkin, Mortimer. (Fukushima Medical Coll., Japan) **Further evidence on the locus of the visual area in the temporal lobe of the monkey.** *Experimental Neurology*, 1969 (Dec), Vol. 25(4), 585-594.—Tested pattern discrimination retention in 33 Macaca mulatta monkeys divided into 9 operated groups in an attempt to define the limits of the inferotemporal visual area more precisely than before. 6 groups had small coronal strip lesions distributed along the length of the inferior temporal convexity, and the other 3 had much larger removals adjacent to the convexity. Impairment was found only after the small strip lesions made in that part of the inferotemporal cortex which extends from the ascending limb of the inferior occipital sulcus forward for about 2 cm. to the posterior tip of the anterior middle temporal sulcus. Correlation with data from neuroanatomical and neuronographic studies suggests that this behaviorally defined visual area may be composed of 2 neurally distinguishable subareas, TE and TEO of G. V. Bonin and P. Bailey. (17 ref.)—*Journal abstract.*

248. Kemble, Ernest D. & Beckman, Gary J. (U. Minnesota, Morris) **Vicarious trial and error following amygdaloid lesions in rats.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 161-169.—19 rats with amygdaloid lesions showed increased vicarious trial and error behavior and errors during the acquisition and reversal of a position discrimination. Results suggest that the amygdala of the rat, as well as that of the monkey, is vitally involved in attention-directing behavior. More than 1/2 of the amygdaloid Ss refused to make a choice in the apparatus during the experiment and were discarded. 2 possible interpretations of this finding are discussed. (French & German summaries)—*Journal abstract.*

249. Kulagin, A. S. & Shik, M. L. (Inst. for Problems of Information-Transmission, Moscow, USSR) **Vzaimodeistvie simmetrichnykh konechnostei pri upravlyaemom lokomotsii.** [Interaction of symmetrical extremities during controlled locomotion.] *Biofizika*, 1970 (Jan), Vol. 15(1), 164-170.—Studied the controlled locomotion of 15 mesencephalic cats on a treadmill with 2 tracks—a left and a right, each capable of independent change of velocity. With two- and threefold differences of track velocities, the symmetrical extremities of the Ss produced stepping movements in common rhythm (with identical cyclic duration). At the same time, the structure of the stepping cycle of the extremities remained the same as in velocities of locomotion corresponding to those of the "bonded" tracks (the normal case). With greater differences of velocities, the interaction of the extremities changed, and stepping movements could arise with a ratio of cyclic duration of 1:2.—I. D. London.

250. Lindsley, D. F., Barton, R. J., & Atkins, R. J. (U. Southern California, Medical School) **Effects of subthalamic lesions on peripheral and central arousal thresholds in cats.** *Experimental Neurology*, 1970 (Jan), Vol. 26(1), 109-120.—Implanted 6 cats with electrodes to compare peripheral and central EEG and behavioral arousal thresholds. After making bilateral subthalamic lesions, 5 Ss showed increased sciatic EEG and behavioral arousal thresholds. This increase in peripheral

arousal thresholds was not simply a reflection of increased central-arousal thresholds, as 4 Ss had reticular-formation EEG and behavioral arousal thresholds which were either less than or the same as before the lesions were made. The latency for EEG arousal was 2-4 times longer than before the lesion in some threshold trials. Durations of EEG and behavioral arousal were shorter than before lesions, which was consistent with Ss' lack of sustained attention to sensory stimuli. There was more slow-wave EEG activity following subthalamic lesions, which was perhaps related to Ss' waxing and waning state of vigilance with increased periods of inattention and drowsiness. Gross behavioral observation indicates that Ss were hypophagic, hypokinetic, and hyporesponsive. It is suggested that subthalamic involvement in problems of attention and vigilance may be related to interruption of interconnections of limbic and neocortical areas with subcortical regions, interconnections which are important in initiating and sustaining attention to sensory stimuli.—*Journal abstract.*

251. Long, Charles J. & Tapp, Jack T. (Memphis State U.) **Significance of olfactory tracts in mediating response to odors in the rat.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 435-443.—Assessed the importance of fiber tracts which connect the olfactory bulb to other areas of the brain in the mediation of 48 albino male Holtzman rats' reaction to odors. When compared with sham controls, Ss with bilateral lesions of the lateral olfactory tract showed severe impairments in their preference for rat-food odor and their capacity to use an odor cue to learn to avoid shock in a double-grill box and discriminate the location of an odor in a T maze. No preference deficits were observed in Ss with bilateral lesions in the olfactory tubercles, the anterior limb of the anterior commissure, or the neocortex. Since these groups could thus detect the odor, no further tests were run. Results suggest that the lateral olfactory tract, like the olfactory bulb, is necessary for the detection of odor. (24 ref.)—*Journal abstract.*

252. Moss, Robert L. (Claremont Graduate School, Calif.) **Modification of copulatory behavior in the female rat following olfactory bulb removal.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5261.

253. Murphy, Helen M. & Brown, Thomas S. (John Carroll U.) **Effects of hippocampal lesions on simple and preferential consummatory behavior in the rat.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 404-415.—Examined simple and preferential consummatory behaviors in 20 male Sprague-Dawley rats with hippocampal and neocortical lesions and in 10 operated controls in a number of behavioral tasks. Changes in consummatory behavior were observed in Ss with hippocampal lesions. Such changes consisted of an absence of the typical rat preference for sucrose in a 5-min test session, attenuation of increased NaCl intake following subcutaneous injection of formalin, attenuation of a negative contrast effect following a downshift in incentive from 32% to 4% sucrose, and increased intake of a highly palatable solution of glucose and saccharin over a 24-hr test session. The observed changes in consummatory behavior are secondary to some change in perseverative tendencies rather than as primarily resulting from incentive changes. (25 ref.)—*Journal abstract.*

254. Robinson, John S. & Voneida, Theodore J. (Somona State Hosp., Brain-Behavior Research Center,

Eldridge, Calif.) **Quantitative differences in performance on abstract discriminations using one or both hemispheres.** *Experimental Neurology*, 1970 (Jan), Vol. 26(1), 72-83.—Trained 8 male adult cats to a stringent criterion on abstract 2-choice visual pattern discriminations and then tested them with task information relayed to both hemispheres, or to only 1 hemisphere. Essentially normal, high-level response was possible with cue inputs to 1 eye only, even following section of the optic chiasm or the corpus callosum. If both structures were cut, so that unilateral inputs were restricted to 1 hemisphere, however, there was a sizable permanent decrease in accuracy of performance (accuracy under the bilateral inputs condition remained high). Performance on simple discrimination tasks, employing patterns with the same or greater acuity demands, was not affected by such restriction of inputs to 1 hemisphere. This finding, and the fact that some Ss can perform at a normal preoperative level after chiasm section, rule out explanation of the loss in single-hemisphere abstract task performance solely in terms of destruction of visual fibers. A more plausible interpretation of the results is provided in terms of a principle of cortical mass action, which assumes that the asymptotic level for performance on complex tasks may depend on the amount of cortex participating in the processing of task information. (18 ref.)—*Journal abstract*.

255. **Schneider, Gerald E.** (Massachusetts Inst. of Technology) **Two visual systems.** *Science*, 1969 (Feb), Vol. 163(3870), 895-902.—Describes experiments with 38 Syrian golden brain-damaged hamsters, 13 normal sham-operated controls, and other normal unoperated Ss. Data reveal that fundamentally different types of relative blindness are produced by ablation of cortical or tectal visual areas of S's brain. Undercutting the superior colliculus abolishes the ability to orient toward an object, but not to identify it, according to tests of pattern discrimination learning. Ablating visual cortical areas has reciprocally opposite effects. Such results, obtainable only by varying the required response and the stimulus in tests of visually guided behavior, may be interpreted as a dissociation between mechanisms for 2 types of visuo-motor control maintained throughout vertebrate evolution. The possibility that the hamster is a particularly simple case should be borne in mind, however. 1 mechanism is concerned with the locating of objects and the other with the specific identification of objects, with actions directed toward or away from them. (33 ref.)—*Journal summary*.

256. **Schwartzkroin, Philip A., Cowey, Alan, & Gross, Charles G.** (Stanford U.) **A test of an "efferent model" of the function of inferotemporal cortex in visual discrimination.** *Electroencephalography & Clinical Neurophysiology*, 1969 (Dec), Vol. 27(6), 594-600.—Presented paired flashes of light to 3 rhesus monkeys under a variety of testing conditions. The amplitude of the evoked response at striate cortex to the 2nd flash was expressed as a percentage of the response to the 1st flash and plotted against interflash interval to yield a recovery function. Bilateral removal of inferotemporal cortex failed to change the recovery function. The hypothesis that inferotemporal cortex exerts an inhibitory influence on the visual system is not confirmed. (French summary) (18 ref.)—*Journal summary*.

257. **Schweigerdt, Arlene K.** (Louisiana State U., A & M Coll.) **Role of the ventral mesencephalon in the learning of three visual habits by the rat.** *Dissertation*

Abstracts International, 1970 (May), Vol. 30(11-B), 5266.

258. **Sclafani, Anthony; Belluzzi, James D., & Grossman, Sebastian P.** (U. Chicago) **Effects of lesions in the hypothalamus and amygdala on feeding behavior in the rat.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 394-403.—Lesions in the ventromedial hypothalamus (VMH) of 13 adult female albino Sprague-Dawley rats produced hyperphagia, obesity, and finickiness and decreased the latency to feed in a novel environment, a test which should be little influenced by VMH damage according to the satiety center hypothesis. A similar decrease in latency to feed was produced in controls by food deprivation. Lesions in the corticomedial amygdala (CMA) of 7 Ss inhibited feeding in a novel environment but did not influence ad-lib food intake in the home cage. The CMA-lesioned Ss performed like controls in tests of open-field activity and shuttle-box avoidance, indicating that an interpretation of the observed inhibition of feeding in terms of increased emotional reactivity is unlikely. 6 Ss with combined VMH and CMA lesions responded to food like VMH-lesioned Ss, suggesting that the influence of the amygdaloid mechanisms is mediated by the ventromedial hypothalamus. (23 ref.)—*Journal abstract*.

259. **Smith, Allan M.** (McGill U., Montreal, Quebec, Canada) **Functions of the red nucleus in voluntary movement.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5267.

260. **Thompson, Venan E.** (Chicago Wesley Memorial Hosp., Neurosurgical Research Lab., Ill.) **Visual de-cortication in infancy in rats.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 444-451.—Presented an open-field light-preference apparatus, an 8-cul maze, and a shock-avoidance pattern-discrimination problem to 22 normal male Long-Evans rats, and Ss which had received an ablation of the posterior cortex at either 17 (N = 10) or 76 (N = 25) days of age. Data indicate that, in contrast to previous results on neonatal brain damage, the 17-day-old operated group were more similar to the other operated group than they were to the normal Ss. Because an additional group of Ss was able to learn a shock-avoidance brightness-discrimination problem, the deficits in behavior observed in the early-lesioned group could not be attributed to a specific sensory loss produced by the operation. (16 ref.)—*Journal abstract*.

261. **Thorne, Billy M.** (Louisiana State U., A & M Coll.) **Visual discrimination performance in rats following nucleus posterior thalami and diencephalic juncture damage.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5268.

262. **Voneida, Theodore J. & Robinson, John S.** (Case Western Reserve U., Medical School) **Effect of brain bisection on capacity for cross comparison of patterned visual input.** *Experimental Neurology*, 1970 (Jan), Vol. 26(1), 60-71.—8 male adult cats learned to use the relations between pattern elements as cues for response in abstract 2-choice discrimination tasks. Ss were then given tests with components of the pairs relayed to the separate eyes so that correct response required central cross integration of the pair elements. Normal Ss and Ss with either optic chiasm or the caudal $2/3$ of the corpus callosum sectioned could perform the tasks at a high accuracy level; but when both structures were sectioned, there was a sizable performance loss. Such surgery did not completely interrupt interhemi-

spheric information transfer, however, because Ss were still able to perform consistently at an above-chance level (the surgery did effectively eliminate interhemispheric discrimination habit transfer—Ss learned contradictory habits with the separate eyes). The rostral 3rd of the corpus callosum may play a role in such transfer—I S performed at the 65-70% level following section of the chiasm and caudal $\frac{2}{3}$ of the corpus callosum. With subsequent section of the rostral callosal fibers, there was a reduction in performance to the chance level. (23 ref.)—*Journal abstract*.

Brain Hypothalamic & Hippocampal Lesions

263. Buerger, A. A. (Harvard U.) **Effects of preoperative training on relearning a successive discrimination by cats with hippocampal lesions.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 462-466.—Verified in a preliminary experiment that adult cats with hippocampal and pyriform lesions—Group 1 (N = 6)—were inferior to normals—Group 2 (N = 5)—on a successive (go, no-go) auditory brightness discrimination (A-B). The major experiment determined if preoperative training would eliminate these postoperative learning deficits. 10 unoperated Ss learned A-B. 5 Ss (Group 3) received hippocampal lesions, the remainder (Group 4), control operations. Group 3 was not inferior to Group 4 in postoperative relearning of A-B ($p < .421$), but was inferior in postoperative acquisition of a successive (go, no-go) visual pattern problem ($p < .014$). Results appear analogous to the memory deficits found in neurosurgical patients who, after hippocampal lesions, retain preoperative information better than they acquire new information postoperatively. (15 ref.)—*Journal abstract*.

264. Herberg, L. J. & Blundell, J. E. (Inst. of Neurology, London, England) **Non-interaction of ventromedial and lateral hypothalamic mechanisms in the regulation of feeding and hoarding behaviour in the rat.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 133-141.—Lesions of the hypothalamic ventromedial nucleus (VMN) in 10 male hooded rats led to an immediate increase in food intake but not in hoarding activity. When Ss were obese, they failed to hoard even in response to a 16-hr deprivation schedule, although this schedule did produce hoarding if body weights were held at or were brought down to preoperative levels. Results indicate that the lateral hypothalamic mechanism responsible for hoarding and feeding responds to long-term nutritional factors, and that it is not directly affected by the short-term satiety mechanisms in the VMN. Findings support the hypothesis that: (a) even nonphysiological activities, e.g., hoarding, exploration, are motivated by physiological needs; and (b) the reason these activities do not ordinarily covary with physiological drives is that they are not subject to inhibition by hypothalamic satiety mechanisms. (31 ref.)—*Journal abstract*.

265. Waxler, Morris & Rosvold, H. Enger. (Howard U.) **Delayed alternation in monkeys after removal of the hippocampus.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 137-146.—Tested 16 monkeys on spatial delayed alternation following complete removal of the hippocampus. 8 were trained preoperatively while 8 received training only postoperatively. Results indicate that the effects of hippocampectomy on delayed alternation are extremely variable. In some instances there is relatively

little impairment; in others, there is a severe impairment. Individual differences appear to be an important factor in determining the severity of the impairment. Possible sources of these individual differences are discussed. (French & German summaries) (17 ref.)—*Journal abstract*.

BRAIN STIMULATION

Chemical Stimulation

266. Blundell, J. E. & Herberg, L. J. (Inst. of Neurology, London, England) **Adrenergic stimulation of the rat diencephalon and its effect on food intake and hoarding activity.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 125-132.—The diencephalic areas most sensitive to micro-injections of noradrenaline lay outside the area of the lateral hypothalamus in which feeding can be produced by electrical stimulation. Injection of either area, including injections that caused increased feeding, failed to have any effect on hoarding activity in 14 male hooded rats. Since hoarding can be elicited both by food deprivation and electrical stimulation of the lateral hypothalamus, findings indicate biochemical, anatomical and motivational differences between the central feeding mechanism sensitive to adrenergic stimulation and that responding to electrical stimulation or nutritional depletion. It is suggested that the former mechanism may be disinhibitory and the latter, excitatory. (27 ref.)—*Journal abstract*.

267. Chirkov, V. D., Kuzovlev, V. V., & Manannikov, A. S. (Kirov Medical Inst., Gorki, USSR) **Issledovanie impedansa kory polusharii v svyazi s izucheniem nesinapticheskogo deistviya biopotentsialov.** [Investigation of impedance of the cerebral cortex in connection with study of the nonsynaptic action of biopotentials.] *Biofizika*, 1970 (Jan), Vol. 15(1), 84-88.—Ss were 15 unnarcotized immobilized cats. Strychninized parts of the cortex, from which epileptiform discharges arise, possessed less impedance than was true in the normal state. The impedance of an isolated strip of cerebral cortex was higher than that of the intact neocortex. Although rapidly proceeding cellular potentials enjoy better physical conditions for propagation across brain tissue, slow summated waves, possessing greater current intensity, can act at a greater distance. It is necessary to explain the increase in conductivity of the strychninized cortex as the result of increased ionic permeability of the membranes of the nerve cells, while decrease in conductivity of the isolated strip of the cortex is evidently due to a decrease in discharge of the membranes.—I. D. London.

268. Duncan, Perry M. (U. Washington) **The effect of temporary septal dysfunction on conditioning and performance of fear responses.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5255.

269. Peck, Jeffrey. (U. California, Los Angeles) **Evidence that receptors mediating intracellular thirst in rabbits are in the lateral preoptic area.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 4931.

270. Reinis, Stanislav. (York U., Toronto, Ontario, Canada) **Effect of hydroxylamine on maze learning in mice.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 512-518.—An intracranial injection

tion of .5 M hydroxylamine given 24 hr. prior to or 1 or 4 hr. following the learning of a water maze impaired retention of the preference for 1 arm in 550 Swiss albino mice. An injection 24 hr. after the training session was less effective. The impairment was better expressed if Ss were tested 48 hr. following the training session than if they were tested 24 hr. after training. Exhaustion of Ss due to swimming, hypoxia due to methemoglobin formation, and occult seizures did not contribute substantially to the effect. The .3 M sodium nitrite in the dose of 20 μ l. administered intracerebrally also affected the learning and retention of preference to 1 arm of the water maze. The general trend of the effect of the 2 substances is very similar. (22 ref.)—*Journal abstract.*

Electrical Stimulation

271. Bremner, Frederick J. & Eddy, Douglas R. (Trinity U.) **The effect of ESB on hippocampal EEG.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 179-183.—Hippocampal EEG of 5 rats was spectrally analyzed immediately after electrical brain stimulation (ESB) to the median forebrain bundle (MFB). Electrical stimulation of the MFB did not yield seizure patterns in the hippocampus. Results of this procedure did show however that ESB elicited spectra that were statistically different from those elicited by a flashing light, and similar to those produced in a conditioning situation. (French & German summaries)—*Journal abstract.*

272. Brown, Stephen & Trowill, Jay A. (Rutgers State U.) **Lever-pressing performance for brain stimulation on F-I and V-I schedules in a single-level situation.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 699-706.—Trained 9 naive male albino rats to lever press for electrical stimulation of the brain (ESB) and assigned Ss to either a fixed-interval (FI) 1-min or a variable-interval (VI) 1-min schedule of reinforcement. All Ss easily attained and maintained responding on the assigned schedule. Patterns of responding during training and extinction were similar to those observed when conventional rewards are used. FI Ss demonstrated scalloped responding; VI Ss demonstrated steady rates of responding. Implications of results for understanding ESB as a reward are discussed.—*Journal abstract.*

273. Carder, Joseph B. (U. Pennsylvania) **Effects of non-contingent lateral-hypothalamic and septal stimulation on avoidance.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5251.

274. Essig, Carl F. (National Inst. of Mental Health, Clinical Research Center, Lexington, Ky.) **Frequency of repeated electroconvulsions and the acquisition rate of a tolerance like response.** *Experimental Neurology*, 1969 (Dec), Vol. 25(4), 571-574.—Describes results obtained when 5 cats received 19 electroconvulsions daily for 5 consecutive days. The electroconvulsive threshold (ECT) changes were compared with those of other Ss that had 4 electroconvulsions daily for an equal period. Administering 19 seizures daily did not enhance the rate of ECT elevation in comparison to the control group.—*Journal abstract.*

275. Lewis, Donald J., Misanin, James R., & Miller, Ralph R. (U. Southern California) **Recovery of memory following amnesia.** *Nature*, 1968 (Nov), Vol. 220(5168), 704-705.—Reports results of 4 experiments done with rats which indicate that a postamnesic foot shock can serve as a reminder for the return of a memory which has been inhibited by ECS. This is seen to indicate that at

least part of the memory remained, but that its retrieval was prevented by ECS.—P. Shibelski.

276. Manning, Alexander A. & Schneiderman, Neil. (U. Florida, Center for Neurobiology) **Stimulus generalization in rabbits conditioned to different intensities of caudate nucleus stimulation.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 374-383.—Classically conditioned nictitating membrane responses in 24 naive New Zealand white rabbits by pairing .07-, .18-, or .28-ma intensity electrical brain stimulation as the CS with peripheral shock as the UCS. A control group received random presentations of CSs and UCSs. Each group subsequently received CS alone or differential conditioning trials in which non-reinforced stimuli were presented at other CS intensities and locations. It was found that: (a) percentages of nictitating membrane responses were directly related to CS intensity regardless of the intensity of the training stimulus, (b) reliable stimulus generalization occurred between contralateral caudate nuclei when generalization was tested using CS alone trials rather than a differential conditioning procedure, and (c) stimulus generalization did not occur between the caudate nucleus and either lateral geniculate nucleus. (21 ref.)—*Journal abstract.*

277. Misanin, James R. (Susquehanna U.) **The effects of ECS on ECT: Implications for behavioral research.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 159-161.—Performed 2 experiments to determine the temporal pattern of ECS-induced changes in the electroconvulsive threshold (ECT) in 600 female albino Sprague-Dawley rats. Results indicated that immediately and for a short period of time after receiving a single ECS, the ECT of S was elevated, whereas 24 hr. after ECS, S's ECT was depressed. Implications of these findings for research on the behavioral effects of ECS are discussed.—*Journal abstract.*

278. Orlovskii, G. N. (Moscow State U., USSR) **O svyazyakh retikulo-spinal'nykh neuronov s "lokomotornymi otdelami" stvola mozga.** [On the connections of reticulospinal neurons with the "locomotor regions" of the brainstem.] *Biofizika*, 1970 (Jan), Vol. 15(1), 171-178.—Thalamic and mesencephalic cats were used in an intracellular microelectrode study of the responses of single neurons of the pontine and bulbar reticular formation to stimulation of 2 regions of the brainstem—the posterior hypothalamus and the "locomotor region" of the midbrain. The spontaneous activity of these reticulospinal neurons was a function of type of cat preparation. In decerebrated precollicular Ss, there was little spontaneous activity; in thalamic Ss, there was considerable activity. Most of the reticulospinal neurons responded monosynaptically to stimulation of 2 regions of the brainstem, from which it was possible to elicit locomotion: the "locomotor region" of the midbrain and the posterior hypothalamus.—I. D. London.

279. Pinel, John P. (McGill U., Montreal, Quebec, Canada) **One-trial learning paradigms and the study of ECS-produced amnesia.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5262-5263.

280. Racine, Ronald J. (McGill U., Montreal, Quebec, Canada) **The modification of afterdischarge and convulsive behaviour in the rat by electrical stimulation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5262.

281. Reed, Vaughn G. (U. Massachusetts) **Heart rate**

correlates of aversive and rewarding electrical stimulation of septal, hypothalamic and mesencephalic areas in rats. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5363-5364.

282. Slaughter, John; Hahn, William, & Rinaldi, Patricia. (U. Denver) Instrumental conditioning of heart rate in the curarized rat with varied amounts of pretraining. *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 356-359.—To evaluate the effectiveness of prior discrimination training on subsequent heart rate (HR) shaping under curare, 30 naive male albino Sprague-Dawley rats were divided into 3 groups on the basis of amount of discrimination training, (0, 2, and 4 hr.). Ss were then curarized and trained to increase or decrease HR with electrical stimulation of the brain as reward. Results indicate that Ss did learn to produce significant changes in HR in the reinforced direction, although amount of discrimination pretraining had no effect on the magnitude of these changes.—*Journal abstract*.

283. Wilcott, R. C. & Bradley, H. H. (Case Western Reserve U.) Low-frequency electrical stimulation of the cat's anterior cortex and inhibition of skin potential responses. *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 351-355.—Low-frequency electrical stimulation of the anterior cortex of 15 mongrel waking cats reduces the amplitude of skin potential (SP) responses elicited by an altering stimulus. Control observations demonstrate that the effect is not due to stimulation of blood vessels or polarization of cortical tissue. The partial laterality of SP response reduction, greater reduction at the contralateral side, agrees with the results of previous cortical injury studies. This suggests that the effect demonstrates a true physiological process. It is concluded that the anterior cortex contains both excitatory and inhibitory systems for SP responses and other components of arousal.—*Journal abstract*.

284. Wise, R. A. (McGill U., Montreal, Quebec, Canada) Hypothalamic motivational systems: Fixed or plastic neural circuits? *Science*, 1968 (Oct), Vol. 162(3851), 377-379.—Elicited eating and drinking by electrical stimulation through the same electrode in the hypothalamus of a satiated rat. 23 adult albino Wistar rats served as Ss. Intensity thresholds for eliciting eating and drinking were different, and both thresholds decreased with repeated testing. Findings suggest an alternative to the hypothesis that the neural organization of hypothalamic drive systems is modified by experience.

ELECTRICAL ACTIVITY

285. Arutyunov, V. S. & Polyakova, A. G. (Inst. of Physiology, Tbilisi, USSR) K proiskhozhdeniyu rannego komponenta otveta assotsiativnoi oblasti kory bol'shikh polushariy golovnogo mozga koshki. [On the origin of the early response component of the associative area in the cat cerebral cortex.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1059-1069.—Narcotized and unnarcotized Ss were used in a microelectrode study. Following various peripheral stimulation (light flash, electrostimulation of the contralateral fore and hind limbs), a complex associative response consisting of early and late components was recorded in the associative cortex (anterior parts of the lateral and suprasylvian convolutions). The early component was observed in both groups of Ss; the late

component was absent in nembutal narcosis. In unnarcotized and chloralosed Ss, most of the responding neurons generated the late component of the associative response, while only a few of them generated the early component. The early component of the associative response coincided with the discharge of neurons, responding after a short latent period to only stimulation of single modality. The late component was due to the activity of mono-, bi-, and polysensory neurons, whose discharges possessed a longer latent period. In unnarcotized and chloralosed Ss, neuronal polysensory activity was promoted; in nembutal narcosis no polysensory reaction was noted. It is concluded that the formation of the late component of the associative response is connected with the functional state of the cortex favoring the formation of neuronal polysensory activity. The early component is generated through neuronal monosensory activity. The polysensory neurons, producing the late component of the associative response, are found in greater number in Layer IV of the cortex; there are more neurons, generating the early components, in Layers III and VI. (22 ref.)—*J. D. London*.

286. Benetato, G., et al. Sur l'existence dans la région hypothalamique de certains neurones à rôle spécial dans l'organisation de la réaction non spécifique de défense antimicrobienne. [The existence of certain neurons in the hypothalamic region having a special role within the organization of the nonspecific and antimicrobial defense reactions.] *Revue Roumaine de Physiologie*, 1969, Vol. 6(3), 185-201.—Measured neuronal potential in the hypothalamic region of 20 adult New Zealand rabbits by electrode implantation and intracarotid administration of endotoxin Typhi murium. 3 neuronal categories were distinguished in the region after introducing the toxin: (a) those showing an increase in rhythm of discharge, (b) those showing a decrease, and (c) those showing no discernible change. (31 ref.)—*P. Shibelski*.

287. Berger, Laurence H. (U. Washington) Visual adaptation in single units of macaca mulatta. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5249.

288. Fetz, Eberhard E. (U. Washington, School of Medicine, Regional Primate Research Center) Operant conditioning of cortical unit activity. *Science*, 1969 (Feb), Vol. 163(3870), 955-957.—Conditioned the activity of single neurons in precentral cortex of unanesthetized monkeys (Macaca mulatta) by reinforcing high rates of neuronal discharge with delivery of a food pellet. Auditory or visual feedback of unit firing rates was usually provided in addition to food reinforcement. After several training sessions, Ss could increase the activity of newly isolated cells by 50-500% above rates before reinforcement.—*Journal abstract*.

289. Geron, E. (Physical Education Inst., Sofia, Bulgaria) O nekotorykh mekhanizmax volevogo usiliya. [Some conative mechanisms.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 62-75.—EEG, GSR, and EMG were recorded in 28 Ss during ergograph exercises which included the condition of verbal encouragement to overcome fatigue and pull the weight "a few more times." Visual inspection of the recordings led to the conclusion that the type of psychophysiological mechanism involved varies with the direction in which volition is exercised. When movements are being organized and learned, there is some isomorphism between GSR and

the alpha-rhythm on the 1 hand and the timing and rhythm of the movements on the other. When the effort is expended toward executing the movements, additional systems become involved under the influence of the instruction-induced set. (English summary)—*L. Zusne*.

290. Glukhova, N. K. (Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Metodika elektromiograficheskogo issledovaniya rechi detei.** [Method for the electromyographic investigation of children's speech.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 169-170.—Describes a method for attaching EMG electrodes to a child's head without tape, glue, etc., and for recording, without shielding, biopotentials on equipment that is kept away from and out of sight of the S.—*L. Zusne*.

291. Goryainov, I. Ya. & Stepanov, I. I. (1st Medical Inst., Leningrad, USSR) **Pristavka k stimulyatoru dlya formirovaniĭ impuls'ov chereduyushchiesya polarnosti.** [Auxiliary device for a stimulator generating impulses of alternating polarity.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1167-1169.—Presents details of the design and operation of the auxiliary device, which avoids use of foreign types of transistors that have no analogs of Soviet manufacture. The basic circuit of the device is presented.—*I. D. London*.

292. Grechin, V. B. **Tselesoobrazna li kalibrovka ogolennogo kislородnogo katoda v praktike intratserebral'nykh elektrodov?** [Is calibration of the uncoated oxygen cathode advisable in the use of intracerebral electrodes?] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1180-1182.—Presents a technical discussion.—*I. D. London*.

293. Hyvärinen, Juhani; Sakata, Hideo; Talbot, William H., & Mountcastle, Vernon B. (Johns Hopkins U., Medical School) **Neuronal coding by cortical cells of the frequency of oscillating peripheral stimuli.** *Science*, 1968 (Dec), Vol. 162(3858), 1130-1132.—1 class of neurons in the somatic sensory cortex of unanesthetized monkeys is rhythmically entrained by sinusoidal mechanical stimulation of the skin of the hand at low frequencies. A 2nd class, linked to Pacinian afferents, increases its rate of discharge in response to high-frequency peripheral stimuli but is not entrained. The vibratory sense is served by 2 distinct classes of cortical cells. The code for the group sensitive to low-frequency stimuli is the temporal order of impulses; for the high-frequency group the code is the labeled line.—*Journal abstract*.

294. Jones, Richard H., Crowell, David H., & Kapuni, Linda E. (U. Hawaii) **Change detection model for serially correlated multivariate data.** *Biometrics*, 1970 (Jun), Vol. 26(2), 269-280.—Presents a method for detecting change in multivariate stationary processes of a single S after stimulation. A finite multivariate autoregression is fitted to prestimulus data using a step-wise procedure with tests of significance. The technique has been applied to the detection of change in the brain waves of 2 human newborn infants following olfactory or visual stimulation.—*R. L. McCornack*.

295. Melkonyan, D. S. & Barsegyan, L. G. (Inst. for Advanced Medical Training, Erevan, USSR) **Operatornyi analiz elektoretinogramm.** [Operator analysis of electroretinograms.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 30-38.—Develops a mathematical method for electroretinogram analysis where the retina is viewed as a system, whose properties, though unknown, can be

studied through relating the character of the photic stimulus and the corresponding reaction of the eye (evoked potential). Under certain conditions this relationship may be described with the help of a linear stationary operator, whose properties may be studied by utilizing the amplitude-phase-frequency characteristics of the system. These characteristics are experimentally determined by presenting to the eye flashing light in the form of sinusoidal and right-angular impulses of various frequencies.—*I. D. London*.

296. Rupert, Allen L. & Moushegian, George. (Collier Hearing & Speech Center, Dallas, Tex.) **Neuronal responses of kangaroo rat ventral cochlear nucleus to low-frequency tones.** *Experimental Neurology*, 1970 (Jan), Vol. 26(1), 84-102.—Presents results of a study on the response characteristics of neurons within the ventral cochlear nucleus of 26 kangaroo rats which show that these neurons have best frequencies that range between .18 and 23 kc. The greatest percentage of these neurons, however, exhibit best frequencies below 2 kc. In terms of interspike interval and poststimulus time histograms, they were categorized as phase-locking, quasiphase-locking, and nonphase-locking neurons. Phase-locking neurons show recurrent peaks in the interval histograms that are multiples of the stimulus period, for all combinations of frequency (below 2 ks.) and intensity in their response areas. Nonphase-locking neurons may also show peak activities, but the intervals that appear are not frequency related, though they may be altered by changing the parameters of the stimulus. Quasiphase-locking neurons respond with features exhibited by the other 2 types. This classification is necessarily a 1st-order categorization. Response activity of cochlear nucleus neurons is so varied that such a classification, though too simple, does serve to extend our understanding of the distinctive features of low-frequency responding neurons. (19 ref.)—*Journal abstract*.

297. Salinger, Walter L. (U. California, Los Angeles) **Suppression and recovery of optic tract responses following initiation of repetitive photic stimulation in the cat.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5265-5266.

298. Shevel'ev, I. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O korotkolatentnykh protsessakh v zritel'noi sisteme koshki.** [On processes of brief latency in the visual system of the cat.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 81-83.—Reports the results of a study of the early changes in summated slow potentials, which precede the development of the initial afferent flow, at all levels of the visual system of narcotized cats. Very short latent responses existed in the ganglionic layer of the retina and in the higher levels of the analyzer, providing evidence for the presence of a system of elements and fibers transmitting signals with very brief delays (4-5 times more rapidly than the main group). On the basis of the similarity of the restoration cycle of cortical responses, resulting from electrical stimulation of the optic nerve, to the preaffected fluctuations of cortical excitability, it is suggested that the latter result from a change in the excitability of the small group of elements with shortest latency following their synchronous activity.—*I. D. London*.

299. Smith, James D., et al. (U. Illinois, Chicago) **Midbrain single units correlating with pupil response to light.** *Science*, 1968 (Dec), Vol. 162(3859), 1302-1303.—The consensual response of the pupil in the

cat was driven by means of a light flux impinging on the contralateral retina. Spike trains recorded extracellularly from single units in the midbrain show correlation with the concurrently recorded pupil area. The temporal dynamics found confirm 2 earlier studies of single-unit responses and quantitative nerve stimulation. Both of these indicate that most of the 200-msec transport delay resides in the neuromuscular apparatus. Neurons whose activity correlated either with constriction or with dilatation phases of change in the pupil area were observed.—*Journal abstract.*

300. Smolyaninov, V. V. (Inst. for Problems of Information-Transmission, Moscow, USSR) **K obshchei teorii provedeniya vzbuzhdeniya po srede.** [On a general theory of propagation of excitation in a medium.] *Biofizika*, 1970 (Jan), Vol. 15(1), 130-139.—Based on the integral method, a general solution was obtained for the problem of propagation of excitation in a medium, described by Green's function and the form of the impulse of the generated current. An investigation into the properties of stationary propagation was carried out for several models of media. Basically, models were utilized which were equivalent to the neuronal synaptic medium since it was possible to independently determine their spatial and temporal properties. The cable medium model was compared with these media. The comparison of media was managed through use of a function involving the velocity of potential at the front of the excited region. The geometric meaning of spontaneous propagation of excitation in a medium is discussed.—*I. D. London.*

Electroencephalography & Evoked Potentials

301. Begleiter, H. & Platz, A. (State U. New York, Downstate Medical Center, Brooklyn) **Evoked potentials: Modifications by classical conditioning.** *Science*, 1969 (Nov), Vol. 166(3906), 769-771.—Explored the relation between classical conditioning and the late components of the visual evoked potentials in humans. Data were derived from monopolar scalp recordings of 16 college students. Visual evoked potentials to a positive discriminative stimulus change systematically during sensory conditioning and extinction. Changes due to conditioning are manifested in the increased amplitude of the late component of the evoked response. This effect is attenuated during extinction and reappears after reconditioning. (15 ref.)—*Journal abstract.*

302. Berezin, I. P., Pigarev, V. A., & Lerner, E. N. **Vliyaniye povyshennogo davleniya kisloroda na bioelektricheskuyu aktivnost' golovnogogo mozga.** [Influence of increased oxygen pressure on cerebral bioelectrical activity.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1085-1091.—25 1-7 yr. old dogs and 32 5-6 mo. old rabbits were used to study changes in cerebral bioelectrical activity as a function of pressure of O_2 and exposure to it under controlled respiration and other conditions (influence of anesthesia; breathing of O_2 under pressure in a barochamber with the aid of a mask). The registration of EEGs in unanesthetized animals may serve as a method for subclinical recognition of the signs of the toxic action of O_2 under heightened pressure. Breathing of pure O_2 under atmospheric pressure (over a 3-hr period) did not produce pathological changes in cerebral bioelectrical activity. Convulsive activity in unanesthetized dogs, under machine-controlled respiration of O_2 under 3 atm. pressure, emerged after

breathing O_2 under pressure for 43 ± 10 min. According to EEG data, sodium thiopental anesthesia brought about a twofold increase in time for breathing O_2 under 3 atm. pressure without the emergence of convulsive activity. (English summary) (16 ref.)—*I. D. London.*

303. Bzhalava, I. T. (Inst. of Psychology, Tbilisi, USSR) **Popytka ustanovleniya elektroentsefalograficheskogo gradienta ustanovki.** [An attempt to establish an electroencephalographic gradient of set.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 137-138.—Conditioned afterimage of 2 red rings of unequal size was established to a tone. Judging 2 equal-size rings as being unequal when presented in the same loci was taken as the criterion of set. The appearance of the theta-rhythm during the interval between the presentation of the 2 sets of circles was taken as the physiological correlate of set. The data were obtained from 1 S in 360 sessions over a 45-day period.—*L. Zusne.*

304. Dawson, William W., Stewart, H. Lee; Perry, Nathan W., & Childers, Donald G. (U. Florida, Visual Science Lab.) **Pooling of visual evoked signals from humans: A demonstration of components above 100 Hz.** *Nature*, 1968 (Dec), Vol. 220(5171), 980-984.—Signals in the 70-500 Hz. pass-band which are time-locked and positively correlated in amplitude with the visual evoked response (1-20 Hz.) can be recorded on the human scalp over the visual area. Highly consistent responses have been produced between independent samples of normal humans by pooling signals within groups. (19 ref.)—*Journal abstract.*

305. Fox, Stephen S. & Rudell, Alan P. (U. Iowa) **Operant controlled neural event: Formal and systematic approach to electrical coding of behavior in brain.** *Science*, 1968 (Dec), Vol. 162(3859), 1299-1302.—Traditional studies of electrophysiological correlates of behavior contain inherent high variability resulting from the arbitrary choice of behaviors, brain locations, and wave parameters. The operant control of neural events is a formal and systematic approach to the study of prespecified parameters and components of brain activity as they encode behavior. 2 studies, conducted with 4 cats, in which the electrical activity of brain was the criterion for reinforcement demonstrate the acquisition, under such operant control, of 2 mutually exclusive behaviors or states which selectively alter evoked potential components.—*Journal abstract.*

306. Hanley, J., Walter, D. O., Rhodes, J. M., & Adey, W. R. (U. California, Brain Research Inst., Los Angeles) **Chimpanzee performance: Computer analysis of electroencephalograms.** *Nature*, 1968 (Nov), Vol. 220(5170), 879-881.—Recorded EEGs stereotactically implanted on chimpanzees trained to play an electronic version of tic-tac-toe. Parameters selected by computer analysis served to discriminate between 2 phases of the game and between correct and incorrect decisions.—*Journal abstract.*

307. Kazakov, V. N. (Pirogov Medical Inst., Vinnitsa, USSR) **K voprosu o proiskhozhdenii assotsiativnykh vyzvannykh potentsialov orbital'noi kory.** [On the origin of associative evoked potentials in the orbital cortex.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1070-1078.—On stimulation of various peripheral nerves, evoked potentials arose in the orbital cortex consisting of 3 phases: initial negative, positive, and slow negative. The last was frequently complicated by an afteraction discharge. Each phase was a separate component of the complex reaction of the associative

laboratories. Weil, Zinberg, and Nelson in Boston concluded that it is "feasible and safe to study the effects of marihuana on human volunteers who smoke it in the laboratory."—*B. A. Stanton.*

341. Ekstedt, Jan & Stålberg, Erik. (U. Uppsala, Wallenberg Lab., Sweden) **The effect of non-paralytic doses of D-tubocurarine on individual motor end-plates in man, studied with a new electrophysiological method.** *Electroencephalography & Clinical Neurophysiology*, 1969 (Dec), Vol. 27(6), 557-562.—Utilized a new method for the study of synaptic transmission in individual motor end-plates with 5 males, 28-34 yr. old. Single muscle fiber action potentials are recorded and the method is based upon the principle that when 2 muscle fibers, belonging to the same motor unit, are recorded at the same time, there is variability in the time interval between the 2 action potentials for consecutive discharges. This variability, of 10-30 msec, is called the jitter phenomenon and has been used to study D-tubocurarine. It was found that the jitter increases with doses of D-tubocurarine far below those required to give any neuromuscular block. This is the 1st in situ method for obtaining quantitative information concerning synaptic transmission in individual motor end-plates in man. (French summary)—*Journal summary.*

342. Farnsworth, Norman R. (U. Pittsburgh, School of Pharmacy) **Hallucinogenic plants.** *Science*, 1968 (Dec), Vol. 162(3858), 1086-1092.—Reviews chemical principles found in the major hallucinogenic plants, classifying them in terms of whether they are nitrogenous or nonnitrogenous. 14 plants are analyzed according to their family name and active principles, including marihuana and nutmeg (nonnitrogenous), and peyote, morning glories, and South American snuffs (nitrogenous). It is noted that chemical substances responsible for hallucinogenic effects are distinct for different plant families, thus suggesting unusually clear-cut chemotaxonomic relationships. (40 ref.)—*P. McMillan.*

343. Kornetsky, C. (Boston U., Medical School) **Psychoactive drugs in the immature organism.** *Psychopharmacologia*, 1970, Vol. 17(2), 105-136.—This review covers 2 areas of psychopharmacology: prenatal and neonatal effects of drugs on later behavior of the developing organism and the action of various drugs on behavior disorders in children. Attention should be paid to the function of the central and automatic nervous systems and how these systems relate to the behavior of the child.—*P. Federman.*

344. Landauer, Ali A., Milner, Gerald, & Patman, Joanna. (U. Western Australia, Nedlands) **Alcohol and amitrityline effects on skills related to driving behavior.** *Science*, 1969 (Mar), Vol. 163(3874), 1467-1468.—Administered 3 motor-skill tests related to driving ability to 21 healthy medical students (mean age 22.14 yr.) after administration of various combinations of amitrityline, placebo, and alcohol. It was found that the tricyclic antidepressant added to the deleterious effects of alcohol and was significant after only a single dose.—*Journal abstract.*

345. Radouco-Thomas, Corneille; Garcin, F., & Radouco-Thomas, Simone. **Classification et nomenclature des psychodysléptiques (hallucinogènes).** [Classification and nomenclature of psychodysléptics (hallucinogens).] *Toxicomanies*, 1969 (Sep), Vol. 2(3), 315-340.—Psychotropic medications belong to 3 large categories: the psycholeptics, which reduce mental

activity; the psychoanaleptics, which stimulate mental activity; and the psychodysléptics, which produce a perturbation of the normal psyche and a false perception or at least a changed perception of reality. A systematization is presented of psychodysléptics, based 1st on the chemical structure and the pharmacological effects of these substances and, 2nd on their toxicological consequences: abuse and dependence. Psychodysléptics that induce simple or psychic pharmacodépendance are stressed; these are put into 2 categories: hallucinatory drugs producing an effect of an evident adrenergic type (LSD, mescaline, cocaine, etc.); hallucinatory drugs without apparent adrenergic effect (marihuana, nalorphine, etc.). (34 ref.)—*English summary.*

346. Shulgin, Alexander T., Thornton, Sargent, & Naranjo, Claudio. (1483 Shulgin Rd., Lafayette, Calif.) **Structure-activity relationships of one-ring psychomimetics.** *Nature*, 1969 (Feb), Vol. 221(5180), 537-541.—Human dose-response relationships for psychotomimetic phenethylamines: an isopropylamine side chain and triple methoxy substitution provide optimum activity. Available data suggest possible structures for the hypothetical psychotogen of schizophrenia. (33 ref.)—*Journal abstract.*

347. Waring, M. J. (U. Cambridge, England) **Drugs which affect the structure and function of DNA.** *Nature*, 1968 (Sep), Vol. 219(5161), 1320-1325.—Reports that mitomycin, actinomycin, and certain acridines and phenanthridines combine with DNA. These combinations result in distortions in the structure and functioning of DNA. (37 ref.)—*B. A. Stanton.*

348. Weil, Andrew T., Zinberg, Norman E., & Nelsen, Judith M. (Boston U.) **Clinical and psychological effects of marihuana in man.** *Science*, 1968 (Dec), Vol. 162(3859), 1234-1242.—Employed 9 male 21-26 yr. old chronic users and 9 naive nonusers in a double-blind study in a neutral setting involving ingestion of marihuana via smoking. Placebo cigarettes consisted of stems of the male hemp plant. All Ss inhaled the smoke according to procedures standardized for the study. A series of physiological (e.g., heart and respiration rate, pupil size, blood glucose level, and conjunctival vascular state), and psychological measures (including the Continuous Performance Test, Digit Symbol Substitution Test, and the pursuit rotor) were obtained on a prearranged schedule extending over 3 hr. following inhalation of marihuana. Results suggest that: (a) laboratory study of effects of marihuana is feasible; (b) subjective reports following low and high doses differ between naive and chronic users; (c) some impairment on simple intellectual and psychomotor tests was observed in naive Ss, and was dose-related; regular users showed no comparable impairment; (d) the only significant physiological changes were moderate increases in heart rate, and reddening of the eyes; and (e) in a laboratory setting, effects of a single inhaled dose of marihuana reaches greatest intensity within 1/2 hr. of inhalation, diminishes after 1 hr., and dissipates by 3 hr. (28 ref.)—*P. McMillan.*

Drug Effects-Animal

349. Alekseev, N. P. & Makarov, P. O. (Leningrad State U., USSR) **Vliyaniye inhibitorov metabolizma i ouabaina na retseptorny potentsial izolirovannogo myshechnogo veretena lyagushki.** [Influence of metabolic inhibitors and ouabain on receptor potential of

the isolated frog muscle spindle.] *Biofizika*, 1970 (Jan), Vol. 15(1), 93-98.—Isolated spindles of m. ext. longus digiti IV of the frog were used to study the action of metabolic inhibitors (2,4-dinitrophenol, sodium azide) and that of the cardiac glycoside, ouabain (strophanthin G), which presumably depress the work of the "metabolic pump," on the generation of receptor potential in the isolated stretch-receptor. Sodium azide (3 mM.) and 2,4-dinitrophenol produced, within 1 min. and 30-40 sec., respectively, a decrease in the amplitude of the hyperpolarization phase of receptor potential. However, no significant changes were noted in the amplitude of the depolarization phase of receptor potential and that of the action potentials. Later, the amplitudes of both decreased. Changes in receptor potential were reversible. Ouabain produced within 4-5 min. a decrease in amplitude of the hyperpolarization phase of receptor potential and then a decrease in amplitude of the depolarization phase of receptor potential and that of the action potentials. Restoration of receptor potential and action potential through immersion in pure physiological solution for 30-40 min. was not observed.—*I. D. London*.

350. **Baum, Morrie.** (McGill U., Montreal, Quebec, Canada) **Effect of alcohol on the acquisition and resistance-to-extinction of avoidance responses in rats.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 759-765.—Explored the effects of alcohol on avoidance behavior in female albino Sprague-Dawley rats. In Exp. I, the effect of alcohol on the acquisition of an avoidance response was examined in a 2×4 factorial design. 120 Ss were trained to avoid in 1 of 2 simple avoidance tasks following the administration of 1 of 4 alcohol doses. Alcohol significantly affected the latency of the 1st escape trial but did not significantly influence the measures of avoidance learning. In Exp. II, a 2×3 factorial design was employed to study the effect of alcohol on the resistance to extinction of a previously learned avoidance response. 90 Ss were trained to avoid in 1 of the 2 tasks and then were given 1 of 3 alcohol doses prior to extinction. Alcohol significantly influenced resistance to extinction, with the appropriate dose increasing response persistence. Results indicate that alcohol does not reduce fear, or alcohol reduces fear, but the level of fear does not determine the acquisition or extinction of simple avoidance responses.—*Journal abstract*.

351. **Fibiger, Hans C., Lytle, Loy D., & Campbell, Byron A.** (Princeton U.) **Cholinergic modulation of adrenergic arousal in the developing rat.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 384-389.—Investigated the development of the antagonistic nature of the adrenergic and cholinergic systems in Sprague-Dawley rats. The cholinomimetic drug, pilocarpine, decreased amphetamine-induced psychomotor excitation in 20-25 day old Ss but not in younger Ss. In Exp. II, anticholinergic potentiation of adrenergic arousal was observed in 25- but not 15-day-old Ss. It is concluded that a cholinergic inhibitory mechanism develops gradually 15-25 days postnatally in the rat. (22 ref.)—*Journal abstract*.

352. **Groh, Georges; Lemieux, Marcel, & Groh, Véronique.** **Le LSD-25 et les araignées.** [LSD-25 and spiders.] *Toxicomanies*, 1969 (Sep), Vol. 2(3), 293-314.—Compares bidimensional spider webs of 3 types of spiders (*Araneus diadematus*, *Hyptiotes paradoxus*, and *Argiope aurentia*) prior to and following administration of 1 dose and repeated doses of LSD-25. Results show

severe disorganization in cobweb patterns following both single and repeated LSD-25 dosages. (English summary) (19 ref.)—*B. A. Stanton*.

353. **Holtzman, David; Lovell, Richard A., Jaffe, Jerome H., & Freedman, Daniel X.** (Bronx Municipal Hosp. Center, N.Y.) **1- Δ^9 -Tetrahydrocannabinol: Neurochemical and behavioral effects in the mouse.** *Science*, 1969 (Mar), Vol. 163(3874), 1464-1467.—Administration of pure 1- Δ^9 -tetrahydrocannabinol to C57Bl/6J female mice had the following dose-dependent neurochemical and behavioral effects: (a) a slight but significant increase in concentrations of 5-hydroxytryptamine in whole brain; (b) a decrease in concentration of norepinephrine in brain after administration of low doses and an increase after high doses; (c) diminished spontaneous activity, moderate hypothermia, hypersensitivity to tactile and auditory stimuli, and ataxia after low doses; and (d) sedation, pronounced hypothermia, and markedly diminished spontaneous activity and reactivity after high doses. The duration of effects on body temperature and spontaneous activity correlated generally with changes in brain amines. Characteristic changes in brain amines do not correspond exactly to those observed with other psychotropic drugs. (17 ref.)—*Journal abstract*.

354. **Horita, A. & Hamilton, A. E.** (U. Washington, Medical School) **Lysergic acid diethylamide: Dissociation of its behavioral and hyperthermic actions by DL- α -methyl-p-tyrosine.** *Science*, 1969 (Apr), Vol. 164(3875), 78-79.—Male albino rabbits treated with LSD-25 exhibit characteristic signs of hyperexcitability, increased peripheral sympathetic activity, and hyperthermia. When Ss received prior treatment with DL- α -methyl-p-tyrosine, the excitation and sympathetic actions of LSD-25 were abolished or attenuated, but the hyperthermia was unchanged from that of the controls. Concentrations of norepinephrine in brainstems of treated Ss were greatly decreased. The excitation of CNS and sympathomimetic actions of LSD-25 in the rabbit are apparently mediated by norepinephrine, whereas the hyperthermic action functions through a nonadrenergic mechanism.—*Journal abstract*.

355. **Houser, Vicent P.** (U. Massachusetts) **The effects of adrenergic and cholinergic agents upon discrimination in the rat.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5257.

356. **Houser, Vincent P.** (U. Massachusetts) **The effects of adrenergic and cholinergic agents upon eating and drinking in deprived rats.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 153-155.—Both scopolamine hydrobromide and scopolamine methylbromide reduced food intake, while decrements in water consumption were caused only by scopolamine hydrobromide. Ss were 45 male albino rats. Dextroamphetamine sulfate reduced food intake but did not affect water consumption. Finally, both pilocarpine nitrate and DL- α -methyl-p-tyrosine had no effects on either measure. Results confirm L. Stein's suggestion that anticholinergic agents decrease eating via their peripheral effects while blocking drinking through their central activity. It is suggested that the motivational effects of these agents should be considered whenever these drugs are administered to Ss that are under the control of appetitively motivated schedules of reinforcement.—*Journal abstract*.

357. **Kristt, Donald A., Freimark, Steven J., & Salzinger, Kurt.** (Polytechnic Inst. of Brooklyn) **The**

effect of puromycin on retention of a positively reinforced response in goldfish. *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 181-183.—Trained 2 groups of goldfish ($N = 32$) to strike a small target for food reinforcement. 1 group was injected with puromycin, the other with saline, immediately following training. 2 days later, puromycin Ss performed as well as saline controls. —*Journal abstract.*

358. Layden, T. A., McGrath, W. R., & Smith, F. D. (Schick Pharmaceutical, Seattle, Wash.) **Psychopharmacological action of nicotinamide adenine dinucleotide.** *Psychopharmacologia*, 1970, Vol. 17(2), 198-202.—Studied the effect of nicotinamide adenine dinucleotide (NAD) on the response rates in variable-interval (VI) and Sidman avoidance schedules in rats. Bar pressing on the VI reinforcement schedule was significantly reduced during the 15 min. following the administration of 10 mg/kg and during the 60 min. following the administration of 30 mg/kg NAD. Response rates on the Sidman avoidance schedule were significantly reduced during the 60 min. following the administration of 100 mg/kg NAD.—P. Federman.

359. Lindstrom, L. H. (U. Uppsala, Sweden) **The effect of pilocarpine in combination with monoamine oxidase inhibitors, imipramine or desmethyl-imipramine on oestrous behavior in female rats.** *Psychopharmacologia*, 1970, Vol. 17(2), 160-168.—Increased central nervous monoaminergic activity brought about by the MAOs nialamide or pargyline or by desmethylimipramine augmented and/or prolonged the heat inhibitory effect of pilocarpine. Parallel studies on body temperature revealed that the synergism was probably not due to a decreased rate of elimination of pilocarpine for pargyline and desmethylimipramine.—P. Federman.

360. Malamud, Daniel & Baserga, Renato. (Temple U., Medical School) **Uridylate kinase activity: Effect of isoproterenol.** *Science*, 1968 (Oct), Vol. 162(3851), 373-374.—Isoproterenol stimulates cell proliferation in mouse salivary glands. Prior to the stimulation of DNA synthesis, ^3H -uridine incorporation into RNA is decreased. This decreased incorporation results from a depression of uridylate kinase activity.—*Journal abstract.*

361. Niemegeers, C. J., Verbruggen, F. J., & Janssen, P. A. (Janssen Pharmaceutica, Beerse, Belgium) **The influence of various neuroleptic drugs on shock avoidance responding in rats: III. Amphetamine antagonism in the discriminated Sidman avoidance procedure.** *Psychopharmacologia*, 1970, Vol. 17(2), 151-159.—Amphetamine increased responses and decreased warning stimuli, warning responses, and shocks in rats. Low doses of 4 neuroleptics antagonized the amphetamine-induced changes. The order of potency was haloperidol, pimozide, pipamperone, and chlorpromazine. The 1st 3 drugs restored the amphetamine-induced changes to the initial control levels in the order: shock, warning, warning responses, and responses. The order was reversed with chlorpromazine. The duration of action was pimozide, haloperidol, pipamperone, and chlorpromazine.—P. Federman.

362. Nosal, Gilliane. (U. Laval, Quebec, Canada) **Aspects cytopharmacologiques de l'abus des psychodysléptiques (hallucinogènes).** [Cytopharmacological aspects of abuse of psychodysleptics (hallucinogens).] *Toxicomanies*, 1969 (Sep), Vol. 2(3), 339-354. Reports recent observations made following administration of LSD-25 to Sprague-Dawley rats. Results

demonstrate that weak dosages of LSD-25 do not appear to produce any microscopically discernable changes of the nucleolus or Nissel body. Larger doses may produce changes, primarily at the level of the Nissel body, which in accord with the dosage present varying degrees of fragmentation and dispersion. No conclusions were drawn concerning teratological effects of LSD-25. —*English summary.*

363. Pishkin, Vladimir; Rasmussen, Elizabeth A., & Duke, Carla R. (Veterans Administration Hosp., Oklahoma City, Okla.) **Hydroxyzine and shock in operant behavior of rats.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 175-176.—25 shaped or unshaped water-deprived albino Holtzman rats injected with either saline or hydroxyzine-hydrochloride performed on a bar-pressing task. Unavoidable shock was provided throughout the experimental procedure. Hydroxyzine Ss outperformed their saline counterparts. Although there were no differences between the groups on the final shaping trial, hydroxyzine Ss maintained significantly higher levels of performance than saline Ss under shock conditions. —*Journal abstract.*

364. Potts, W. Joseph; Morse, David L., Cooper, Barrett R., & Black, William G. (G. D. Searle & Co., Chicago, Ill.) **The effect of magnesium pemoline, tricyanoaminopropene, and d-amphetamine on discriminated avoidance performance in rats as a function of age.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 141-143.—Compared the effects of magnesium pemoline, tricyanoaminopropene, and d-amphetamine on the acquisition of a discriminated avoidance response in 30-, 50-, and 100-day-old naive Long-Evans rats ($N = 96$). Ss were placed in an automated shuttlebox immediately after drug treatment. The number of avoidance responses in a series of 100 trials was measured. 10 days after the initial acquisition session, Ss were retrained on the same task. The 30-day group was inferior to the 50- and 100-day groups in the training session, but no differences occurred in retraining. Drug-treated Ss showed improved performance in the initial training session but were not different from controls in the retraining session. No Drug \times Age interaction was significant. (26 ref.)—*Journal abstract.*

365. Rushon, Ruth; Steinberg, Hannah, & Tomkiewicz, Michal. (University Coll., London, England) **Equivalence and persistence of the effects of psychoactive drugs and past experience.** *Nature*, 1968 (Nov), 220(5170), 885-889.—The behavior of rats in a maze can be experimentally altered to a comparable extent either by psychoactive drugs or by previous experience of the maze. The effects of even a short drug-maze experience may stay with the organism for life. (18 ref.)—*Journal abstract.*

366. Shcherbakov, A. P. (Medical Inst., Ryazan, USSR) **O distroficheskom protsesse v tsentral'noi i perifericheskoi nervnoi sisteme v svyazi s perenesennoi ostroi intoksikatsiei fosfororganicheskimi soedineniyami.** [On the dystrophic process in the central and peripheral nervous system in connection with acute intoxication by phosphororganic compounds that has been suffered.] *Zhurnal Nevropatologii i Psikhatrii*, 1970 (Jan), Vol. 70(1), 60-64.—24 white rats, receiving ip metaphos in nonlethal doses of .4 mg/100 g., were used to study the lesions resulting from the selective anticholinesterase action by phosphororganic compounds on the peripheral nervous system and the CNS in the postintoxicational period. In both systems signs of

dystrophy of the myeline structures and of the nerve cells were observed. Morphological changes in the nerve elements remained pronounced even up to the 30th day after intoxication. These changes are viewed as correlated with the development of autoimmune processes in the organism and as a manifestation of autoallergic encephalopathy, myelopathy, and dystrophy of nerves and nerve roots in the remote period after intoxication.—*I. D. London.*

367. **Stolerman, I. P. & Kumar, R.** (University Coll., London, England) **Preferences for morphine in rats: Validation of an experimental model of dependence.** *Psychopharmacologia*, 1970, Vol. 17(2), 137-150.—Ss administered morphine to themselves by drinking it and became morphine dependent. Previous passive medication with morphine was not necessary. Aversions for the bitter morphine were converted into preferences after morphine was repeatedly given to relieve thirst. The consumption of quinine, equally aversive, did not increase, suggesting that merely pairing a bitter taste with relief of thirst did not account for the preference of morphine. Postingestional effects of morphine provided primary reinforcement; the bitter taste became a secondary reinforcer.—*P. Federman.*

368. **Thompson, T., Trombley, J., Luke, D., & Lott, D.** (U. Minnesota, Medical School) **Effects of morphine on behavior maintained by four simple food-reinforcement schedules.** *Psychopharmacologia*, 1970, Vol. 17(2), 182-192.—Rats conditioned on 3 values of fixed-ratio, variable-ratio, fixed-interval, and variable-interval food reinforcement schedules were administered 1, 3, and 6 mg/kg ip of morphine or saline. Overall response rate varied with schedule, schedule value, and morphine dose. The effect of morphine on overall rate varied with base-line rate generated by schedules, and the relative rate change also varied with the type of schedule.—*P. Federman.*

369. **Thor, Donald H. & Hoats, David L.** (E. R. Johnstone Training & Research Center, Bordentown, N.J.) **Morphine-amphetamine-induced fighting and interm socialization.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 156-158.—Traumatic and lethal fighting was induced by a single moderate dose of amphetamine given during withdrawal from morphine. Ss were 39 hooded male Long-Evans rats. Socialization with other Ss during the interval between terminal morphine and amphetamine modifies the course of subsequent aggressive behavior. Fighting was prolonged for Ss maintained in isolation during the interdrug interval.—*Journal abstract.*

370. **Wallach, Marshall B., Winters, Wallace D., Mandell, Arnold J., & Spooner, Charles E.** (New York U., Medical Center) **A correlation of EEG, reticular multiple unit activity and gross behavior following various antidepressant agents in the cat: IV. Electroencephalography & Clinical Neurophysiology**, 1969 (Dec), Vol. 27(6), 563-573.—Recorded reticular formation multiple unit activity (RUA), EEG, EMG, and gross behavior from 22 adult cats chronically implanted with cortical and subcortical electrodes. Following the administration of various antidepressant agents 3 phases of drug-induced action were described: (a) Phase I, a short period of excitement accompanied by increased EMG, a desynchronized EEG, and increased RUA; (b) Phase II, characterized by a prolonged lowering of the RUA to the slow wave sleep level, EEG slow wave activity and behavioral quiescence without the behav-

ioral concomitants of sleep, lasting for 1-3 days; (c) Phase III, characterized by EEG and gross behavior comparable to control wakefulness, rhombencephalic phase of sleep and slow wave sleep. Amitriptyline, desmethylinipramine, imipramine, chlorpromazine, and perphenazine all induced Phases I and II. Only imipramine elicited Phase III. Convulsions were observed following high doses of amitriptyline, desmethylinipramine, and imipramine. Methamphetamine and pargyline induced changes characteristic of Phase I. Methamphetamine induced a prolonged period of alertness with an increased RUA level and desynchronized EEG. Pargyline elicited a period of alertness followed by a prolonged period of vacillating wakefulness and drowsy behavior. (French summary) (29 ref.)—*Journal summary.*

371. **Wallach, Marshall B., Winters, Wallace D., Mandell, Arnold J., & Spooner, Charles E.** (New York U., Medical Center) **Effects of antidepressant drugs on wakefulness and sleep in the cat. Electroencephalography & Clinical Neurophysiology**, 1969 (Dec), Vol. 27(6), 574-580.—Determined wakefulness-sleep cycles of 9 adult cats for each 24-hr period during control days and each day following the administration of various antidepressant agents: amitriptyline, desmethyl imipramine, imipramine, chlorpromazine, perphenazine, pargyline, and methamphetamine. All of the agents induced an initial suppression of the rhombencephalic phase of sleep (RPS). Methamphetamine induced an increase in total wakefulness, whereas the other agents induced an increase in slow wave activity. None of the agents induced a clear RPS rebound. The normal wake-sleep cycle reappeared in 3-4 days following the tricyclics and phenothiazines, in 4-5 days following pargyline, and in 2 days following methamphetamine. (French summary)—*Journal summary.*

372. **Way, E. Leong; Loh, Horace H., & Shen, Fu-Hsiung.** (U. California, Medical Center, San Francisco) **Morphine tolerance, physical dependence, and synthesis of brain 5-hydroxytryptamine.** *Science*, 1968 (Dec), Vol. 162(3859), 1290-1292.—Tolerance and physical dependence development to morphine in mice can be prevented by concomitant administration of cycloheximide. The fact that the rate of synthesis of brain 5-hydroxytryptamine (5HT) increases with tolerance to morphine suggests that the protein involved may be associated with 5 HT synthesis. Inhibition of this synthesis with p-chlorophenylalanine markedly decreases tolerance and physical dependence development to morphine. (15 ref.)—*Journal abstract.*

CARDIOVASCULAR PROCESSES

373. **Goldstein, Robert; Beideman, Larry; Hill, Shirley Y., & Stern, John A.** (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **Heart rate as a function of deprivation and age in rats.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 360-365.—Recorded the heart rate of 96 23- and 101-day-old albino Holtzman rats prior to and during water and food deprivation. With the exception of the adult Ss on water deprivation, all deprived Ss manifested significant decelerative responses. Despite a 30% loss of body weight resulting from their water deficit, the adult Ss exhibited no signs of change in heart rate. The fact that the deprivation studies cited by R. B. Malmö in support of his interaction hypothesis utilized adult water-deprived

animals assumes considerable importance in the light of these results. (15 ref.)—*Journal abstract.*

374. Khomazyuk, A. I., Neshcheret, A. P., & Yavorskii, L. A. (Strazhesko Research Inst. of Clinical Medicine, Kiev, USSR) **Pressornye sinokarotidnye refleksi i koronarnoe krovoobrashchenie.** [Pressor sinocarotid reflexes and coronary circulation.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1105-1110.—40 narcotized dogs were Ss in a study of the coronovascular reactions, resulting from the sinocarotid pressor reflexes, and their mechanisms. With the production of pressor sinocarotid reflexes, either the hydraulic resistance of the coronary vessels increased slightly and was practically the same as that emanating from extravascular influences or the coronary vessels dilated. Coronovascular dilatation was a local reaction, produced on stimulation of the receptors of the heart and after changes in its activity. The reflex reactions of the coronary vessels did not take essential part in the effector structure of the carotid reflexes, but depended on changes in the activity of the heart itself. (English summary)—*J. D. London.*

375. Manning, Reuben. (South Texas State U.) **Patterns of cardiac arousal in the classroom determined by telemetry during response to speech messages.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 4930.

376. Naumenko, A. I. & Benua, N. N. (I. P. Pavlov Medical Inst., Leningrad, USSR) **The physiological mechanisms of cerebral blood circulation.** Trans. J. Brožek & E. Simonson. Springfield, Ill.: Charles C Thomas, 1970. xvii, 123 p. \$8.75.

377. Vinogradova, M. I. & Voronenkova, I. A. (Inst. of Experimental Medicine, Leningrad, USSR) **K analizu élektricheskoi aktivnosti krovenosnykh sosudov.** [A contribution to the analysis of the electrical activity of blood vessels.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1092-1099.—20 anesthetized cats and 3 rats were used to study the electrical activity of the vascular wall both under conditions of free blood flow and under stabilization of pressure in the vascular segment under study. By introducing a glass microelectrode into the wall of an intact blood vessel, it was possible to register electrical activity, appearing in the form of continuous oscillations (400 impulses/sec; amplitude of 50 mv.) and differing in origin and nature from the impulsations inherent in vascular smooth muscles. It appeared to be due to blood flow. Changes in the frequency and duration of these oscillations were connected with the linear velocity of blood flow (frequency in direct relation to it; duration inversely). (English summary)—*J. D. London.*

ENVIRONMENT & STRESS

378. Babakhan, Y. S. (Inst. of Psychology, Moscow, USSR) **Operativnaya ustoychivost' i emotsional'nyi stress.** [Stability of performance and emotional stress.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 158-165.—Presents a critical discussion of the views and experiments on emotional stress presented at the International Symposium on Emotional Stress, held in Stockholm in 1965.—*L. Zusne.*

379. Baumel, I., DeFeo, J. J., & Lal, H. (U. Rhode Island) **Effects of acute hypoxia on brain-sensitivity and metabolism of barbiturates in mice.** *Psychopharmacologia*, 1970, Vol. 17(2), 193-197.—Acute exposure of mice to hypobaric hypoxia, or reduced oxygen

at normal pressure, markedly potentiated barbiturate-induced hypnosis. Ss showed lower body concentration of pentobarbital on awakening and reduced rate of pentobarbital disappearance from the body during exposure to the hypoxic environment. These data suggest that acute exposure to hypoxia depresses in vivo metabolism of pentobarbital and enhances CNS sensitivity to the barbiturates.—*P. Federman.*

380. Bennett, Edward L., Rosenzweig, Mark R., & Diamond, Marian C. (U. California, Lab. of Chemical Biodynamics, Berkeley) **Rat brain: Effects of environmental enrichment on wet and dry weights.** *Science*, 1969 (Feb), Vol. 163(3869), 825-826.—In an experiment using littermate male Berkeley S₁ rats, wet weight of rat cerebral cortex was increased by exposure to an enriched environment, as compared with standard colony or impoverished conditions. Dry and wet weights were compared and both yielded identical percentage differences between brains of Ss experiencing enrichment and those experiencing impoverishment.—*Journal abstract.*

381. Bogdanov, V. A., Gurfinkel', V. S., & Panfilov, V. E. **Izmeneniya posy cheloveka pri stoyanii v usloviyakh ponizhennogo tyagoteniya.** [Human postural changes in standing under conditions of decreased gravity.] *Biofizika*, 1970 (Jan), Vol. 15(1), 179-183.—It is shown that, under simulated subgravity conditions, the posture and gait of man are stooped in character—degree of stoop depending on the value of gravity and maintaining itself indefinitely.—*J. D. London.*

382. Chalupnik, James D. (Ed.) (U. Washington) **Transportation noises: A symposium on acceptability criteria.** Seattle, Wash.: U. Washington Press, 1970. xiii, 358 p. \$14.50.—Presents proceedings of a symposium sponsored by the Office of Noise Abatement of the Department of Transportation. Articles by various authors include discussions of (a) transportation noise sources, (b) scales for expressing noise level, (c) laboratory methods for evaluating human response to noise, (d) methods for evaluating community response to noise, and (e) relation between laboratory results and community response.

383. Giretti, M. L., Rucci, F. S., & La Rocca, M. (U. Sassari, Sardinia, Italy) **Effects of lowered body temperature on hyperoxic seizures.** *Electroencephalography & Clinical Neurophysiology*, 1969 (Dec), Vol. 27(6), 581-586.—Investigated the influence of hypothermia on the mechanism of hyperoxic seizures in 90 unrestrained, unanesthetized male Sprague-Dawley rats. In Group I the effect of simple hypothermia on the cerebral electrical activity was analyzed exhibiting preepileptic and spontaneous convulsive activity. Hyperbaric oxygen stopped the hypothermic seizures. The starting and development of hyperbaric seizures were investigated in Group II of hypothermic Ss in comparison with euthermic Ss submitted to simple hyperoxia. Hypothermia provoked a decrease in the incidence of seizures and an increase in their latency. It is suggested that by lowering the body temperature, a decrease in the metabolic activity of the whole organism and of the nervous system was induced. The rectal temperature of 27-21° C was particularly critical. Seizures in cooled Ss submitted to hyperoxia were more evident in subcortical than in cortical structures. (French summary)—*Journal summary.*

384. Maistrakh, E. V. **Teoreticheskie problemy deistviya nezhkikh temperature na organizm.** [Theoretical problems of the action of non-critical temperatures on the organism.]

retical problems of low temperature action on the organism.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep). Vol. 55(9), 1176-1177.—Presents an account of the 2nd All-Union Conference, organized by the Scientific Council on Physiology to discuss the problems of cryophysiology and held in Leningrad in 1969. Brief summaries are provided of a number of the papers presented. Included are reports of research on the role of the deep structures of the brain in thermoregulation—that of the hypothalamus, in particular.—*I. D. London.*

GENETICS

385. Henderson, Norman D. (Oberlin Coll.) **Genetic influences on the behavior of mice can be obscured by laboratory rearing.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 505-511.—Performed a biometric analysis of performance on a food-seeking task on 36 genetic combinations of mice reared in enriched or standard laboratory cages. Although estimates of several genetic parameters were similar in the 2 populations, the magnitude of genotypic effects was reduced considerably in Ss reared in typical laboratory cages. Both inbreeding and standard cage rearing resulted in a decrement in performance.—*Journal abstract.*

386. Timmons, Beverly A. (U. Oregon) **Similarities in reaction of monozygotic and dizygotic twins to delayed auditory feedback.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4841-4842.

PERSONALITY CORRELATES

387. Barlow, Jerry D. (Louisiana State U., A & M Coll.) **Pupillary size as an index of preference.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5248.

NUTRITION & GASTROINTESTINAL PROCESSES

388. Tkhyong, N. (Inst. of Experimental Pathology & Therapy, Sukhumi, USSR) **K mekhanizmu postoyanoi sekretsii zheludochnogo soka natoshchak u nizshikh obez'yan.** [On the mechanism of steady secretion of gastric juice in lower simians when the stomach is empty.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1132-1135.—Ss were 4 baboons and 3 monkeys from 2-3.5 yr. old. Ss were trained to permanent life (3-12 mo.) in a "primatological chair" and underwent experimentation in that chair. A steady secretion of gastric juice was detected in hungry Ss. In 6 Ss the quantity of juice was larger in daytime than at night. At night the release of free HCl was discontinued and the digestive capacity of the juice lowered. The steady secretion of the juice was attributed to the complex of environmental stimuli signaling the time of presentation of food. CR stimulation of the gastric glands, providing the basis of continuous secretion, was associated with the ever-present stereotype of frequent feeding under natural conditions and 3-times-daily feeding in the simian nursery. (English summary)—*I. D. London.*

ANIMAL PSYCHOLOGY

389. Ashe, Victor M. (U. Texas, Arlington) **The righting reflex in turtles: A description and com-**

parison. *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 150-152.—Tested 63 turtles, representing 50 species, for the righting reflex under 2 conditions, inversion and suspension. 92% performed the righting reflex under inversion; 67% performed the righting reflex under suspension. Differences in the performance of the righting reflex are noted and discussed in terms of natural selection and the evolutionary relationships between the species sampled.—*Journal abstract.*

COMPARATIVE PSYCHOLOGY

390. Adams, Robert M. (U. Tennessee) **Discrimination of number of responses in rats and humans.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5218.

391. Davis, Stephen F., Crutchfield, Walter P., Shaver, Janet, & Sullivan, Tom. (King Coll.) **Interspecific odors as cues for runway behavior.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 166-167.—7 male albino rats and 7 male Mongolian gerbils served as Ss in a cross-species test of the odor hypothesis. In both phases of a 2-phase experiment, rats followed gerbils on all trials in a straight runway. During the 1st phase, the relationship between the goal event received by the gerbils and by the rats was perfect (i.e., odor-maximizing conditions). During the 2nd phase a 50% contingency was introduced (i.e., odor-minimizing conditions). Results indicate that the rats learned to respond appropriately (fast to reward, slow to nonreward) during the 1st phase. Responding during the 2nd phase was nondifferential. Results support and extend the odor hypothesis.—*Journal abstract.*

392. Fox, M. W. (Washington U.) **A comparative study of the development of facial expressions in canids: Wolf, coyote and foxes.** *Behaviour*, 1970, Vol. 36(1-2), 49-73.—A developmental study of the social behavior of wolf, coyote, and fox was undertaken to determine whether between-species qualitative differences in facial expression were correlated social-ecological differences and to determine whether species-common expressions could be identified. It was found that facial expressions in these species were not detectable until about 3 wk. of age but that when developed, the expressions of wolf and coyote are much more variable and complex than those of the fox. Evidence suggests that "ontogeny recapitulates phylogeny" since facial expressions characteristic of foxes developed earliest in coyotes and wolves, while for these latter species, more complex patterns developed later in life. A detailed comparison of the facial expression of primate and canid is given, particularly as these are augmented by the development of facial markings and body movements. (French summary) (20 ref.).—*S. R. Goldstein.*

393. Kzsuk, Jonathan D. (Michigan State U.) **Some effects of limited pulse trains on critical fusion frequency for pigeon and human subjects.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5259.

394. Quattlebaum, L. F. **"A theory of the incubation of anxiety/fear responses": An alternative.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 747-749.—Describes an alternative explanation of the extreme resistance to extinction common to operant avoidance paradigms. It is felt some inconsistencies in H. J. Eysenck's (see PA, Vol. 43:2319) interpretation can be avoided.—*Journal abstract.*

NATURAL OBSERVATION

395. Warner, G. F. (U. West Indies) **Behaviour of two species of grapsid crab during intraspecific encounters.** *Behaviour*, 1970, Vol. 36(1-2), 9-19.—Describes the field observation of the agonistic behavior of 2 nonterritorial crab species, *Aratus pisoni* and *Goniopsis cruentata*. Particular attention is given to avoiding actions, leg stretching, shield posturing, display, and fighting. It was found that ritualized agonistic behavior was restricted to the male in the sexually dimorphic *Aratus* species whereas this same type of behavior is extended to the female in *Goniopsis* which shows little sexual dimorphism. This species difference appears to be related to the size of the chelipeds. It is suggested that a high degree of sexual dimorphism frees the female for purely reproductive activities and provides for a ritualized social structure that reduces the possibility of injury to the individual. (German summary) (21 ref.).—S. R. Goldstein.

EARLY EXPERIENCE

396. Anderson, Clark O. (Purdue U.) **Experiential factors which influence the development of sexual, maternal and social behaviors in the rabbit.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5247-5248.

397. MacDougall, James C. (McGill U., Montreal, Quebec, Canada) **Early auditory deprivation and visual behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5261.

398. Paschke, Richard E. (Purdue U.) **The maternal environment and behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5261-5262.

399. Rosenberg, Kenneth M. (Purdue U.) **Mice reared with rats: Effects upon open-field performance and adrenal activity.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5264-5265.

INSTINCTS

400. Holcomb, Larry C. (Creighton U.) **Prolonged incubation behaviour of red-winged blackbird incubating several egg sizes.** *Behaviour*, 1970, Vol. 36(1-2), 74-83.—Artificial eggs, simulating normal color and shape, were tested in 5 sizes with the intermediate size the same dimension as the normal egg. Eggs in the extreme classes were not incubated while those in the 3 intermediate classes were. Consideration is given to the role of the brood patch as an egg sensitive receptor controlling incubation length. (German summary) (42 ref.).—S. R. Goldstein.

401. Rosenblatt, Jay S. (Rutgers State U., Inst. of Animal Behavior) **The development of maternal responsiveness in the rat.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 36-56.—Maternal responsiveness in the rat develops gradually during pregnancy, parturition, and the postpartum period. Virgins can be shown to have a basic level of maternal responsiveness, which is raised during pregnancy and again at parturition. After parturition the young maintain the mother's maternal responsiveness, but there are indications that as they grow older they cause a decline in her responsiveness. Maternal responsiveness is shown to be based upon substance(s) carried in the blood of the postparturient mother. Transferring blood plasma from a

new mother to a virgin causes the latter to become maternal towards young within 48 hr., where normally it requires 2-3 times this period of exposure to young. (45 ref.).—*Journal abstract.*

MOTIVATION & EMOTION

402. Anson, John E. (U. Alabama) **Operant behavior of siamese fighting fish as a function of mirror duration and consequential image-induced aggressive display.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5248.

403. Askew, Henry R., Musimeci, Marilyn; Sloane, Lesley, & Stephan, Linda. (Fordham U.) **Effects of prey movement and background on predatory behavior of chameleons.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 171.—Tested 20 male and 20 female American chameleons (*Anolis carolinensis*) to determine the effects on predation of movement of prey and the color of the background on which the prey is presented. Results indicate that movement of the prey was critical to elicit stalking and eating, while background coloration had only a minor influence. An observed interaction of dominance and feeding behavior in the populations is also discussed.—*Journal abstract.*

404. Freed, Earl X., Carpenter, John A., & Hymowitz, Norman. (Veterans Administration Hosp., Alcohol Research Lab., Lyons, N.J.) **Acquisition and extinction of schedule-induced polydipsic consumption of alcohol and water.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 915-922.—Trained 16 Charles River (cd) rats to bar-press on a fixed-interval (FI) 60 schedule for varying number of days, $\frac{1}{2}$ with water present and $\frac{1}{2}$ with alcohol. Predictably, schedule-induced fluid consumption resulted. 10 days of extinction of bar-pressing followed. During FI 60 both groups bar-pressed approximately equally often but greater fluid consumption occurred in the group on water. During extinction, both groups showed reduced bar-pressing behavior. Whereas water consumption was extinguished in 2 days, alcohol consumption remained high and quite variable after bar-pressing had stopped. Results suggest that bar-pressing and fluid consumption are independent behaviors, which finding argues against explanations of schedule-induced polydipsia based on adventitious reinforcement. For some Ss, the termination of alcohol intake prior to the end of an FI 60 session without an associated cessation of bar-pressing suggests that schedule-induced polydipsia is a function of the aversiveness of the reinforcement schedule. (25 ref.).—*Journal abstract.*

405. Glick, S. D., Canfield, J. L., & Jarvik, M. E. (Albert Einstein Coll. of Medicine, Yeshiva U.) **A technique for assessing strength of a smoking preference in monkeys.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 707-710.—Trained 3 adult rhesus monkeys to puff 1 of 2 tubes to obtain water. Cigarette smoke was delivered through 1 tube and air through the other. 1 S showed a preference for the air tube. Another S showed a preference for the smoke tube. The 3rd S showed no smoke or air preference. This technique distinguished smoking from puffing.—*Journal abstract.*

406. Harriman, Arthur E. (Oklahoma State U.) **Preferences by Mongolian gerbils for solutions of sugars, acids, and salts in Richter-type tests.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 79-

86.—Preferences for solutions of 4 sugars, 2 acids, and 3 salts were recorded in 48-hr, 2-bottle drinking tests (test fluid opposite distilled water) with Mongolian gerbils. Each chemical was presented at 5 concentrations to a different group. Peak acceptances were shown for the sugars at .5 and 1 M, the highest concentrations used. The acids, ranging from 2.3–1.5 pH, were rejected. In the range .0005–1 M, an indifference-aversion curve was obtained for each salt. The results were compared with those reported for other species. (18 ref.)—*Author abstract*.

407. Kumar, R. (University Coll., London, England) **Effects of fear on exploratory behavior in rats.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 205–214.—Analyzed the relationship between conditioned fear and exploratory behavior in 3 experiments with 92 female hooded rats. There was no evidence that mild fear increased exploration. Conditioned fear was found to be under relatively precise stimulus control and its magnitude was related to the intensities and durations of UCS, inescapable electric shock. (21 ref.)—*Journal abstract*.

408. Lal, Harbans & Zabik, Joseph. (U. Rhode Island) **Increased food consumption in thirsty rats after water satiation: Inhibition by salts.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 131–132.—30 adult male Sprague-Dawley thirsty rats gradually learned to eat excessively after water satiation. The excessive eating subsequent to water consumption was antagonized by 1 M NaCl injection (ip) but not by an injection of distilled water.—*Journal abstract*.

409. Prytula, Robert E. & Braud, William G. (Middle Tennessee State U.) **Consequences of absolute and relative qualitative and quantitative sucrose-incentive reductions in the albino rat.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 843–853.—Reports 4 experiments involving relative qualitative (Exp. I and II), relative quantitative (Exp. III), and absolute quantitative (Exp. IV) sucrose-solution incentive reductions in the 1st goal box (GB) of a double runway (RW). Ss were 96 male albino Cheek-Houston rats. In the 3 relative experiments, different GB₁ amounts (.50 vs. .10 cc) or concentrations (32 vs. 8%) of sucrose did not affect pre- or postshift locomotion speeds in either runway. In the absolute study, RW₁ speeds varied directly, and RW₂ speeds varied inversely, with GB₁ reward magnitude (.50 vs. NR). Postshift RW₂ speed changes favored a demotivation rather than a frustration interpretation of incentive change. (20 ref.)—*Journal abstract*.

410. Stricker, Edward M. & Wilson, Nancy E. (McMaster U., Hamilton, Ontario, Canada) **Salt-seeking behavior in rats following acute sodium deficiency.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 416–420.—48 male Wistar rats learned to avoid salty-tasting fluids completely when ingestion was associated with aversive aftereffects. Nevertheless, Ss resumed drinking salty solutions following acute sodium depletion by subcutaneous formalin injection. Increased thirst elicited by injected hypertonic NaCl solution did not disrupt the learned aversion, nor did formalin treatment disrupt a learned aversion to a nonsalty solution. Results suggest that sodium-deficient Ss do not select salty fluids serendipitously. Instead, it seems Ss have a strong drive to seek and ingest salt that precedes the reinforcement associated with taste stimulation or postingestional sodium repletion. This motivation overwhelmed Ss' memories of the aversive

postingestional consequences of drinking salty fluids. (20 ref.)—*Journal abstract*.

411. Voss, Stephen C. & Homzie, M. J. (U. Virginia) **Choice as a value.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 912–914.—24 naive male albino Sprague-Dawley rats permitted to locomote to a goal box via 1 of 2 major arms of a maze, preferred the alternative which provided the opportunity for further choice behavior. Choice as a value is discussed.—*Journal abstract*.

LEARNING

412. Clay, Anne A. (U. Alabama) **Vacation from free operant avoidance.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5253.

413. Leibrecht, Bruce C. (Michigan State U.) **Dis-habituation of the head-shake response in the rat.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5260.

414. Milner, A. D. & Ettlinger, G. (Inst. of Psychiatry, London, England) **Cross-modal transfer of serial reversal learning in the monkey.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 251–258.—Trained 12 monkeys on 2 separate series of 20 reversals. Different stimulus dimensions were relevant in each of the series so that any facilitation between series could not be the result of transfer of response to a dimension. In the experimental group, 4 Ss learned the 1st series through touch in the dark, and the 2nd through vision in the light; another 4 were trained in the converse order. 4 other Ss (the control group) learned both series visually. There was evidence for improvement within each series of reversals in both experimental and control groups, and of transfer between the 2 visual series in the control group. On the other hand, only slight evidence for transfer between sense-modalities was found, and this is interpreted to be the result of nonspecific effects. (French & German summaries)—*Journal abstract*.

Conditioning

415. Askew, Henry R. (Fordham U.) **Effects of stimulus intensity and intertrial interval on habituation of the head-shake response in the rat.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 492–497.—Investigated the effects of stimulus intensity and ITI on habituation and retention of habituation of the head-shake response in 15 male albino Holtzman rats using a 3 × 5 within-Ss factorial design. Both independent variables had major effects on habituation of the head-shake response. It is concluded that habituation of the head-shake response was due to both a short-term decremental process that occurred within single trials and took approximately 100 sec. to recover, and a long-term decremental process that occurred across trials and showed only 70–80% recovery after a 30-min rest period. (20 ref.)—*Journal abstract*.

416. Grevert, Priscilla & Moore, John W. (U. Massachusetts) **The effects of unpaired US presentations on conditioning of the rabbit's nictitating membrane response: Consolidation or contingency.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 177–179.—32 New Zealand White rabbits were run in an experiment that showed interference of nictitating membrane conditioning with presentation of 1 UCS alone between each paired trial. This conclusion was based on comparisons with yoked controls with the same

number of paired trials, but no UCS-alone trials. Differences between experimental and control Ss were most pronounced at a comparatively short ITI, supporting J. D. Papsdorf and N. M. Kettlewell's (see PA, Vol. 42:2246) consolidation theory over R. A. Rescorla's (see PA, Vol. 42:15211) contingency hypothesis. Previous results indicating that, prior to the appearance of the first CR, the UCR on UCS-alone trials progressively decreases in amplitude in relation to UCR amplitude on paired trials are discussed.—*Journal abstract.*

417. Siegel, Shepard. (McMaster U., Hamilton, Ontario, Canada) **Retention of latent inhibition.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 161-162.—Attempted to determine whether or not latent inhibition (the deleterious effect of preconditioning exposure to the CS on subsequent acquisition) was attenuated by interpolating a delay between the last session of preconditioning exposure to the CS and the 1st session of acquisition. Independent groups of preexposed male New Zealand White rabbits were given classical eyelid conditioning either immediately following their 550th CS-alone presentation, or 24 hr. after their 550th CS-alone presentation. Control Ss had no experience with the CS prior to acquisition. Preexposed Ss were slower to acquire the CR than were controls, replicating previous reports of latent inhibition in the eyelid conditioning situation. Furthermore, the magnitude of latent inhibition was unaffected by the interpolation of a delay interval between preexposure and acquisition.—*Journal abstract.*

418. Ternes, Joseph W. (Florida State U.) **Circadian cyclic sensitivity to gamma radiation as an unconditioned stimulus in conditioned taste aversion studies.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5268.

419. Yehle, Arthur L., Spaulding, Lionel E., & Hsiu-Ying, Lai. (Memphis State U.) **Classical discrimination conditioning and reversal in the albino rabbit.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 187-188.—Trained 8 New Zealand albino rabbits in a classical discrimination conditioning task measuring heart rate and nictitating membrane responses. Following 10 days of acquisition, reversal training was carried out for 10 days. The nictitating membrane response indicated a successful discrimination reversal within 3 days, while the heart rate response never showed discrimination reversal during the entire period.—*Journal abstract.*

Discrimination

420. Elias, Merrill F. (Duke U., Medical School, Center for the Study of Aging & Human Development) **Differences in reversal learning between two inbred mouse strains.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 179-180.—12 DBA/2J and 12 C56BL/6J mice were given original learning and 11 reversals of a spatial discrimination habit. The former strain required fewer trials to shift from incorrect to correct responding after a reversal and made fewer errors on reversals. Data suggest that (a) genetic characteristics contribute to differences in reversal learning, and (b) generalizations concerning phyletic differences in reversal learning may be premature prior to testing of diverse strains within species.—*Journal abstract.*

421. Hammond, L. J. & Daniel, Ralph. (Temple U.) **Negative contingency discrimination: Differentiation**

by rats between safe and random stimuli. *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 486-491.—After initial training to bar press for water reinforcement on a variable interval (VI) schedule, 8 Sprague-Dawley rats were exposed to safe stimuli, random stimuli, and brief shocks during 30 later VI sessions. Then all Ss were exposed to more conventional conditioned suppression procedures during sessions in which both formerly random and formerly safe stimuli terminated with a brief shock 50% of the time. During both phases, each S showed greater suppression to the formerly random than to the formerly safe stimuli. Since only a negative contingency differentiated the 2 stimuli in their relationship to shock, it can be argued that the discrimination observed is based on Pavlovian conditioned inhibition rather than an interaction between inhibition and excitation. (15 ref.)—*Journal abstract.*

422. Hearst, Eliot. (U. Missouri) **Discrimination learning as the summation of excitation and inhibition.** *Science*, 1968 (Dec), Vol. 162(3859), 1303-1306.—Gave white Carneaux pigeons (7-9 in each group) either excitatory, inhibitory, or combined excitatory and inhibitory (intradimensional) training to discriminate line-tilt stimuli. Algebraic summation of relative-generalization gradients obtained after separate excitatory and inhibitory training sessions was used to predict characteristics of gradients after intradimensional training. The close agreement between obtained and predicted gradients provided support for gradient-interaction theory. (15 ref.)—*Journal abstract.*

423. Muntz, W. R. (U. Sussex, Lab. of Experimental Psychology, England) **An experiment on shape discrimination and signal detection in octopus.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 82-90.—Trained 10 octopuses to perform a successive discrimination between two shapes. After 7 days of training, transfer tests were given with other shapes that were either rotations or parts of the original shapes. Transfer tests suggest that the discrimination was performed in terms of component parts of shapes and their relationship to the shape as a whole. During successive discrimination training the general attack level varied between Ss, and fluctuated from day to day. There were often more attacks on both the positive and negative shapes on some occasions, making it difficult to compare the levels of discrimination achieved. It is suggested that the concepts of signal detection theory can help overcome this difficulty. Attacks on the positive shape plotted against attacks on the negative shape constitute a receiver operating characteristic curve from which a value of d' , independent of the general attack level, can be obtained. (18 ref.)—*Journal abstract.*

424. Stimbert, Vaughn E. (U. Tennessee, Child Development Center, Memphis) **A comparison of learning based on social or nonsocial discriminative stimuli.** *Psychonomic Science*, 1970 (Aug), Vol. 30(3), 185-186.—2 groups of 6 female albino Sprague-Dawley rats each were trained to run across an open-field maze with 4 choice-point alternatives. For 1 group the correct response was based upon a social discriminative stimulus and for the other it was based upon a nonsocial discriminative stimulus. Results indicate that social responses were learned faster and were more durable under extinction conditions than were responses based on nonsocial stimuli.—*Journal abstract.*

425. Waller, T. Gary. (U. Waterloo, Ontario, Canada) **Facilitation of an extradimensional shift with over-**

training in rats. *Psychonomic Science*, 1970 (Aug), Vol. 21(3), 172-174.—32 male albino Holtzman rats were trained to criterion or given overtraining beyond criterion on an orientation discrimination (left vs. right oblique stripes). 16 Ss in Exp. I were then transferred to a discrimination between 2-dimensional shapes (cross vs. triangle). 16 Ss in Exp. II were transferred to a width discrimination (wide vs. narrow vertical stripes). Position of the positive cue was the only variable irrelevant dimension in either phase of either experiment. Overtraining on the orientation discrimination improved performance on the shape discrimination but did not affect performance on the width discrimination. Several explanations are offered and implications for attention theories of discrimination learning are discussed.—*Journal abstract*.

Avoidance & Escape

426. Allen, Joseph D. & Mitcham, Judson C. (U. Georgia) **The time course of fear incubation following single-trial passive-avoidance training.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 169-170.—Obtained the time course of fear incubation by measuring single-trial passive-avoidance latencies in an alley following postshock training delays of 1, 2, 4, 6, 12, 24, or 60 hr. for different groups of 35 male Holtzman rats. The function relating mean running latency and postshock delay interval was increasing and negatively accelerated, reaching a maximum at 24 hr. Some problems with relating the different incubation functions derived by a single-trial passive-avoidance procedure vs. an active-avoidance procedure are discussed. (15 ref.)—*Journal abstract*.

427. Grigg, Peter. (Johns Hopkins U., Medical School) **Lever holding and avoidance in the rat, with constant current and constant voltage UCS.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 133-134.—Gave 94 male hooded rats lever-press avoidance trials with constant current (CC) or constant voltage (CV) UCS. A wide range of intensities of CC and CV shock were used to train groups of 10 Ss each. A lever-holding response appeared as an increasing function of intensity of CC but not of CV shock.—*Journal abstract*.

428. Klein, Stephen B. & Spear, Norman E. (Rutgers State U.) **Reactivation of avoidance-learning memory in the rat after intermediate retention intervals.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 498-504.—108 naive female albino Sprague-Dawley rats acquired a conflicting aversive-conditioning task more rapidly after an intermediate retention interval than either immediately or 24 hr. after original learning. Retention of the avoidance response was facilitated when inescapable shocks were presented prior to the intermediate-interval (2½-hr) test, although this treatment did not affect either the memory of the avoidance of Ss tested at the extreme intervals or the acquisition performance of naive Ss. Results suggest that the retention deficit often found after intermediate retention intervals is due to the Ss' failure to retrieve the memory of original learning. The enhanced retention found when shocks immediately preceded the intermediate-interval test was due to reactivation of the memory attributes of original training. (17 ref.)—*Journal abstract*.

429. Levis, Donald J. (U. Iowa) **Serial CS presentation and shuttlebox avoidance conditioning: A**

further look at the tendency to delay responding. *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 145-147.—Exp. I, with 72 male hooded rats, compared the effects of nonserial and serial CS presentations, while Exp. II with 90 Ss, compared nonserial and serial compound CS presentations on the acquisition of Ss' avoidance responses in a shuttlebox situation. The avoidance-response latencies of Ss presented the serial CS conditions tended to be delayed until after the onset of the last stimulus segment introduced into the sequence. This was not the case for the nonserial Ss who tended to avoid shortly after the onset of the CS-UCS interval. The delay in responding noted for the serial CS Ss occurred when either 2 or 3 stimuli comprised the sequence and when either serial or serial compound presentation was employed. Serial compound conditions increased avoidance responding, but the serial condition did not. Other effects of CS complexity on avoidance responding were also reported.—*Journal abstract*.

430. Levis, Donald J., Bouska, Sally A., Eron, Joseph B., & Mellon, Michael D. (U. Iowa) **Serial CS presentation and one-way avoidance conditioning: A noticeable lack of the delay in responding.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 147-149.—Compared 7 different CS conditions on the acquisition and extinction of avoidance responses in a 1-way situation in 96 male hooded rats. 3 of the groups received nonserial CS manipulations comprising 1, 2, or 3 components; 2 received straight serial CS presentations, comprising either 2 or 3 components; and 2 received serial compound CS conditions comprising either 2 or 3 components. The groups did not differ reliably on 5 different acquisition indices. The extinction data did produce reliable differences between combined serial and nonserial CS conditions with the serial CS conditions producing greater resistance to extinction. Reliable differences were not found between serial and serial compound conditions or between number of CS components. The tendency for the avoidance response to be delayed for the serial CS conditions which is characteristic of shuttlebox data was noticeably absent. The majority of responses for both serial and nonserial CS conditions occurred close to the onset of the CS-UCS interval. The differences between 1-way and shuttlebox avoidance situations is discussed.—*Journal abstract*.

431. Masterson, Fred A. (U. Delaware) **Is termination of a warning signal an effective reward for the rat?** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 471-475.—Male Wistar rats (N = 24) did poorly in the conventional bar-press avoidance situation where an avoidance response produced termination of a warning signal (WS). By contrast, Ss achieved near-perfect performance when WS offset was augmented by the opening of a door leading to a safe place. This superior performance was not due to any facilitative effect of handling during the ITI. Nor can the poor performance in the conventional bar-press situation be attributed to an insufficient quantity of stimulus change produced by WS offset. Results support the view that WS offset is not an effective reward for the rat. Other possible sources of reward are discussed.—*Journal abstract*.

432. Robustelli, Francesco; Geller, Anne, & Jarvik, M. E. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Biphasicity of the incubation curve.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 129-130.—In Exp. I, different groups of naive female CF1 albino mice

(N = 192) were retested at different times after training, in a 1-trial passive avoidance task. In Exp. II, with 182 Ss, different groups were administered a footshock outside the conditioning apparatus and then were given the step-through experience at different times after the footshock. The time-response curve was found to be biphasic only in Exp. I, while it produced a monotonic incubation curve in Exp. II.—*Journal abstract.*

433. Tsai, Loh S. & Dexter, George E. (California State Coll., Fullerton) **Reinforcing "displaced aggression" and dominance hierarchy in white rats.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 97-105.—After dominance hierarchies were established in 7 groups of 4 male rats each, the Number 2 and 4 ranking Ss were each placed in a shocking device with either a tranquilized or a smaller S. As soon as S attacked the scapegoat, shock was turned off. 40 spaced trials of such reinforcement training failed to raise the aggressive level or hierarchy status as objectively determined in the Tsai dominance-submission apparatus. Rats in both solitary shock and nonshock control groups did not show any significant hierarchical changes either. Displaced aggression in Miller's rats and those in the present investigation was interpreted as an instrumental CR of the escape-training type to terminate the shock.—*Journal summary.*

Reinforcement

434. Cilluffo, Anthony F. (U. South Carolina) **Runway performance as a function of consummatory and non-consummatory goal box behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5253.

435. Meyer, Merle E., Couden, Barbara N., & Westford, Karen L. (Western Washington State Coll.) **Light increment and decrement as sensory reinforcers for domestic chicks.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 923-926.—Used 3 intensity levels of light increment and decrement treatment conditions with appropriate yoked controls to investigate the functional relationship between stimulus change and its reinforcing properties for 240 domestic chicks. Results substantiated light increment as an effective sensory reinforcer; however light decrement had no demonstrable reinforcing properties.—*Journal abstract.*

436. Wallace, Robert B. (Boston U.) **Comparison of two techniques for the assessment of conditioned reinforcement in the runway.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 87-96.—5 groups of 14 Sprague-Dawley male albino rats each were trained under different schedules of continuous and partial primary reinforcement to traverse a straight alleyway and obtain food in a goal box of a fixed brightness. Following acquisition each of the groups was split in half, $\frac{1}{2}$ undergoing extinction in the alleyway for 4 days while the other $\frac{1}{2}$ was tested for 1 day in a T maze. In general the partial schedules of primary reinforcement led to the development of more durable conditioned reinforcement with the discriminative schedules being the most effective of all. The 2 assessment procedures led to equivalent ordering across the training conditions.—*Journal summary.*

Reinforcement Schedule

437. Clarke, Bonnie M., Price, Ronald D., & Lippman, Louis G. (Western Washington State Coll.) **A note on**

variability of infrahuman FI performance. *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 139-140.—Reported an adventitious finding of 1 Sprague-Dawley rat's unusually high rate of responding on fixed-interval (FI) schedules. S's idiosyncratic mediation of interreinforcement intervals indicates that an FI schedule does not invariably lead to low-rate, scalloped performance in infrahumans.—*Journal abstract.*

438. Pear, Joseph J. & Wilkie, Donald M. (U. Manitoba, Winnipeg, Canada) **Behavioral contrast in mixed schedules of reinforcement.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 167-168.—Tested 2 male albino rats for behavioral contrast on 2-component mixed schedules of reinforcement. Results suggest that contrast occurs in mixed variable-interval extinction schedules when the frequency of reinforcement in the variable-interval component is high.—*Journal abstract.*

439. Stimbert, Vaughn E. (U. Tennessee, Medical Units, Memphis) **Partial reinforcement of social behavior in rats.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 723-726.—Studied the effects of partial reinforcements on a social response in 2 groups of 2 female albino Sprague-Dawley rats. 1 group was trained to follow other Ss through an open-field maze on a continuous schedule and the other on a partial (50%) schedule. Ss having partial reinforcement training performed at a higher level during extinction than those trained under continuous reinforcement. Results extend reinforcement schedule effects to animal social behavior.—*Journal abstract.*

440. Zimmerman, Donald W. (Carleton U., Ottawa, Ontario, Canada) **Patterns of responding in second-order chained schedules.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 137-139.—Responding on 1 lever under a fixed-interval schedule (FI = 100 sec.) produced an exteroceptive stimulus and responding on another lever under a different schedule (FI = 50 sec. or fixed ratio —FR—1) terminated the stimulus. Under a 2nd-order schedule, every 2nd termination of the stimulus produced primary reinforcement (FR 2 of entire sequence). Ss were 4 Sprague-Dawley male albino rats. Patterns of responding in the initial component of the chain were similar to those maintained by presentation of brief stimuli in 2nd-order schedules. When the schedule in the terminal component was changed and primary reinforcement became less frequent, rate in the initial component decreased, while pattern of responding under the 2nd-order schedule was maintained.—*Journal abstract.*

Punishment & Extinction

441. Burdick, Charles K. & James, J. P. **Spontaneous recovery of conditioned suppression of licking by rats.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 467-470.—Conditioned 84 naive male Holtzman rats to suppress water licking during a preaversive stimulus. Following 40 massed extinction trials, different groups, 12 Ss each, were tested for spontaneous recovery of conditioned suppression after .058 (3.5 min.), .5, 1, 3, 24, or 72 hr. A negatively accelerated curve, increasing to a maximum at 24 hr., related the degree of spontaneous recovery to the postextinction interval. Response suppression that appeared to be conditioned to the apparatus cues also exhibited some spontaneous recovery from extinction.—*Journal abstract.*

442. Byrum, Ronald P. & Jackson, Donald E. (Eastern Michigan U.) **Reinforcement and response factors in the extinction of conditioned suppression.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 143-144.—Following CER training, 32 male Sprague-Dawley rats began initial CER extinction under: (a) normal (lever present); (b) yoked with normals (lever absent); (c) nonoperative lever; or (d) no-lever/no-water conditions. After 4 days, CER extinction continued with lever returned for all Ss. Analysis of suppression ratios indicated that water availability was the major factor differentiating groups.—*Journal abstract*.
443. Church, Russell M., Wooten, Carol L., & Matthews, T. James. (Brown U., Walter S. Hunter Lab. of Psychology) **Contingency between a response and an aversive event in the rat.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 476-485.—During the signal of a discriminative punishment procedure there is an increase in the frequency of occurrence of aversive events and an increase in the contingency between a response and the aversive event. These factors contribute to the magnitude of suppression produced by discriminative punishment (Exp. I). The response suppression during a signal indicating an increase in the contingency between a response and an aversive event can result from a reaction to the last punishment rather than from an anticipation of the next punishment (Exp. II and III). Ss were 60 naive male albino Norway rats.—*Journal abstract*.
444. Davidson, Robert S. (Veterans Administration Hosp., Miami, Fla.) **Conditioned punishment and conditioned negative reinforcement on a multiple schedule.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 163-165.—2 male Sprague-Dawley rats, earlier trained in multiple variable interval (VI) 1 VI 1 (clicker plus reinforced response shock), were exposed to increasing intensity shock until their punished rates were $\frac{1}{3}$ or less of their unpunished rates. At this point, the clicker (discriminative stimulus for shock) was made to sound for 2 sec. following each response in the shock-free components. This condition resulted in conditioned punishment (suppression of nonshock response rate). The contingency was then reversed, such that the clicker sounded in the absence of responding and each response terminated the clicker for 2 sec. Increased response rates resulted (conditioned negative reinforcement). Control rates were recovered through a final reversal to the training condition.—*Journal abstract*.
445. Dragoin, William B. (George Peabody Coll. for Teachers) **Conditioning and extinction of taste aversions with variations in intensity of CS and UCS in two strains of rats.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5255.
446. Fixen, Dean L., McBee, Susan S., Campbell, Patrick E., & Crumbaugh, Charles M. (U. Kansas) **N-length and intertrial reward.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 1007-1013.—Investigated the effects of intertrial reward on resistance to extinction following partial reward schedules containing N-lengths (number of consecutive nonrewards preceding a rewarded trial) of 1, 2, or 3 with 45 female Sprague-Dawley rats. Intertrial rewards eliminated the PRE for all N-lengths when run times were considered but had no effect on goal times. Data are discussed in terms of relevance to the modified aftereffects hypothesis and previous investigations of intertrial reward.—*Journal abstract*.
447. Martin, R. Chris; Ragland, Evelyn, & Melvin, Kenneth B. (U. Missouri, Kansas City) **Self-punitive locomotor behavior in the Mongolian gerbil.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 183-184.—Tested the generality of a behavioral phenomenon across species. Several investigations have shown that rats when punished for an aversively motivated response will maintain that response rather than abandon it. Similar treatments revealed that 14 male Tumblebrook Mongolian gerbils also showed such self-punitive behavior. Special characteristics of the gerbil are noted.—*Journal abstract*.
448. Pratt, Linda K. & Ludvigson, H. Wayne. (Texas Christian U.) **The role of odor in latent extinction.** *Psychonomic Science*, 1970 (Aug), Vol. 20(3), 189-190.—Hypothesized that an apparent latent extinction effect can result from Ss' reaction to their own odor excreted during prior placements. 4 groups of 10 female Sprague-Dawley rats each were given 28 runway acquisition trials followed by 4 1-min latent extinction placements. 2 groups received placements in the empty goalbox. For 1 of these groups, the goalbox was cleaned before extinction to remove odor cues; for the other group, it was not cleaned. 2 additional groups received placements in a neutral box. 1 of these groups entered a clean goalbox on the 1st extinction trial, while the other entered a goalbox that (presumably) contained any odors emitted by another S during placement. Both the odor and site-of-placement variables produced a latent extinction effect in the goal-entry speeds, suggesting that latent extinction is a genuine phenomenon but that an apparent latent extinction effect from a response to residual odor is readily obtainable.—*Journal abstract*.

SOCIAL & SEXUAL BEHAVIOR

449. Barlow, G. W. & Breen, R. F. (U. California, Berkeley) **The problems of appeasement and of sexual roles in the courtship behaviour of the blackchin mouthbreeder, *Tilapia melanotheron* (Pisces: Cichlidae).** *Behaviour*, 1970, 36(1-2), 85-115.—Tests were made to determine the adequacy of the appeasement and arousal models of reproductive behavior. This was done, in part, by determining species-typical size relationships between courting fish, and by noting behavioral differences between sexes. Correlational data showed that 3 behavioral elements considered central to courtship—nodding, tail-beating, and quivering—varied together both between- and within-sex and accounted for most of the significant correlations. When the relative size of the pair was analyzed it was found that with a large male the small female did most of the courting, when the pair were about the same size they courted about equally, and when the female was large the smaller male did most of the courting. The data provide for some support for both hypotheses as well as providing information helpful in deciding what constitutes courtship behavior. (German summary)—S. R. Goldstein.
450. Beach, F. A. (U. California, Berkeley) **Coital behaviour in dogs: VIII. Social affinity, dominance and sexual preference in the bitch.** *Behaviour*, 1970, Vol. 36(1-2), 131-148.—Attempted to determine the consistency of the bitches' preference for males in sexual and nonsexual situations. This was accomplished by tests designed to measure social affinity, relative social dominance, and mating preference. It was found that

nonestrous bitches exhibited a marked selectivity to different males, that in general females tend to be subordinate to males, that females show unmistakable sexual preferences, and that tests of social affinity and social dominance bear no obvious relationship to sexual preference. "Males differ with respect to... precopulatory activities and this may contribute to the females sexual preferences." (French summary)—S. R. Goldstein.

451. Dewsbury, Donald A. & Bolce, Sally K. (U. Florida) **Effects of prolonged postejaculatory intervals on copulatory behavior of rats.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 421-425.—Performed 2 experiments to examine the effects of relatively short prolongations of the 1st postejaculatory interval (PEI) of 21 male Long-Evans rats on subsequent copulatory behavior. Prolonged PEIs produced a superfacilitation of interintromission intervals which was maximal immediately after resumption of copulation. The effect dissipated by the last interintromission interval preceding the 2nd ejaculation. Prolonged PEIs following the 1st series produced reliable increases in PEIs following the 2nd series.—*Journal abstract*.

452. Firsov, L. A. (Inst. of Physiology, Leningrad, USSR) **Golosovoe povedenie u nizshikh i vysshikh obez'yan.** [Vocal behavior in lower monkeys and apes.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 113-125.—Describes and classifies the vocalizations of capuchin monkeys and chimpanzees, and presents examples of voiceprints. Presentation of tape-recorded feeding, aggression, or exploratory sound to food-deprived chimpanzees for 10 min. affected their blood sugar level and white corpuscle count in a predictable manner for the next 3 hr. This effect did not occur with neutral sounds or with no stimulation. (English summary) (26 ref.)—L. Zusne.

453. Gärtner, K. (U. Frankfurt, W. Germany) **Zur Bildung von Schlafgesellschaften bei Laboratoriums-ratten.** [Sleeping groups in laboratory rats.] *Zeitschrift für Tierpsychologie*, 1970 (Feb), Vol. 27(1), 78-81.—Male Sprague-Dawley rats, 200-250 gm. body weight, were caged in groups of 4-21 animals. According to motion pictures taken for 10 sec. every hour for 14-18 days, Ss slept in groups of 3, 6, 9, or 15 animals; the size of the sleeping groups was independent of the number of caged animals. Frequently the sleeping groups consisted of the same animals. Every rat was found to prefer 1 or 2 individuals of the population in the formation of sleeping groups.—*English summary*.

454. Goldfoot, David A. & Goy, Robert W. (Rotterdam Medical Faculty, Netherlands) **Abbreviation of behavioral estrus in guinea pigs by coital and vagino-cervical stimulation.** *Journal of Comparative & Physiological Psychology*, 1970 (Sep), Vol. 72(3), 426-434.—The display of lordosis by an estrous female guinea pig in response to manual stimulation of the rump or in response to mounting by a male is terminated by the experience of coitus. Ss were 50 intact and 118 ovariectomized female guinea pigs. Without the experience of coitus, lordosis can be elicited repeatedly for 6-8 hr. when S is in either spontaneous or induced estrus. Mechanical stimulation of the vagina and/or cervix by a glass rod duplicates the abbreviating effects of coitus. Moreover, abbreviation of the receptive period by either coital or mechanical stimulation is independent of the ovary, of the amount of estrogen and progesterone used to induce lordosis, of the pituitary, and of the amount of

pituitary hormone injected during estrus. Results suggest that the inhibitory effects of vagino-cervical stimulation are neurally mediated and hormonal mechanisms are not necessary for the influence of the sensory experience. (36 ref.)—*Journal abstract*.

455. Hazlett, B. A. (U. Michigan) **Tactile stimuli in the social behavior of Pagurus bernhardus (Decapoda, Paguridae).** *Behaviour*, 1970, Vol. 36(1-2), 20-48.—A series of experiments were carried out to determine the type of stimuli controlling general agonistic, shell fighting, and sexual behavior of a common species of hermit crab. Using cheliped flicks and dislodging-shaking as indices of general agonistic behavior, it was found that high levels of illumination inhibit tactile-induced cheliped flicking, while dislodging-shaking was released by applied weight in a complex manner related to the size of the crab. Shell fighting behavior appeared to be jointly controlled by shell weight, shell volume, and animal size such that crabs fought for a larger shell when the volume of an occupied shell was too small, but fought for a smaller shell when the weight of an occupied shell was too great. Tactile contact with the female's body was found to be a major releaser of male sexual behavior. The various results are discussed in terms of their survival value to the species. (German summary) (40 ref.)—S. R. Goldstein.

456. Morrell, G. M. & Turner, J. R. (U. York, England) **Experiments on mimicry: I. The response of wild birds to artificial prey.** *Behaviour*, 1970, Vol. 36(1-2), 116-130.—The response of free-ranging birds to artificial prey was recorded to test the Batesian theory of mimicry. The theory states that species resembling avoided unpalatable prey are themselves avoided. The key tests stimuli consisted of a red unpalatable pastry prey model in addition to other mimics differentially resembling the model. The results show that the birds learned to avoid the unpalatable model and the mimic most closely resembling it. The evidence that birds discriminate and generalize supports the Batesian theory and suggests a means by which differential selection for perfect mimicry may proceed. (German summary) (23 ref.)—S. R. Goldstein.

457. Weygoldt, P. (Albert Ludwigs U., Freiburg, W. Germany) **Courtship behaviour and sperm transfer in the giant whip scorpion, Mastigoproctus giganteus (Lucas) (Uropygi, Thelyphonidae).** *Behaviour*, 1970, Vol. 36(1-2), 1-8.—Describes the courtship, sperm transfer, and spermatophore morphology in this scorpion. The courtship pattern exhibits basic differences during and after spermatophore formation. The phylogenetic implications of behavioral and morphologic similarities between this and other arachnids are discussed. (German summary)—S. R. Goldstein.

SENSORY PROCESSES

458. Miller, W. H., Bernard, G. D., & Allen, J. L. (Yale U., Medical School) **The optics of insect compound eyes.** *Science*, 1968 (Nov), Vol. 162(3855), 760-767.—S. Exner's classical theory of the function of compound eyes with crystalline tracts ignores the presence of the tracts for the dark-adapted eye. The tracts perform an optical function in the eyes of certain moths and skippers whether light- or dark-adapted. The lenslet of the corneal-crystalline cone focuses an image at the beginning of the tract. Although the image is not transmitted, theory predicts that some information about

the image could be guided to the rhabdom. The tract and migrating pigment together also function as a longitudinal pupil. Also, compound eyes contain dioptric components with characteristic dimensions smaller than a wavelength of light. Corneal nipples act as an antireflection coating that aids camouflage and may reduce ghosts. The specialized layering in corneas of certain dipterans probably serves a contrast-filtering function for vision. Tracheolar interference filters of lepidopterans act as tapeta that may enhance both sensitivity and the optical contrast of the retinal image. (31 ref.)—*Journal summary.*

DEVELOPMENTAL PSYCHOLOGY

459. Gardner, Howard. (Harvard U.) **Children's sensitivity to painting styles.** *Child Development*, 1970 (Sep), Vol. 41(3), 813-821.—Devised a match-to-sample task to determine whether children are sensitive to the styles of various painters. No significant differences were found in the performances of 20 1st, 90 3rd, and 20 6th graders, but 20 9th graders scored significantly better than younger Ss. On items where subject matter provided no cues, no significant differences were found between the highest and lowest scoring grades. Where subject matter could be misleading, the oldest Ss performed significantly better. More effective problem-solving strategies, increased familiarity with art objects, and the ability to overlook subject matter and focus on aspects of technique are suggested as possible reasons for the superior performance of adolescents. Factors contributing to style sensitivity are suggested, and the problem of measuring such sensitivity is discussed.—*Journal abstract.*

460. Joffe, J. M. (Stanford U., Medical School, Palo Alto, Calif.) **Prenatal determinants of behaviour.** New York, N.Y.: Pergamon, 1969. xii, 366 p.

461. Laungani, Devika. (Hatfield Polytechnic, England) **Verbal conditioning and previously learned habits.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 35-42.—Ss were secondary school children. In Exp. I, following a Taffel-type task the pronouns "I and We" were reinforced. The results showed that there was a significant increase in "I" responses but there was no increase in "We" responses. In Exp. II, only the pronoun "We" was reinforced. The results were unexpected. Not only was there no significant increase for "We" responses but there was a significant increase for "I" responses. Since the pronoun "I" occurs most frequently and the pronoun "You" occurs with the least frequency, these 2 pronouns were eliminated in Exp. III and only 4 pronouns "We, She, He, They" appeared on cards. Ss were divided into 4 groups. Group 1 was reinforced for "We" responses, Group 2 was reinforced for "He" responses, Group 3 was reinforced for "They" responses, and Group 4 was reinforced for "She" responses. There was a significant increase for pronouns "We" and "They" but there was no effect of reinforcement on pronouns "He and She." Results of all experiments demonstrate that previously learned habits seem to exercise greater influence on the choice of pronoun than the experimental reinforcement.—*Author abstract.*

462. Malmquist, Carl P. **Conscience development.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 301-331.—Explores the process of acquiring a conscience as a developmental phenomenon, emphasizing developmen-

tal observations and clinical material of children until the age of 6 yr. The implications for later normal and pathological functioning are discussed. Current theoretical issues, i.e., the cognitive or affect-based theory of controls are elaborated. Emphasizes the need for understanding the vicissitudes of normal conscience development from infancy in order to comprehend the diverse clinical syndromes with conscience defects. The origins of conscience are discussed in relation to the oedipal period. The emergence of guilt as a phenomenon is viewed as indicating the establishment of a delineated and functioning superego in its idealized and prohibitory aspects. (31 ref.)—*Journal summary.*

463. Oglesby, Carole A. (Purdue U.) **Influence of perceived aspects of parental and peer expectancies, warmth, and authority, on self-identification as active and competent movement performers.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4814-4815.

464. Rees, Ann H. & Palmer, Francis H. (City Coll., Graduate Center, City U. New York) **Factors related to change in mental test performance.** *Developmental Psychology*, 1970 (Sep), Vol. 3(2, Pt. 2), 57 p.—Related demographic and family background factors to level and change in mental test performance of children assessed at 6, 12, and 17 yr. old in 5 longitudinal studies. Ss were from predominantly white, English-speaking families of relatively high socioeconomic status (SES). Average IQ was 1 standard deviation above the mean of the standardization population. Level and change in test scores were strongly related to SES. Birth order and sex and age of siblings also related to test behavior. Content and style of response to TAT cards showed consistent associations to the dependent variable. Most associations were stronger for boys than for girls. Results are discussed in terms of factors mediated by social class and sex role that might generate found differences.—*Journal abstract.*

465. Schwarz, Marvin J., Mendelsohn, Robert S., & Ratner, Herbert. (Cook County Hosp., Chicago, Ill.) **A psychiatrist and a pediatrician look at modern baby and child care.** *Child & Family*, 1968 (Sum), Vol. 7(3), 224-241.

466. Smith, Mortimer. **Some doubts about sex education.** *Child & Family*, 1968 (Fall), Vol. 7(4), 340-341.—Argues that the emotional factors involved in sexual relationships should not be taught to young children.

467. Spencer, Thomas D. & Kass, Norman. (Eds.) (San Francisco State Coll.) **Perspectives in child psychology: Research and review.** New York, N.Y.: McGraw-Hill, 1970. xiii, 470 p. \$9.95.—Presents a series of perspectives on selected topics in child psychology, including articles by various authors on (a) early environmental effects; (b) perception, attention, and curiosity; (c) language acquisition; (d) sex typing, dependency, and aggression; (e) peer relations; (f) learning and reinforcement effects; and (g) conceptual development.

468. Zelniker, Tamar. (U. California, Los Angeles) **Selective auditory attention: A developmental study.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5272.

INFANCY

469. Lewis, Michael; Wilson, Cornelia D., Ban, Peggy, & Baumel, Marcia H. (Educational Testing Service.

Princeton, N.J.) **An exploratory study of resting cardiac rate and variability from the last trimester of prenatal life through the first year of postnatal life.** *Child Development*, 1970 (Sep), Vol. 41(3), 799-811.

—Obtained resting cardiac rate and variability for 21 Ss. Maternal cardiac rate and variability were also obtained. Data indicate no relationship between maternal and fetal or infant data. Moreover, there are clear developmental patterns of resting cardiac response over the 1st yr. of life, with rate and variability showing linear decreases. —*Journal abstract.*

470. McCall, Robert B. & Nelson, William H. (Fels Research Inst., Yellow Springs, O.) **Amount of short-term familiarization and the response to auditory discrepancies.** *Child Development*, 1970 (Sep), Vol. 41(3), 861-869.—Gave 27 5½-mo-old boys 4, 8, or 12 presentations of a standard 8-note tonal sequence prior to the introduction of a series of discrepancies formed by the sequential rearrangement of these same 8 notes. Cardiac deceleration to the discrepancies relative to the preceding standard stimuli increased as a function of the number of familiarization trials with the standard. This result was not simply due to increased habituation to the standard by the well-familiarized groups. In addition, there was an inverse relationship ($-.70$) between the magnitude of cardiac change elicited by visual and auditory discrepancies such that Ss who displayed large decelerations to visual stimuli responded only minimally to analogous auditory discrepancies and vice versa. This effect appeared to be directly linked to the discrepancies per se and was not simply a function of the arousal potential of the stimulus modality in general. —*Journal abstract.*

471. Woodcock, James M. (Purdue U.) **The effects of rocking stimulation on the neonate's reactivity.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5247.

CHILDHOOD

472. Elkind, David. (U. Rochester) **Children and adolescents: Interpretive essays on Jean Piaget.** New York, N.Y.: Oxford U. Press, 1970. xi, 160 p. \$2.25(paper).

473. Fonarev, A. M. & Modina, A. I. (Inst. of Preschool Education, Moscow, USSR) **Metodika issledovaniya "myshechnoi pamyati" u detei rannego vozrasta.** [A method to study "muscular memory" in young children.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 142-143.—Describes an apparatus for the study of kinesthetic memory in 3-yr-old children. Various positions of a pivoted handle are associated with the appearance of animal figures on a screen. The handle is then hidden from sight and the S is told to produce the picture of a given animal from kinesthetic clues alone. The effort needed to turn the handle can be controlled. —*L. Zusne.*

474. Haworth, Mary R. **The Primary Visual Motor Test: With test manual and scoring instructions.** New York, N.Y.: Grune & Stratton, 1970. x, 174 p. \$10.75.

475. Herbert, John. **Direct observation as a research technique.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 127-138.—Examines the viability of direct observations as a research technique. A review of the literature indicates that approximately 8% of the studies in child development used some type of system-

atic observation. It is suggested that recent improvements in technical devices (tape recorders, cameras, video tapes, etc.) may accelerate the use of direct observation.—*H. Kaczowski.*

476. Hiller, Robert E. (U. Tennessee) **The stimulus value of attention and approval: A comparison of two social stimuli.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5257.

477. Katz, Phyllis A., Karp, Barry, & Yalisove, Daniel. (City Coll., City U. New York) **Verbal mediation of children's perception: The role of response variables.** *Journal of Experimental Psychology*, 1970 (Sep), Vol. 85(3), 349-355.—Assessed the effects of linguistic pre-differentiation of stimuli on 96 1st and 6th grade children's perceptual judgments, discrimination learning, and recognition behavior. A factorial design with stimuli at 2 levels of similarity was used. Findings indicate that distinctive labeling training elicited the greatest degree of perceptual modification for the younger Ss with highly similar stimuli. The performance of the 6th grade Ss with similar and dissimilar stimuli was relatively unaffected by labels. Perceptual judgment tasks appeared most sensitive and recognition tasks least sensitive to linguistic influence for younger Ss. Intercorrelations between tasks were fairly low, even under control conditions, suggesting that the various tasks are not tapping overlapping processes. (16 ref.) —*Journal abstract.*

478. Knox, Carol & Kimura, Doreen. (U. California, Santa Barbara) **Cerebral processing of nonverbal sounds in boys and girls.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 227-237.—Presented verbal and nonverbal tasks dichotically to 263 5-8 yr. olds in 4 experiments. More nonverbal environmental sounds were correctly identified from the left than from the right ear. In contrast, a number of verbal tasks reproduced a previously-demonstrated right-ear superiority for the perception of speech sounds. The greater left-ear scores for nonverbal stimuli suggests that cerebral lateralization for such auditory functions may be present by age 5. Nonverbal method of report did not affect the right-ear superiority for verbal tasks. Boys correctly identified significantly more dichotic nonverbal sounds (environmental sounds and animal sounds) than did girls. This male superiority on a nonverbal task was also found with nondichotic presentation of animal sounds to 2-5 yr. old children. (French & German summaries) (20 ref.) —*Journal abstract.*

479. Koretskaya, K. O **razvitiu umstvennykh sposobnostei.** [On the development of mental capacities.] *Doshkol'noe Vospitanie*, 1970 (Feb), Vol. 43(2), 99-102.—Summarizes a number of the articles appearing in a collected work, *Psychological Papers*, recently published in Berlin and devoted to the development of the mental capacities of children of preschool and early primary school age.—*I. D. London.*

480. Kretz, V., Suchenwirth, R., & Ferner, U. (Universitäts-Nervenklinik, Erlangen-Nuremberg, W. Germany) **Händigkeit in Abhängigkeit vom Lebensalter: Untersuchungen an 574 3-6 jährigen Knaben unter besonderer Berücksichtigung der Geschlechtsspezifität.** [Handedness as a function of age: Investigations of 574 3-6 year-old boys with particular consideration of sex differences.] *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 215-226.—574 preschool age boys (30-72 mo. old), subdivided into 4 age groups, were classified according to hand preference as follows: (a) extreme left-handedness, (b) moderate left-handedness,

(c) ambidextrousness, (d) moderate right-handedness, and (e) extreme right-handedness. Differences between the age groups in the degree of lateralization were examined and the results compared with those of Passian, et al. who, using the same method, had studied 464 girls of the same age range. Also analyzed were those subtests which contributed most to the classification of hand preference. Results were: (a) Only extreme right-handedness is statistically related to age in boys. (b) Significant sex differences were found with respect to right-handedness and ambidextrousness. (c) The classification into different groups of hand preference clearly depends on the methods used. It is suggested that the observed sex differences predominantly depend on sociocultural conditions by learning processes and are not a sign of biological sex difference. (French summary) (37 ref.)—*English summary.*

481. Lavrinenko, A. I. (Inst. of Psychology, Moscow, USSR) *Izucheniye ustoychivosti moral'nykh suzhenii u shkol'nikov*. [The investigation of the stability of moral judgments in schoolchildren.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 143-150.—Reviews the contemporary work by Soviet and foreign (Ash, Crutchfield, Bronfenbrenner, etc.) psychologists in the area of independence and conformity, suggestibility, imitation, group pressure, moral autonomy, and related topics. (25 ref.)—*L. Zusne.*

482. Lisina, M. I. & El'konin, D. B. *Voprosy psikhicheskogo razvitiya*. [Problems of mental development.] In A. A. Smirnov (Ed.), *Voprosy detskoi i pedagogicheskoi psikhologii na XVIII Mezhdunaradnom kongresse psikhologov*. (See PA, Vol. 45:1) 8-56.—Presents a critical survey of the papers read at the Congress on the on the problems of "age-specific (more exactly, child) psychology."—*I. D. London.*

483. Lovano, Jessie J. (U. Oregon) *The relation of conceptual styles and mode of perception to graphic expression*. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4686-4687.

484. Lunzer, E. A. & Morris, J. F. (Eds.) (U. Manchester, England) *Development in learning: II. Development in human learning*. New York, N.Y.: American Elsevier, 1968. xiv, 487 p. \$10.50.—Offers a comprehensive survey of present knowledge concerning a child's acquisition of the knowledge, skills, and techniques essential to citizenship in a technological society. Contributions by various authors include discussions of perceptual and early social development, beginnings of concept formation, acquisition of motor skills, growth of communication, development of reasoning and its effects on learning, and an up-to-date survey of programed learning.

485. Menchinskaya, N. A., Markova, A. K., Matyushkin, A. M., & Mukhina, T. K. (Inst. of Psychology, Moscow, USSR) *K issledovaniyu istorii umstvennogo razvitiya rebenka kak sostavnoi chasti teorii poznaniya i dialektiki*. [Investigation of the mental development of the child as a component part of epistemology and of dialectics.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 59-84.—Reviews the work of Soviet psychologists in child development, focusing on the dialectics of the development of mental processes. This work supports Lenin's idea that 1 of the bodies of knowledge that must be incorporated in epistemology is that concerning the mental development of the child. (English summary) (60 ref.)—*L. Zusne.*

486. Meredith, Howard U. *Body size of contem-*

porary group of eight year old children studied in different parts of the world. *Monographs of the Society for Research in Child Development*, 1969, Vol. 34(1), 93 p.—Reviews and integrates findings on body size from 300 samples of 8-yr-old children. "The samples are heterogeneous geographically, and fairly homogeneous secularly; they were drawn primarily between 1950-1960 in numerous regions of the earth. The samples have been described racially, socioeconomically and in many instances with respect to diet, health care, and features of the geographic locality. Each somatic variable has been discussed with regard to procedures in data collection, methodological limitations in comparison of studies and cautions required in drawing valid conclusions. Group findings have been reported for tribes and nations, provinces and islands, recent migrants and hybrids. Sample size varies from over 20,000 for a few groups to less than 30 for a few others. For samples of reasonable size, subgroup findings are reported from subdivision by social class, quinquennium of data collection, and urban-rural residency."—*A. Barclay.*

487. Miller, Scott A., Shelton, Jev, & Flavell, John H. (U. Minnesota) *A test of Luria's hypotheses concerning the development of verbal self-regulation*. *Child Development*, 1970 (Sep), Vol. 41(3), 651-665.—20 girls and 20 boys in each of 4 age groups (mean ages = 3.2 yr., 3.7 yr., 4.1 yr., and 4.11 yr.) received 1 of 4 self-instruction conditions in A. R. Luria's 2-choice task. 1 group at each age level performed the motor task only (silent responding). In the remaining 3 conditions, Ss overtly instructed themselves with either "squeeze" to the positive stimulus, "don't squeeze" to the negative stimulus, or self-instructions to both stimuli. Motor task performance improved with age. Contrary to Luria's hypotheses, the self-instruction conditions did not interact with age. Verbal responding did not facilitate motor behavior at any age. Specific comparisons derived from Luria's reports also were not supported. In addition, despite explicit instructions to the contrary, the motor response tended to precede speaking for all Ss at all ages. Rather than a useful mediator of motor performance, verbal responding appeared to be only an additional task for the child.—*Journal abstract.*

488. Runyon, Howard L. (U. Tennessee) *A paired comparison technique for determining reinforcement priorities of individual children*. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4836-4837.

489. Zaporozhets, A. V. (Inst. of Preschool Education, Moscow, USSR) *Leninskaya teoriya otrazheniya i problemy umstvennogo razvitiya rebenka*. [Lenin's theory of reflection and issues in the mental development of the child.] *Voprosy Psikhologii*, 1970 (Mar), Vol. 16(2), 85-96.—Lenin believed that the study of the mental development of the child was basic to correct epistemology. The influence of Lenin's theory of reflection on the study of the development of basic processes in children is demonstrated. (English summary)—*L. Zusne.*

Learning

490. Behrens, Robert F. (George Peabody Coll. for Teachers) *Effects of motivation orientation, ability, social class, and mediation on verbal learning*. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5232.

491. McGraw, Myrtle B. (Briarcliff Coll.) **Major challenges for students of infancy and early childhood.** *American Psychologist*, 1970 (Aug), Vol. 25(8), 754-756.—Sensory deprivation and social studies of underprivileged children have contributed to the current interest in early childhood. The importance of early learning is discussed and it is suggested that established theories of learning are not adequate guidelines for the type of growth that takes place during the 1st 3 or 4 yr. of life. A major challenge to researchers in this field is the formulation of theories encompassing the phenomena of a constantly changing organism, the human infant. Since these theories often influence social practices of child management, students of early childhood should be aware of the way in which their pronouncements are adopted into the culture.—*Author abstract.*

492. Menchinskaya, N. A. & Saburova, G. G. **Problema obucheniya i razvitiya.** [The problem of learning and development.] In A. A. Smirnov (Ed.), *Voprosy detskoi i pedagogicheskoi psikhologii na XVIII Mezhdunarodnom kongress psikhologov.* (See PA, Vol. 45:1) 57-105.—Presents a critical survey of the papers read at the Congress on the interrelationships of learning and development.—*J. D. London.*

493. Snow, David L. (U. Washington) **Children's discrimination learning: Effects of reward and punishment on learning rate and orientation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5244-5245.

494. Stevenson, Harold W., Friedrichs, Ann G., & Simpson, William E. (U. Minnesota) **Interrelations and correlates over time in children's learning.** *Child Development*, 1970 (Sep), Vol. 41(3), 625-637.—Tested 73 Ss in the 4th grade and retested them in the 7th grade on paired-associate learning, discrimination learning, incidental learning, verbal memory, and anagram tasks. In addition, 138 7th graders were tested on these tasks for the 1st time. Intercorrelations among tasks decreased with increasing age. Significant correlations were obtained between performance on these tasks and IQ, achievement test scores, and school grades. Using performance in 4th grade to predict performance on different tasks in 7th grade often was more satisfactory than using 7th grade predictors. Results point to the necessity of analyzing performance on the basis of process rather than structure.—*Journal abstract.*

495. Thomas, Barbara J. (George Peabody Coll. for Teachers) **Differential effects of task-difficulty, IQ, and motivational orientations on children's concept identification learning.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5229.

496. Tighe, Louise S., Tighe, Thomas J., Waterhouse, Mark D., & Vasta, Ross. (Dartmouth Coll.) **Dimensional preference and discrimination shift learning in children.** *Child Development*, 1970 (Sep), Vol. 41(3), 737-746.—Assessed dimensional preference (either height or brightness) in 112 5.10-7 yr. olds either before (Group I) or after (Group II) performance on an optional shift task. For Group I, Ss assigned their preferred dimension in the initial discrimination learned more rapidly than Ss assigned their nonpreferred dimension. For Group II, there was no relation between speed of learning and assignment to preferred vs. nonpreferred dimensions. There was no relation between type of optional shift selected and assignment to preferred vs. nonpreferred dimensions in either Group I or II. Results suggest that prior preference tests may

spuriously inflate relations between dimensional preference and discrimination learning.—*Journal abstract.*

497. Van Horn, Keith R. (Iowa State U.) **Structure of the environment and the growth of strategies for acquiring information.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5268-5269.

498. Vanevery, Harolyn & Rosenberg, Sheldon. (Ball State U.) **Semantics, phrase structure, and age as variables in sentence recall.** *Child Development*, 1970 (Sep), Vol. 41(3), 853-859.—Gave 40 1st grade and 40 7th grade Ss 4 study-test trials on lists of 4 sentences. $\frac{1}{2}$ the Ss at each age level were given semantically well-integrated (SWI) sentences to learn, while the other $\frac{1}{2}$ were given semantically poorly integrated (SPI) sentences. For all measures of recall, the SWI sentences were recalled better than the SPI sentences regardless of age. The words in SWI sentences were recoded into larger chunks for storage than words in SPI sentences, and age tended to increase chunking for both SWI and SPI sentences. As anticipated, the only evidence for phrase chunking was found in the 7th grade Ss who were exposed to SPI sentences.—*Journal abstract.*

Concepts & Language

499. Ayabe, Harold L. (Indiana U.) **The effect of reflective and impulsive training on conceptual tempo.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4820.

500. Baptiste, Hansom P. (Indiana U.) **The effect of an equilibrated methodology on the acquisition of the concept—conservation of quantity.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4821.

501. Cole, Michael; Gay, John; Glick, Joseph, & Sharp, Donald. (U. California, Irvine) **Linguistic structure and transposition.** *Science*, 1969 (Apr), Vol. 164(3875), 90-91.—Studied transfer of a learned discrimination along the size dimension in groups of 72 nursery school American and 160 4-8 yr. old illiterate and 1st grade African tribal children. The language spoken by the African Ss contained an asymmetry in the expression of size comparisons that is not present in English. Contrary to theories of linguistic mediation of choice behavior, transfer choices were not related to the differing linguistic patterns; however, initial choices and posttest descriptions of choices were so related.—*Journal abstract.*

502. Mackay, C. K., Fraser, Joan, & Ross, Isabel. (U. Aberdeen, Scotland) **Matrices, three by three: Classification and seriation.** *Child Development*, 1970 (Sep), Vol. 41(3), 787-797.—Investigated in 2 experiments the development of the ability for double seriation in 90 5-8 yr. olds and found a developmental lag between the emergence of the ability for cross-classification and that for double seriation. This result is considered to have implications beyond that of revising age norms. An attempt is made to relate it to the differences existing between the Geneva and Harvard approaches to interpreting cognitive growth.—*Journal abstract.*

503. McLeod, John & Anderson, Jonathan. (U. Saskatchewan, Saskatoon, Canada) **An approach to assessment of reading ability through information transmission.** *Journal of Reading Behavior*, 1970 (Spr), Vol. 2(2), 116-143.—Describes a series of experiments designed to obtain an empirical estimate of the word redundancy of printed English. 1 in 8 words found

redundant by efficient readers were deleted from 14 prose passages selected from a variety of books ranging in difficulty from graduate level to 2nd grade. 8 of the passages were presented to samples of 40-50 children in Grades 3-7, and obtained redundancy estimates were used as a standard against which to compare the remaining passages, which were presented in pairs to independent samples from the same populations. A similar procedure was carried out with passages from children's books. In both cases a linear relationship resulted when the logarithms of relative uncertainty reductions were plotted against each other. When these passages were administered as a test to 500 4th grade Australians, the resulting linear relationship between uncertainty reduction and raw score suggested that "for groups of readers at any rate, uncertainty reduction is as valid an index of achievement on a cloze-type reading test as is raw score." A subsequently derived Uncertainty Reduction Index was examined on the basis of results from various populations in Australia and Canada, and it is concluded that "a reliable and valid expression of reading ability can be obtained... from the method." (37 ref.)—R. Wiltz.

504. Miller, Patricia H., Kessel, Frank S., & Flavell, John H. (U. Minnesota) **Thinking about people thinking about people thinking about...: A study of social cognitive development.** *Child Development*, 1970 (Sep), Vol. 41(3), 613-623.—Traced the growing understanding of the recursive, or self-embedded, nature of thinking, e.g., "He is thinking that she is thinking that he is thinking..." 72 1st-6th graders described line drawing representations of talking and thinking like those used in comic strips. Both group performance and the scalability of individual Ss indicate a 4-step developmental sequence: (a) thinking about contiguous people, (b) thinking about action (talking), (c) thinking about thinking, and (d) thinking about thinking about thinking. Performance improved with increasing grade level. Results are discussed in terms of differences in the formal structure of the 4 steps and the development of role-taking skills.—*Journal abstract*.

505. Peglar, Marian. (Iowa State U.) **A comparison of operational seriation of lengths and weights in Piagetian tasks.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5227.

506. Peters, Donald L. (Pennsylvania State U.) **Verbal mediators and cue discrimination in the transition from nonconservation to conservation of number.** *Child Development*, 1970 (Sep), Vol. 41(3), 707-721.—Studied the role of verbal mediators of comparison and cue discrimination through the use of multiple regression techniques and an aptitude/treatment interaction (ATI) model. 4 groups of kindergartners (N = 131) were pretested on number, difference, and area conservation, as well as on comprehension of the language of comparisons and cognitive style. 3 groups received either noncued, visually cued, or verbal rule supplemented instruction. The 4th received no training. Results indicate verbal training superior to the others on immediate learning, and both verbally and the visually cued treatments significantly better than the control on delayed retention. Both the language level and analytic sorting behavior of Ss were found to be reliable predictors of number conservation performance. The ATI analyses suggest a compensatory notion of instruction with Ss high in language comprehension benefiting most from visually cued training and analytic

Ss benefiting most from the verbal training. (31 ref.)—*Journal abstract*.

507. Rystrom, Richard. (U. Georgia, Coll. of Education) **Toward defining comprehension: A second report.** *Journal of Reading Behavior*, 1970 (Spr), Vol. 2(2), 144-157.—Presents preliminary data indicating the extent to which a previously published comprehension model accurately reflects the reading comprehension process. The Rystrom Reading Comprehension Test (RRCT), consisting of a series of multiple-choice questions on a previously read story, was administered to 57 4th grade remedial readers and 112 "typical" 4th graders. Remedial readers were split into 2 groups, and normal readers were in 4 groups of roughly equal numbers. With odd-even reliability coefficients ranging from .70-.98 for the 6 groups, the test correlated from .84-.91 with the California Reading Test for the 4 normal groups. Both remedial groups were found to obtain lower mean scores than any of the normal groups. Further analysis indicates that the RRCT is highly valid and reliable, that the previous model appears to define comprehension, that the most important skill appears to be the ability to remember specific facts from what was read, and that many programs may be over-emphasizing vocabulary and under-emphasizing more important skills.—R. Wiltz.

508. Schroth, Marvin L. (Santa Clara U.) **The effect of informative feedback on problem solving.** *Child Development*, 1970 (Sep), Vol. 41(3), 831-837.—Investigated the effects of informative feedback on a matching task with 3 combinations of verbal feedback and 3 levels of task complexity. The 3 types of feedback were right-wrong (R-W), nothing-wrong (N-W), and right-nothing (R-N). The 3 levels of task complexity were defined in terms of number of irrelevant stimulus dimensions. 180 1st graders were Ss in which nonsense shapes served as stimuli. Over all 3 levels of task difficulty the R-W condition yielded significantly better performance than the other feedback conditions and N-W resulted in a faster rate of learning than R-N.—*Journal abstract*.

509. Schwartz, Marilyn M. & Scholnick, Ellin K. (U. Maryland) **Scalogram analysis of logical and perceptual components of conservation of discontinuous quantity.** *Child Development*, 1970 (Sep), Vol. 41(3), 695-705.—Explored the role of stimulus factors and logical judgments in conservation of discontinuous quantity using 2-choice, nonverbal discrimination tasks. 40 53-76 mo. old preschoolers estimated the amount of candy in 2 containers under conditions varying the relative diameters of the containers (identical or different) and the type of judgment required (direct comparison, identity, and equivalence estimates). The tasks formed a Guttman scale. The easiest items involved identical containers. There was a significant interaction between stimulus setting and judgments. When identical containers were used, identity judgments were least accurate, but when the 2 containers differed, identity was easiest followed by equivalence and comparison judgments. (18 ref.)—*Journal abstract*.

510. Sedarat, Nassir & Otto, Wayne. (Illinois Wesleyan U.) **Response consensuality and reading ability of intellectually superior pupils.** *Journal of Reading Behavior*, 1969 (Sum), Vol. 1(3), 32-40.—40 5th and 6th graders with IQs of 120 or above were given 50 stimulus words in a 2 x 2 factorial with reading achievement as measured by the reading subtest of the

Stanford Achievement Test and sex as the independent variables. Results based on the degree to which responses were in agreement with word associations of other Ss indicate no significant differences between groups. These results are contrary to predictions that (a) good readers would give more consensual responses than poor readers, and (b) girls would give more consensual responses than boys. Results are suggested to be a function of the superior students' ability to anticipate task constraints.—R. Wiltz.

511. Serafica, Felicissima C. & Sigel, Irving E. (Clark U.) **Styles of categorization and reading disability.** *Journal of Reading Behavior*, 1970 (Spr), Vol. 2(2), 105-115.—Administered the Sigel Cognitive Styles Test, consisting of pictures representing human, food, vehicle, furniture, and tool categories, to 24 2nd-4th grade boys with a history of reading disability and to 28 4th graders with no reading problem. Each of 35 sets of pictures contained 3 items from 3 differing categories, and Ss chose 2 categories which were alike and indicated the reason for his choice. Responses were classified into descriptive part-whole, descriptive-whole, relational-contextual, or categorical-inferential categories on the basis of predetermined criteria. The hypothesis that boys with reading disability use less descriptive part-whole responses was not confirmed. Also contrary to expectations it was found that nonreaders used significantly less descriptive-whole responses. However, the hypothesis that nonreaders use more relational-contextual responses was supported. It is concluded that "the major differences between nonreaders and readers in the sample were in their conceptual and integrative abilities." (21 ref.)—R. Wiltz.

512. Wright, Byron W., Gloniger, Margaret F., & Keeve, J. Philip. (U. Pittsburgh, Graduate School of Public Health) **Cultural deprivation: Operational definition in terms of language development.** *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 77-86.—Investigated the ability to name common vegetables among 52 4-6 yr. old kindergartners from an urban poverty area with the ability of 33 4-6 yr. olds from a private school. Findings show that private kindergarten Ss were exposed to a wider variety of a selected array of vegetables. However, the experience of both groups in terms of number of different vegetables eaten was substantially the same. When the number of vegetables seen or eaten was held constant for the 2 groups, the poverty Ss were less able to name the vegetables with which they had had experience. The efficiency of naming ability appeared to be developing at a significantly faster rate among the private school Ss. Findings indicate that the concept "cultural deprivation" must account for deficiencies in experience and for deficiency in the conditions of learning. (21 ref.)—A. M. Berg.

Abilities

513. Barton, Keith. (George Peabody Coll. for Teachers) **Block manipulation by children as a function of social reinforcement, anxiety, arousal, and ability pattern.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5219.

514. Boyle, Virginia A. (George Peabody Coll. for Teachers) **Visual stimulation and comprehension of compressed speech.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5221.

515. Chrietberg, Agnes L. (Florida State U.) **The relationship between maternal guidance during motor performance and the motor skill of preschool children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4808.

516. De Meuron, Mireille & Auerswald, Edgar H. (Beth Israel Medical Center, New York, N.Y.) **Cognition and social adaptation.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 57-67.—Used J. Piaget's demonstration interview technique to test the level of development of the thinking capacities of socially dissonant children in a disadvantaged area. His theory of groups and groupings were taken as a frame of reference in interpreting the results, which show a severe developmental lag in these children. Findings are discussed in terms of effects of cognitive patterns on social adaptation in urban areas. (15 ref.)—*Journal abstract.*

517. Larsen, Mary J. & Allen, Jerry C. **Effects of certain subject variables on Stanford-Binet item performance of five-year-old children.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 975-984.—Compared item performance on the Stanford-Binet by 289 Georgia children (CA = 5) and by equivalent-aged children used in the test standardization in terms of race, sex, socioeconomic status, IQ level, and community size. The Georgia sample's performance exceeded ($p < .01$) the norm group's performance on 62% of the items. Among levels of the variables, variations occurred in the presence and direction of item performance differences; generally, more than 1 S variable influenced item performance. Data affirm that certain variables confound IQ test performance and that norms based on a single variable do not eliminate test biases. (23 ref.)—*Journal abstract.*

518. O'Malley, J. Michael. (George Peabody Coll. for Teachers) **The effects of success or failure on equivalence classifications among disadvantaged children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5226-5227.

519. Raeva, L. N. K. **Krupskaya ob izobrazitel'noi deyatel'nosti detei.** [N. K. Krupskaya on the drawing activity of children.] *Doshkol'noe Vospitanie*, 1970 (Feb), Vol. 43(2), 46-49.—Presents a survey of the writings and views of Lenin's wife on drawing at the preschool level.—I. D. London.

520. Rowland, G. Thomas & McGuire, Carson. **The development of intelligent behavior: VII. Irving E. Sigel.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 139-145.—Examination of the writings of Sigel indicates that his concepts of representational competence and distancing although similar to the ideas present in the writings of Piaget, Bruner, Werner, and Kaplan are unique contributions to understanding the origins of intelligent behavior. It is suggested that these concepts could modify teaching strategies predicated on the representational mode.—H. Kaczowski.

521. Sakulina, N. **Vospitanie tvorcheskoi intsilativy.** [Training of creative initiative.] *Doshkol'noe Vospitanie*, 1970 (Jan), Vol. 43(1), 39-44.—Discusses the development in 3-5 yr. old children of various components of creativity in drawing (activity, independence, and initiative), and methods for promoting the development of initiative.—I. D. London.

522. Shapiro, Bernard J. & O'Brien, Thomas C. (Boston U.) **Logical thinking in children ages six through thirteen.** *Child Development*, 1970 (Sep), Vol. 41(3), 823-829.—In assessing the difference between the

ability to recognize and the ability to test for logical necessity, statistically significant and substantial differences were found favoring the former with 48 Ss at each age level, 6-13 inclusive. In recognizing logical necessity, Ss had little difficulty, this ability leveling off high in the 6-8 yr. age range. Although there was growth over the 8-yr period in testing for logical necessity, there was no evidence of any high leveling off. Data support the authors' previous research with younger children and challenge certain implications made in earlier studies on hypothetico-deductive reasoning in children.—*Journal abstract.*

523. Snyder, R. T. & Gaston, Diane S. (Prince George's County Board of Education, Upper Marlboro, Md.) **The figure drawing of the first grade child: Item analysis and comparison with Koppitz norms.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 377-383.—Human figure drawings were obtained from 680 1st graders. It was found that the Koppitz norms reported a higher level of figure drawing ability in almost every category studied. It was noted that in general 6 yr. olds do not produce much from a developmental viewpoint, that there was a wide variability of performance within a single drawing, and that it is difficult to predict what items should be expected. Differences between data of this study and Koppitz' data are presented. "Psychologists are strongly encouraged to use available norms in interpretation rather than subjective data based on theory or clinical acumen alone."—E. J. Kronenberger.

Perception

524. Bartholom  us, Bonnie. (McGill U., Montreal, Quebec, Canada) **Development of auditory naming behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5111.

525. Matsuda, Fumiko. (Hiroshima U., Japan) [Developmental study of time, space and velocity estimations: II. Time and space estimations.] *Japanese Journal of Psychology*, 1969 (Oct), Vol. 40(4), 173-181.—Investigated the area of motion perception by the method of reproduction. Ss were 16 1st and 4th grade children, and 16 undergraduates. Results indicate that: (a) constant short physical time (1.1 or 2 sec.) was significantly overestimated in all groups as spatial distance and velocity became smaller; and (b) in children, constant short physical space (2 or 3.6 cm.) was significantly overestimated, as exposure time became shorter and velocity larger. (19 ref.)—*English abstract.*

526. Montgomery, Louella W. (Purdue U.) **Phonological oppositions in children: A perceptual study.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5277-5278.

527. Perozzi, Joseph A. (U. Washington) **The relationship between speech sound discrimination skills and language abilities on kindergarten children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5278.

Personality

528. Ciaccio, Nicholas V. (Pennsylvania State U.) **Erikson's theory of ego epigenesis: Empirical and theoretical perspectives for human development.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5252-5253.

529. Joshi, Asha K. (Iowa State U.) **Sex-role preferences in preschool children from five subcultures of the United States.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5120.

530. McCutcheon, Nancy S. (U. South Carolina) **A study of relationships among creativity, intelligence, and test anxiety of middle-class fourth grade boys and girls.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4833.

531. Messer, Stanley. (Rutgers State U., Psychological Clinic) **The effect of anxiety over intellectual performance on reflection-impulsivity in children.** *Child Development*, 1970 (Sep), Vol. 41(3), 723-735.—Hypothesized that anxiety over the quality of one's intellectual performance would influence the disposition of children to be impulsive or reflective in a problem-solving task. 60 3rd graders served as Ss. Anxiety was aroused experimentally by having Ss fail in an intellectual task, and its effects on decision time and errors on a match-to-sample task were assessed. The induced anxiety resulted in longer decision times for both impulsive and reflective Ss, and in fewer errors for impulsives who increased in response time. The hypothesis is supported. (23 ref.)—*Journal abstract.*

532. Rolph, Herman. **On an early genital phase: With an addendum on genesis.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 348-365.—Proposes that a normal genital phase frequently occurs in children 18-24 mo. old. Early castration anxiety and reactions are seen to develop when the following 3 conditions are present: (a) early genital arousal, (b) early observation of anatomical sex differences, and (c) endurance of experiences which produce instability. Case histories are presented to illustrate each of the above conditions. (22 ref.)—B. A. Stanton.

Social Behavior

533. Bocharova, V. Igry reb  nka v sem'e. [The play of a child in the family.] *Doshkol'noe Vospitanie*, 1970 (Feb), Vol. 43(2), 103-106.—Describes and analyzes the play activities of a little girl in her home over a 3-yr period, starting at the age of 3 yr. I. D. London.

534. Bryan, James H. & Walbek, Nancy H. (Northwestern U.) **The impact of words and deeds concerning altruism upon children.** *Child Development*, 1970 (Sep), Vol. 41(3), 747-757. Exposed 72 2nd, 3rd, and 4th grade girls to a videotaped adult model (M) who practiced either generosity or selfishness, and who either preached generosity or selfishness, or held a neutral conversation. For 1/2 of the Ss within each of these 6 groups, the M was the E (the high-powered M). The effect of M's practices upon S's donation behavior was marginally significant ($p < .10$), but donation behavior was unaffected by either the power or exhortations of M. Attractiveness of the M was a function of the M's acts, while there was no interaction between M's words or deeds and either donation, response latencies, or attraction. (17 ref.)—*Journal abstract.*

535. Flanders, James P., Thistlethwaite, Donald L. (Bowling Green State U.) **Effects of informative and justificatory variables upon imitation.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 316-328.—Examined the influence of vicarious reinforcement, verbalization by the model of his own acts, and task difficulty upon imitation in 120 11-13 yr. olds. Presence of verbalization resulted in both greater

comprehension and greater acceptance of the modeled act. A Verbalization \times Vicarious reinforcement interaction indicated that presence of verbalization increased imitation in the vicarious reinforcement, but not in the nonreinforcement treatment. Exposure to modeling on a discrimination task of low difficulty produced both greater comprehension and greater imitation than exposure to modeling on tasks of high difficulty. Results are interpreted in terms of a theoretical viewpoint postulating that comprehension and acceptance are both antecedents to the behavioral disposition to imitate a model. (23 ref.)—*Journal abstract*.

536. Gozall, Joav. (U. Wisconsin, Milwaukee) **Comments on social desirability and persuasion.** *Child Development*, 1970 (Sep), Vol. 41(3), 897-898.—Suggested that high social desirability of children reared in highly structured environment can be interpreted as a function of their active participation in persuasive activities.—*Journal abstract*.

537. Liebert, Robert M. & Fernandez, Luis E. (State U. New York, Stony Brook) **Effects of vicarious consequences on imitative performance.** *Child Development*, 1970 (Sep), Vol. 41(3), 847-852.—Examined the effects of vicarious reward and punishment upon 24 6-7 yr. old girls' imitation of the commodity preferences of a female adult model. Consistent with the hypothesis that Os use vicarious consequences to infer what their own outcomes are likely to be, Ss exposed to vicarious reward showed more spontaneous imitation than those who had seen the model perform without consequences, whereas Ss exposed to vicarious punishment showed less imitation than controls. In contrast, the previously divergent experimental groups performed equally well when explicitly asked to reproduce the model's responses. Although the controls had also seen the model perform, they were able to reproduce fewer responses than the experimental groups on this 2nd test. Results are discussed in terms of the informational analysis on which the study was based.—*Journal abstract*.

538. Shortell, James R. (U. Massachusetts) **Physical aggression in children as a function of sex of subject and sex of opponent.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5229.

Parent-Child & Family Relations

539. Forer, Lucille K. **Birth order and life roles.** Springfield, Ill.: Charles C Thomas, 1969. xiii, 168 p. \$8.95.

540. Halverson, Charles F. & Waldrop, Mary F. (National Inst. of Mental Health, Child Research Branch, Bethesda, Md.) **Maternal behavior toward own and other preschool children: The problem of "ownness."** *Child Development*, 1970 (Sep), Vol. 41(3), 839-845.—Explored the interactions between mothers and their own and other 2½ yr. olds to identify maternal behaviors which were consistent across children and those which were closely tied to individual children. A structured interaction session was designed to obtain data on mother-child interactions for 42 preschool children. Results indicate that while maternal behavior tended to be consistent with both children, mothers used significantly more positive, encouraging statements with other children and significantly more negative sanctions with their own children. Mothers of girls talked more than mothers of boys. Also, boys rated as aggressive in the nursery school had mothers who gave more negative,

controlling statements to their sons than they did to other children.—*Journal abstract*.

541. Landauer, T. K., Carlsmith, J. Merrill, & Lepper, Mark. (Stanford U.) **Experimental analysis of the factors determining obedience of four-year-old children to adult females.** *Child Development*, 1970 (Sep), Vol. 41(3), 601-611.—Assessed the importance of several potential factors in producing natural variation in child obedience between 1 adult-child dyad and another. 58 3- and 4-yr-old nursery school children were asked to perform tasks by their own and other mothers. There was no consistency across children in the ability of mothers to command obedience. There was a slight, marginally significant consistency across mothers in the tendency of children to obey. However, obedience was strongly determined by the preexisting relationship between adult and child. 44 of 52 children were less obedient to their own mothers.—*Journal abstract*.

542. Lavinson, Norman B. (U. Cincinnati) **Father's presence, nurturance, and alternate responding as related to transgression in young Negro boys.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5223-5224.

543. Meerlo, Joost A. **The psychological role of the father.** *Child & Family*, 1968 (Spr), Vol. 7(2), 102-116.—Discusses the psychological impact of the father on the emotional development of the child, and re-examines the father's role in light of American society where women have become more powerful and men more submissive. The father is seen as the bridge by which the child reaches the outside world and 2 case histories are presented which show what can happen when there is no father or a weak father figure who cannot make this bridge. It is concluded that the motivation for self-assertion and self-awareness and being come from the disciplining father. (25 ref.)—*J. L. Ahlberg*.

544. Munro, A. & Griffiths, A. B. (U. Birmingham, England) **Further data on childhood parent-loss in psychiatric normals.** *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 385-400.—Interviewed 100 16-60 yr. old medical outpatients to obtain information on childhood bereavement experiences in psychiatrically normal individuals. Results show that: (a) 15% of the Ss had lost a parent by death before the 16th birthday and 37.2% by the 25th birthday; (b) 32% had been separated from a parent for at least 3 mo. during childhood for a cause other than death; (c) considering all causes of separation, 44% had undergone parental bereavement in childhood; (d) 13% reported having been distressed at the loss of the parent; and (d) 14% reported a disturbed relationship with a parental figure not associated with bereavement. Although results were not significant, the use of a psychological test, the Fould Personal Illness Inventory, suggests that the complaining characteristics of a group of psychiatric normals may be influenced to some extent by early life experiences. Findings confirm that parental deprivation is a common experience in the general population, and it is suggested that future investigations concentrate on measuring the quality of the deprivation experience to demonstrate its significance in the etiology of psychiatric illness.—*Journal summary*.

545. Schmidt, Wilfred H. & Hore, Terence. (U. Alberta, Edmonton, Canada) **Some nonverbal aspects of communication between mother and preschool child.** *Child Development*, 1970 (Sep), Vol. 41(3), 889-

896.—Studied patterns of communication, both verbal and nonverbal, between mothers and their 5-yr-old children (15 low, 15 high socioeconomic status—SES—dyads), as they were engaged on 2 cooperative tasks. 1 task was of a practical-manipulative nature, and the other consisted of making up stories from pictures. All sessions were videotaped. 3 nonverbal variables were isolated: physical contact, body inclination, and glances. Physical contact was more prevalent in the low SES group. On body inclination, seen as a measure of degree of closeness, there was no difference. A significant pattern was revealed in glancing behavior. The high SES mothers tended to look at their children more than low SES mothers and high SES children had fewer glances unreciprocated by their mothers. (23 ref.)—*Journal abstract*.

546. Sutton-Smith, Brian & Rosenberg, B. G. (Teachers Coll., Columbia U.) **The sibling**. New York, N.Y.: Holt, Rinehart, & Winston, 1970. ix, 198 p. \$7.50.

ADOLESCENCE

547. Adams, Paul L. (U. Florida) **Puberty as a biosocial turning point**. *Psychosomatics*, 1969 (Nov), Vol. 10(6), 343-349.—Investigates the "growth spurt, rites of passage and the end of sexual innocence" associated with puberty. Puberty is presented as a paradox in that it manifests significant biosocial changes, but is "not accorded much importance by our society." (37 ref.)—G. Steele.

548. Blos, Peter. **Character formation in adolescence**. *Psychoanalytic Study of the Child*, 1968, Vol. 23, 245-263.—Proposes that character formation is synonymous with adolescence. The functions of character are discussed as homeostatic mechanisms which stabilize ego identifications, self-esteem, self-concept, and reactions to external stimuli. 4 developmental preconditions are discussed in detail as being necessary for adolescent character formation: relinquishing infantile object ties, assimilation of residue from early childhood trauma, ego continuity, and sexual identity. (30 ref.)—B. A. Stanton.

549. Bozhovich, L. I. & Blagonadzhina, L. V. **Voprosy psikhologii vospitaniya**. [Problems in the psychology of upbringing.] In A. A. Smirnov (Ed.), *Voprosy detskoi i pedagogicheskoi psikhologii na XVIII Mezhdunarodnom kongresse psikhologov*. (See PA, Vol. 45:1) 106-183.—Presents a critical survey of the papers read at the Congress on personality formation, particularly that of adolescents.—I. D. London.

550. Brown, Stephen W. (Mississippi State U.) **A comparative study of maternal employment and non-employment to delinquency, intelligence, achievement, personality development, and social maladjustment among eighth and ninth grade males in five junior high schools of Dallas County, Texas**. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4708-4709.

551. Erikson, Erik H. (Harvard U.) **Reflections on the dissent of contemporary youth**. *International Journal of Psycho-Analysis*, 1970 (Jan), Vol. 51(1), 11-22.—Different periods of history open different conflicts to psychoanalysis. An attempt is made here to formalize the place and function of youth historically in the life cycle and in present unrest. The epidemiology of an era is related to the individual's conflicts. Today's Marxist's see the youth as the proletariat; today's Gandhian sees the youth as victims of colonialism and

violence. Erickson coins "revolt of the dependent" for today's unrest as the dependent are exploited. Adolescence theoretically recapitulates earlier stages. When these become independent stages in themselves the term "totalization" is used. Hippiedom is a totalization of the oral stage. Amoralism is related to the anal stage. Public use of excrement and "pig" usage belong here. Charismatic leaders and utopian causes belong to the phallic stage. Pragmatic moralists who work within the system are the "school and play" stage. When the present young learn to assume responsibility for the younger ones then perhaps a different model of youth and adulthood will emerge.—J. Chyatte.

552. Evans, Ellis D. (Ed.) (U. Washington) **Adolescents: Readings in behavior and development**. Hinsdale, Ill.: Dryden, 1970. xv, 523 p.—Provides for students a convenient source of representative material from current developments in adolescence research and theory. Contributions by various authors include the following: (a) theoretical and conceptual foundations of adolescent behavior and development, (b) contemporary issues in socialization and development during adolescence, and (c) a sampling of research on adolescents.

553. Goethals, George W. & Klos, Dennis S. (Harvard U.) **Experiencing youth: First-person accounts**. Boston, Mass.: Little, Brown, 1970. xiii, 399 p.

554. Goldman, Ronald. (Didsbury Coll. of Education, Manchester, England) **Angry adolescents**. Beverly Hills, Calif.: Sage, 1969. xiii, 119 p. \$4.95.

555. Kremer, Malvina W. (New York Medical Coll.) **What are the relevant facts of life for adolescents?** *Child & Family*, 1968 (Feb), Vol. 7(4), 361-364.—Examines the facts appropriate for presentation to different age groups concerning the anatomical and physiological aspects, the facts of human sexual intercourse, and the more difficult aspects to teach in the socio-psycho-sexual levels. "The basic requirements of affection, consideration, empathy, mutuality, and nonexploitativeness" are stressed.—G. Steele.

556. Levandovskii, N. G. (Pedagogical Inst., Leningrad, U.S.S.R.) **O strukture kharaktera**. [On the structure of personality.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 51-61. Personality ratings, self-ratings, and interviews with parents were combined to rate 40 personality traits of 29 9th and 10th graders over a 2-yr period. Factor analysis yielded 3 factors which did not correspond to the initial tentative classification of the 40 traits into 5 groups. All traits loaded significantly on at least 1 factor. The factors were identified as general activity, self-control, and interpersonal relations. Temperament pervades all 3 personality aspects and cannot be said to constitute just a component of personality. While personality traits show their own dynamics, temperament is the underlying innate basis that influences the particular manifestation of any and all traits. (English summary) (16 ref.)—L. Zusne.

557. Light, Harriett K. (North Dakota State U.) **Attitudes of rural and urban adolescent girls toward selected concepts**. *Family Coordinator*, 1970 (Jul), Vol. 19(3), 225-227. Examined the attitudes of 164 rural and 161 urban adolescent girls toward family, religion, peer groups, premarital sex, ethnic prejudice, morality, and education. Ss were matched on age (16-17 yr old), grade in high school (juniors-seniors) and socioeconomic status (middle class). Each S was given a questionnaire consisting of 45 statements with 5 choices for responding to each. Data were analyzed using chi-square. Results

show highly significant differences between rural/urban girls toward family, religion, morality, premarital sex, and education: (a) family and religion are more likely to influence attitudes of rural than urban girls; (b) rural girls continue to accept conventional ethical standards, urban girls are more receptive to new morality; and (c) rural girls place greater value on education than do urban girls.—*M. W. Linn.*

558. Men'shchikova, M. A. (Inst. of Psychology, Moscow, USSR) *K kharakteristike obshchekul'turnykh interesov sovetskoi uchashcheysya molodezhi.* [General cultural interests of Soviet school-age youth.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 86-93.—Results of a survey conducted among 2000 10th graders in various regions of the Soviet Union showed serious interest in the political, economic, and cultural life of the country. Urban-rural and sex differences were found. The data indicate, however, a decrease in the urban-rural differential. (English summary)—*L. Zusne.*

559. Vondracek, Sarah I. (Pennsylvania State U.) *The measurement and correlates of self-disclosure in preadolescents.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5230.

560. Walther, Clarence J. (U. Oregon) *An investigation of paired associate learning within and across intelligence levels and sense modalities.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4842-4843.

ADULTHOOD & OLD AGE

561. Busse, Ewald W. & Pfeiffer, Eric. (Eds.) (Duke U., Medical School) *Behavior and adaptation in late life.* Boston, Mass.: Little, Brown, 1969. xii, 395 p. \$13.50.—Presents important basic information on how people adapt to growing old. Contributions by various authors concerning aging include such topics as sociological aspects, the economics and ambiguity of retirement, health experience and living arrangements, sexual behavior, facing death, functional psychiatric disorders, intellectual and cognitive changes, organic brain syndromes, institutional care and community services, training geropsychiatry, and the aged and public policy.

SOCIAL PSYCHOLOGY

562. Granberg, Donald O. (Pennsylvania State U.) *Adaptation of psychophysical and psychosocial judgments to shifts in stimuli.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5066.

563. Hall, Dennis & Rummel, R. J. (U. Hawaii) *The patterns of dyadic foreign conflict for 1963.* *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 275-293.—Delineated 5 patterns of dyadic foreign conflict behavior for 1963: (a) negative communication, (b) violence intensity, (c) warning and defensive acts, (d) negative sanctions, and (e) unofficial incidence of violence. These patterns are contrasted with those delineated in previous study of foreign conflict behavior in 1955 to establish any stability of patterns, and dyads with similar profiles are used to define a taxonomy of dyadic conflict behavior for 1963.—*Journal abstract.*

564. Wagatsuma, Hiroshi. (U. Pittsburgh) *Major trends in social psychology in Japan.* *American Behavioral Scientist*, 1969 (Jan), Vol. 12(3), 36-45.—Uses

H. Minami's review of Japanese social psychology, 1946-1960, as a basis for a discussion of developments after 1960. The "impressionistic nature of the study of modal personality" is criticized. The investigation of national character includes subjective impressions, opinion surveys, and cross-cultural studies. Group dynamics and person perceptions are primarily experimental. It is felt that attitude and opinion survey techniques are "one of the better developed areas of social research." Studies of mass communication, culture, and entertainment; applied social psychology; and prejudice are discussed. It is concluded that: (a) the experimental area fails to deal with culture variables, and (b) the theoretical area is primarily an attempt to weld American and Marxian theory into a Japanese tool to "implement a social revolution." (3 p. ref.)—*G. Steele.*

CULTURE & SOCIAL PROCESSES

565. Feaster, J. Gerald. (U. Nebraska) *Measurement and determinants of innovativeness among primitive agriculturists.* *Rural Sociology*, 1968 (Sep), Vol. 33(3), 339-348.—Investigated the innovativeness of "shifting cultivators," who were Mayan Indians in British Honduras. Attitude statements were used to construct both an innovation and a traditionalism scale. It was assumed that those favoring the statements in the innovation scale were implicitly expressing a willingness to internalize values demanded by a nontraditional agriculture, and those scoring positively in the traditionalism scale were apathetic toward changes in their way of life. In general, the shifting cultivators had favorable attitudes toward innovation. Results of multiple regression analyses show that age, education, level of living, contact with extension agents, and aspirations were significant variables related to the modification of traditional attitudes.—*Journal abstract.*

566. Harp, John & Gagan, Richard J. (Cornell U.) *Changes in rural social organizations: Comparative data from three studies.* *Rural Sociology*, 1969 (Mar), Vol. 34(1), 80-85.

567. Klineberg, Otto. *Ressources offertes par la psychologie expérimentale pour l'étude du caractère national.* [Resources offered by experimental psychology in the study of national characteristics.] *Revue de Psychologie Des Peuples*, 1969 (Sep), Vol. 24(3), 224-230.—Discusses the possible contributions by application of experimental psychology in studies of national traits and characteristics. Several instances where identical studies applied to different nationalities yielded a surprising lack of similarity in reaction are cited. Experimental psychology is suggested as a means of verifying certain set hypotheses and determining the relationship between various factors and causes.—*I. Sirotin.*

Ethnology

568. Hofman, John E. & Debbiny, Sami. (Hebrew U., Haifa, Israel) *Religious affiliation and ethnic identity.* *Psychological Reports*, 1970 (Jun), Vol. 26(3), 1014.—12 Christian and 25 Moslem 11th grade boys in Israel rated 5 ethnic stereotypes including "me" (self) on a 25-scale form of the semantic differential. D-matrices of inter-concept distances formed a hierarchical order of stereotypes suggesting that these Christian and Moslem Arabs identify primarily with religious and national dimensions, respectively.—*Author abstract.*

569. Kubany, Edward S., Gallimore, Ronald, & Buell, Judith. (U. Hawaii) The effects of extrinsic factors on achievement-oriented behavior: A non-Western case. *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 77-84.—Filipino-Hawaiian high school boys were asked to perform a task either privately or in the E's presence. Striving to do well was stressed. As was predicted, Ss in the public condition showed more achievement-oriented behavior. This is discussed in terms of a distinction between intrinsic and extrinsic motivation. (16 ref.)—*Journal abstract*.

570. Matsumoto, Gary M., Meredith, Gerald M., & Masuda, Minoru. (U. Washington, Medical School) Ethnic identification: Honolulu and Seattle Japanese-Americans. *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 63-76.—1st-generation Japanese immigrants to Hawaii scored higher than either the 2nd- or 3rd-generation on the Ethnic Identity Questionnaire (EIQ). When the EIQ scores were compared with 3 generations of immigrants to Seattle from a comparable background, the latter were more ethnically identified. A number of possible reasons for this are discussed.—A. Krichew.

Social Structure & Social Role

571. Busch, Gladys M. (Indiana U.) A study of the relationship between the teachers' caste-consciousness and students' educational and occupational aspirations in high schools in India. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5063.

572. Chess, Stella. (New York U., Medical Center) Disadvantages of "the disadvantaged child." *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 4-6.—Discusses the usage of the term disadvantaged. It is suggested that blanket use produces a stereotype which leads to the classification of children from diverse backgrounds into a limited category. It is cautioned that "to assess any individual child it is essential to know both the group characteristics and the variations within the group."—G. Steele.

573. Goldman, Irwin J., McDonald, Roslyn G., & Epstein, Joyce. (New York State Div. for Youth, New York) Characteristics of jobs held by economically disadvantaged youth. *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 97-105.—Studied job histories of 112 16-18 yr. olds from low income neighborhoods. An interview schedule and the Hamburger Occupational Scale, with respect to characteristics of jobs held, extent of employment, nature of 1st jobs, and ethnic differences were utilized. The median number of full-time jobs held by Ss (from 1st job to time of interview) was 4. Findings indicate the possibility of vertical mobility among available jobs, but limited primarily to the 3 lowest occupational levels. Median pay of 35 45 hr/wk jobs was \$53. The jobs of Ss tend not to be in their own neighborhood. Source of job was predictive of pay ($p < .001$), duration ($p < .001$), and nonsignificantly, of evaluation ($p < .20$). A major difference in jobs held by the American Negro and jobs of Puerto Rican Ss was found in the source of employment. Almost twice as many jobs of Puerto Ricans were referred by friends, neighbors, and relatives than jobs of Negroes. Limitations of the findings are discussed.—A. M. Berg.

574. Hood, Ralph W. & Ginsburg, G. P. (South Dakota State U.) Cultural availability: A cross-

culturally stable determinant of performance on Remote Associates Test items. *Psychological Reports*, 1970 (Jun), Vol. 26(3), 755-758.—Demonstrated the stability of the previously obtained relationship between the difficulty and cultural availability of Remote Associates Test (RAT) items. Item difficulty was greatest for those items whose answers are not readily available in the local culture as associates to the stimulus words of the item. This effect was obtained in 2 geographically separate populations, one metropolitan and the other rural. It was shown that the cultural availability levels of items varied across populations. The implications of RAT item variation in cultural availability both within and between cultures are discussed.—*Journal abstract*.

575. Kassirer, H., Rosenberg, E., & Trudeau, P. (Hofstra U.) Cross validation of the Environmental Participation Index in a group of economically deprived high school students. *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 373-376.—The Environmental Participation Index (EPI), WAIS, or WISC was administered to 96 underachieving, disadvantaged high school students. Various relationships were presented but none of the relationships found had practical utility. Results indicate that the EPI was reliable but validity was interrelated with intelligence and academic achievement. The need for normative revision of the EPI is suggested.—E. J. Kronenberger.

576. Nelsen, Hart M. & Storey, Stuart E. (Western Kentucky U.) Personality adjustment of rural and urban youth: The formation of a rural disadvantaged subculture. *Rural Sociology*, 1969 (Mar), Vol. 34(1), 43-55.—Administered the Mooney Check List to 49 rural, 32 town, and 164 city boys to investigate personality adjustment. Data support the hypothesis that rural youths would be most poorly adjusted, followed by town and city youths. Findings indicate the need to reevaluate the importance of the rural-urban dichotomy. A "rural factor" that is linked with poverty and will affect personality adjustment may be emerging. (34 ref.)—*Journal abstract*.

577. Weis, Susan J. (Pennsylvania State U.) Self esteem and self implementation in role saliency of women. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5071-5072.

578. Zurich, M. (Southern Illinois U.) Attitudes of lower- and middle-class families concerning personal adjustment. *Psychological Reports*, 1970 (Jun), Vol. 26(3), 750.—Obtained information concerning attitudes of adults toward personal adjustment, and tested the hypothesis that attitudes toward such factors as economic security, family, friends, feeling of usefulness, happiness, health, religion, and work are independent of social class. Significant differences were observed in attitudes toward family, health, friends, and happiness ($p = .05$).—*Author abstract*.

Religion

579. Bohrnstedt, George W., Borgatta, Edgar F., & Evans, Robert R. (U. Wisconsin, Social Behavior Research Center) Religious affiliation, religiosity, and MMPI scores. *Journal for the Scientific Study of Religion*, 1968 (Fall), Vol. 7(2), 255-258.—Compares the MMPI scores of 1851 male and 1815 female Catholics, Protestants, and Jews with each other and with those of no religious identification and relates them to religious identification and a measure of religiosity. Sex and

affiliation effects were found. It is concluded that the MMPI may not be a suitable measure of personality for relating religiosity and religious identification to personality, since several of the MMPI scales contain religious content.—G. Steele.

580. Capps, Donald. (U. Chicago, Divinity School) **Orestes Brownson: The psychology of religious affiliation.** *Journal for the Scientific Study of Religion*, 1968 (Fall), Vol. 7(2), 197-209.—Examines the career of Orestes Brownson, who roamed from church to church during his adult life. It is suggested that the need to affiliate with religious groups can be best understood by noting how related personal and social factors interact to influence affiliation behavior. Brownson relied on religious affiliations to reverse the disrupting effects of personal lack of parental guidance in a social climate of confusing religious controversy. His Catholic conversion was the direct result of the tendency of his Protestant affiliations to intensify rather than mitigate these early frustrations.—*Journal abstract*.

581. Dean, Dwight G. (Iowa State U.) **Anomie, powerlessness, and religious participation.** *Journal for the Scientific Study of Religion*, 1968 (Fall), Vol. 7(2), 252-254.—Administered questionnaires to 145 undergraduates to obtain measures of anomie, powerlessness, and religiosity in an investigation of the need-fulfilling function of religion. Results confirmed W. Bell's (see PA, Vol. 33:3491) findings of no relationship and indicated "a curvilinear relationship between a measure of powerlessness and religious participation."—G. Steele.

582. Homans, Peter. **Theology after Freud: An interpretive inquiry.** Indianapolis, Ind.: Bobbs-Merrill, 1970. xvii, 254 p. \$4.25.

583. Lamm, Norman. (Jewish Center, New York, N.Y.) **The role of the synagogue in sex education.** *Child & Family*, 1968 (Fall), Vol. 7(4), 348-360.—Examines the Jewish philosophical approach to sex and sex education. 4 questions are discussed from a Jewish viewpoint: (a) should sex education be undertaken, (b) what should be taught conceptually, (c) who should teach sex education, and (d) how "shall it be transmitted." Hedonism, primary aim, locale, trust, shame, giving, objectification, and values are discussed.—G. Steele.

Cross Cultural Comparison

584. Brehmer, Brendt, et al. (U. Umeå, Sweden) **A cross-national comparison of cognitive conflict.** *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 5-20.—The results of 5 "lens model" interpersonal conflict experiments were carried out in 5 countries: Czechoslovakia, Greece, Japan, Sweden, and the United States. Conflict resolution was found to be very slow. It is concluded that the phenomena studied are independent of cultural factors, and reflect limitations in the human information processing system. (16 ref.)—A. Krichew.

585. Ekman, Paul; Sorenson, E. Richard, & Friesen, Wallace V. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Pan-cultural elements in facial displays of emotion.** *Science*, 1969 (Apr), Vol. 164(3875), 86-88.—Presented 30 photographs, each showing a facial display of a single emotion to a sample of 215 Os from the United States, Brazil, Japan, New Guinea, and Borneo. Os were told to select the word from a list of 6 affects which best described each picture.

Os in both literate and preliterate cultures chose the predicted emotion for photographs of the face, although agreement was higher in the literate samples. Findings suggest that the pan-cultural element in facial displays of emotion is the association between facial muscular movements and discrete primary emotions, although cultures may still differ in what evokes an emotion, in rules for controlling the display of emotion, and in behavioral consequences.—*Journal abstract*.

586. Lynn, R., Zahraee, R., & Rim, Y. (Economic & Social Research Inst., Dublin, Ireland) **Psychological factors in economic growth.** *Manpower & Applied Psychology*, 1968 (Sum), Vol. 2(1), 76-83.—Comparisons were made between a number of attitudes of university students and schoolboys in Britain and Israel. The 2 countries were chosen as representatives of the extremes of economic growth, Britain being exceptionally low and Israel exceptionally high. It was found that Israeli youth were more ambitious for a successful career and attached more value to the amount of esteem and independence conferred by their occupations.—P. L. Crawford.

587. Meredith, Howard V. (U. Iowa) **Body size of contemporary groups of one-year-old infants studied in different parts of the world.** *Child Development*, 1970 (Sep), Vol. 41(3), 551-600.—Collected source materials from 170 investigations reporting findings for body size at end of the 1st postnatal yr. Measurement of the infants took place largely between 1950 and 1960 in Africa, Asia, Australia, Europe, North and South America, Oceania, and the Malay Archipelago. Inter-comparisons are made for body weight and length, width, depth, and girth of head, chest and abdomen circumferences, vertex-rump and rump-soles lengths, and width of hips. At 1 yr., coeval groups of infants living in various geographic locations differed as much as 9 lb. in average body weight, 5.5 in. in average body length, and 2.5 in. in average chest circumference. (8 p. ref.)—*Journal abstract*.

588. Murphy, Lois & Murphy, Gardner. **Perspectives in cross-cultural research.** *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 1-4.—Explores some of the issues of international interdisciplinary research on cross-cultural problems. Some of the goals of such a study are defined.—A. Krichew.

589. Newton, Niles. (Northwestern U., Medical School) **The effect of psychological environment on childbirth: Combined cross-cultural and experimental approach.** *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 85-90.—A comparison of the birth patterning of the Cuna and the Siriono Indians of South America led to the conclusion that the acceptance of birth as a normal physiologic phenomena uncomplicated by shame led to speedier, easier births. This conclusion was experimentally tested in mice. Disturbances applied during their labor resulted in immediate reduction of labor speed. Fewer births resulted from switching mice from a familiar to an unfamiliar environment periodically. These results were interpreted as following from the original hypothesis.—*Journal abstract*.

590. Sloggett, Barbara B., Gallimore, Ronald, & Kubany, Edward S. (U. Hawaii) **A comparative analysis of fantasy need achievement among high and low achieving male Hawaiian-Americans.** *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 53-61.—Fantasy need achievement scores were obtained from male Filipino-American, Japanese-American, and indigenous Hawaiian high school students who were

divided into high and low achieving groups. The only significant differences were between the Japanese and the 2 Hawaiian groups who had the lowest need Achievement scores. The results were interpreted as challenging the usefulness of the notion that Hawaiian children do well or poorly in school depending on their need Achievement level.—*Journal abstract.*

Family

591. Bultena, Gordon L. (U. Wisconsin) **Rural-urban differences in the familial interaction of the aged.** *Rural Sociology*, 1969 (Mar), Vol. 34(1), 5-15.—Analyzed the frequency with which 507 elderly persons in rural and urban communities interact on a face-to-face basis with their adult children and siblings. It was found, contrary to theoretical expectations, that where there are differences in interaction levels, they favor the urban aged. Findings suggest that a deterioration in family ties from traditional patterns may be becoming more advanced in rural areas than in the city, where kinship groups are being reconstituted and assuming increased importance as a result of a build-up of several generations of family members. (20 ref.)—*Journal abstract.*

592. Libby, Roger W. (Washington State U.) **Parental attitudes toward high school sex education programs.** *Family Coordinator*, 1970 (Jul), Vol. 19(3), 234-247.—125 parent couples were interviewed (spouses were interviewed both separately and concurrently). A semistructured interview was used, followed by each interviewer completing a Sex Education Liberalism Scale. Results indicate that: (a) the higher the social class, the greater the liberality toward sex education; (b) parents with prepubescent offspring score higher in liberalism than parents with postpubescent offspring; and (c) Catholics have lower liberalism scores than all others, while Jewish, Unitarian, and those with "no religion" score highest. Nearly all parents approved high school sex education integrated throughout the curriculum, and a majority favored discussion of a variety of sexual attitudes and standards.—*M. W. Linn.*

Social Change & Social Programs

593. Doob, Leonard W. (Ed.) (Yale U.) **Resolving conflict in Africa: The Fermeda workshop.** New Haven, Conn.: Yale U. Press, 1970. xvii, 209 p. \$7.50.

594. Evans, Dorothy A. & Alexander, Sheldon. (U. Rochester, Medical Center) **Some psychological correlates of civil rights activity.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 899-906.—Compared Northern Negroes and whites at varying levels of participation in undergraduate civil rights groups with selected groups of Northern, Negro nonmembers of civil rights groups on a number of personality and demographic variables. Negro actives showed more repression and ego strength than nonactives. White actives showed less social approval motivation and less repression than Negro actives. In contrast to studies of Southern Negroes, Negro actives came from a lower socioeconomic background than Negro nonactives and internal vs. external control of reinforcement and number of non-civil-rights group memberships were unrelated to civil rights activity level. Factors other than activity level are important in predicting personality and demographic differences among civil rights activists and nonactivists. The

importance of additional empirical research is also discussed.—*Journal abstract.*

595. Golin, Sanford; Davis, Eugene; Zuckerman, Edward, & Harrison, Nelson. (U. Pittsburgh) **Psychology in the community: Project Self-Esteem.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 735-740.—Describes the development of Project Self-Esteem, a psychoeducational program in progress in 3 urban elementary schools in black communities. Some ways in which psychologists have participated in and contributed to programs in ghettoized communities are illustrated.—*Journal abstract.*

596. Mitscherlich, Alexander. **Panel on "Protest and revolution."** *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 211-218.—In a paper published in 1969 Mitscherlich noted that student protests are seemingly independent of political ideologies and connected to affluence and privilege groups. Presently the protests appear to be in a revolutionary stage focusing on society ills with a goal to change society. Panelists connect protests with mass communication, technological improvements, the war, the triumph of child-rearing practices, exaggerated adolescent strivings, acting-out individuals, insecure parents, etc. The major problem as to whether protests represent health or pathology is debated but unanswered.—*J. Chyatte.*

597. Wallace, John M. (Michigan State U.) **Factors affecting perceived ability to introduce change among Agency for International Development trainees.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5071.

SEXUAL BEHAVIOR

598. Herman, John R. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Impotency throughout the ages.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1969 (Jul), Vol. 16(3), 93-99.—Presents recorded data on impotency for the past 5000 yr. Indian sources predominate.—*M. V. Kline.*

599. Sutker, Patricia B., Sutker, Louis W., & Kilpatrick, Dean G. (Tulane U., Medical School) **Religious preference, practice, and personal sexual attitudes and behavior.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 835-841.—Investigated the influence of religious affiliation and religiosity upon reported sexual attitudes and behavior in the South. A Sexual Attitude Survey (SAS) was administered to 509 undergraduates, divided into Catholics, Protestants, Jews, and nonbelievers and further classified by frequency of monthly church attendance. Results indicate that men were more sexually liberal than women regardless of religious preference or religiosity, sexual liberality decreased with increased frequency of church attendance, and nonbelievers reported more liberal sexual attitudes and behavior than Catholics, Protestants, and Jews.—*Journal abstract.*

Birth Control & Abortion

600. ———. **Recent setbacks in medicine: A second sampler on the pill.** *Child & Family*, 1968 (Spr), Vol. 7(2), 170-187.—Cites studies of psychological side effects in the use of oral contraceptives.

601. Carroll, Charles. (U. California, Medical Center, San Francisco) **"Liberalized" abortion: A critique.** *Child & Family*, 1968 (Spr), Vol. 7(2), 157-169.—Dis-

cusses the pros and cons of liberalized abortion and concludes that the main issue involved is not concern for either the mother or the child but the power of life and death over ourselves and over others. (20 ref.)—J. L. Ahlberg.

602. Jakabovits, Immanuel. **Jewish views on abortion.** *Child & Family*, 1968 (Spr), Vol. 7(2), 142-156.—Discusses the Jewish view of abortion based on biblical writings, Talmudic teaching, and contemporary scholars. It is concluded that only concern for the mother's safety is a valid argument in favor of abortion. (57 ref.)—J. L. Ahlberg.

603. Thurstone, Phyllis B. (222 W. 39th Ave., San Mateo, Calif.) **Therapeutic abortion: The experience of San Mateo County General Hospital and the state of California.** *JAMA: Journal of the American Medical Association*, 1969 (Jul), Vol. 209(2), 229-231.—The 1st annual report after enactment of the new liberalized abortion law in California shows that a total of 91% of the 4291 applicants for therapeutic abortion were approved; a total of 3775 therapeutic abortions were performed. The overall incidence of therapeutic abortions to live births was 11.2:1000. Psychiatric indications accounted for 86% of the abortions performed. An analysis of the experience at San Mateo County General Hospital is presented to review indications, methods, and complications.—*Journal abstract*.

ATTITUDES & OPINIONS

604. Becker, Marcia R. (New School for Social Research) **The visual cues used in ethnic identification.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5219-5220.

605. Bentz, W. Kenneth; Hollister, William G., & Kherlopian, Margaret. **Attitudes of social distance and social responsibility for mental illness: A comparison of teachers and the general public.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 198-203.—Compared the attitudes of rural teachers and rural lay people with regard to social distance from formerly mentally ill persons and to social responsibility for mental illness in the community. Results indicate that teachers are less willing than the public to interact with ex-mental patients. Teachers show less social responsibility for mental illness than the public.—H. Kaczowski.

606. Prestage, R. O. (Child Guidance Training Centre, London, England) **Communication between the living and the dying.** *British Journal of Psychiatric Social Work*, 1968 (Spr), Vol. 9(3), 139-143.—Reviews factors influencing attitudes toward death and diseases and the implications for both the individual and society of "modes of communication that predominate between the living and the dying."

607. Priest, Robert F. & Abrahams, Joel. (U. Missouri, St. Louis) **Candidate preference and hostile humor in the 1968 elections.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 779-783.—College students rated hostile jokes about Wallace, Nixon, Humphrey, and McCarthy's disaffected liberal on the day before the 1968 election. The difference in their response to jokes about Humphrey and Nixon correlated .42 with candidate preference for 120 psychology students, and .58 for 35 political science student volunteers. The difference in response to jokes about disaffected liberals vs. jokes about other groups correlated significantly with attitude toward the Democratic party but not with candidate

preference. Results support reference group theory, replicate 2 other studies of election humor, and suggest that enjoyment of hostile humor depends upon who is being aggressed against.—*Journal abstract*.

608. Sato, Kimiko. (Kyoto Gakuen U., Japan) [On the problem of change of meaning: Semantic satiation.] *Japanese Journal of Psychology*, 1969 (Oct), Vol. 40(4), 182-191.—Investigated methodological problems in the measurement of change of meaning. Exp. I examined the 'midpoint of a semantic differential (SD) scale, classified types of change of meaning, and measured change of meaning on each scale. Results indicate that: (a) interaction among repeated words, the scale of meaning, and types of change of meaning are significant; (b) word repetition may lead to transformative change in addition to decreases and increases of meaning; and (c) the effects of word repetition on meaning are determined by the interaction of words, scales, and types of change. Exp. II examined the effect of meaningless word repetition. Results are consistent with Johnson's findings in that the increases of generation change were obtained. Exp. III examined the bipolar continuum of an SD scale. Data indicate that change of meaning can be rated more accurately on a bipolar than a unipolar scale. The bipolar continuum is discussed on the basis of R. F. Green's study. Exp. IV confirmed the property of "semantic satiation" by an application of the verbal association method. Results correspond to those obtained by the SD method. An application of the transformational function by D. E. Berlyne of the mediation process is suggested. (32 ref.)—*English abstract*.

609. Thomas, R. E., Smith, Joan M., & Spence, P. A. (U. Lancaster, England) **Wheeling and dealing: A new approach to the collection of attitude and motivational data by the use of semantic differential scales.** *Journal of the Market Research Society*, 1968 (Apr), Vol. 10(2), 78-86.—Suggests a method of data collection in which semantic differential scales can be presented as the spokes of a wheel on a printed card. Presentation of the "Lancaster Wheel" in an initial survey of the structure of the "bed-covering" market in the United Kingdom indicates that the 640 respondents were enthusiastically cooperative, completing 72 scales in a mean of 5 min. This contrasts with about 30 min. required completion time for the same number of scales presented in tabular form. Potential problems involve: (a) return of incomplete wheels, (b) interviewers forgetting to add code numbers, (c) difficulty in preparing data for punching, and (d) possibility of patterned responses. Further surveys have suggested ways of overcoming these problems. Appropriate methods of data analysis are discussed, and a variety of situations in which the technique can be advantageously applied are suggested.—R. Wiltz.

610. Upshaw, Harry S., Ostrom, Thomas M., & Ward, Charles D. (U. Illinois, Chicago Circle) **Content versus self-rating in attitude research.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 272-279.—Distinguishes between 2 modes of attitudinal expression: the content of an attitudinal position, and the person's self-rating of the pro-ness or con-ness of his attitudinal position. When made operational, these 2 facets of attitude require the performance of different scaling tasks termed Tasks A and B, respectively, in the C. H. Coombs system. 39 undergraduates completed a Thurstone scale under 1 of 3 attitude perspective

conditions. The perspective conditions were induced by the attribution of differing ranges of opinion (attitude content) to a relevant peer group. As predicted, the manipulation of perspective influenced Ss' self-ratings but not their content scores.—*Journal abstract.*

Formation & Change

611. Arrowood, A. John; Wood, Linda, & Ross, Lee. (U. Toronto, Ontario, Canada) **Dissonance, self-perception, and the perception of others: A study in cognitive dissonance.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 304-315.—68 undergraduates were simultaneously involved participants in a dissonance experiment and Os of other participants. As involved Ss, those who expected to expend a great deal of effort preparing for a test which they might not have to take showed high subjective probability that they personally would take the test. As Os answering the same question for the person seated 3 seats away, they showed no such responsiveness to the manipulation of anticipated effort. The apparent demonstration of dissonance reduction by Ss who engaged in no overt behavior from which to infer their beliefs challenges D. J. Bem's self-perception interpretation of what others have regarded as dissonance reduction. The failure of Os to duplicate the subjective probability responses of involved Ss under identical stimulus conditions poses further problems for Bem's self-perception model. Data suggest the subjective response to an aversive motivational state rather than simple self-perception.—*Journal abstract.*

612. Hall, Edwin P. (U. Alabama) **An experimental study of the modification of attitudes toward the mentally retarded.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4828.

613. Horowitz, Irwin A. & Gumenik, William E. (U. Toledo) **Effects of volunteer subject, choice, and fear arousal on attitude change.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 293-303.—120 undergraduates who had volunteered (volunteers) and Ss who had refused to volunteer (nonvolunteers) for a previous experiment which was not run were recruited. Upon reporting, both volunteers and nonvolunteers were either given or not given choice as to participation in, and selection of experiments. The volunteering and choice variables were combined factorially with high or low fear arousal. Volunteers and Ss allowed choice exhibited greater acceptance of the recommendations of the appeal than did nonvolunteers and Ss allowed no choice, respectively. Nonvolunteers allowed choice and volunteers exhibited greater acceptance of the recommendations of the high fear appeal than of the low fear appeal. The reverse occurred for nonvolunteers allowed no choice. Results are interpreted in terms of reactance theory.—*Journal abstract.*

614. Jones, James M. (U. Northern Iowa) **Dimensions of meaning and attitude change.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 955-962.—In a pretest-posttest control group design with 2 experimental samples and a treated control sample, 132 undergraduates responded twice to a Sherif-Hovland instrument. The intervening treatments written by E appeared to be Xeroxed copies of newspaper articles: 1 represented primarily the evaluative (E) dimension of meaning and the other was a fusion of potency (P) and activity (A), i.e., dynamism (D). A control (C) article was irrelevant to the experimental issue, i.e., censorship of movies.

Posttest-pretest change scores were compared for the 3 samples by 15 t tests for independent samples. E and D were not significantly different because both changed on the 5 Sherif-Hovland measures in the same directions. Compared with C, however, E was quite effective; 4 of the 5 measures changed significantly; comparisons of D and C indicated that 2 of the 5 measures changed significantly. For this issue E was more effective than D. More research is needed to clarify the effects of dimensions of meaning of communications on attitude change.—*Journal abstract.*

615. Keith-Spiegel, Patricia & Spiegel, D. E. (San Fernando Valley State Coll.) **Effects of mental hospital experiences on attitudes of teen-age students toward mental illness.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 387-388.—30 college students participated in a volunteer project at a psychiatric institution. The Custodial Mental Illness Ideology Scale was used to measure the degree of custodial as opposed to humanistic attitudes toward mental illness. Before and after individual item change scores were computed. Student attitudes did change in the direction of a more realistic view of mental illness and the students became relatively at ease and comfortable in working with patients.—*E. J. Kronenberger.*

616. Masten, Ellsworth E. (U. Iowa) **Modes of dissonance reduction in relation to cognitive dissonance concerning vocational choice.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5241.

617. Ostrom, Thomas M. (Ohio State U.) **Perspective as a determinant of attitude change.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 280-292.—Hypothesized that the relationship between attitudinal beliefs (content) and the way those beliefs (rating) are labeled on an evaluative dimension is mediated by perspective, or the range of alternatives taken into consideration when the evaluative judgment is being made. Exp. I with 118 undergraduates showed that the evaluative label which the S assigned to his attitude content was strongly affected by a manipulation of perspective. When matched for length of prison sentence advocated for a convicted criminal, Ss in 1 perspective condition viewed their recommended punishment as slightly lenient whereas those Ss in the other perspective condition rated themselves as extremely stern. Exp. II with 100 undergraduates showed that people will change their attitudinal content to remain consistent with their initial self-evaluation under conditions of a manipulated perspective. Ss were induced, holding initial self-rating constant, to advocate as much as twice as long a prison sentence in 1 perspective condition as in the other.—*Journal abstract.*

618. Sue, Derald W. (U. Oregon) **The effects of altering the availability of derogation and opinion change under manipulated discrepancies.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5070.

619. Wagner, Richard V. & Sherwood, John J. (Eds.) (Bucknell U.) **The study of attitude change.** Belmont, Calif.: Brooks/Cole, 1969. vii, 213 p.—Presents articles by various authors concerning major theoretical approaches to the study of attitude change and the research engendered by these approaches. This book is the 1st in a series of in-depth studies for graduate and undergraduate students of particular social psychological problems.

620. Walster, G. William & Walster, Elaine. (U. Wisconsin) **Choice between negative alternatives:**

Dissonance reduction or regret? *Psychological Reports*, 1970 (Jun), Vol. 26(3), 995-1005.—Investigated whether or not individuals commonly experience regret after making decisions. Previous results suggested Ss probably experienced more regret as time passed. There was no evidence that they ever succeeded in reducing dissonance. 1 of 3 current interpretations is that the more negative the choice alternatives, the more postdecisional regret a decision maker should experience. An experimental design to test alternative interpretations is proposed. (17 ref.)

Influence & Behavior

GROUP & INTERPERSONAL PROCESSES

621. **Armor, Thomas H.** (U. California, Los Angeles) **Peak-experiences and sensitivity training groups.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5218.

622. **Bell, Paul R. & Jamieson, Bruce D.** (IBM World Trade Corp., Wellington, New Zealand) **Publicity of initial decisions and the risky shift phenomenon.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 329-345.—96 male and 96 female undergraduates in same-sex groups of 4 were administered the Wallach and Kogan Choice Dilemmas instrument, in a 4 × 2 factorial design which investigated public and private initial decisions for familiarization, listening, information, and discussion conditions. As predicted, discussion public and listening private condition individual decisions shifted to risk. A 2nd hypothesis, that risky shifts would be larger within each condition when initial decisions remained private than when they had been made public was rejected. More initial decisions were found to have changed when these remained private than when they were made public. An extreme groups analysis revealed that larger risky shifts occurred for Ss whose confidence was low than for Ss whose confidence was high. The significance of the publicity variable and the necessity of its control is discussed. (20 ref.)—*Journal abstract*.

623. **Bowditch, James L.** (Purdue U.) **Biographical similarity and interpersonal choice.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5220-5221.

624. **Brown, Bert R.** (Cornell U.) **Face-saving following experimentally induced embarrassment.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 255-271.—In Exp. I, 48 male undergraduates performed either an embarrassing or nonembarrassing task and then chose between: (a) maximizing their monetary payoffs by describing their reactions publicly, or (b) accepting smaller payoffs to avoid public exposure. 1/2 of the Ss believed that their potential payoffs were announced to an audience, and 1/2 believed they would remain unannounced. Sacrifice was pronounced when Ss performed the embarrassing task and also believed the audience was ignorant of their costs. Exp. II explored the effects of audience role and identity on face-saving with 44 male undergraduates. 1/2 of the Ss believed the audience had an evaluative role, and 1/2 believed it would be nonevaluative while they described their reactions to the embarrassing task. Also, 1/2 had a male audience, 1/2 had a female audience. Face-saving was greatest in the evaluative condition. Results of both

experiments are discussed in terms of the costliness of attempts to avoid looking foolish in public. (24 ref.)—*Journal abstract*.

625. **Burroughs, Wayne A.** (U. Tennessee) **A study of white females' voting behavior toward two black female corroborators in a modified leaderless group discussion.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5063.

626. **Furr, Richard M.** (U. Tennessee) **The use of observational learning in the development of the human relations skills of leaders.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5373.

627. **Knott, Paul D.** (U. Denver) **A further methodological study of the measurement of interpersonal aggression.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 807-809.—Placed the 9 highest (HH) and 9 lowest (LH) scorers on the Buss-Durkee Hostility Inventory out of 115 males into an identical situation in which they received mild shocks on 6 of 60 trials. All Ss were angered by this procedure according to their scores on a self-report mood inventory. The HH and LH Ss significantly differed from each other on measures of number and intensity of shocks used and in terms of the 1st trial on which they retaliated. No evidence was found for the notion that number and intensity of shocks measure different processes of interpersonal aggression.—*Journal abstract*.

628. **Kolher, Adam T.** (U. California, Los Angeles) **Some possible effects of leader-member similarity-dissimilarity in the counseling technique of group psychoevaluation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5240.

629. **Lamm, Helmut & Kogan, Nathan.** (U. Mannheim, W. Germany) **Risk taking in the context of intergroup negotiation.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 351-363.—Pairs of 3-person male groups, working separately, came to unanimous decisions on preferred risk levels of 1/2 of the items in the choice dilemmas procedure. All 72 undergraduate Ss had previously filled out the full 12-item questionnaire. Each group elected a representative to defend the group's interests (high commitment), and selected an alternate (medium commitment). The remaining Ss constituted the nonrepresentative (low commitment). Each S in 1 of the groups was then matched with his status equivalent in the other group. These dyads negotiated agreements for the 6 items where there was a previous reference group position (fixed) and for the 6 items where there were only prior individual positions (open). For both fixed and open items, nonrepresentatives and alternates manifested risky shifts in their joint decisions, whereas representatives reached decisions through averaging. Results imply that high levels of commitment in the context of intergroup negotiation can disrupt the valuations processes underlying the risky shift in the standard intragroup situation. (21 ref.)—*Journal abstract*.

630. **Nottingham, Jack A.** (George Peabody Coll. for Teachers) **The effect of extremity of attitude on information seeking behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5067-5068.

631. **Overstreet, Robert E.** (Purdue U.) **Social exchange processes in an n-person cooperative game.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5068.

632. **Reed, Thomas R.** (U. Washington) **The effect of imagined context, sex, and birth order on the**

connotative meaning of selected social interaction concepts. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5069.

633. Riach, Margaret J. (Washington School of Psychiatry, D.C.) **The work of Wilfred Bion on groups.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 56-66.—Explicates some of the basic theories of Wilfred Bion that are necessary to his conceptual analyses of groups. Distinguishes between the work group (which is the ideal, task-oriented, purposeful group) and the basic assumption group (which fulfills neurotic needs of its members rather than its assigned function). There are 3 types of basic assumption groups: (a) one is characterized by dependency on a leader, (b) another is noted for its gathering against the outside work world and is called a "fight-flight" group, and (c) the last is a pairing group based on the concept of redemption by the created Messiah. These are the mythic bases for groups and are found to some degree in all groups since the ideal work group is a symbol toward which groups strive.—*E. Upchurch*.

634. Shaw, Jerry I. (U. California, Los Angeles) **Situational factors leading to the acquisition of a "psychological advantage" in competitive negotiations.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5069-5070.

635. Teger, Allan I., Pruitt, Dean G., St. Jean, Richard, & Haaland, Gordon A. (U. Pennsylvania) **A reexamination of the familiarization hypothesis in group risk taking.** *Journal of Experimental Social Psychology*, 1970 (Jul), Vol. 6(3), 346-350.—226 Ss at 3 universities participated in 5 separate studies which measured the effect on individual risk taking of increased familiarity with the problem situation. Results failed to replicate the finding that individuals will take increased risk after they are given an opportunity to become familiar with the problem. These failures to replicate cast doubt on the hypothesis that the increase in risk after a group discussion is due to increased familiarity with the problems rather than to the effect of group interaction.—*Journal abstract*.

636. Tolor, Alexander. (Fairfield U., Inst. for Human Development) **The "natural course" view of conflict resolution.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 734.—After observation of early intransigence of groups involved in a university student disorder and their ultimate agreement, it is hypothesized that "no matter how conducive to conflict resolution circumstances are after a certain critical phase in the dispute has been attained, further progress must await the passage of a 'respectable' amount of time."—*M. Daniels*.

637. Viney, Linda L. (U. Cincinnati) **Anxiety as a function of self-evaluation and related feedback.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5246.

638. Weight, David G. (U. Washington) **The internal-external locus of control dimension as a variable in the verbal behavior of subjects and experimenters.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5246-5247.

639. Wiener, Daniel J. (St. Dunstan's U., Charlotte-town, Prince Edward Island, Canada) **Failure of personality variables to mediate interpersonal attraction.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 784-786.—In previous research conducted by D. Byrne a consistent finding has been that attraction toward a stranger is a direct linear function of the proportion of

attitudes S and the stranger share. However, considerable individual differences in attraction responses toward strangers evincing equal-attitude similarity suggest the existence of mediating personality variables. Attraction scores derived from the standard Byrne paradigm were correlated with personality measures for overlapping subgroups of 543 undergraduates. These measures were: Marlowe-Crowne Social Desirability, Test Anxiety Questionnaire, Edwards Social Desirability, D-30 Depression, and Leary Interpersonal Checklist (ICL) scales. Only the Dominance-Submission measure of the Leary ICL correlated significantly with attraction and only for high similarity Ss ($r = .31$, $N = 43$, $p < .05$). It is suggested that attention be focused upon within-S attraction variance to explore the phenomenon further.—*Journal abstract*.

Influence & Communication

640. McGee, Ratha D. (U. Tennessee) **A study of sensitivity training as a method of changing self concept.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4860.

641. Misra, Sasi B. (U. California, Los Angeles) **The effects of instability in self-evaluation upon conformity and affiliation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5066-5067.

642. Mitchell, Rie R. (U. California, Los Angeles) **An evaluation of the relative effectiveness of spaced, massed, and combined sensitivity training groups in promoting positive behavior change.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4834.

643. Semon, Hugh A. (Kent State U.) **Maintenance of communication in a counseling interview as a function of "therapist" warmth and directiveness and "client" adjustment.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5267.

Social Perception & Motivation

644. Anant, Santokh S. (U. Lethbridge, Alberta, Canada) **Self- and mutual perception of salient personality traits of different caste groups.** *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 41-52.—239 urban Indian Hindus and Harijans checked 5 traits (from a list of 88) most characteristic of their own and other groups. Earlier stereotypes about castes were found to be fading, although the higher castes still are reluctant to relinquish age-old prejudices against the lower castes. (15 ref.)—*Journal abstract*.

645. Apsler, Robert G. (U. California, Los Angeles) **Self-attributions and the performance of consonant behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5062.

646. Blake, Brian F. (Purdue U.) **Sources of experimental bias.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5062.

647. Bodalev, A. A., et al. (Leningrad U., USSR) **Novye dannye k probleme sotsial'noi pertseptsii.** [New data on the problem of social perception.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 126-131. Presents some experimental results obtained during the past 2 yr. at the laboratory of social psychology of Leningrad State University. The experiments deal with the perception of faces, cooperation in problem solving, and the perception of supervisors by factory workers.—*L. Zusne*.

648. Bradley, Paul A. (U. Southern California) **A multidimensional scaling of mood expressions.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5221-5222.

649. Hampton, Barbara. (2802 P St., Washington, D.C.) **How others see us.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 381-382.—Discusses the public's perception of psychologists as found in a variety of media. Examples are cited indicating that the image of psychology remains confused, including continuing uncertainty on the differences between psychologists and psychiatrists.—P. McMillan.

650. Magnusson, David & Ekman, Gösta. (U. Stockholm, Sweden) **A psychophysical approach to the study of personality traits.** *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 255-273.—In Exp. I, 12 teachers serving as Os rated 356 3rd-7th graders on 11 personality traits. In Exp. II, 10 Os estimated the degree of perceived similarity between the same traits. In Exp. III, estimates were obtained from 10 Os of the frequency with which the traits occur together. It was found that similarity of traits was proportional to the squared coefficient of intertrait correlation. A similar relation was demonstrated for estimated cofrequency and intertrait correlation. Factor analyses of the 3 sets of data revealed essentially the same 3 factors of intelligence, sociability, and dependability. Results are discussed within a psychophysical framework regarding the Ss rated and traits estimated as stimuli in a person-perception experiment. (33 ref.)—*Journal abstract*.

651. Murray, Michael D. (U. Washington) **Empathy and injustice.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5067.

652. Scott, William C. (Texas Christian U.) **The influence of contextual variables on the attractiveness of a stimulus target.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5266-5267.

COMMUNICATION

653. Cameron, Paul. (U. Evansville) **The words college students use and what they talk about.** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 36-46.—Presents results of 2 studies in which eavesdroppers recorded words and topics of unguarded conversations of undergraduates. In Study I, speech samples from 2000 students produced 1668 different words from a total word sample of 48,912. In Study II, sampled speech of 900 students produced 3468 sentences and 27 categories of conversation topics. Data are presented in tables of: (a) the 100 most frequently used words; (b) categories and frequencies of profane words; (c) frequency of sex-organ related words, numbers, parts of speech, conversation topics, and subjects of sentences; and (d) general categories of conversation. Results are compared with those of previous investigations.—M. Maney.

654. Frumkina, R. M. (Inst. of Linguistics, Moscow, USSR) **Subektivnye otsenki chastot elementov teksta i veroyatnostnoe prognozirovaniye rechevogo povedeniya.** [Subjective judgments of the frequency of text elements and the probabilistic prediction of verbal behavior.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 76-85.—Discusses Soviet and foreign research on verbal behavior and the subjective and objective probabilities of words. It is suggested that verbal behavior can be predicted better on the basis of subjective than objective

word probabilities. An experiment in which 30 Ss rated 100 words of varying objective frequencies on a 6-point scale is described. Subjective and objective frequencies were, in general, in agreement. Deviations from agreement are discussed in terms of the relationship between the frequency of signs and the frequency of their significates. (English summary) (22 ref.)—L. Zusne.

655. Hipskind, Nicholas M. & Nerbonne, G. Patrick. (U. Massachusetts) **The most common words used in conversations: Western Massachusetts.** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 47-58.—A total of 25000 words was collected, 2268 of which were different. Samples were collected by means of portable tape recorders. The inventory revealed results similar to those of K. W. Berger (see PA, Vol. 42:12053) that were obtained in an inventory made in northeastern Ohio. The words collected and their frequencies of occurrence are presented in the appendix, in alphabetical order. Results indicate a need for additional sampling within the Eastern dialect region. (15 ref.)—*Journal abstract*.

656. Kausler, Donald H. & Kollasch, Sylvia F. (St. Louis U.) **Word associations to homographs.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 444-449.—Scored word associations to 40 homographic stimuli in terms of the semantic features serving as S's apparent functional stimulus, and determined hierarchies related to the separate sets of features of homographs. 100 male and 100 female undergraduates served as Ss in each form of the word association test and 50 males and 50 females served as Ss in the sentence construction test. The dominant meaning in the associative hierarchy was the more frequently occurring meaning in semantic counts, a finding in agreement with a spew-like principle of perceiving homographic stimuli.—*Journal abstract*.

657. Martin, J. E. (Pennsylvania State U.) **Adjective order and juncture.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 379-383.—Provides evidence from an experiment with 54 undergraduates that juncture phenomena are an important and robust aspect of the phenomenon of preferred adjective order. The cyclical scanning procedure, hypothesized to explain juncture phenomena, is an example of the class of psychological cycles.—*Journal abstract*.

658. Stanners, Robert F. (Oklahoma State U.) **Language frequency correlates of rated pronounciability.** *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 373-378.—Related language frequency to pronounciability (Pr) ratings taken from the norms constructed by B. F. Underwood and R. W. Schulz (see PA, Vol. 35:3113). A study by R. L. Venezky of the frequency of spelling-to-sound correspondences in a large sample of English words provided the frequency data. The materials were trigrams which could be analyzed into 3 phonemes. Multiple regression analysis was used to assess the separate contribution to the prediction of Pr of the initial, the medial, and the final phonemes of the trigrams. The overall relationship of the Venezky frequencies to Pr was much higher than the relationship of written frequency to Pr. Each of the phoneme frequencies made a significant contribution to the prediction of Pr, but the contribution of the initial and final phonemes was much larger than that for the medial phoneme.—*Journal abstract*.

659. Wang, Marilyn D. (U. Pittsburgh, Eye & Ear Hosp. & Medical School, Bioacoustics Lab.) **The role of**

syntactic complexity as a determiner of comprehensibility. *Journal of Verbal Learning & Verbal Behavior*, 1970 (Aug), Vol. 9(4), 398-404.—Investigated the hypothesis that comprehensibility is a function of syntactic complexity. 75 sentences, ranging from 5-29 words, each with a different syntactic structure, were tape-recorded and were then judged for comprehensibility by 40 paid volunteer undergraduates. The predictive validities of 8 measures of surface structure complexity were evaluated by means of a stepwise multiple regression analysis of the comprehensibility ratings. Only 3 measures contributed significantly to the prediction of comprehensibility: mean linguistic depth, the number of self-embedded structures in the sentence, and the number of conjoining transformations in the derivational history of the sentence. (19 ref.)—*Journal abstract*.

Language

660. Narskii, I. S. **Problem znaka i znacheniya.** [The problem of sign and meaning.] Moscow, USSR: Moscow U., 1969. 172 p.—Presents a collection of 9 papers on sign and meaning from thegnoseological, logical, and linguistic viewpoints developed and reworked from materials originally presented at a 1963 symposium on the "problem of meaning," held in Moscow.—*I. D. London*.

661. Petrov, Yu. A. (Inst. of Psychology, Moscow, USSR) **Opyt formalizatsii vosprositel'nykh predlozhenii (voprosov).** [An attempt at formalization of interrogatory sentences (questions).] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 39-52.—Constructs a formalized language of interrogatory sentences in order to formulate rules for the recognition of meaningful questions.—*I. D. London*.

662. Shenshev, L. V. (Inst. of Psychology, Moscow, USSR) **Sposob mashinnoi segmentatsii rukopisnykh slov.** [A method of machine segmentation of words in cursive letters.] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 226-231.—Proposes a "compromise" method whereby the machine for recognition of cursive writing segments the words not on the level of letters, but on the level of morphemes.—*I. D. London*.

663. Shenshev, L. V. (Inst. of Psychology, Moscow, USSR) **Sistema priznakov diya mashinnogo raspoznaniya rukopisnykh slov.** [A system of signs for machine recognition of words in cursive letters.] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 210-225.—Presents materials from experimental studies on machine identification of cursive writing. While, in the proposed system of indices to be employed, 3 pairs of letters are in principle indistinguishable from each other (the cyrillic E-S, I-Ts, Sh-Shch), that fact does not affect the degree of accuracy of identifying whole words in cursive writing.—*I. D. London*.

664. Weaver, Wendell W., Holmes, C. Curtis, & Reynolds, Richard J. (U. Georgia, Coll. of Education) **The effect of reading variation and punctuation conditions upon reading comprehension.** *Journal of Reading Behavior*, 1970 (Win), Vol. 2(1), 75-84.—18 undergraduate Ss were randomly assigned to 1 of 6 groups in a 2 x 3 factorial with reading variation (silent reading, reading last word of sentence aloud, and reading aloud) and presence or absence of punctuation as independent variables. 4 paragraphs differing in level

of context difficulty according to J. Bormuth's scale were given to each S, with every 5th noun (up to 20) deleted. The dependent variable was reading comprehension as measured by a noun cloze test, the sum of individual test item latencies, time required to read each passage, and time required to take an oral test. Results of the repeated measures analysis indicate a significant effect for context difficulty over all measures except total test time. A main effect of reading variation was found for the cloze test and total reading time, and a significant interaction between reading variation and punctuation was found for the cloze test. The cloze test and item latency measures indicate a trend in difficulty level inconsistent with that suggested by Bormuth. Results are discussed in terms of the task and test requirements.—*R. Wiltz*.

Psycholinguistics

AESTHETICS

665. Jaffe, Harold & Tytell, John. (Eds.) (Long Island U.) **The American experience: A radical reader.** New York, N.Y.: Harper & Row, 1970. xiii, 456 p. \$3.95 (paper).—Compiled to speak directly to college students, this anthology of writings on the contemporary American experience, includes a variety of unconventional forms (manifestoes, speeches, interviews, a symposium, poetry, rock-lyrics, and scenarios).

SMOKING & DRUG & ALCOHOL USE

666. ———. **How total community should confront today's drug-abuse problem.** *Canadian Medical Association Journal*, 1969 (Nov), Vol. 101(11), 8-16.—Summarizes recommendations by the Canadian Medical Association for a "broad, multifaceted program for the control of the misuse of drugs" in Canada. It is felt that: (a) control of cannabis should be maintained until adequate information has been obtained on its long-term effects; (b) "drug categorization, legislative control and penalties need complete rethinking"; and (c) a coordinate program of drug control and help for users is needed. Current knowledge, emphasizing psychoactive drugs, and adolescent and nonmedical drug use is examined. The team approach, education programs, crisis centers and facilities for chronic users, compulsory treatment of heavy users, control of hazardous substances and over-the-counter drugs, and research are advocated.—*G. Steele*.

667. ———. **Non-medical use of drugs with particular reference to youth.** *Canadian Medical Association Journal*, 1969 (Dec), Vol. 101(13), 804-820.

668. Forbes, Gordon B. (Millikin U.) **Smoking behavior and birth order.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 766.—Found that increases in birth rank are associated with smoking frequency increases in 804 college students.

669. Schneider, Nina G. & Houston, John P. (U. California, Los Angeles) **Smoking and anxiety.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 941-942.—460 of 1025 contacted individuals completed the Taylor MA scale and a questionnaire on smoking behavior. Data indicate that smokers, as a group, scored higher on the anxiety scale than nonsmokers. No support for the notion of a significant correlation between amount of smoking and level of anxiety was obtained. Ss reported

increases in smoking behavior during periods of stress but indicated that these increases were usually not maintained beyond the period of stress.—*Journal abstract*.

670. Silberman, D. & Levy, J. (Monash U., Victoria, Australia) **A preliminary survey of 24 Victorian marijuana users.** *Medical Journal of Australia*, 1969 (Aug), Vol. 2(6), 286-289.—Compared 24 marijuana users with matched controls using a yes/no questionnaire technique. Attitudes and personal characteristics differed systematically between groups. Most of the drug group identified closely with its usage, and were to some extent a social outgroup. A small number could not, apart from the facts of actual usage, be distinguished from the controls. Aspects of the drug experience, the associated personalities, and the usual consequences of usage are discussed. The usual stereotypes of marijuana users did not apply.—*Journal abstract*.

PERSONALITY

671. Aaronson, Bernard S. (Bureau of Research in Neurology & Psychiatry, Princeton, N.J.) **Drugs: Personality: Personality: Drugs.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 811-818.—The concepts, drug and personality, are conceptually similar, fulfill similar functions, and are defined by similar operations in their respective domains. A monistic concept is set forth and some implications of extending methods from personality psychology to pharmacology and from pharmacology to personality psychology are examined. (38 ref.)—*Journal abstract*.

672. Crookes, T. G. & Pearson, P. R. (St. John's Hosp., Aylesbury, England) **WAIS IQ, Sixteen PF B score and education.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 348-349.—Compared scores on the WAIS and 16 PF for 40 patients. The Verbal IQ of the SAIS was most related to education. The results agreed with previous research in that the correlations of Factor B on the 16 PF with the WAIS are insufficient to allow one to be substituted for the other.—*E. J. Kronenberger*.

673. Kelly, George A. (Brandeis U.) **The role of classification in personality theory.** *Public Health Service Publication*, 1968, No. 1584, 155-164.

674. Kostyuk, G. S. (Inst. of Psychology, Kiev, USSR) **Razvitiye leninskikh idei v sovetskoi psikhologii lichnosti.** [The development of Lenin's ideas in Soviet psychology of personality.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 3-24.—Lenin's doctrine of the social nature of personality has been developed by Soviet psychologists along the lines of dialectic materialism and social determinism. External factors give rise to action (by the personality) by way of internal processes. The role of the social group in personality development is emphasized, especially in the course of development of the child, which has been studied extensively by Soviet psychologists. (English summary) (77 ref.)—*L. Zusne*.

675. Krutetskii, V. A. **Yubilei uchenogo.** [Anniversary of a scientist.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 168-169.—Presents an appreciation on the occasion of the 80th birthday of Nikolai Dmitrievich Levitov, a Soviet psychologist, author of many books, whose work over the past 50 yr. has been mainly in the area of personality.—*L. Zusne*.

676. Williamson, R. W., Heckel, R. V., & Boblitt, W. E. (U. South Carolina) **Reported frequency of dream**

recall as related to repression-sensitization and intelligence. *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 300-301.—143 male and female Ss were administered the Welsh H and Welsh R scales of the MMPI, the Shipley scale, and answered questions concerning their dreams. Sensitizers were found to have significantly higher dream recall scores than repressors. Females had significantly more dream recall than did males. Differences in intelligence and the interaction between intelligence and the repression-sensitization variable did not differ significantly.—*E. J. Kronenberger*.

PERSONALITY TRAITS & PROCESSES

677. Berk, Bernice E. (New York U.) **Some structural and functional aspects of the self-concept.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5232.

678. Bone, Ronald N. & Montgomery, Doil D. (West Virginia Wesleyan Coll.) **Extraversion, neuroticism, and sensation seeking.** *Psychological Reports*, 1970 (June), Vol. 26(3), 974.—Examined the relationship of extraversion and neuroticism to the Sensation-Seeking Scale (SSS). Using the MPI as a measure of extraversion and neuroticism, results with 260 undergraduates indicate that the SSS is significantly related, for both sexes, to extraversion but unrelated to neuroticism.—*Author abstract*.

679. Clouser, Randall A. & Hjelte, Larry A. (Villanova U.) **Relationship between locus of control and dogmatism.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 1006.—Hypothesized that externally controlled Ss when compared to internally controlled Ss would be significantly more dogmatic based on theoretical similarities between the Rotter internal-external (I-E) and dogmatism constructs. Results with 241 undergraduates confirmed the hypothesis and suggest that dogmatism may be a correlate of the I-E construct.—*Author abstract*.

680. Gaddini, Eugenio. **On Imitation.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 475-484.—Identification can be distinguished from imitation but the relationship has not been sufficiently clarified. Imitation seems to be an essential element of the structure of identification, as is introjection, but it expresses a basic disposition towards the object, which should be distinguished from that of introjection. To imitate not only does not mean to introject, but may be a way of defending oneself from the anxiety provoked by introjective conflicts, even if this defense may in turn cause more serious pathological pictures. In the process of identification, imitations and introjections are fused and integrated in the service of the aims of adaptation and of the reality principle. Some of the different types of identification may be described as different pathological aspects of it, and the elementary mental processes which underlie some somatic pathological aspects may be better understood.—*Journal summary*.

681. Holmes, George R. (U. South Carolina) **The identification of social approval factors as sub-components of social desirability and acquiescence.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5239.

682. LeUnes, Arnold D. (North Texas State U.) **The relationship between self-concept and authoritarianism and certain academic, vocational, and biographical variables of college freshmen.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5225.

683. Spiegler, Michael D. & Liebert, Robert M. (Veterans Administration Hosp., Palo Alto, Calif.) **Some correlates of self-reported fear.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 691-695.—Assessed the relative fearfulness of 349 13-85 yr. olds using a self-report inventory consisting of subscales containing realistic and unrealistic fears. Women reported more fear than men. Age differences appeared in a U shaped pattern from adolescence to senior citizenry for realistic fears. For unrealistic fears there were no significant age differences. Highly reliable positive correlations were found between self-reported fear and social desirability. The pattern of results is discussed in terms of age and sex roles.—*Journal abstract.*

684. Templer, Donald I. & Dotson, Elsie. (Carrier Clinic, Belle Meade, N.J.) **Religious correlates of death anxiety.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 895-897.—No significant relationships between Death Anxiety Scale score of 213 undergraduates and several variables of religious affiliation, belief, and activity were obtained. The absence of any such relationship was explained in terms of religion having a limited effect upon the attitudes and behavior of most college students in our society.—*Journal abstract.*

685. Weissman, Herbert N. & Ritter, Kenneth. (Temple U.) **Openness to experience, ego strength and self-description as a function of repression and sensitization.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 859-864.—Attempted to determined whether persons differing in defensive style (the Repression-Sensitization scale) also differ systematically in their degree of openness to experience, ego strength (Es), and personality functioning as measured by the Adjective Check list (ACL). Using 3 groups of undergraduates, high sensitizers, relative to their more repressed counterparts, were more open to experience, differed significantly on a large number of ACL scales and were no lower on Es than median repression-sensitization persons. Findings suggest that sensitizers, while critical, impatient, action-oriented, and personally more troubled, also have the capacity for personal integration (Es) and for more creative potential than indicated in previous literature.—*Journal abstract.*

Behavior Correlates

686. DeLeon, Patrick H. (Purdue U.) **Concomitants of self disclosing behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5235.

687. DeWolfe, Thomas E. (U. Houston) **Criminal or mentally ill? Some correlates of labelling law-breaking deviants.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5064-5065.

688. Golightly, Carole & Reinehr, Robert C. (Austin State Hosp., Tex.) **Authoritarianism and choice of a military milieu.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 854.—Administered the California F Scale to 77 male students who had served a compulsory 2 yr. in a cadet corps before choosing to leave or remain. Results suggest a curvilinear relationship between authoritarianism and choice of a military milieu, with Ss who remain in a military milieu being of moderate to moderately high authoritarianism.—*Author abstract.*

689. Gorman, Bernard S. (Queens Coll., City U. New York) **16 PF correlates of sensation-seeking.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 741-742.—Administered to 64 undergraduates Zuckerman's

Sensation-Seeking Scale and Cattell's 16 PF. High sensation-seekers were characterized by greater dominance, surgency, adventurousness, suspicion, and bohemian unconcernedness and by less shrewdness and self-sentiment control than low sensation-seekers. This pattern was more pronounced for women than men. The relationship of this constellation to psychopathy is discussed.—*Journal abstract.*

690. Looft, William R. (Iowa State U.) **Egocentrism and social interaction in young and old adults.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5225-5226.

691. Moore, Charles H. & Ascough, James C. (East Carolina U.) **Self-acceptance and adjustment revisited: A replication.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 855-858.—Attempted to replicate research by C. Taylor and A. W. Combs (see PA, Vol. 27:2597) with undergraduates. The list of damaging statements was modified for an older population and the California Test of Personality (CTP) was used as a measure of adjustment. Data were collected for 79 Ss who were asked to identify themselves. Critical ratios were not significant and a correlation of .01 between indices was obtained. When the measures were later administered to 109 Ss without requiring names, $r = .04$. Inspection showed that results for Ss in the CTP middistribution were in predicted directions but that scores for Ss at the extremes were reversed. Results are discussed in terms of neurotic symptoms and stable adult behavior.—*Journal abstract.*

692. Rashid, Muhammad A. (Purdue U.) **Need achievement and academic and job success.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5227-5228.

693. Von Singer, Ron & Pederson, M. Gordon. (Marquette U.) **Behavioral correlates of the ACL Heterosexual scale.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 719-722.—Investigated specific behaviors which relate to high and low scores ($\pm 1\frac{1}{2}$ standard deviations) on the Heterosexual scale of the Adjective Check List. The Gough Adjective Check List and a structured telephone survey of 23 questions were administered to 36 male undergraduates. This survey yielded significant behavioral differences between the 2 groups. The high group's behavior tended to be more assertive, more involved in formal dating practices, and generally more mature.—*Journal abstract.*

694. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Animism and intolerance of ambiguity.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 966.—Hypothesized that Ss who classify nonliving objects as living were more able to tolerate a less well-defined categorizing system. No association was found between animistic responses to a questionnaire and intolerance for ambiguity in 49 female undergraduates. There is no adequate explanation for why Ss respond animistically.—*Author abstract.*

INTELLIGENCE

695. Gravitz, Herbert L. (U. Tennessee) **Examiner expectance effects in psychological assessment: The Bender Visual Motor Gestalt Test.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5238.

696. Inaba, Syotaro. (U. Tokyo, Inst. of Industrial Science, Japan) [New aptitude test induced by controllability by man.] *Japanese Journal of Psychology*, 1969 (Oct), Vol. 40(4), 201-211.

cortex, had its own genesis, and was connected with a definite neuronal function. The properties of the initial negative phase make evident that it was the result of physical propagation of potential from a specific cortical area. The 2nd phase (positive) reflected the activity of structures, picking up afferent signals. Evidence for this was its comparatively short latent period, as well as the synchronous responses of neurons identified in most cases as afferent (transmissive) neurons. The cortical level of its generation was 800-1200 microns. The 3rd phase (slow negative) appeared to be the result of excitation of the cortical motor cells. With slowly reiterated stimuli (about 2/sec), it summated with the negative phase of afteraction discharge which reflected the activity of inhibitory neurons. Comparison of the reactions of the neurons of the orbital cortex with the changes in excitability of the effector projections against a background of conditionalizing stimulation of afferent nerves led to the conclusion that the inhibitory interval of afferent neurons is secured by systems facilitating effector reactions. (English summary) (31 ref.)—*I. D. London*.

308. Kratin, Yu. G., Zavorotnyi, A. I., Petrov, Yu. N., & Sokolov, A. N. (Pavlov Inst. of Physiology, Leningrad, USSR) *Prostoi chastotnyi amplitudno-porogovyi avtomaticheskii analizator EEG*. [A simple automatic frequency amplitude-threshold EEG analyzer.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1163-1166.—Discusses the theory and design of the automatic EEG analyzer and details the circuits involved. The essence of the method consists in signals from each frequency filter being separately and automatically distributed, with respect to the amplitude of each oscillation, to 1 of several levels, the number and significance of which are established earlier in correspondence with the aim of the investigation undertaken.—*I. D. London*.

309. MacCulloch, M. J. & Atkinson, J. (U. Birmingham, England) *A simple method for adapting portable E.E.G. machines for use as polygraphs*. *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 410-414.—Describes the electromagnetic conversion unit which renders the magnetic changes occurring in the primary relays suitable for acceptance by any standard EEG machine.—*Journal summary*.

310. Majkowski, Jerzy & Morgades, Pilar P. (Medical Academy, Clinical & Experimental EEG Lab., Warsaw, Poland) *Primary auditory evoked potentials after section of brachium of the inferior colliculus*. *Electroencephalography & Clinical Neurophysiology*, 1969 (Dec), Vol. 27(6), 587-593.—Studied the primary auditory evoked potentials (PAEPs) in acute and chronic experiments before and after section of the brachia of the inferior colliculus (BIC) under nembutal and alpha-chloralose anesthesia, without anesthesia and during electrical stimulation of inferior colliculi (IC). Out of 20 cats, 5 are presented in detail. The section of BIC resulted in disappearance of PAEPs recorded from auditory cortex A1, regardless of the type of anesthesia and in cats without anesthetics, during auditory and electrical stimulation of IC. This effect lasted for several mo. Results are discussed from the viewpoint of relative specificity of the pathways in reticular formation which would transmit the auditory impulses to levels above section of BIC. (French summary) (17 ref.)—*Journal summary*.

311. Nash, Michael D. & Fleming, Donovan E. (Temple Buell Coll.) *The dimensions of stimulus complexity and the visually evoked potential*. *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 171-177.—Investigated the relationships between 5 dimensions of complex stimuli and the latency, waveform, and amplitude of the visually evoked potential (VEP) of 8 male Ss in 3 experiments. The stimulus variable, contour density, emerged as the most consistent predictor of VEP amplitude. Contrary to earlier reports, changes in either latency or waveform were not observed, and linearity was the most frequent form of the relationship between the stimuli and amplitude measures. (French & German summaries) (18 ref.)—*Journal abstract*.

312. Peck, Carol K. (U. California, Los Angeles) *Behavioral and electrophysiological responses in a two-flash discrimination task in the cat*. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5262.

313. Semenovskaya, E. N., Bogoslovskii, A. I., & Zhdanov, V. K. (Helmholtz Research Inst. of Eye Diseases, Moscow, USSR) *Vyzvannye svetom potentsialy u zdorovykh lyudei i u bol'nykh s razlichnym urovnem lokalizatsii patologicheskogo protessa v zritel'noi sisteme*. [Photically evoked potentials in healthy persons and in those with different levels of localization of the pathological process in the visual system.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 102-109.—85 patients, with variously located affections of the visual system (pathological states of the optic nerve: different diseases of the retina with diencephalic failure to regulate intraocular pressure, glaucoma, and amblyopia), were Ss in a study employing, as indices, evoked potentials and electroretinograms. The careful study of cortical evoked potentials in combination with the application of a composite of electrophysiological techniques can help considerably to establish the character and topical nature of the lesion in the visual organ.—*I. D. London*.

314. Sologub, E. B. (Lesgaft Inst. of Physical Culture, Leningrad, USSR) *Medlennye potentsialy EEG v tempe dvizheniya kak odna iz form rabochei aktivnosti kory bol'shikh polusharii*. [EEG slow potentials in the tempo of movement as one of the forms of working activity of the cerebral cortex.] *Fiziologicheskii Zhurnal SSSR*, 1969 (Sep), Vol. 55(9), 1049-1058.—70 adults "with different occupational and athletic specialization and qualifications" were studied while performing intense muscular activity (running in place, mock rowing, etc.). EEG slow potentials with an amplitude of 50-100 microV., in rhythm with the tempo of movement, is 1 of the most characteristic forms of cortical electrical activity. EEG slow potentials, in rhythm with the tempo of movement, were more stably manifested in persons who were the best trained for a given type of muscular performance and varied considerably with respect to temporal and spatial parameters in poorly trained Ss. Cortical localization of slow potentials, in rhythm with the tempo of movement, was a function of stage of formation of the motor dynamic stereotype: (a) more marked irradiation and their predominance in the right hemisphere in the beginning and middle stage of mastering a movement, and (b) local manifestation in limited zones of the cortex (motor and lower parietal areas of the left hemisphere) in the concluding stages of development of the stereotype. Slow potentials, in rhythm with the tempo of movement, appeared in the

period of development and during fatigue in different cortical functional structures; but during the steady state in muscular performance, especially in highly trained athletes, they were concentrated within the bounds of 1 functional structure. (English summary) (22 ref.)

SENSORY PHYSIOLOGY

315. Chapman, Harold W. (U. Pennsylvania) **Oropharyngeal determinants of non-regulatory drinking in the rat.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5252.
316. Demirchoglyan, G. G. (Visual Reception Lab., Erevan, USSR) **Novye dannye o mekhanizmaxh deistviya ioniziruyushchego izlucheniya na funktsional'nye svoystva retiny.** [New data on the mechanisms of action of ionizing irradiation on the functional properties of the retina.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 114-117.—Reports results of studies on the influence of ionizing radiation upon frog retina, utilizing electroretinograms (ERGs) from isolated retina, bathed in nutrient liquid. Under the action of X rays, the b-wave of the ERG was reduced. The response to X-ray stimulation (5 r/sec) was similar to that from the retinal ERG, resulting from a corresponding photic stimulus.—I. D. London.
317. Marveev, A. B. (Energy Inst., Moscow, USSR) **O nekotorykh psikhofiziologicheskikh zakonamernostyakh vospriyatiya tsвета, opisyyaemykh nelineinoy model'yu.** [On some psychophysiological operational characteristics of color perception, described by a nonlinear model.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 19-26.—Develops a mathematical model of the visual organ, based on spectral sensitivity curves for 3 color-sensing receptors—curves which coincide with the composition curves of N. D. Nyuberg and E. N. Yustova. "Normalizing the equations" is made on the basis of data on the discrimination of 25 colors of the same brightness, supplied by D. L. MacAdam (see PA, Vol. 16:3470). It appears that (a) "for the red- and green-sensing receptor the relationship of sensation and color is [one that is] closer to the linear than [is the case] for the blue receptor," and (b) "all achromatic colors, therefore, are distributed in the color space hyperbolically, convexly in the direction of the axis of the blue-sensing receptor." The hypothesized displacement of a white spot in the functional relationship between object and background brightness is confirmed experimentally.—I. D. London.
318. Ostrovskii, M. A. & Polyak, S. E. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O gistokhimicheskoi raznorodnosti nervnykh elementov setchatki (na primere raspredeleniya aktivnosti kisloi fosfatazy).** [On the histochemical heterogeneity of the retinal nerve elements (on the example of the distribution of acid phosphatase activity).] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 155-157.—Presents a histochemical study of the distribution of acid phosphatase activity in frog retina in order to elucidate the functional differences with respect to this enzyme among the retinal elements, in particular, the cells of the internal nuclear layer. Deposits of lead sulfide, testifying to the presence of enzymatic activity, was distinctly in evidence in the ganglionic cells, Müllerian fibers, and the horizontal cells of the internal nuclear layer. Deposits were not observed in the bipolar cells of this layer or in the photoreceptors.—I. D. London.
319. Samsonova, V. G. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Puti razvitiya fiziologii zreniya i fiziologicheskoi optiki v SSR za 50 let.** [Paths of development of the physiology of vision and physiological optics in the USSR for the last 50 years.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 3-7.—Presents a historical review of the direction and scope of research.—I. D. London.
320. Shklover, D. A. (All-Union Research Phototechnical Inst., Moscow, USSR) **Modellirovanie protsessa tsvetovogo zreniya u cheloveka.** [Modeling the process of color vision in man.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 8-18.—Develops a mathematical model of the process of human color vision, whose output signals correspond to experimental functions procured under certain conditions of observation. A number of the operational characteristics of human color can be explained with the aid of the model. An electronic model is constructed which reproduces the main functions of human color vision and which is utilizable for the development of photoelectric methods of color measurement. Questions dealing with the capacity of the eye to discriminate color under different conditions of observation are investigated with the aid of this model.—I. D. London.
321. Shukolyukov, S. A. & Étingof, R. N. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Primenenie kislotno-osnovnykh indikatorov dlya izucheniya izmenenii pH pri osveshchenii naruzhnykh segmentov fotoretseptorov setchatki i rodopsina.** [Application of acid-base indicators for studying pH changes under illumination in rhodopsin and the outer photoreceptor segments of the retina.] *Biofizika*, 1970 (Jan), Vol. 15(1), 112-119.—Isolated fractions of outer segments of bovine retina containing membrane structures with rhodopsin were used in a study showing that these segments have the capacity to bind the indicator, bromthimol blue, unlike the case with the indicator, bromcresol purple. Rhodopsin, in the form of digitonin micellae also bound bromthimol blue. Also, the constant of dissociation (pK) shifted from 7.1-8.5. The union of bromthimol blue with rhodopsin did not alter the differential spectrum of the latter. With illumination of the "dark" segments there were observed under certain conditions (a) an increase in the absorption of the indicator, bromcresol purple, and (b) a decrease in that of the indicator, bromthimol blue.—I. D. London.
322. Snyakin, P. G. & Anisimova, A. P. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Setchatka kak vyrazitel' faz korkovoi induktsii.** [The retina as expresser of the phases of cortical induction.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 68-71.—Studied positive and negative cortical induction, whose intensity is gauged through utilization of retinal lability as index of strength of induction. The formation of retinal CRs, differentiation, etc., as well as the phases of positive and negative induction between the centers of different analyzer systems, is reflected in the level of sensitivity of the retina and in its effector reactions. CSs were the sound of a metronome, the smell of vinegar, mechanical stimulation of the skin (rhythm of 60/min), etc.—I. D. London.
323. van Hof, M. W. (Medical Faculty, Rotterdam.

697. Koppitz, Elizabeth M. (Board of Cooperative Educational Services, Yorktown Heights, N.Y.) **The Visual and Aural Digit Span Test with elementary school children.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 349-353.—Attempted to secure normative data for children without learning disabilities on the Visual Aural Digit Span Test. No significant differences were found for sex or for mode of reproduction but the results were influenced by age with older Ss doing better than younger Ss. Visual presentation resulted in better recall than did aural presentation.—E. J. Kronenberger.

698. Looft, William R. (U. Wisconsin) **Note on WAIS Vocabulary performance by young and old adults.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 943-946.—Analysis of WAIS Vocabulary performance of 56 young adults (mean age about 19 yr.) and 39 old adults (mean age about 77 yr.), equated for educational level, showed that the average performance of the younger group was significantly higher. An examination of the responses of the 2 age groups to specific items suggested generational change in degrees of understanding and the kinds of referents for several words.—*Journal abstract.*

699. Majumdar, P. K., Dasgupta, J., Basu, K., & Dutta, D. **On the working of a battery of psychological tests: Raven's Standard Progressive Matrices Test.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967 (Jul), No. 9., 1-6.—Presents a normative study of Raven's Standard Progressive Matrices Test along with a few other cognitive ability tests on 2836 higher secondary students of Calcutta, India. Normative studies for different subgroups were undertaken and the order of placement of the different subsets of the test in the total scale continuum were verified. No significant difference in the overall difficulty value of Set C with that of Set D was noticeable. However, results indicate that Set D might precede Set C in the scale continuum.—*Journal abstract.*

700. Miller, Charles K., Chansky, Norman M., & Gredler, Gilbert R. **Rater agreement on WISC protocols.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 190-193.—Investigated the degree of agreement among psychologists in training in scoring WISC protocols. It is suggested that discrepancies between raters can be accounted for by (a) responses to items not clearly accounted for in the manual, (b) failure to follow explicit guidelines set by Wechsler in relation to cutoff criteria and prorating procedures, and (c) clerical errors.—H. Kaczkowski.

701. Saunders, David R. & Gittinger, John W. (U. Colorado) **Patterns of intellectual functioning and their implications for the dynamics of behavior.** *Public Health Service Publication*, 1968, No. 1584, 377-390.

702. Smith, Richard B. & Mangum, Robert. **Delayed recall versus recognition as a predictor of higher level cognitive achievement.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 167-171.—Compared the performance of college students who can recall a principle after a period of years as opposed to those who can only recognize the principle. Blom's Taxonomy served as a guide for constructing items to judge the ability to profit from communication. Results indicate that recall is superior to recognition in predicting ability to form inductive and deductive conclusions.—H. Kaczkowski.

703. Watkins, J. T. & Kinzie, W. B. (U. South Dakota) **Exaggerated scatter and less reliable pro-**

files produced by the Satz-Mogel abbreviation of the WAIS. *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 343-345.—Presents a partial replication of the original work of the Satz-Mogel WAIS abbreviation. The results substantiated the findings of Satz and Mogel but also found that their short form was characterized by a highly significant increase in variance, by profiles which were not highly and consistently related to the pattern of subtest scores, and exaggerated scatter and potential for distortion. The implication of the study was that abbreviated subtests will tend to yield less reliable profile data.—E. J. Kronenberger.

CREATIVITY

704. Smith, George P. (North Texas State U.) **The relationships among selected variables of creative thinking and visual, auditory, and tactual sensory perception.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4839.

PERSONALITY MEASUREMENT

705. Boon van Ostade, A. H. **Rokeach' dogmatisme-schaal: Duidelijker resultaten met iteratieve cluster analyse.** [Rokeach's Dogmatism Scale: Clearer results with iterative cluster analysis.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970 (May), Vol. 25(5), 322-323.—Reference is made to L. Hagendoorn's (see PA, Vol. 44: 13617 and 44:14631) research about the dubious reliability and validity of Rokeach's Dogmatism Scale. It is suggested, by means of supporting data, that iterative cluster analysis can provide more adequate results with the Rokeach scale than by component analysis, which was the research technique used by Hagendoorn.—A. J. Ter Keurst.

706. Hundal, P. S., Singh, Agyajit, & Singh, Mohinder. (Punjab U., Chandigarh, India) **Factor analytical study of tests of anxiety.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 875-878.—Administered Taylor's MA scale, the Neuroticism scale of the MPI, Cattell's Anxiety Scale Questionnaire, and Dutt's Anxiety Questionnaire to 200 male Indian graduate students. 2 indices of academic achievement and 3 measures of physique were also noted. Data were processed by principal axis method of factor analysis. 4 factors were extracted and interpreted.—*Journal abstract.*

707. Lunneborg, Patricia W. & Lunneborg, C. E. (U. Washington) **Factor structure of MF scales and items.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 360-366.—Masculinity-femininity (MF) items from 4 scales were administered to 169 college sophomores. A factor analysis of the results was obtained and is presented. There were 2 principal axis factors. 11 factors were extracted from the intercorrelations: feminine interests, emotional sensitivity, philistine vs. artistic, self-confidence, masculine interests, rejection of adventure, neurotic symptoms, indifference, social adequacy, extraversion, and unsocial nonconformity. Of the 11, 5 were considered true MF dimensions.—E. J. Kronenberger.

708. MacDonald, A. P. (West Virginia U., Rehabilitation Research & Training Center) **Revised scale for ambiguity tolerance: Reliability and validity.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 791-798.—Increasing the 16-item Rydell-Rosen Ambiguity Tolerance (AT) Scale to 20 items raised the reliability from

.64 to .86. The 20-item scale (AT-20) was cross-validated on a sample of 789 undergraduate Ss. Retest reliability was estimated at .63 ($p < .01$) for a 6-mo interval. AT-20 related to: (a) performance in a complex task, (b) the California F Scale, (c) dogmatism, (d) rigidity, and (e) church attendance. The AT-20 was not affected by social desirability response-bias as measured by the Marlow-Crowne Social Desirability scale. (17 ref.)—*Journal abstract*.

709. Stein, Morris I. & Neulinger, John. (New York U., Research Center for Human Relations) **A typology of self-descriptions.** *Public Health Service Publication*, 1968, No. 1584, 390-403.

710. Veldman, Donald J. & Parker, George V. (U. Texas) **Adjective rating scales for self description.** *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 295-302.—Factor analysis of Gough's 300-item Adjective Check List identified 8 highest-loading items for 7 factors of self-perception. These were alphabetized and presented with 5-point scales to 713 females in teacher training. Factor analysis of the 56 self-rating items replicated the original structure, and simple scale sums showed satisfactory internal consistency and test-retest stability. Correlations with another self-description inventory evidenced concurrent validity of the instrument, which should be valuable for rapid, straightforward, quantified self-description.—*Journal abstract*.

711. Wilson, Glenn D. & Patterson, John R. (Inst. of Psychiatry, London, England) **The Conservatism Scale.** Windsor, England: NFER Publishing Co., 1970.—Describes the Conservatism Scale (C-Scale) designed to measure the general factor underlying social attitudes, variously labeled "authoritarianism," "fascism," "dogmatism," "rigidity," "preservationism," and "antiscientific attitude." Extreme high scorers on the C-Scale may be expected to show: (a) religious dogmatism; (b) right-wing political orientation; (c) insistence on strict rules and punishments; (d) ethnocentrism, and intolerance of minority groups; (e) preference for conventional art, clothing, and institutions; (f) anti-hedonism (a tendency to regard pleasure as bad); and (g) superstition and resistance to scientific progress. Positive intercorrelations among these attitude clusters are now confirmed in several different cultures. The propositional-statement form of previous attitude scales has been abandoned in the C-Scale, and a new item format introduced which gives it unique economy as a psychometric instrument without sacrificing reliability or validity.—P. McMillan.

Inventories

712. Boff, M. M. (U. Pittsburgh) **The M-F scale: Yesterday and today.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 92-96.—Studied the measurement of masculinity-femininity (M-F) by scales so labeled on personality inventories. 120 items from 3 representative scales were administered to 2 successive samples of university freshmen women and 11th grade high school girls who responded to the items in terms of their "ideal woman." 18 discriminating items were then administered to a sample of 48 men and 45 women in an introductory psychology class. Results showed rejection of more than $\frac{1}{2}$ of the items originally keyed as feminine, and little difference in response by sex.—S. M. Amatora.

713. Brown, J. R. (U. Bridgeport) **Edwards Personality Inventory, Booklet IV: Faking and faking detection.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 86-88.—55 experimental and 53 control Ss completed Booklet IV of the Edwards Personality Inventory. The former were instructed to fake in order to make an excellent impression while concealing their faking; the latter were instructed to be honest and forthright. Differences between experimental and control group means were small and reached significance for only 3 of the 13 variables. An attempt to use the Virtuous scale as a lie scale to detect faking had only modest success.—S. M. Amatora.

714. Edwards, Allen L., Abbott, Robert D., & Klockars, Alan J. (U. Washington) **Social desirability and the TSC scales: A replication and reply to Stein.** *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 325-327.—A replication of a study by A. L. Edwards, A. J. Klockars, and R. D. Abbott (see PA, Vol. 44:16709) using Tryon's sample, i.e., male adults instead of male undergraduates showed that each of the 7 Tryon, Stein, and Chu (TSC) scales had its highest loading on the 1st principal component. Results are in agreement with those obtained with a college sample.—*Journal abstract*.

715. Erdberg, Stephen P. (U. Alabama) **MMPI differences associated with sex, race, and residence in a Southern sample.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5236.

716. Mehryar, A. H. & Shapurian, R. (Paholavi U., Shiraz, Iran) **Some normative data on a Persian form of the New Junior Maudsley Inventory.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 743-746.—Describes characteristics of performance on a Persian translation of the New Junior Maudsley Inventory by 274 boys and 318 girls enrolled in secondary schools. Cross-cultural differences are explored.—*Journal abstract*.

Projective Techniques

717. Urbina, Susana; Harrison, Joan B., Schaefer, Charles E., & Anastasi, Anne. (Fordham U.) **Relationship between masculinity-femininity and creativity as measured by the Franck Drawing Completion Test.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 799-804.—Hypothesized that creative Ss share more of the traits commonly associated with the opposite sex than do noncreative Ss. The Franck Drawing Completion Test (FDCT) protocols of 240 high school students, equally divided in terms of sex and creative vs. control status, were analyzed. Results confirmed the validity of the masculinity-femininity (M-F) scale of the FDCT for adolescents ($p < .001$) but did not support the hypothesis as the FDCT does not measure those aspects of the M-F variable which creative Ss share with the opposite sex. Previous studies have also confirmed its validity as a measure of M-F but have been unable to specify which aspect of M-F it taps.—*Journal abstract*.

Rorschach Test

718. Boreham, John. (Tavistock Clinic, London, England) **A theoretical contribution to the understanding of the shading responses.** *British Journal of Projective Psychology & Personality Study*, 1968 (Jun), Vol. 13(1), 13-15.—Hypothesizes that (a) "depth shading responses relate not to anxiety in general, but more specifically to depressive anxiety," and (b) phobic

anxiety is found in inanimate movement responses and threatening response content. It is suggested that these basic anxiety situations are rarely found in pure form, and a projective test should reflect their many manifestations.—*P. McMillan.*

719. **Friedemann, Alfred.** (International Rorschach Society, London, England) **The history of Rorschach.** *British Journal of Projective Psychology & Personality Study*, 1968 (Jan), Vol. 13(1), 3.—Reviews the history of the development of the Rorschach test from the appearance of the 1921 monograph entitled "Psychodiagnostik" through the establishment of the International Rorschach Society in Berne in 1952, to the 7th International Rorschach conference in London.—*P. McMillan.*

CLINICAL PSYCHOLOGY

720. **Becuș, T. & Feszt, T.** **Contribuții la studiul mucoproteinuriei cu reacția Donaggio în afecțiuni neuropsihice.** [Contributions to the study of mucoproteinuria by the Donaggio test in neuropsychical diseases.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 31-38.—Determined urinary mucoproteins by the Donaggio test in 45 cases of multiple sclerosis, and compared results with those obtained in an equal number of neuropsychical patients. In neurotic patients mucoproteinuria was normal. Highest values were obtained in Ss with multiple sclerosis, different neuroinfections, and heredodegenerative and muscular diseases. Moderately increased values were found in Ss with cerebral vascular diseases. (French, German, & Russian summaries) (25 ref.)—*English summary.*

721. **Block, James D., Sersen, Eugene A., & Wortis, Joseph.** (Maimonides Medical Center, New York, N.Y.) **Cardiac classical conditioning and reversal in the mongoloid, encephalopathic, and normal child.** *Child Development*, 1970 (Sep), Vol. 41(3), 771-785.—24 mongoloid 4-11 yr. olds, 29 encephalopathic 6-11 yr. olds, and 77 normal 7-11 yr. olds served as Ss. During initial conditioning (10 stimulus pairs) only the oldest normal group evidenced significant stimulus discrimination. During subsequent reversal (10 stimulus pairs), both the oldest and an intermediate normal group evidenced significant discrimination. Mongoloids and the youngest normal group evidenced no consistent cardiac discrimination. Encephalopathic Ss evidenced significant discrimination during reversal, but in a manner inappropriate to the reinforcement contingencies. This behavior, unique in both CA and MA comparisons of encephalopathics with mongoloids and normals may be related to a somewhat impaired conditioning and a more greatly impaired extinction process, or to a deficit in the Pavlovian postulated process of CNS mobility. (24 ref.)—*Journal abstract.*

722. **Bowlby, John.** (Tavistock Clinic, London, England) **Disruption of affectional bonds and its effects on behavior.** *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 75-86.—Notes that it is proving productive to view many psychoneurotic and personality disturbances as a reflection of a disturbed capacity for making affectional bonds due to faulty development in childhood or subsequent derangement. A review of studies of childhood loss in different psychiatric populations consistently shows 2 psychiatric syndromes—psychopathic personality and depression

—and 2 sorts of associated symptoms—persistent delinquency and suicide—to be preceded by disrupted bonds during childhood. Although data have not yet conclusively demonstrated that brief separations from parents produce disequilibrium in children, that long or repeated separations are causally or genetically related to subsequent personality disorders, it is suggested that: (a) disturbed adult behavior represents a persistence over yr. of deviant patterns of bonding established during childhood, and (b) a principal way in which genetic factors influence mental health is by their effect on bonding behavior. It is concluded that future research should be directed toward bringing together environmental and genetic studies of behavioral disorder. (33 ref.)—*M. Maney.*

723. **Bratfos, Ole; Eltinger, Leo, & Tau, Tove.** (U. Oslo. Psychiatric Clinic, Norway) **Mental illness and crime in adopted children and adoptive parents.** *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 376-384.—Considers whether or not adults who have grown up in adoptive homes are especially disposed to mental disorder. 250 persons born within a 11-yr period, and who had grown up in adoptive homes, were examined with regard to the incidence of mental disorder and crime. The information, derived from the central register of oligophrenia, psychosis and alcoholism, from police files, and from the country's clinical departments, does not indicate that adopted children differ in any special way from the rest of the population. Whether any correlation could be found between mental disorder in adopted children and their adoptive parents was also investigated. There was nothing to indicate that those cases in which such problems were revealed in the adopted children could be traced back to the adoptive parents.—*Journal summary.*

724. **Campbell, Susan.** (McGill U., Montreal, Quebec, Canada) **Cognitive styles in normal and hyperactive children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5233.

725. **Cash, Larry M. & Kooker, Earl W.** (YMCA Counseling Service, Toronto, Ontario, Canada) **Attitudes toward death of NP patients who have attempted suicide.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 879-882.—Hypothesized that individuals who have attempted suicide would have more inconsistent attitudes toward death than would persons who had not attempted suicide. An attitude toward death scale was devised and administered to 20 neuropsychiatric patients who had attempted suicide, to 20 who had not, and to 40 upper-class and graduate students. Positive, inconsistent, and negative categories were defined in terms of score ranges on the scale. By χ^2 test proportionately more of the suicidal group than of the other 2 fell in the inconsistent category. Scores of both psychiatric groups were distributed differently from those of the normal group and also from each other. (17 ref.)—*Journal abstract.*

726. **David, Henry P.** (International Research Inst., Silver Spring, Md.) **Clinical psychology and social issues in international perspective.** *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 87-92.—Emphasizes the need for more research and effective international exchanges of information and cooperation especially in the areas of delivery of health services, abortion law reform, and the evolving roles of men and women in modern society. It is suggested that future clinical psychologists will have increasing oppor-

tunities to participate in applied projects with potentials for social action. As this opportunity evolves, psychologists must be prepared to offer practical suggestions to decision makers, and "to join with colleagues in other lands, regardless of ideology, in contributing... toward the amelioration of complex social issues...."—M. Maney.

727. Dey, P. K., Rakshit, Pratima, & Majumdar, Aloke. **Cholinesterase activity and vitamin C relationship in patients of disordered brain functions.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967 (Jul), No. 9, 11-13.—Studied cholinesterase activity and ascorbic acid level in blood plasma of 30 12-55 yr. old schizophrenics and 10 12-19 yr. old mental deficients. For comparison, a similar biochemical investigation was made on 20 19-40 yr. old normal Ss. Results corroborate previous findings of an association between low cholinesterase activity and low vitamin C level. It is postulated that "low vitamin C level in mentally deficients and in some cases of psychiatric patients may be related to the structural or functional lesion of the higher nervous system," and that administration of high doses of vitamin C in such patients may be beneficial.—M. Maney.

728. Eastwood, M. R., Mindham, R. H., & Tennent, T. G. (Inst. of Psychiatry, London, England) **The physical status of psychiatric emergencies.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 545-550.—Of 100 consecutive patients, 40% had physical abnormalities in addition to the psychiatric problems. Physical screening of emergency patients is suggested because of the high incidence of physical illness.—R. L. Sulzer.

729. Freud, Anna. **A 75th birthday tribute to Heinz Hartmann.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 721.

730. Goldstein, Joseph. **Psychoanalysis and jurisprudence: On the relevance of psychoanalytic theory to law.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 459-479.—Discusses the contributions which psychoanalytic theory may make to law and legal processes. Psychoanalysis attempts to explain human behavior, law attempts to regulate behavior. Conflicts occurring between these 2 ends are discussed. (31 ref.)—B. A. Stanton.

731. Gruenberg, Ernest M. (Columbia U., Coll. of Physicians & Surgeons) **Epidemiology and medical care statistics.** *Public Health Service Publication*, 1968, No. 1584, 76-99.

732. Hartmann, Heinz. **Introductory comments on "Menschen Kennntnis."** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 529-531.—"Menschen Kenner" is a person who has the intuitive capacity of appraising correctly the character of other people. Freud did not consider himself such a person.

733. Mason, Edward A. (Harvard Medical School, Boston, Mass.) **Filmed case material: Experience or exposure?** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 99-105.—In the conflict arising as a result of the increase in audiovisual case recordings and the mounting concern about protection of patients' rights, contributions from the experience of the medical and legal professions may forestall law suits and serious limitations on the availability of such case records. (16 ref.)—Journal abstract.

734. McNeil, Jesse N., Llewellyn, Charles E., & McCollough, Thomas E. (Duke U., Medical Center) **Community psychiatry and ethics.** *American Journal*

of Orthopsychiatry, 1970 (Jan), Vol. 40(1), 22-29.—Reviews the ethical foundation for community psychiatry and focuses on the specific problems. The ethic of community psychiatry centers in a concern for the common good. Although community psychiatry could develop its own professional code of ethics, attention must be turned to the larger context of the civic community for the ethical values and sanctions that will legitimize and support community psychiatry. 6 primary issues in community psychiatry are discussed: (a) the concept of balance, i.e., focusing on the individual vs. the community's and family's needs and the needs of the masses for care; (b) threats to individual freedom; (c) the delineation of priorities, i.e., community mental health professionals should accept significant responsibility for the broad range of mental patients; (d) systematic evaluation of research programs; (e) the extent and techniques of outward thrust and overcontrol into the community; and (f) ethical issues and public policy. (37 ref.)—A. M. Berg.

735. Miller, Maurice H. & Rabinowitz, Marcia. (New York U., Medical School) **Conditioned orienting reflex audiometry with maternal rubella children.** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 59-64.—Employed conditioned orienting reflex (COR) audiometry using a pair of flashing red lights mounted next to the loudspeaker in 183 2-3 yr. olds with histories of prenatal rubella. The presence of psychomotor retardation, neurological or behavior disorders markedly reduced the applicability of the test; however, the presence of either heart or eye disorders did not restrict the use of the technique. Reasons for the difficulty in establishing COR conditioning in children with neurological and behavioral disorders are considered.—Journal abstract.

736. Ortmeier, Dale H. (8 E. 77th St., New York, N.Y.) **The we-self of identical twins.** *Contemporary Psychoanalysis*, 1970 (Spr), Vol. 6(2), 125-142.—Personalities of identical twins are rather complementary than identical according to the fraternal twin author. Identification by 1 twin with the other expresses itself in confusion about who has which qualities and capabilities. A case is presented in which the therapist paradigmatically played the role of the patient's twin after standard interpretive technique and silences had failed to produce change. The development of twins and their relationships to each other and to their mother are discussed. (35 ref.)—L. W. Brandt.

737. Predescu, V. & Pirée, S. **Obiective și aspecte ale metodelor investigației cantitative în psihiatrie.** [The objectives and aspects of quantitative methods of investigation in psychiatry.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Sep), Vol. 13(5), 441-456.—Discusses the necessity of furthering our understanding of the pathologic structures of the human psyche, which today demands the use of quantitative, mathematical methods. Conditions which must be complied with in using the quantitative methodology are discussed. (French, German, & Russian summaries) (40 ref.)—English summary.

738. Roose, Lawrence J. **The dying patient.** *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 385-395.—A reasonably logical approach to the treatment of a dying patient can be constructed. An attempt is made to show that denial and regression facilitate the development of a fantasy of reunion. In this state there is comparative peace in the face of death. The development of transference and its effective use are of primary

importance in treatment. Immediate confrontation of the patient by the truth enables the patient to quickly develop a trust in the therapist, who becomes the all-powerful benevolent archaic mother. Truth is re-denied. Denial and regression reinforce each other. This cumulative effect hastens the development of the state of reunion. The manipulation of the transference is used as the basic therapeutic instrumentality rather than interpretation. (28 ref.)—*J. Chyatte*.

739. Rubin, J. M. **Computers in psychiatry.** *Meninger Quarterly*, 1968-1969 (Win), Vol. 22(4), 8-13.

740. Steinfeld, George J. (Clifford Beers Child Guidance Clinic, New Haven, Conn.) **Parallels between the pathological family and the mental hospital: A search for a process.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 36-55.—Reviews theories of Jay Haley and colleagues on the role of the family in the etiology of schizophrenia, especially that communication paradox known as the "double-bind." The pathological family produces a person unable to assume responsibility or to define his relations with others. Total institutions like mental hospitals tend to further make the person nonresponsible. Therapist consistency is seen as a way out of this. If the therapist maintains a consistent attitude (regardless of theoretical position) this forces the patient to respond to him and makes him responsible for his response. Some ways in which hospitals could be more consistent regarding the patient and his environment are indicated. (37 ref.)—*E. Uprichard*.

741. Vitulli, William F. (U. South Alabama) **The sport of behavior: An hypothesis.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 842.—Abnormal behavior, in the statistical meaning, constitutes sporting phenomena. If evolutionary principle functions as a model for what may be expected with respect to behaviorology, then, notwithstanding value judgments, the systematic analysis of mutant responses offers heuristic possibilities. Also, the norms of today become the vestiges of tomorrow. Studies have been cited which indicate that comparative and functional enterprises are symbiotic, not antithetical. The present system hypothesizes that understanding of individual differences is a necessary condition for the formulation of general laws of behavior.—*Author abstract*.

742. Weisman, Avery D. (Harvard Medical School, Boston, Mass.) **Misgivings and misconceptions in the psychiatric care of terminal patients.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 67-81.—Examines medical and specifically psychiatric attitudes toward death. Some common preconceptions about death are listed, and a case history where a 61-yr-old dying man was seen by the author is presented. (15 ref.)—*E. Uprichard*.

743. Wolkon, George H. (Case Western Reserve U.) **Ego strength, role-position salience and community tenure of the psychiatric patient.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 951-953.—Reanalysis of data from 178 psychiatric patients suggests role-position salience can predict community tenure but not the measures of ego strength.—*Journal abstract*.

PERSONNEL

744. Adler, Peter T. (Homestead Community Mental Health Center, Pittsburgh, Pa.) **Internship training for a contemporary profession of psychology.** *Professional*

Psychology, 1970 (Sum), Vol. 1(4), 371-376.—Describes an internship program in an impoverished neighborhood of a large metropolitan community. The needs of such a community population call for skills extending beyond the traditional range of psychodiagnostics and psychotherapy. A 10-wk basic techniques workshop begins the internship period. The intern then rotates through a variety of services including adult psychiatric in-patient service, emergency walk-in clinic, partial hospitalization unit, and child psychiatry service. A final unit is concerned with community education, organization, and resources. It is felt that these varied exposures better equip the professional psychologist to utilize his skills in order to cope with varied problems in an urban community.—*P. McMillan*.

745. Allon, Richard & Graham, John R. (Cleveland State U.) **Intercorrelations of factor scores from the Opinions About Mental Illness Scale.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 805-806.—Administered the Opinions About Mental Illness Scale (OMI) to 157 psychiatrists, residents, nurses, and aides from an urban, short-term psychiatric hospital. The 5 factor scores were intercorrelated. Correlations were higher among factors and, in some cases, in different direction, than previous studies have reported. Differences among occupational groups were found. Generalizing about relationships among OMI factors from 1 sample to another is cautioned against.—*Journal abstract*.

746. Austin, Elizabeth; McBride, Elizabeth J., Rodriguez, Miguel J., & Kaufman, Edward N. (U. Southern California, Medical Center) **Training program in rehabilitation medicine for career physicians in state mental hospitals.** *Rehabilitation Literature*, 1968 (Nov), Vol. 29(11), 332-334.—Developed a 3-yr program to expose physicians from state mental hospitals to physical medicine and rehabilitation. 15 doctors from 5 hospitals have participated in the program on a full- or parttime basis. A career residency was developed in physical medicine and rehabilitation. 3 of the trainees are now running the physical medicine departments of their hospitals. The other trainees have been able to develop cooperative efforts to augment and extend therapy in their own services given by nurses and other ward personnel and increase use of the physical medicine department therapy.—*Journal summary*.

747. Benedek, Therese. **Training analysis: Past, present and future.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 437-445.—Presents a historical review of training analysis from 1910 to the present with numerous references to the author's own experiences. Changing goals and techniques over the years are summarized. It is concluded that, the present need is to train psychoanalysts for their function as educators. (23 ref.)—*J. Chyatte*.

748. Berlin, Irving N. (U. Washington, Medical School) **Resistance to change in mental health professionals.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 109-115.—Analyzes the fears of reduced status, financial return, work satisfaction, and feeling of competency that seem to be the cause of resistance to more responsive models of theory and practice by mental health professionals.—*Journal abstract*.

749. Blane, Stephen M. (Temple U., Counseling Center) **Immediate effect of supervisory experiences on counselor candidates.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 39-44.—Measured

"empathic understanding before and after a particular supervisory experience (positive, negative, or no supervision)" of 3 10-person groups of counselors.—P. McMillan.

750. Blum, Donna M. & Vincent, M. O. (Carleton U., Ottawa, Canada). **Personality test characteristics of staff physicians and physicians as psychiatric patients.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 389-390.—Presents various test data on staff and patient physicians. The patients were more introverted and liable to neurotic breakdown under stress. The patients were differentiated from the staff on the K, D, Hy, and Pa scales of the MMPI with staff being more defensive and tending to deny worries, feelings of inferiority, and psychiatrically unhealthy symptoms. "Were it not for the greater defensiveness on the part of the staff, there might be no significant differences on the MMPI." The incidence of alcoholism and drug addiction was at least 50% in the patient group.—E. J. Kronenberger.

751. Carhuff, R. R. & Burstein, J. W. (American International Coll., Center for Human Relations & Community Affairs). **Objective therapist and client ratings of therapist-offered facilitative conditions of moderate to low functioning therapists.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 394-395.—12 experienced clinical psychologists and 12 inexperienced clinical trainees were cast as counselors with a standard, naive undergraduate student. Various ratings were made. "In general, the results indicate that among moderate to low functioning therapists, there are no positive relationships between objective ratings and either (a) client ratings, or (b) therapist self-ratings." It is suggested that only those persons who are themselves functioning at high levels can make accurate discriminations of levels of functioning.—E. J. Kronenberger.

752. Carter, Luther J. (American Assn. for the Advancement of Science, Washington, D.C.). **Topeka: Psychiatric aides shake up the old order.** *Science*, 1968 (Oct), Vol. 162(3849), 104-106.—Reviews the methods used by psychiatric aids in a state hospital to obtain fairer personnel practices regarding pay, status, and grievance procedures. It is felt that the union accomplished little other than the establishment of a grievance procedure. It is concluded that "the militancy of these workers, nearly ¾ of whom are Negroes, is simply a new manifestation of a pervasive national phenomenon" and that a strong union and an increased administrative willingness to negotiate are necessary.—G. Steele.

753. Chenault, Joann. (U. Massachusetts). **A proposed model for a humanistic counselor education program.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 4-11.—Offers a working paper to be used as a frame of reference to develop counselor education programs with a humanistic orientation, specifically adapted to a doctoral program of training. A series of supporting propositions are presented.—P. McMillan.

754. Christian, P. & Haag, F. (U. Heidelberg, Inst. für sozial und Arbeitsmedizin, W. Germany). **Neuere Erfahrungen mit dem Case-Team-Work bei sog. "Problem-patienten."** [Recent experiences with case-team-work with so-called "problem patients."]. *Nervenarzt*, 1969 (Jul), Vol. 40(7), 314-317.—The case-team-work concept is an extension of the case-work concept. The team is comprised of 3 to 4 social workers, 2 physicians, and a psychoanalyst. The patient is a patient of internal

medicine—including patients with psychovegetative syndromes, psychosomatic conditions, marriage problems, etc. The method entails psychological and psychosocial ramifications of the clinical disease entity. Anxiety, regression, and personality changes occurring during physical diseases are discussed as well as how the case-team-work approach can aid the patient in motivating him toward recovery. (31 ref.)—B. A. Stanton.

755. Constantine, David D. (Pennsylvania State U.). **Counselor role and role conflict in a comprehensive rehabilitation center.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5063-5064.

756. Cowne, Leslie J. (Brooklyn Coll., City U. New York). **Case studies of volunteer programs in mental health.** *Mental Hygiene*, 1970 (Jul), Vol. 54(3), 337-346.—From the 200 located, 18 examples of mental health programs that utilize volunteers are presented. Funding, administrative set-up, and difficulties of each program are examined. The types of volunteer activities studied included community friend, mental health case aide, crisis intervention, juvenile court, serving retired persons, serving senior citizens in nursing homes, and social worker aide.—A. M. Cawley.

757. Davids, Anthony; Laffey, John J., & Cardin, Paul J. (Emma Pendleton Bradley Hosp., Riverside, R.I.). **Intellectual and personality factors in effective child care workers.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 68-76.—Administered psychological tests to 34 child care workers in a residential treatment center; supervisors rated workers on personality traits and job performance. Correlations reveal some predicted and some unanticipated associations between IQ, supervisors' ratings, workers' self-ratings, and findings from projective tests.—*Journal abstract.*

758. Drage, Elaine & Lange, Blanche. **Ethical considerations in the use of patients for demonstration.** *American Journal of Nursing*, 1969 (Oct), Vol. 69(10), 2161-2165.—"Ethically... a nurse involved in the use of psychiatric patients for teaching purposes needs to be aware of the possible unmeasurable components which may disrupt the patients' recovery.... She must be prepared to assist patients to work through their reactions to a demonstration and to those aspects of themselves that they have exposed or that have been evoked in a demonstration."—B. A. Stanton.

759. Goldin, Paul. (U. Colorado, Medical Center). **Preparing mental health professionals as race relations consultants.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 343-350.—Describes "a training program whose goal was to provide relevant experiences to enable mental health professionals (psychiatrists, psychologists, and social workers) to assist school personnel in coping with personal and interpersonal problems related to race and ethnicity." The format and specific techniques for didactic sessions in workshops are reviewed. Recommendations include (a) developing self-awareness in regard to racial attitudes, (b) providing mechanisms for continuous feedback and follow-up, and (c) granting of more autonomy in program development to staff colleagues in the schools.—P. McMillan.

760. Hansen, James C. & Moore, Gilbert D. (State U. New York, Buffalo). **The full-time—part-time debate: A research contribution.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 18-22.—Investigated differences in the quantity and quality of activities of 1st-yr counselors, identified by whether they were trained on a full- or part-time basis.—P. McMillan.

761. Havens, Robert I. (Wisconsin State U., Oshkosh) **Changes in counselor candidates response during the introductory practicum.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 23-31.—Proposes "a new model of practicum experiences which would consider the best possible learning experiences for each counselor candidate."—P. McMillan.
762. Hurst, James C. & Jensen, Verne H. (Colorado State U., Counseling Center) **Personal growth: An ingredient in counselor education programs?** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 12-17.—Provides evidence that a direct attempt to establish a preparation procedure designed to bring about personal growth in terms of self- and other-awareness in counselor trainees was successful and that the personal growth was also passed on to the counselees seen by the trainees.—M. West.
763. Kelley, Jean A. (U. Alabama) **Leadership behaviors of the supervisor of nursing in general hospitals in Alabama as perceived by registered nurses and nursing students.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5113.
764. Kilburn, Kent L., McDole, Gary, & Smith, Ruth E. (Porterville State Hosp., Calif.) **The Strong Vocational Interest Blank as a measure of success in the training of psychiatric technicians.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 883-886.—To distinguish those psychiatric technician trainees who successfully complete their training from those who submit resignations in lieu of termination before completion of training, 3 measures of study skills and 2 personality inventories, SVIB & CPI, were administered at the beginning of training. Of the 54 scales on SVIB Form M, 12 including 7 of the 10 scales from the social service category, differentiated between Ss who remained and left ($p < .05$). Essentially negative results were obtained for the study skills measures, the CPI, and SVIB Form W.—*Journal abstract*.
765. Lee, Peter V. (U. Southern California, Medical School) **Some problems of curricular innovation: Reaction, response and renewal.** *Journal of the American Geriatrics Society*, 1969 (Mar), Vol. 17(3), 254-261.—Examines the factors involved in the present trend toward diversity in medical education: (a) increasing demand, (b) specialization, and (c) increasing mobility. 4 current issues are discussed: (a) period of education, (b) specialization, (c) individual variation, and (d) reality contacts. Major changes at 6 universities are presented. Methods of curricular, institutional, and organizational change are examined.—G. Steele.
766. Lefcourt, Herbert M. & Steffy, Richard A. (U. Waterloo, Ontario, Canada) **One man's adequacy is another man's failure.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 689-690.—Compared ratings of adequacy in the role of a student nurse by supervisors and students ($N = 23$) themselves with adequacy reflecting behaviors in laboratory tasks. Contrary to prediction it was found that adequacy in laboratory tasks was inversely related to nurse-role adequacy as judged by supervisors and students. Questions concerning the generality of such psychological constructs as adequacy are raised.—*Journal abstract*.
767. LeMay, Morris L. (Oregon State U.) **Counselor candidates' attitudes and opinions about mental illness.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 51-54.—Presents a technique to examine attitudes and stimulate discussion of feelings about mental illness and mental health workers among counselors in training. The Opinions about Mental Illness scale, consisting of 51 Likert-type items and concerning the cause, description, and treatment of mental illness, was administered to 31 male and 50 female graduate students serving as Ss. Responses to the inventory revealed "a relatively enlightened set of attitudes toward mental illness."—P. McMillan.
768. Lesh, Terry V. (U. Oregon) **The relationship between Zen meditation and the development of accurate empathy.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4778-4779.
769. Linder, Ralph. (Montefiore Hosp. & Medical Center, Bronx, N.Y.) **A seminar in doctor-patient relationships in a rehabilitation medicine setting.** *Psychosomatics*, 1969 (Nov), Vol. 10(6), 354-359.—Discusses a seminar for residents in rehabilitation medicine which examines "problems encountered in the management of patients suffering from a variety of chronic diseases and/or disabilities." Methods of (a) improving interview skills, (b) avoiding viewing a "presenting problem exclusively from the perspective of their own specialty," and (c) determining the need for psychiatric referral were emphasized.—G. Steele.
770. Linton, Thomas E. (U. Wisconsin, Milwaukee) **The European Educateur Program for disturbed children.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 125-133.—Innovative institutional programs for disturbed children have been extensively developed in France, Holland, England, and Denmark. These programs represent a basically different approach than is found in the United States. A key aspect of this work has been the development of a new professional role (educateur) and theoretical model for institutional work with maladjusted children. The educateur's role "is that of a highly trained child care worker who utilizes craft, vocational, and recreational activities to gain a close personal relationship with a group of from 10-12 handicapped children."—*Journal abstract*.
771. Meldman, M. J., McGowan, Marjorie; Schaller, Donna, & Higgans, Joan. (Forest Hosp., Des Plaines, Ill.) **Nurse psychotherapists in a private practice.** *American Journal of Nursing*, 1969 (Nov), Vol. 69(11), 2412-2415.—Psychiatric nurses were taught by a psychiatrist to do behavior therapy with obsessive-phobic patients, follow-up interviews with patients on drug therapy, and supportive therapy with various types of dependent patients. They are now part of a private practice which has increased to include patients who would otherwise have been referred to state psychiatric services.—*Journal abstract*.
772. Mussen, Michael. (U. Tennessee) **A limited application of verbal conditioning techniques to counselor preparation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4835.
773. Poling, E. Gordon. (U. South Dakota) **Video tape recordings in counseling practicum: II. Critique considerations.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 33-38.—Considers the most useful methods of utilizing the videotape medium in the program of counselor training. The impact of viewing one's own counseling behavior is stressed.—P. McMillan.
774. Rice, David G. & Fey, William F. (U. Wisconsin, Medical School) **Student satisfaction with small group teaching of psychiatry.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 174-179.—Adapted a previously constructed rating form to measure 1st- and

2nd-yr medical student satisfaction with small group teaching of psychiatry. 6 factors or instructor qualities showed differential contributions to student satisfaction: skill, overload, structure, feedback, interaction, and rapport. Use of 3 separate samples of students (total $N = 245$) indicated that the rating form had a highly significant degree of stability over time and across courses. A feedback profile to each instructor indicated how he was perceived by his students on the different teaching factors and how he compared with other instructors in the same course.—*Journal summary.*

775. **Rodrigue, Emilio.** The fifty thousand hour patient. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 603-613.—In 25 yr., the author estimates that he has heard 50,000 hr. of patients. Patients generally are compassionate of the analyst himself, gain insight outside of the analysis sessions, and experience a special relationship with the analyst they find. Analysis has grown old and inhibited. Its procedures, aims, and theory are those of an old man. Training analysis prevents anyone under 40 from practicing. Procedure has crystalized so much that the analyst can be characterized as "yes, but," silent or static individuals who repeat magic incantations as "guilt," "insight." He is not the curer of patients; he merely transforms the patient into a person better adapted to his society, not a well, fully capable individual. (22 ref.)—*J. Chvatte.*

776. **Ruffin, William C. & McGinnis, Nancy H.** (U. Florida, Medical School) **Psychiatry for all doctors: Postgraduate education.** *Psychosomatics*, 1969 (Nov), Vol. 10(6), 329-333.—Describes the historical background, course content, characteristics of the physicians enrolled, results, conclusions and plans for future research of postgraduate courses for the teaching of psychiatry to nonpsychiatric physicians. These courses are continually changing and developing in the light of new knowledge of the needs of the student-physicians and evaluation of the results.—*Journal summary.*

777. **Salk, Lee.** (Cornell U., Medical School) **Psychologist in a pediatric setting.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 395-396.—Describes the purposes and functions of a psychologist in a pediatric setting. Possible contributions include (a) prompt screening, (b) early diagnosis of learning and developmental problems, (c) current behavioral knowledge transmission to the pediatric staff, (d) guidance of child-rearing practices toward greater emotional strength, and (e) sensitization of pediatric staff to emotional needs of children to lessen the "traumatic nature of medical procedures and hospitalization."

778. **Saul, Ezra V. & Kass, Joan S.** (Tufts U., Medical School, Boston, Mass.) **Study of anticipated anxiety in a medical school setting.** *Journal of Medical Education*, 1969 (Jun), Vol. 44(6), 526-532.—Adapted the S-R Inventory of Anxiousness so that 1st-yr medical students responded to 15 situations likely to be encountered during the 4 yr. of medical school. 121 Ss completed the Inventory on the 1st day of school (subtest) and 95 of these completed it again at the end of the 1st yr. (posttest). Results show that: (a) Ss evidence substantial differences in degree of anticipated anxiety aroused by specific situations; (b) situations dealing with death arouse the most anxiety, and those implying academic failure are next in order; (c) situations having to do with mastery of clinical skills arouse the least anxiety; (d) females exhibit more anxiety than males in all situations

except examining female patients and participating in an experiment; and (e) posttest data indicate that the rank order of the 15 situations remained the same, while there were substantial increases in situational anxiety and in total anxiety over the entire Inventory. It is concluded that the S-R Inventory of Anxiousness does have utility as a method for permitting students to reflect their anticipation of anxiety in a variety of situations. Implications of results and further uses of the Inventory for improving and redesigning medical education programs are discussed.—*M. Maney.*

779. **Shah, Chandrakant P., Robinson, Geoffrey C., & Kinnis, Claire.** (U. British Columbia, Vancouver, Canada) **An ambulatory pediatric teaching program for final-year medical students: Report of a study of student attitudes.** *Canadian Medical Association Journal*, 1969 (Apr), Vol. 100(13), 615-619.—Presents an appraisal of an outpatient pediatric teaching program. Questionnaires were returned by 54 students. Ss felt the program to be beneficial in learning to deal with everyday problems and in understanding the team approach. Ratings of supervisors' teaching attributes revealed that knowledge of subject needs to be combined with good personality traits. Modifications resulting from the study are presented. (25 ref.)—*G. Steele.*

780. **Shapiro, David S.** (Harvard U., School of Public Health) **Mental health professionals' hang-ups in training mental health counselors.** *Mental Hygiene*, 1970 (Jul), Vol. 54(3), 364-369.—In the course of training more than 1000 physicians, ministers, public health nurses, welfare case workers, rehabilitation counselors, guidance counselors and others, many misconceptions held by the mental health professional were revealed. Some of the myths are that: (a) they are the primary source of help for, and exclusive caretakers of, the emotionally and mentally ill; (b) that competent psychiatric services are the optimal form of help for all forms of mental and emotional problems; (c) that other professionals are essentially amateurs in this field; (d) that mental health training for the nonpsychiatric professions should be similar in design, objectives, and content to the training of mental health professionals; and (e) that training skills and ideas presented in a short workshop or training program will automatically carry over into practice. Collaboration is essential among all the groups involved.—*A. M. Cawley.*

781. **Thompson, Andrew.** (U. Oregon, Counseling Center) **The Fairweather group program: Implications for counselor preparation and practice.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 55-60.—Describes the rationale, advantages, and disadvantages of the application of a program (originally involving mental hospital patients organized into problem solving groups) to the training of counselors in practicum settings.—*P. McMillan.*

782. **Ulmer, R. A. & Kupperman, S. C.** (State Hosp., Camarillo, Calif.) **An empirical study of the process and outcome of psychiatric consultation.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 323-326.—An analysis was made of the psychiatric consultant involved in 15 clients over 3 yr. in 71 individual sessions. It is concluded that the consultation was of no discernible value in improving professional functioning of counselors or helping the clients.—*E. J. Kronenberger.*

783. **Williams, Elliot W.** (Jacksonville State Hosp., Ill.) **From psychiatric aide to psychologist** *Mental Hygiene*, 1970 (Jul), Vol. 54(3), 430-432.—The process,

problems, and rewards of changing roles from a career aide supervisor to a professional clinical psychologist are presented autobiographically.—A. M. Cawley.

784. Zabarenko, Ralph N., Zabarenko, Lucy, & Pittenger, Rex A. (U. Pittsburgh, Medical School) **The psychodynamics of physicianhood.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 102-118.—Reviews literature on the position of the physician including the doctor game, reasons for medical practice, and major myths involved in medicine. Cases are presented from a larger study in which physicians were observed at their work. An attempt is made to explore the psychodynamics of the choice of medicine as a career and the way in which the physicians' practices nurture basic and often neurotic needs. (18 ref.)—E. Upprichard.

785. Zumalt, Lonnie E. (U. Alabama) **Application of an identification model to the study of attitude change among counseling practicum participants.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4787.

PSYCHOTHERAPY & ANALYSIS

786. Bak, Robert G. **Recent developments in psychoanalysis: A critical summary of the main theme of the 26th International Psycho-Analytical Congress in Rome.** *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 255-264.—2 points are obvious from the papers given at the Congress: little fact gathering characterizes psychoanalysis at present and there is an absence of new clinical findings in the papers but attempts are made to integrate phenomenological approaches with psychoanalysis. 7 papers are summarized. It is concluded that there is a widening gap between theory and clinical facts and a plea is made that the next Congress have more data and less theory.—J. Chyatte.

787. Beres, David & Joseph, Edward D. (151 Central Park W., New York, N.Y.) **The concept of mental representation in psychoanalysis.** *International Journal of Psycho-Analysis*, 1970 (Jan), Vol. 51(1), 1-9.—Examines the human capacity to evoke in consciousness representation of an absent object and the relationship of consciousness and unconsciousness as qualities of psychic functioning. Assumed is an unconscious psychic organization, the mental representation, whose nature is not known, but which is available for transformation to a conscious symbol, image, fantasy, thought, affect, or action. This transformation can take place without an external stimulus. Only in man can a thought evoke another thought; only in man can an unconscious element evoke a conscious response. The difference between memory and mental representation, and between mental registration and mental representation is elucidated. Internalization and its relation to incorporation, introjection, and identification is discussed. The concept of mental representation heuristic value in its application to the concepts of the structural theory, to the economic problems of metapsychology, and to many clinical problems. It clarifies concepts of mental processes to state that these occur between mental representations. (35 ref.)—*Journal summary*.

788. Bhadra, M. K. **Existential psycho-analysis: Its various aspects.** *Samiksha*, 1967, Vol. 21(4), 139-157.—Studied the ideas of Kierkegaard, Heidegger, and Sartre to show how it is possible to use these ideas in actual psychiatric practice. (54 ref.)

789. Brierley, Marjorie. **"Hardy perennials" and psychoanalysis.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 447-452.—Psychoanalysis has inadequate scientific status and must rely on individual clinical findings, direct observation, and perhaps an occasional longitudinal survey. Hypotheses should be open to revision as knowledge is accumulated. Personal bias should not prevent the acceptance of new or discordant ideas. Patients need not fit the theory; the theory must fit the patient. Reconciliation of divergent theories is hampered by the invention of new terminology as each new school forms. (22 ref.)—J. Chyatte.

790. Bychowski, Gustav. **Social climate and resistance in psychoanalysis.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 453-459.—Individual resistance finds powerful support in the social climate and sometimes psychoanalytic techniques are ineffective. It is impossible to analyze an individual living in a period of powerful traditional beliefs and prejudices, e.g., religious wars, political fanatics, etc. If individual regression is supported by group values it is questionable if the regression can be reversed. In analysis emphasis should be put on the importance of values generally to counteract the individual's regression and role in the cultural disintegration. The analyst must be interested in problems of culture and in elevating his Ss to the highest level of functioning in that culture. Psychoanalysis is ineffectual in changing group resistance and cannot be used to modify social issues. The social climate must be changed in other ways, e.g., mass communication, mass education, etc., to initiate changes without destructive violence.—J. Chyatte.

791. Carlson, Peter M. (U. Washington) **An analysis of the motor, cognitive and physiological components of psychotherapeutically induced changes in phobic behavior.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5233-5234.

792. Chassin, J. B. (George Washington U., Medical School) **On psychodynamics and clinical research methodology.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 94-101.—Criticizes lack of consideration of the question of process in clinical treatment. Rating scales are often misused and statistics misinterpreted, but beyond that questions of process influence the validity of even the most accurate statistics. For example, hostility might be rated as a negative clinical sign yet the evidence of hostility in a previously withdrawn passive patient might be a positive indication of improvement. Process is juxtaposed with outcome, and more in-depth study of the therapy as process irrespective of outcome is suggested.—E. Upprichard.

793. Dahlberg, Charles C. (516 E. 87th St., New York, N.Y.) **Sexual contact between patient and therapist.** *Contemporary Psychoanalysis*, 1970 (Spr), Vol. 6(2), 107-124.—On the basis of 1st-hand information from either the patient or the therapist involved, 9 cases are presented and discussed in terms of the consequences for patient and therapist. All therapists were men over 40 and the patients with 1 exception were women from 10-25 yr. younger than their therapists. Some speculations as to the therapists' motivations and dynamics are offered. General counterindications against such sexual involvements are presented.—L. W. Brandt.

794. Dengrove, Edward; Nuland, William, & Wright, M. Erik. (541 N. Edgemere Dr., W. Allenhurst, N.J.) **A single-treatment method to stop smoking using ancillary self-hypnosis: Discussions.** *International*

Journal of Clinical & Experimental Hypnosis, 1970 (Oct), Vol. 18(4), 251-267.—Discusses H. Spiegel's (see PA, Vol. 45: Issue 1) smoking treatment method comparing it to behavior therapy and suggesting modifications to treat smokers not responding to the method as described. It is suggested that certain psychological conditions must become active for nonsmoking status to be achieved or maintained including: (a) recognizing the consequences of smoking to be imminent, (b) identifying oneself as a nonsmoker, (c) expecting and wanting to participate in a satisfying future, and (d) adopting a way by which the individual can gain control over smoking. The technique outlined deals with these 4 dynamic aspects and makes a significant contribution to the treatment of the smoker's problem. (German & Spanish summaries)—*Journal abstract*.

795. Eissler, K. R. Irreverent remarks about the present and the future of psychoanalysis. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 461-471.—Discusses psychoanalysis as a method, a therapy, and a science. Its method is not in dispute, just its value as therapy and status as a science. Both significant psychoanalytic research and the number of training analysts are declining indicating a loosening of educational standards with a concomitant pessimistic outlook for the future of analysis. Dehumanization in science is evident. This may lead to a more disdainful attitude toward analysis. The author does not see a revulsion toward science with a subsequent return to religion and superstition, but an era of social engineers who protect humans.—*J. Chyatte*.

796. Fairweather, George W., Sanders, David H., Maynard, Hugo, & Cressler, David L. (Michigan State U.) *Community life for the mentally ill: An alternative to institutional care*. Chicago, Ill.: Aldine, 1969. x, 357 p. \$10.

797. Faltico, Gary J. (U. California, Los Angeles) *The vocabulary of nonverbal communication in the psychological interview*. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5236-5237.

798. Freud, Anna. Dr. Herman Nunberg: An appreciation. *International Journal of Psycho-Analysis*, 1969 (Apr.), Vol. 50(2), 135-138.—This appreciation commemorated the 85th birthday of Herman Nunberg who is noted for his proposal that no one be admitted as a member of the International Psychoanalytic Congress until he underwent personal training analysis. Nunberg places his 1930 work, "Synthetic Function of the Ego," 2nd only to Freud in dealing with ego psychology. Therapy should free the synthetic function from interference by pathology so it can resume normal functioning. Nunberg carefully uses clinical observation to substantiate theoretical viewpoints. Nunberg's ability to differentiate fact from opinion is commended.—*J. Chyatte*.

799. Freud, Anna. Indications and contraindications for child analysis. *Psychoanalytic Study of the Child*, 1968, Vol. 23, 37-46.—Discusses the use of analysis in the treatment of children with childhood neuroses, environmental interferences, developmental frustrations, and physical disabilities such as blindness.—*B. A. Stanton*.

800. Greenson, Ralph R. The origin and fate of new ideas in psychoanalysis. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 503-515.—There is a lack of creativity, originality, and new ideas among present-day analysts. Out of frustration and discontent

come new ideas and methods. "Creativity is not the antithesis of conservation." When a new idea is conceived it gains more significance than it merits and becomes the center of the creator's life. An idea is like a baby who should grow, mature, and learn from others besides its parent and may eventually become a member of another family of ideas. Followers of schools view each new idea as a dangerous and evident threat which may destroy their professional identity. They value their leader's idea out of proportion to their merit and this leads to dogma and bigotry. There is a lack of free and open discussion thus stifling creativity. There is inbreeding in schools verging on the edge of incest. An exchange of ideas is needed among and within schools. The task is not to defend or attack Freud but to increase knowledge. (60 ref.)—*J. Chyatte*.

801. Greenwald, Harold. (Metropolitan Inst. for Psychoanalysis, New York, N.Y.) *Depression as an interpersonal maneuver*. *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 110-116.—Suggests that the phenomenon of depression, seen as an interpersonal maneuver, can be viewed in terms of learning theory terms, i.e., the depressed person has learned that being depressed assures attaining approval, and that depressive behavior can be used as a means of punishing other people for the hostility they have toward him. The treatment methods described emphasize flexibility and changing the pattern of behavior so that the patient ceases to interact in a depressive way in the therapy session, and then can eventually generalize this new behavior to life outside. It is stressed that the therapist must be vigilant against rewarding the depression; 2 specific methods which have proved successful in accomplishing this are discussed, and illustrative cases are presented.—*M. Maney*.

802. Grinberg, Leon. New ideas: Conflict and evolution. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 517-528.—Einstein, Marx, and Freud have made tremendous contributions to current ideas. Conflicts between conservatives and innovators have historically not only been due to ideological differences but also to the emotions of the participants. Progress can be achieved if there is an agreement as to terminology and meanings, less strict adherence to traditional theories, reduction in the number of theories, encouragement of research, and an open exchange of ideas. Psychoanalysis should apply some of its "insights" to current social problems where possible in order to prevent disaster and destruction. It is suggested that investigation teams of analysts devoted specifically to research be organized. (56 ref.)—*J. Chyatte*.

803. Halpern, Florence. (Tufts-Delta Health Center, Mound Bayou, Miss.) *Psychotherapy in the rural South*. *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 67-74.—Examines how the experiences of rural Southern blacks in being forced to accept a pattern of existence dictated by the expectations of the white community have led to a perception of reality completely different from that of the white community and to behavioral patterns characterized by denied and repressed ideas, feelings, needs, and efforts at self-realization. It is stressed that in any constructive therapeutic effort with these people, these differences must be recognized and responded to appropriately. Several cases are examined to demonstrate how inappropriate traditional psychotherapeutic methods are in dealing with these people, and to suggest that there are

possible constructive approaches to daily crises which can help rural black patients direct their energy and anger in productive ways.—*M. Maney.*

804. **Harris, Martha.** *The child psychotherapist and the patient's family.* *Journal of Child Psychotherapy*, 1968 (Dec), Vol. 2(2), 50-63.—Discusses the interview with parents preparatory to beginning the child's treatment and suggests several reasons for wariness in giving advice. Also discussed are reasons why parents are seen very little by the child's therapist once treatment is begun. Cases illustrate how the psychoanalytic technique enables the child gradually to transfer anxieties to the therapist in a way that does not interfere with his dependence on his parents. A consultation with parents and their 14-mo-old boy is described. The therapist gave only tentative advice designed to strengthen the parents' own perceptions of the child's head-banging problem.—*A. Alvarez.*

805. **Heuscher, Julius S.** *Encounter—world design—insight: A holistic view of psychotherapy.* *Journal of Contemporary Psychotherapy*, 1970 (Win) (Vol. 2(2)), 93-102.—Demonstrates that all effective psychotherapy has existential dimensions, but that there is justification for the limited use of the expression "existential psychotherapy." The fundamental verities of existential psychotherapy are summarized, focusing on "the relationship between structure (or world-design), insight, and encounter as reflected by a phenomenological view of Behavior Therapy, Psycho-analysis, and 'Existential Psychotherapy' . . ." It is concluded that, while existentialism stresses "contingency as well as the meaningless void confronting or underlying many human illusions . . ." it has also opened up "wide, unsuspected horizons towards further human growth." (19 ref.)—*M. Maney.*

806. **Lampl-de Groot, Jeanne.** *Reflections on the development of psychoanalysis: Technical implications in analytic treatment.* *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 567-572.—Presents general remarks on the development of theory considering changes in the last 20 yr., i.e., changes in different countries, the increase in mental disorders treated, and extension of ego psychology, an application of psychoanalytic theory to psychiatry, and psychology. Technical implications cover character analysis of training candidates, and a hope that constructive activities in mankind will outweigh destructive ones eventually.—*J. Chyatte.*

807. **Lorand, Sandor.** *Reflections on the development of psychoanalysis in New York from 1925.* *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 589-595.

808. **MacKinnon, Roger A.** (Columbia U., Coll. of Physicians & Surgeons) *The role of the telephone in the psychiatric interview.* *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 82-93.—Considers the initial telephone call as well as subsequent phone calls including the question of the psychiatrist's home phone number being given out. Telephone interruptions during therapy and different types of patient reaction and the psychiatrist's reaction are discussed. Emergency calls and conducting regular therapy sessions by telephone are considered.—*E. Uprichard.*

809. **Mathieu, M.** (5 Ave. de la Porte de Sèvres, Paris, France) *Les psychothérapies du jeune adulte appelé au service militaire: Essai de conceptualisation.* [Psychotherapies for the young adult called to military

service: A conceptual essay.] *Hygiène Mentale*, 1970 (Jan), Vol. 59(1), 1-30.—Discusses therapeutic problems in the treatment of postadolescent males in military service. Incomplete integration of preceding development allows resurgence of unresolved conflicts, and prolongation of oedipal conflicts. Therapy must embrace adjustment to the demands of the milieu and resolution of inner conflicts. Some cases require support for defenses needed in adapting to the military life and others require a weakening of defenses. (20 ref.)—*W. W. Meissner.*

810. **Mitscherlich, Alexander, et al.** (Sigmund Freud Inst., Frankfurt, W. Germany) *On psychoanalysis and sociology.* *International Journal of Psycho-Analysis*, 1970 (Jan), Vol. 51(1), 33-48.—Psychological insights gained through observing individuals should be augmented with data obtained through group observation (sociology). Intradiscipline research which is mutually beneficial must be encouraged. Freud noted that we must use group psychology, i.e., family group, to understand the individual. He transformed individual into social psychology through his theory of object relations. Hartmann granted sociology its independence but wanted all behavior assessed by psychoanalysis. The term "dynamic" in psychoanalysis presents an obstacle to collaboration. Parsons places the collective rationality above the individual rationality as the individual internalizes the moral sense of the community. The city is the new collectivity and influences the social traits of the individual. Unconscious perceptual processes may promote social cohesiveness in city dwellers or an aloofness and selectivity in contacts. (85 ref.)—*J. Chyatte.*

811. **Myerson, Paul G.** *The hysteric's experience in psychoanalysis.* *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 373-384.—The hysterical modes of functioning are more fundamental for delineating the hysterical syndrome than hysterical traits or symptoms. Emphasis is placed on how the hysteric functions when he is coping in a relatively adequate fashion than upon how he reacts under great stress. The hysteric is characteristically preoccupied with symbolic phallic interests even as he carries on ordinary conversations. The hysteric's behavior reveals his tendency, when under instinctual tension, to anticipate that someone will be helpful or can be maneuvered into being helpful in relieving tension. Hysterics accept the limits set on direct instinctual gratification if the analyst accepts substitute forms of gratification indigenous to the analytic situation. If this bargain is negated, the hysteric reacts regressively or progressively.—*J. Chyatte.*

812. **Nacht, S.** *Reflections on the evolution of psychoanalytic knowledge.* *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 597.

813. **Nagera, Humberto.** *The concept of ego apparatus in psychoanalysis: Including considerations concerning the somatic roots of the ego.* *Psychoanalytic Study of the Child*, 1968, Vol. 23, 224-242.—Defines ego apparatus as "an intangible, nonmaterial organization, with a functional structure of its own, which regulates its own activities and those of the multiple somatic structures or organs it utilizes . . ." The integration of functional capacities (from somatic maturational processes) into the ego apparatus is discussed. (16 ref.)—*B. A. Stanton.*

814. **Pressman, Maurie D.** *The cognitive function of the ego in psychoanalysis.* *International Journal of*

Psycho-Analysis, 1969 (Jul), Vol. 50(3), 343-351.—"Incognizance" is used for those partial decathexes of mental content which are not true repressions but are partial repressions. Insight formation results from reversing the motivating force for repression, i.e., help the patient tolerate the formerly intolerable and thus more fully cathecting that which has been cathected. Insight is gained through amalgamating in consciousness idea, affect, motor impulse, and self-image. Exaggerating or diminishing any of these 4 results in abortion of insight, as in intellectualization, affectualization, acting-in, and acting-out. Patients resort to neurotic defensive maneuvers because they work. These may be a nutriment for the neurosis (an exchange with the environment which maintains the neurosis). Recognition of this provides further understanding of the need for analytic neutrality. One must starve the neurosis before it can be objectified for the patient.—J. Chyatte.

815. Ritvo, Samuel. Panel on "Child analysis." *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 233-235.—Direct observation in childhood is needed to increase our understanding of child development and later adult analysis. Definition as to what constitutes observation is unclear at present. Some panelists agree on the value of observations while others view it as a danger and contaminant leading to inappropriate theoretical propositions. "Information gathering from outside the analytic situation may mislead the analyst and lead him to modify his technique." Clinical examples indicate that direct observations do help some analysts.—J. Chyatte.

816. Rosen, Victor H. Panel on "Language and psychoanalysis." *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 237-243.—Parallels exist between linguistics and psychoanalysis: both depend on the past and are related to thought. Panelists theorize that language is related to superego development, intrapsychic processes, defense mechanisms, communication, emotional expression, symbols, behavior (e.g., silence), socioeconomic status, etc. Language expresses emotion in itself and in the social context in which it occurs. The panel concluded that what is known about language cannot be integrated with what is presently known about people.—J. Chyatte.

817. Rosenbluth, Dina. "Insight" as an aim of treatment. *Journal of Child Psychotherapy*, 1968 (Dec), Vol. 2(2), 5-17.—Discusses some of the problems involved in thinking about "aims" of treatment, and about "mental health." Since in psychoanalytic therapy one attempts to understand the child and convey this understanding to him, some aspects of the concept of "insight" are considered. It is concluded that one hopes to achieve not so much insight as a possession, once and for all, but rather a shift in the attitude of mind; this involves a diminished need to project feelings and anxieties, and results from an identification with and internalization of an insightful or insight-seeking therapist, thus increasing the child's future capacity for "insight."—Author abstract.

818. Rosenfeld, Herbert. On the treatment of psychotic states by psychoanalysis: An historical approach. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 615-629.—Freud was pessimistic about the analysis of psychotics believing they did not form transference. Now there are those who believe that the narcissism of the psychotic presents a complete obstacle to analysis unless the analyst changes his usual analytic

attitude. Others attempt to deal with the narcissism and other psychotic manifestations by the classical analytic approach with only minor changes. The development of psychotic's treatment over the last 1/2 century suggests that perhaps Freud's hope that some treatment of psychotics was possible may be justified. (46 ref.)—J. Chyatte.

819. Sinha, T. C. Ego-oriented psycho-analytic therapy. *Samiksa*, 1967, Vol. 21(4), 158-168.—Discusses a new dynamic concept of the ego and its relationship to a more positive outlook in psychoanalysis. Within this concept, the ego is viewed as a creator in every sense, both in mental pathology and mental health within its own limitations. Thus, psychoanalysis becomes a therapeutic reeducation of the ego with a view to freeing it so that it can better utilize its creative powers.

820. Spiegel, Herbert. (Columbia U.) A single-treatment method to stop smoking using ancillary self-hypnosis. *International Journal of Clinical & Experimental Hypnosis*, 1970 (Oct), Vol. 18(4), 235-250.—Discusses the 1st 615 patient-smokers who were treated with a single 45-min session of psychotherapy reinforced by hypnosis. Technique of treatment, including rationale of approach, induction procedure, assessment of hypnotizability, and training instructions to stop smoking are presented in detail. 6-mo follow-up study results are discussed. Of 44% who returned a questionnaire, hard-core smokers stopped for at least 6 mo. Another 20% reduced their smoking to varying degrees. Results of a 1-session treatment compare favorably with, and often are significantly better than, other longer-term methods reported in the literature. It is suggested that every habitual smoker who is motivated to stop be exposed to the impact of this procedure, or its equivalent, so that at least 1 of 5 smokers can be salvaged. (French & Spanish summaries)

821. Spiegel, Herbert. (Columbia U.) A single-treatment method to stop smoking using ancillary self-hypnosis: Final remarks in response to the discussants. *International Journal of Clinical & Experimental Hypnosis*, 1970 (Oct), Vol. 18(4), 268-269.—Reexamines the major points of the author's papers (see PA, Vol. 45:Issue 1) on smoking modification. Data inclusion, therapy length, Ss' ability to change, and use of multiple therapists and tape recordings as reinforcement are discussed. It is concluded that the method should be used to "sharpen our techniques that we can relatively quickly learn who has the capacity to change for given goals, and then to help evoke the desired change as efficiently as possible."—G. Steele.

822. Sprince, Marjorie P. Work with adolescents: Brief psychotherapy with a limited aim. *Journal of Child Psychotherapy*, 1968 (Dec), Vol. 2(2), 31-37.—The paper is the outcome of experience in an experimental "Walk-in-Centre" for 14-22 yr. olds. The approach was influenced by understanding gained from intensive psychoanalytic work with adolescents and by the assumption that adolescents who feel compelled to seek help should get it at once. Problems of case selection and of technique at 3 developmental stages of adolescence are discussed. 3 cases illustrate the need for distinguishing between individuals whose problems have to do with transitory adolescent hold-up of the developmental processes and individuals whose encounter with adolescence revives unresolved conflicts of a much earlier stage.—A. Alvarez.

823. Sutherland, John D. Psychoanalysis in the

post-industrial society. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 673-682.—Post-industrial society results from increased technological production and decreased human participation in this production. Patients bring new problems with this change, e.g., lack of zest, dissatisfaction, unhappiness. Dissemination of information brings hordes of people in stress in for treatment. Other disciplines have to shoulder some of the load. Change brings anxiety. Psychoanalysis can no longer limit itself to the individual and the affluent one at that. It must study the current scene and act constructively.—J. Chyatte.

824. Thoma, Helmut. Some remarks on psychoanalysis in Germany: Past and present. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 683-691.—Covers certain changes in German psychoanalysis from 1933 to the present. Topics include the liquidation of psychoanalysis between 1933-1945, the struggle to regain identity from 1945 to now, and developments and expansions in some areas. Psychoanalysis is now recognized as medical treatment and paid for by the social insurance agencies. Freud's 1919 prediction is fully accomplished. Treatment without fee leads to forcing medical associations and universities to train personnel, and they can no longer ignore psychoanalysis. Students participate more in their training than previously.—J. Chyatte.

825. Wallerstein, Robert S. Panel on "Psychoanalysis and psychotherapy." *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 219-231.—Psychoanalysts work in many settings and need to adjust their therapy accordingly. In order to alleviate the glut of patients in hospitals other professionals must be trained in therapy methods. Psychotherapists must precisely formulate their theories and clearly define terms before such training can proceed. Psychoanalysis and psychotherapy differ in the patients treated, aims, goals, methods, techniques, and processes. These differences appear to be important to practitioners.—J. Chyatte.

Therapeutic Process

826. Calnek, Maynard. (Pleasantville Cottage School, N.Y.) **Racial factors in the countertransference: The black therapist and the black client.** *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 39-46.—The black therapist-black client therapeutic situation is threatened by difficulties because of the traditional American racial climate, with white racial prejudice considered the frequent source of these problems. Analysis of 4 common problems are presented: (a) denial of identification, (b) overidentification as defined as a felt bond with another black person who is seen as an extension of oneself because of a common racial experience, (c) self-image, and (d) class differences and similarities between therapist and client. It is concluded that a major prerequisite for the black psychotherapist working with a black client is the thorough examination of one's own feelings on being black and one's way of coping with his own anger. (20 ref.)—A. M. Berg.

827. Gumbel, Erich. Discussion of "The non-transference relationship in the psychoanalytic situation." *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 143-150.—Not all interactions between patient and psychoanalyst are transference reactions. Interventions beside interpretation are necessary in psychoanalysis and must be actively nurtured. Trans-

ference reactions are unreliable; the real object relationship is important where the analyst sees the whole person and does more than focus on his neurosis for "insight" through interpreting patient verbalizations. Author experience indicates that psychoanalysis is possible only when both a transference and non-transference ("real") relationship exists. Criticisms are raised and clarification is attempted.—J. Chyatte.

828. Lax, Ruth F. Some considerations about transference and countertransference manifestations evoked by the analyst's pregnancy. *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 363-372.—No data exist as to what happens when the analyst gets pregnant. Pregnancy should be considered in terms of its effect on the analyst. She may become more sensitive to the onslaught of conflict manifestations in patients. She may be more vulnerable to different transference reactions and may have to adjust to increased countertransference reactions. A personal event in the analyst's life (baby) intrudes on the neutrality needed in the analytic situation. 6 cases are summarized. "Specific reality situations may interfere with the sequence of the transference neurosis but need not necessarily interfere with the unfolding of a pattern of infantile conflicts characteristic for a given patient."—J. Chyatte.

829. Loewenstein, Rudolph M. Developments in the theory of transference in the last fifty years. *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 583-588.—Summarizes various changes in the concept of transference. Recent trends indicate a widening of the concept of transference to situations outside of analysis. There is an attempt at separating transference from that of a treatment alliance and from the "real" relationship between analyst S. Confusion has occurred between definition and usage especially in 1 aspect of transference, acting-out. (35 ref.)—J. Chyatte.

830. Papanek, Helene. (1 W. 64th St., New York, N.Y.) **Group psychotherapy interminable.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 219-223.—The patient, the setting, the composition and atmosphere of the group, and the therapist are factors which influence the duration of therapy. It is contended that: "When the group caters to the patient's dependency needs and fails to encourage growth, self-acceptance, and social interaction, the result is a custodial, not a therapeutic group. Only when the patient is helped to develop a positive self-image and encouraged to find satisfaction in interpersonal relationships and work achievement can the pitfall of interminable group psychotherapy be avoided."—I. Linnick.

831. Pressman, Maurice D. The cognitive function of the ego in psychoanalysis: The search for insight. *International Journal of Psycho-Analysis*, 1969 (Apr), Vol. 50(2), 187-196.—An attempt is made to understand the cognitive functioning of the ego in the psychoanalytic situation to allow fuller comprehension of insight and why some patients succeed and some fail. Cognitive function is the perceiving part of the ego that works on the patient's inner world during analysis. It is an inner search. It is revealed in the patient's style and is a base line which is returned to in order to determine the patient's resistance. Several "rules" are advanced: (a) have the patient free associate, and (b) have the patient reflect on it to better understand himself and his problems. Cognition is also achieved when the analyst identification exists and attempts are made to work

through to insight. Cognitive function (insight) is achieved through analyst's silence, his use of the transference situation, the frustration or encouragement of the impulse to action, paying attention to the present mature ego, gaining distance from memories, pertinent questioning, interpretation of resistance to patient, etc. (43 ref.)—*J. Chyatte.*

832. Sandler, J., Dare, C., & Holder, A. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: I. The extension of clinical concepts outside the psychoanalytic situation.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 551-554.—Beyond asking questions the analysts' major therapeutic interventions consist of interpretations, confrontations, and reconstructions, concepts which are to be dealt with in subsequent papers. Resistance, transference, therapeutic alliance, acting-out, working through, and negative therapeutic reaction are also seen as key concepts which have a multiplicity and ambiguity of meaning in the clinical setting. Discussion of these concepts will permit exploration of the degree to which they can be applied to a context wider than the consulting room. (24 ref.)—*R. L. Sulzer.*

833. Sandler, J., Holder, A., & Dare, C. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: II. The treatment alliance.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 555-558.—The concept of the treatment alliance appears to be capable of extension outside psychoanalysis without modification. The alliance seems essential to the success of a prolonged course of rehabilitation and can be extended to include the capacities of the patient's family or other agencies. (25 ref.)—*R. L. Sulzer.*

834. Sandler, Joseph, et al. **Notes on some theoretical and clinical aspects of transference.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 633-645.—Transference is a clinical not a metapsychological concept. The special analytical situation may facilitate emergence of certain relationships especially past ones, but not all are repetitions of past relationships to objects. Transference is more than its original narrow conception. Distinction between repetition of past relationships to objects, defenses against this, various forms of externalization, the displacements and extensions of other current relationships, and "character" transferences must be made by the analyst. Work with children demonstrates the difference in these specified elements. (36 ref.)—*J. Chyatte.*

835. Strachey, James. **The nature of the therapeutic action of psychoanalysis.** *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 275-292.—Advances the following 4 main points of a hypothesis: (a) The final result of psychoanalytic therapy is to enable the neurotic patient's whole mental organization, which is held in check at an infantile stage of development, to continue its progress towards a normal adult state. (b) The principal effective alteration consists in a profound qualitative modification of the patient's superego, from which the other alterations follow in the main automatically. (c) This modification of the patient's superego is brought about in a series of innumerable small steps by the agency of mutative interpretations, which are effected by the analyst in virtue of his position as object of the patient's id impulses and as auxiliary superego. (d) The fact that the mutative interpretation is the ultimate operative factor in the therapeutic action of psychoanalysis does not imply the exclusion of many other

procedures (such as suggestion, reassurance, abreaction, etc.) as elements in the treatment of any particular patient.—*Journal summary.*

836. Truax, D. B. & Lister, J. L. (U. Florida) **Effects of therapist persuasive potency in group psychotherapy.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 396-397.—3 separate group therapy populations were treated by high persuasive potency therapists. An analysis of variance was performed to study the effects of persuasive potency and patient population on patient final outcome criteria. Results indicate that persuasive potency of the therapist was an additional source of psychotherapeutic gain in the group. The greatest effect of persuasive potency was observed with juvenile delinquents. "It was suggested that while contributing independently to patient gain, persuasive potency is not a sufficient therapist condition for constructive patient personality change."—*E. J. Kronenberger.*

Group Therapy

837. Allgeyer, Jean M. (8770 Withworth Dr., Los Angeles, Calif.) **The crisis group: its unique usefulness to the disadvantaged.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 235-240.—Concludes that experience indicates that the crisis group, a valid modality for treating most people in crisis (with the exception of persons who are suicidal, homicidal, or psychotic to a degree which would be disruptive to the group; suicidal and homicidal people need more intensive professional contact and control than the group can provide) is uniquely helpful to persons of divergent racial, cultural, and socioeconomic backgrounds. When disadvantaged people can be clustered into a treatment group, their special understanding of the existential conditions affecting each other's lives and their ability to empathically and practically aid one another in coping with these problems is distinctly therapeutic. Moreover, middle-class therapists can be assisted by disadvantaged group members in providing meaningful treatment services to minorities and the poor who have been the least serviced population although they are the group with the highest incidence of mental illness.—*Journal summary.*

838. Bar-Levar, Reuven. (726 Fisher Bldg., Detroit, Mich.) **A method for dealing with a forbidden oedipal wish.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 224-229.—This case illustrates the usefulness of the splitting of transference not only among members of a group but also between visiting therapists and cotherapists. Lessening of anxiety is facilitated when the transference object is split, and fewer difficulties in working through of highly cathected, forbidden conflicts are encountered. It would seem rather obvious that the more forbidden the wish, the greater the benefit of such a situation, for the greater is the anxiety surrounding it and the more helpful is any method for reducing it.—*Journal summary.*

839. Bednar, Richard L. (U. Arkansas) **Group psychotherapy research variables.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 146-152.—Explored the treatment variables isolated for systematic investigation and the manner of measuring the treatment effects of these variables. It is felt that the independent variables most frequently investigated in group psychotherapy are poorly defined and measured. A more favorable view is presented of the dependent

variables which have been under investigation in more recent years. The methods of measurement are classified in the following 4 groupings: "(a) behavior change that is directly observable, (b) behavior change that is inferred on the basis of personality assessment procedures, (c) perception of client change by trained raters or judges, and (d) client self-perceptions of change."—*I. Linnick.*

840. **Gladdfelder, John.** (U. Texas, Southwestern Medical School, Dallas) **The use of video tape recording for supervision of group psychotherapists.** *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 119-123.—Suggests some goal-directed procedures which have been found particularly valuable for student therapists in using video tapes as a means of increasing self-awareness and awareness of group process. The 3 basic stages discussed include: (a) initial viewing of the overall group session without any attempt to interpret, describe or discuss, but with support and confidence building on the part of the supervisor to help the student overcome his initial anxiety; (b) initiation of an analysis of the micro, nonverbal communication systems, with the subsequent introduction of a more global approach that integrates both verbal and nonverbal communication patterns; and (c) analysis of subthemes where meaning and clinical intuition are translated into actual practice. The role of the supervisor in this process is described, and the advantages and disadvantages of the use of video tape are discussed. It is emphasized that video tape does not "replace any other supervisory technique, but represents an additional and valuable tool."—*M. Maney.*

841. **Kline, Milton V.** (Fairleigh Dickinson U., School of Dentistry) **The use of extended group hypnotherapy sessions in controlling cigarette habituation.** *International Journal of Clinical & Experimental Hypnosis*, 1970 (Oct), Vol. 18(4), 270-282.—Results of the present experimental approach to the treatment of smoking habituation tend to be consistent with the view of smoking habituation as a dependence reaction, parallel to drug addiction, and with the concept that habituation must be examined as a psychosomatic entity. Therapeutic approaches must take into account the psychophysiological characteristics of deprivation behavior. Hypnosis, and particularly extended periods of hypnotherapy involving the reduction and control of deprivation behavior, seems to offer a promising approach to the therapeutic treatment of smoking habituation. (German & Spanish summaries) (17 ref.)—*Journal abstract.*

842. **Lion, John R. & Bach-Y-Rita, George.** (U.S. Naval Hosp., Philadelphia, Pa.) **Group psychotherapy with violent outpatients.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 185-191.—The group is described as "an ongoing therapeutic modality available to members in times of stress." It provided the patients with a social experience where they no longer saw themselves as unique in terms of their problems of aggression, where they had an opportunity to ventilate anger, and where they learned new ways of coping with anger and impulsivity. The 16 patients demonstrated neither any violent activity within the group, nor showed any increased violent behavior outside of therapy. "Numerous violence-prone patients enter psychiatric facilities and ask for help. Our experience suggests that the impulsive behavior of these patients can be modified through group therapy on an outpatient basis."—*I. Linnick.*

843. **Martin, Roger D. & Zingle, Harvey W.** (U.

Saskatchewan, Saskatoon, Canada) **Videotape equipment and procedures in group settings.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 230-234.—Presents several practical suggestions regarding the basic system design, selection of appropriate equipment, and operation procedures for videotape work in group settings. A simple fixed-camera arrangement which will function adequately for most group situations is described. This provides a basic system which is fully portable, requires no special operators or technicians, and can serve as the foundation for expansion into more complex and ambitious systems.—*Journal summary.*

844. **Mathis, J. L. & Collins, M.** (Rutgers State U., Medical School) **Progressive phases in group therapy of exhibitionists.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 163-169.—45 men arrested for exhibitionism were treated for the condition by mandatory group psychotherapy over a 3-yr period. Observations of the therapeutic process demonstrated 6 phases which appeared of vital significance in the final outcome: denial, acceptance, anger, disappointment, upward movement, and separation. These phases are discussed briefly in relationship to the group process, the leaders' interventions, and the final outcome.—*Journal summary.*

845. **Rabin, Herbert M.** (Roosevelt Hosp., New York, N.Y.) **Preparing patients for group psychotherapy.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 135-145.—Discusses and gives examples of 5 preparatory practices: factual, recorded materials, lecture, or explanatory materials, a group experience, individualized. It is concluded that: "Individualized preparation . . . and to a lesser degree an early group experience . . . have more flexibility in dealing with forms of running from the group, resistance, and goals specific to given patients. This flexibility allows the timing of placement in the regular psychotherapy group to be more responsive to the individual patient's needs than when instructions or a standard interview is the preparation for entrance into a group." (17 ref.)—*I. Linnick.*

846. **Smith, Robert J.** (Quinnipiac Coll.) **A closer look at encounter therapies.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 192-209.—"It is this writer's thesis that the sociocultural climate of contemporary America is peculiarly suited to the theory and technique which underlie what I choose to label, 'encounter therapies,' and has resulted in their remarkable fruition and dissemination in the culture to levels rarely touched by other psychotherapeutic efforts." After discussing the challenge to intellect as manifested in educational theory, higher education, student activism, civil rights movements, "stop the (Vietnam) war" campaigns, in popular music, "sensory saturation," "message" songs, contemporary drama and "hippiedom," the trend away from intellect as epitomized in psychotherapeutic endeavor is explored. The methodological and theoretical critiques of the therapeutic endeavors which "emphasize direct physical, emotive confrontations and are called variously sensitivity, T-, encounter and marathon group therapies," are summarized. The need for innovation in a field where "dogma has often overridden reality" is seen as deserving of trial and encouragement. It is the popularization and liberties taken with the techniques which question acceptance of these therapies without careful, long-term evaluation. (33 ref.)—*I. Linnick.*

847. **Springmann, Rafael R.** (Tel-Aviv U., Medical

School, Israel) **A large group.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 210-218.—A weekly convention of patients and staff, originally designed to regulate the therapeutic atmosphere within a psychiatric department by means of controlled ventilation and mutual feedback, developed into a useful therapeutic and didactic tool and contributed to the integration of the psychiatric ward and its patients into the general hospital.—*Journal summary*.

848. Stein, Aaron. (Mt. Sinai Medical School, City U. New York) **The nature and significance of interaction in group psychotherapy.** *International Journal of Group Psychotherapy*, 1970 (Apr), Vol. 20(2), 153-162.—Unlike so-called activity group, or therapeutic group where the "interaction among the members in the group is the therapeutic medium, with each member finding a role to fill in the life of the group," in group psychotherapy proper, "a group meets for the treatment of the individual members with the purpose of uncovering and dealing with the individual members' psychopathology. The essential elements in group psychotherapy are verbal communication and mutual interaction." 3 types of group psychotherapy are discussed and exemplified. Uncovering and interpretation vary with the different types. "The greatest amount of interpretation occurs in the analytically oriented or intensive or exploratory type of group psychotherapy; less occurs in the modified or supportive type of group psychotherapy. Little, or relatively little, occurs in group guidance and group counseling. Where the transference manifestations remain uninterpreted, a certain amount of gratification of transference needs, that is, infantile object needs, occurs and provides support for the members of the group." The "claims for extensive personality change made by the proponents of active interaction groups" are questioned, but that strengthening of defenses and diminution in the intensity of certain symptoms can occur in such group interaction is acknowledged.—*I. Linnick*.

Behavior & Conditioning Therapy

849. Chapman, J. Dudley. (367 Dunbar Dr., North Madison, O.) **Frigidity: Rapid treatment by reciprocal inhibition.** *Journal of the American Osteopathic Association*, 1968 (Apr), Vol. 67(8), 871-878.—Presents a rapid method of treatment that is directed toward allowing the frigid woman to discover her subjective sexual needs and desires without the threat of performance or reaction. This treatment has been highly effective in a group of 74 patients, 48 of whom were followed-up for 5 yr. The effectiveness of the program was directly related to the maturity of the couple as demonstrated by the ability of the husband and wife to look at their problem, discuss it, and work together for its mutual solution. 2 illustrative case reports are presented.—*Journal abstract*.

850. Clark, Francis W. (U. Oregon) **Desensitization and therapeutic relationships.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4768.

851. Collins, Robert W. (Indiana U.) **The effect of delaying the unconditioned stimulus in the conditioning treatment for enuresis.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5234.

852. Liberman, Robert. (National Inst. of Mental Health, Div. of Special Mental Health Research, Washington, D.C.) **Behavioral approaches to family and couple therapy.** *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 106-118.—Behavioral approaches

to family and couple therapy specify the problems in concrete terms, empirically applying the principles of learning, i.e., imitative learning and operant conditioning, in working toward therapeutic goals. The key to successful family therapy can be found in the changes made in the interpersonal consequences of the family member's behavior. The 3 major areas of technical concern for the therapist are: (a) "creating and maintaining a positive therapeutic alliance; (b) making a behavioral analysis of the problem(s); and (c) implementing the behavioral principles of reinforcement and modeling to the context of ongoing interpersonal interactions." 5 case reports are presented to illustrate the mutually reinforcing or symbiotic nature of deviance in family psychopathology and the use of learning theory techniques. The relationships wherein the behavioral and learning approach to family therapy differs from the more psychoanalytic one are discussed. (23 ref.)—*Journal abstract*.

853. Pena y Lillo, S. & Guilbert, P. (U. Santiago, Chile) **A propos de 37 cas de phobies traités par une technique combinée de déconditionnement.** [37 cases of phobia treated with a combined technique of deconditioning.] *Encéphale*, 1970 (Jan), Vol. 59(1), 25-55.—Describes a technique for treatment of phobias which combines Wolpe's technique of systematic desensitization by reciprocal inhibition with the hypnosuggestive techniques of the Russian school of reflexology. A classification of phobias is presented in terms of perceptual and significant elements and this is related to an analysis in terms of primary and secondary signal systems. Results of the application of this technique to 37 patients are reported with moderate to marked improvement in 30 of the cases. (23 ref.)—*W. W. Meissner*.

854. Sloop, Edgar W. (Florida State U.) **Conditioning treatment of nocturnal enuresis among the institutionalized mentally retarded.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5244.

855. Trogon, Kenneth P. (U. South Carolina) **The mechanism of maximal habituation in systematic desensitization.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5245-5246.

856. Wiltz, Nicholas A. (U. Oregon) **Modification of behaviors of deviant boys through parent participation in a group technique.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4786-4787.

Special & Adjunctive Therapy

857. Arfai, E., Theano, G., Montagu, J. D., & Robin, A. A. (Runwell Hosp., Essex, England) **A controlled study of polarization in depression.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 433-434.—Running direct current between eyebrow and thigh in 19 patients produced no therapeutic changes.—*R. L. Sulzer*.

858. Baumann, Franz. (San Francisco Children's Hosp., Calif.) **Hypnosis and the adolescent drug abuser.** *American Journal of Clinical Hypnosis*, 1970 (Jul), Vol. 13(1), 17-21.—Reports the results obtained with an accidentally discovered technique of hypnotherapy over a 5-yr period with adolescent drug abusers.—*M. V. Kline*.

859. Crasilneck, Harold B. & Hall, James A. (5635 Yolando Circle, Dallas, Tex.) **The use of hypnosis in the rehabilitation of complicated vascular and post-traumatic neurological patients.** *International Journal of Clinical & Experimental Hypnosis*, 1970 (Jul), Vol. 18(3), 145-159.—Found hypnotherapy of value in

rehabilitation of patients experiencing difficulty in the usual procedures which follow cerebrovascular or traumatic brain injury. 3 cases illustrate the approach taken. Of 25 similar cases seen over a 9-yr period, 4 were unresponsive to hypnosis. Although an increase in motivation for recovery seemed to be the major change elicited by hypnotherapy, other theoretical possibilities are mentioned. Hypnosis is a useful way of approaching motivational problems in rehabilitating patients who manifest negativism toward conventional treatment. (Spanish & German summaries)—*Journal abstract*.

860. Grecu, C., Stanciu, E., Csiky, C., & Balint, R. *Metode de aplicare a socului electric in Clinica de Psihiatrie din Tirgu Mures*. [Methods for the application of electric shock in the clinic of psychiatrics from Tirgu Mures.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 55-62.

861. LaViolet, Ruth; Osorio, Luiz C., & Celia, Salvador A. (New York Medical Coll., N.Y.) *Milieu therapy in Brazil*. *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 119-134.—Presents 2 papers, describing the establishment of child services at the Kanner Institute in Porto Alegre, which offers outpatient, day treatment, and residential services. The residential treatment services, which take care of 40 5-14 yr. olds with a variety of diagnoses are described. The 1st paper presents an analysis of milieu therapy and its use in the treatment of child psychosis. The 2nd report explains how the therapeutic community of the Kanner Institute reached a high level of integration and operation after the establishment of a club for children. —A. M. Berg.

862. Maxwell, R. D. (Leeds Regional Hosp. Board, England) *Electrical factors in electroconvulsive therapy*. *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 436-448.—Describes a method of measuring dosage of the electrical energy used in ECS therapy. Using EEG assessment, a rise in the fit threshold, which has occurred since the introduction of this form of treatment, has been confirmed and is ascribed mainly to the action of the iv barbiturate used in the technique of modifying the seizure by a muscle relaxant. As an alternative to overcoming the raised threshold by increasing the dosage, a sharp wave stimulator has been used and its increased efficiency determined. It is concluded that stimulators for this purpose should be calibrated in recognized units of dosage such as watt sec. or joules and that their effectiveness should be confirmed by examination of a localized unmodified seizure. (22 ref.)—*Journal summary*.

863. Owens, Herbert E. *Hypnosis and psychotherapy in dentistry: Five case histories*. *International Journal of Clinical & Experimental Hypnosis*, 1970 (Jul), Vol. 18(3), 181-193.—Used hypnosis to facilitate dental psychotherapy in resolving problems specific to the dental situation. Case histories illustrate the use of hypnosis in alleviating dentophobia and in the care and control of allergic responses. Formal induction procedures are not always necessary in achieving the desired result. Through the appropriate use of hypnosis, observable benefits can accrue to some dental patients in their ability to approach the dental situation and receive proper care. (Spanish & German summaries)—*Journal abstract*.

864. Sacerdote, Paul. (11 Carwall Ave., Mt. Vernon, N.Y.) *Theory and practice of pain control in malignancy and other protracted or recurring painful*

illnesses. *International Journal of Clinical & Experimental Hypnosis*, 1970 (Jul), Vol. 18(3), 160-180.—Recent neuroanatomical and neurophysiological experimental data suggest absence or presence of pain and changes in pain intensity as expressions of the balance between sensory (peripheral) and central (centrifugal) inputs at synaptic stations. Psychological activities by contributing to the centrifugal input influence conduction, transduction, and perception of pain stimuli. Hypnotically induced analgesia and anesthesia are therefore acceptable as neurophysiological realities. Methods for hypnotic alterations of pain based upon these premises are described utilizing neurophysiological mechanisms, psychodynamic changes, establishment of new behavioral patterns, or changes in time-space concepts and percepts. Case presentations illustrate some of these multiple psychological and physiological approaches to pain control. (Spanish & German summaries) (28 ref.)—*Journal abstract*.

865. Stein, Kenneth M. (U. Oregon) *A challenge to the role of the crisis concept in emergency psychotherapy*. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5245.

Drug Therapy

866. Ayd, Frank J. *Treating disturbed adolescents with haloperidol (haldol)*. *Psychosomatics*, 1969 (Nov), Vol. 10(6), 350-353.—Presents the clinical indications and technique of treatment with haloperidol. Therapeutic results from emotionally disturbed children in 4 double-blind studies using placebo, chlorpromazine, thioridazine, fluphenazine as well as clinical practice indicate "moderate to marked symptomatic improvement" in the majority of appropriately selected patients. It is cautioned that haloperidol may cause minor side effects or extrapyramidal reactions. (19 ref.)—G. Steele.

867. Clyde, Dean J. (U. Miami, Biometric Lab.) *Patterns of reaction to drug treatments derived through multivariate procedures*. *Public Health Service Publication*, 1968, No. 1584, 483-491.

868. Daneman, E. Adams. (U. Florida, Coll. of Medicine) *A comparative trial of medazepam (nobrium) in anxiety-depressive states*. *Psychosomatics*, 1969 (Nov), Vol. 10(6), 366-369.—Compared medazepam, and phenobarbital for effectiveness in a double-blind, crossover study comprised of 92 patients with anxiety-depressive symptoms. $\frac{1}{2}$ of the Ss received medazepam, 30 mg/day and the other $\frac{1}{2}$ phenobarbital, 90 mg/day during the 1st 2 wk., then Ss were crossed over to the alternate drug for the 2nd 2 wk. All Ss were rated with respect to symptom severity prior to and upon termination of each treatment regimen. Statistical analysis showed significant differences ($p < .05$) favoring medazepam over phenobarbital with respect to 17 of 34 symptoms rated. 7 of 10 predominant symptoms showed highly significant improvement differences ($p < .001$) favoring medazepam. Medazepam also produced significantly better results ($p < .001$) in overall clinical improvement and symptom averages. Side effects occurred in 18 Ss during medazepam therapy, and in 41 Ss on phenobarbital. During the 1st few days of therapy, 6 Ss on medazepam and 9 on phenobarbital showed significant reactions which responded to adjustment in dosage and did not warrant discontinuation of the medication. Results indicate that medazepam can relieve anxiety and associated depressive symptoms and war-

rants further clinical investigation.—*Journal summary.*

869. Denson, R. & Sydiaba, D. (University Hosp., Saskatoon, Saskatchewan, Canada) **A controlled study of LSD treatment in alcoholism and neurosis.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 443-445.—Personality inventories and standard tests failed to show any therapeutic effect of 79 LSD experiences given to 25 patients.—R. L. Sulzer.

870. Diamond, Seymour & Baltes, Bernard J. (Chicago Medical School, Ill.) **The office treatment of mixed anxiety and depression with combination therapy.** *Psychosomatics*, 1969 (Nov), Vol. 10(6), 360-365.—Presented a double-blind study of 104 patients with mixed anxiety and depression. Amitriptyline (10 mg.) with perphenazine (2 mg.) was compared with perphenazine (2 mg.) and placebo. The combination showed statistically significant improvement in the treatment of mixed anxiety and depression over perphenazine alone or placebo. The presenting target symptoms improved and headache showed an excellent improvement with the combination.—*Journal summary.*

871. Fielding, John M. (U. Melbourne, Parkville Psychiatric Unit, Victoria, Australia) **A double-blind comparative trial of dibenzepin and imipramine.** *Medical Journal of Australia*, 1969 (Mar), Vol. 1(12), 614-616.—Describes a double-blind comparative trial of the effects, over a period of 4 wk., of dibenzepin and imipramine, at fixed dosages. There was no significant difference in the speed of effect of the 2 drugs in depressed patients. Previously reported side effects rated subjectively by patients were maximal before starting on the drugs and tended to decrease with time. These effects may be depressive symptoms rather than side effects of the medication.—*Journal summary.*

872. Genevieve, J. M. **Intérêt d'un nouvel activateur du métabolisme cérébral, le cyprodemanol, dans le domaine de la psychiatrie des vieillards.** [Interest in a new cerebral metabolic activator, cyprodemanol, in the area of geriatric psychiatry.] *Encéphale*, 1970 (Jan), Vol. 59(1), 90-95.—Cyprodemanol is a neurostimulant which acts in geriatric patients in a normalizing fashion, particularly affecting psychomotor functions. The anticonfusal effect is negligible. Tolerance is excellent, allowing for initial somnolence which disappears spontaneously.—W. W. Meissner.

873. Henderson, James G. & Dawson, Audrey A. (Ross Clinic, Aberdeen, Scotland) **Serum vitamin-B₁₂ levels in psychiatric patients on long-term psychotropic drug therapy.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 439-442.—Clinical study of patients shows vitamin-B₁₂ within normal limits despite more than 6 yr. on chlorpromazine and related drugs.—R. L. Sulzer.

874. Jick, Hershel; Slone, Dennis; Shapiro, Samuel, & Lewis, George P. (Tufts U., School of Medicine) **Clinical effects of hypnotics: I. A controlled trial.** *JAMA: Journal of the American Medical Association*, 1969 (Sep), Vol. 209(13), 2013-2015.—A controlled trial comparing 3 hypnotic drugs—chloral betaine, 750 mg.; diphenhydramine hydrochloride, 50 mg.; pentobarbital, 100 mg.—and a placebo was introduced into a comprehensive drug surveillance program. Methods entailed judgments made by the attending physicians on the efficacy and side effects of drugs. There was some evidence of a higher frequency of side effects among patients who received hypnotic drugs. The efficacy of the placebo was greater among women, while the hypnotic

drugs were equally effective among both sexes. It is concluded: that physicians' judgments of efficacy and side effects are valid to the extent of permitting the demonstration of differences between hypnotic drugs and the placebo, under the conditions of a randomized, double-blind trial.—*Journal abstract.*

875. Kelly, Desmond, et al. (Atkinson Morely's Hosp., London, England) **Treatment of phobic states with antidepressants: A retrospective study of 246 patients.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 387-398.—Regardless of personality or type of phobia, wide improvement and results superior to those of behavior therapy or psychotherapy were found as a result of administration of MAO inhibitor alone or combined with chlordiazepoxide or a tricyclic antidepressant. Children improved as well as adults, but long-term maintenance therapy was usually not necessary. (33 ref.)—R. L. Sulzer.

876. Klein, Donald F. (Hillside Hosp., Glen Oaks, N.Y.) **Diagnosis and pattern of reaction to drug treatment: Clinically derived formulations.** *Public Health Service Publication*, 1968, No. 1584, 466-483.

877. Raskin, Allen; Schulterbrandt, Joy G., Reatig, Natalie, & McKeon, James J. (National Inst. of Mental Health, Psychopharmacology Research Branch, Chevy Chase, Md.) **Differential response to chlorpromazine, imipramine, and placebo: A study of subgroups of hospitalized depressed patients.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 164-173.—Investigated responses of 555 patients from 10 hospitals to chlorpromazine, imipramine, and a placebo in a double-blind study extending over a 7-wk treatment period. Ss were categorized into 3 subgroups of depression: neurotic, psychotic, and schizophrenic. Results suggest that: (a) imipramine was preferred for psychotic depressives, (b) "placebo was as effective as imipramine or chlorpromazine for the neurotic depressives," and little treatment differences were found for the schizophrenic depressives. Because treatment differences on outcome measures were small, though statistically significant, it is concluded that "for many depressed patients, drugs play a minor role in influencing the clinical course of their illness." (40 ref.)—P. McMillan.

878. Shapiro, Samuel; Sloane, Dennis; Lewis, George P., & Jick, Hershel. (Tufts U., School of Medicine) **Clinical effects of hypnotics: II. An epidemiological study.** *JAMA: Journal of the American Medical Association*, 1969 (Sep), Vol. 209(13), 2016-2020.—Examines the clinical effects of 4 of the most commonly prescribed hypnotic drugs (chloral hydrate, diphenhydramine hydrochloride, secobarbital, and phenobarbital) in 3 Boston hospitals. Of 4177 patients studied, 2045 were given 1 or more of the drugs for insomnia. When a judgment could be made, treatment with each of the 4 drugs was considered satisfactory in 60-80% of the patients and the frequencies of patients with adverse reactions varied between 1.8 and 5.1%. Major clinical reactions were infrequent and all of the adverse reactions were followed by recovery. Side effects which were experienced by some females who received secobarbital or pentobarbital were significantly associated with low body weight.—*Journal abstract.*

879. Shmilovich, L. A. & Polyak, A. I. (Republic Psychiatric Hosp. No. 1, Kishinev, USSR) **Kupirovanie épilepticheskogo statusa i serinykh prlpadkov amital-kofeinom.** [Interruption of status epilepticus and serial attacks by amital-caffeine.] *Zhurnal Nevropatologii*

i Psikhiatrii, 1970 (Jan), Vol. 70(1), 125-127.—Based on work with 50 patients, recommendations for the use of amytal-caffeine in terminating epileptic serial attacks and status are presented.—*I. D. London.*

880. Stephens, J. H. & Shaffer, J. W. (Johns Hopkins U., Medical School) **A controlled study of the effects of diphenylhydantoin on anxiety, irritability, and anger in neurotic outpatients.** *Psychopharmacologia*, 1970, Vol. 17(2), 169-181.—In a 6-wk double-blind crossover study 100-mg diphenylhydantoin (DPH), 3 times/day, was found to be more effective than 5-mg DPH 3 times/day used as a placebo, in reducing symptoms relating to anger, irritability, impatience, and anxiety. The psychoactive properties of DPH were demonstrated by self-ratings and physician ratings. No undesirable side effects were noted. Patients in the controlled study were selected on the basis of the presence of symptoms of anger, irritability, and anxiety, a social class more typical of private patients than clinic patients.—*P. Federman.*

HOSPITAL CARE & INSTITUTIONALIZATION

881. Ables, Billie S. & Newton, J. R. (U. Kentucky, Medical School) **The diagnostic evaluation on a child psychiatry outpatient service from the perspectives of parents and staff.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 384-386.—Data gathered from questionnaires administered to 16 families at the beginning and end of a diagnostic evaluation on a child psychiatry outpatient service were analyzed by examining parents' responses and staff responses. The results failed to reveal any consistent tendency for parents to view their problems as more psychologically vs. externally determined. Change scores for parents were rated. "The findings further suggest an underestimation by the staff of the degree of satisfaction expressed by the parents with the process of a diagnostic evaluation."—*E. J. Kronenberger.*

882. Chess, Stella & Lyman, Margaret S. (New York, U., Medical Center) **A psychiatric unit in a general hospital pediatric clinic.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 77-85.—Describes new approaches embodied in the psychiatric unit of New York City's Bellevue Hospital pediatric outpatient department. Based on interdisciplinary teamwork, the changes facilitate quick evaluation and flexible work-up and treatment programs.—*Journal abstract.*

883. Clarke, D. F. (Ladysbridge Hosp., Banff, Scotland) **The psychologist and interpersonal relationships in a mental subnormality hospital.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 33-44.—Presents the thesis that the nature of and the manipulation of interpersonal relationships in a mental subnormality hospital are constrained by 2 main features: (a) the characteristics of the hospital as a total institution; and (b) the fact that the organizational structure and ethos of such hospitals tend to follow the medical model, which is not really appropriate to the aims and activities of hospitals of this type. The clinical psychologist is seen as an important figure in the control and mediation of interpersonal relationships both between staff and patients and within staff and patient groups. The role of his training in social psychology and behavior modification in supporting his unique participant role, and implications of the division of his function into executive and professional roles are

discussed. Practical proposals which may facilitate the development of enriched working and caring relationships in which the boundaries between staff, patients, and community are broken down are suggested. (18 ref.)—*Journal summary.*

884. Crane, K. W. (Ingrebourne Centre, Hornchurch, England) **Psychiatric social workers in the therapeutic community.** *British Journal of Psychiatric Social Work*, 1968 (Spr), Vol. 9(3), 145-151.—Clarifies the role of social workers as members of multidisciplinary teams by: (a) identifying caseworker skills, (b) delineating processes found in casework practice and community methods, and (c) indicating therapeutic and anti-therapeutic effects of traditional casework.

885. Don, Yehuda & Amir, Yehuda. (Bar-Ilan U., Ramat-Gan, Israel) **Institutionalized care for mentally retarded in Israel.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 29-31.—Reviewed the institutionalization and care of retarded children in Israel—its scope, the process of diagnosis, ways of referral, and types of institutions. An economic-psychological study which investigated why the maintenance in government institutions is more expensive than in private or publicly owned institutions was also summarized.—*Journal abstract.*

886. Dybwad, Gunnar. (Brandeis U.) **Architecture and mental subnormality: I. Architecture's role in revitalizing the field of mental retardation.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 45-48.—Discusses the role of the architect in planning and furnishing residential or day facilities for the mentally subnormal. The need for a close contact between the architect and the working staff in all areas of consideration is discussed, stressing that area concerned with the space set aside for the staff. It is suggested that here a trend toward a "more human, more relaxing... space" would reduce the image of these facilities as "hospitals." It is concluded that the therapeutic effect of specific environments needs further research in controlled settings.—*M. Maney.*

887. Fearn, Gordon F. (Indiana U.) **Stability and change in the structure of self.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5065.

888. Levine, D. (U. Nebraska) **Criminal behavior and mental institutionalization.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 279-284.—Investigated 3 hypotheses dealing with admission to mental hospitals and the community's attitude about their abnormal behavior. It was found that people showing symptoms which threaten the community are more likely to be mental hospital patients than those who do not threaten the community. 70% of the mental hospital patients in this sample had broken the law. A correlation of .51 was obtained between the number of months a schizophrenic patient spends in a mental hospital and the number of months he would have been sentenced to jail.—*E. J. Kronenberger.*

889. McQueen, Robert. (U. Nevada) **Problems of converting a state mental hospital into an open-staff facility.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 119-126.—Reports the process of changing a traditional state mental hospital into a more community oriented facility by involving local physicians and psychiatrists in the treatment program. Many of the sociological problems involved in the professional staff-outsider conflict are noted.—*E. Upchurch.*

890. Mendelsohn, Robert S. **The disturbed child: Help on the horizon.** *Child & Family*, 1968 (Sum), Vol.

7(3), 242-248.—Presents a 4-yr study in 2 large state mental hospitals on the roles of the pediatrician, parental organization and participation, artificial families, and family-centered outpatient activities in the treatment of emotionally disturbed children. It is concluded that all were beneficial when conducted on a personal level showing genuine interest and concern.—G. Steele.

891. Pantleo, P. M. (U. Colorado) **Climatic temperature and psychiatric admissions.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 308-310.—Analyzed psychiatric admissions by conventional calendar quarters and by temperature groups. It was found that crude measures not controlling for temperature fluctuations yield 1 result while more refined measures yield contradictory findings. When monthly admission rates were grouped by temperature or correlated with that month's respective temperature no difference was rated which suggested that seasonal grouping may be inadequate.—E. J. Kronenberger.

892. Parnicky, Joseph J. (E. R. Johnstone Training & Research Center, Bordentown, N.J.) **An audio-visual approach to employee orientation in a small institution.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 32-34.—After experimenting with several methods in orienting new employees, the Johnstone Training and Research Center developed an audio-visual technique that may have application in other institutions of comparable size and with comparable administrative conditions.—*Journal abstract*.

893. Rosenberg, Stanley D. (Dartmouth Coll., Medical School) **Hospital culture as collective defense.** *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 21-35.—Presents the thesis that "hospital social culture can be better understood as a highly interwoven system which is integrated around a set of shared unconscious problems, defenses, and myths." Patients, particularly chronic ones, help to maintain the hospital status quo in order to fulfill their own needs (mainly dependency) which permits the staff groups to defend against their own manipulations of these patients. Much of the material is based on Goffman's book *Asylums* and shows how the "total institution" is not just an imposition of rules by the maintainers against the maintained but is a collusion between them to satisfy mutual needs. (15 ref.)—E. Uprichard.

894. Whiteley, J. Stuart. (Henderson Hosp., Sutton, England) **The response of psychopaths to a therapeutic community.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 517-529.—With a criterion of no further convictions nor psychiatric admissions for 2 yr., a 40% improvement rate was shown by discharges from a therapeutic community. Prognostic factors indicative of a good outcome are previous success in school, work, and interpersonal relations, plus a capacity for emotional feeling and involvement. The stimulating and permissive environment of the therapeutic community would be of less value to the more immature, persistently acting-out psychopath, and is doubtful for the aggressive psychopath.—R. L. Sulzer.

895. Wright, M. (St. Francis Hosp., Haywards Heath, England) **Therapeutic community ideas applied in an acute unit of a psychiatric hospital.** *British Journal of Psychiatric Social Work*, 1968 (Spr), Vol. 9(3), 152-156.—Describes the problems and opportunities encountered in the use of therapeutic community principles with hospitalized seriously disturbed patients. Benefits for different types of patients are reviewed.

PSYCHOANALYTIC INTERPRETATION

896. Berk, Tom J. (41 Kiefskamp, Amsterdam, Holland) **Some results of modern brain research supporting psychoanalytical theories.** *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 40-52.—Discusses areas of current brain research which provide data relevant to psychoanalytic theory. These areas include: (a) psychomimetic drugs, (b) the influence of the reticular formation on emotions, (c) contradictory sleep studies, and (d) cerebral organization in relation to libidinal organization. (German summary) (28 ref.)—B. A. Stanton.

897. Eissler, K. R. **The relation of explaining and understanding in psychoanalysis: Demonstrated by one aspect of Freud's approach to literature.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 141-177.—The answer to the question of whether psychoanalysis is a science or one of the humanities lies in the correct analysis of the relationship of explaining and understanding to psychoanalysis. This question is examined "in relation to the contribution that psychoanalysis can make to the study of literature." Freud's approach to literature is also discussed. (40 ref.)—B. A. Stanton.

898. Garma, Angel. **Present thoughts on Freud's theory of dream hallucination.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 485-494.—Dream hallucination arises when the counteractives of the ego are diminished during sleep and can no longer control the repressed psychic contents which give rise to dreams. Contrary to Freud's theory of reality testing, the uncontrollable psychic contents seem to convince the sleeping ego that they are real (external) because in the ego's waking experience it is less able to control psychic contents which originate in the actual external reality, than psychic contents which arise spontaneously. The dream screen is a luminous surface on to which the dream contents are projected. Its light is a primordial hallucination, present in every dream. This primordial hallucination comes from a reactivation of the repressed memory of the dazzling vision of light which was received at the moment of birth.—*Journal summary*.

899. Gillespie, W. H. **Concepts of vaginal orgasm.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 495-497.—Technical progress in analytic fields reveals facts highly relevant to analysis. These were unknown when Freud constructed his theories. New data in the sex area indicate that a reconsideration or revision of traditional theory is needed. Freud indicated females must substitute the vagina for the clitoris as the leading erotogenic zone and must accept a passive rather than an active aim. Masters and Johnson find it is impossible to separate the clitoral from the vaginal orgasm as demanded by psychoanalytic theory.—J. Chyatte.

900. Glenn, Jules. **Testicular and scrotal masturbation.** *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 353-362.—Describes 3 cases of testicular or scrotal masturbation. Factors are described which lead to patients associating the testicle-scrotum area with both femininity and passivity, emphasizing the role of genital sensations and noting that there is more perceived activity in the penis than inside the scrotal sac during sexual excitement and orgasm. Biological factors appear to make the penis feel more active even in childhood. Testicular cathexis and castration anxiety is

more pronounced in some persons, while in most men phallic cathexis and castration fear prevail. The greater frequency of penile cathexis and castration anxiety may be associated with passivity and femininity, and the penis with activity and masculinity. Men generally fear losing the active masculine part more than the feminine passive part. Factors contributing to testicular and/or scrotal cathexis are: displacement from the penis, direct threats to the testicles, marked testicular stimulation early in life, threats to organs symbolically associated with the testes, constitutional factors, and tendencies toward masochism and passivity.—*J. Chyatte.*

901. Hoffer, Willie. **Notes on the theory of defense.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 178-188.—Chronologically traces the development of the concept of defense and the defense processes. The defense process is discussed in terms of Freud's model which states that "defensive processes are the psychical correlative of the flight reflex and perform the task of preventing the generation of unpleasure from internal sources." The mechanisms of defense and defense organization are also examined. (35 ref.)—*B. A. Stanton.*

902. Jaffe, Daniel S. **Forgetting and remembering: Defensive cathectic shift as a determinant of parapraxis and its resolution.** *Psychoanalytic Quarterly*, 1970 (Jul), Vol. 39(3), 372-388.—Presents a psychoanalytic formulation.—*J. Z. Elias.*

903. Joffe, Walter G. **A critical review of the status of the envy concept.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 533-545.—The concept of envy as a primary inborn instinctual drive is completely rejected. It is seen rather as a complicated attitude which occurs as part of normal development and which is closely related to such other attitudes as possessiveness. It is linked with aggression and destructiveness, but the aggressive component and the fantasies linked with it can be drawn from all phases of development, and is not only oral in nature. Rather than being seen as a primary drive, it can be seen as a secondary motivating force which may have positive and adaptive consequences in ongoing development or may lead to the most malignant pathology. It has an intimate relation to the state of the individual's narcissism and self-esteem, and the essential stimulus to its development lies in disturbances within that domain. (36 ref.)—*Journal summary.*

904. Katan, Maurits. **The link between Freud's works on aphasia, fetishism and constructions in analysis.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 547-553.—The aphasic speech remnant of the individual is interpreted as an attempt to preserve speech and is connected to the emotional moments before the gross organic lesion strikes. In intense reality danger, a person's thoughts result from the ego's attempts to avoid total dissolution. The neurotic instead of intense reality danger has internal instinctual desires which are dangerous and uses the fetish to repeat the pretraumatic situation. Recalled childhood memory is a repetition of pretraumatic situations which the ego defended against. (24 ref.)—*J. Chyatte.*

905. Kramer, Maria K. **A study of the paintings of Vermeer of Delft.** *Psychoanalytic Quarterly*, 1970 (Jul), Vol. 39(3), 389-426.—Presents a psychoanalytic study of the works of the Dutch painter, Jan Vermeer.—*J. Z. Elias.*

906. Laufer, Moses. **The body image, the function of masturbation, and adolescence: Problems of**

ownership of the body. *Psychoanalytic Study of the Child*, 1968, Vol. 23, 114-137.—Reviews the literature concerning the body image and masturbation. Case histories are presented to illustrate adolescent body image disturbances and masturbation fantasies. The following are common body image disturbances: (a) dissociation from the mature body during puberty, (b) failure of oedipal identifications, (c) oedipal aggression, and (d) overwhelming guilt. These adolescents are seen to regard masturbation either as proof of their abnormality or as a threat to their whole ego functioning. They hate their bodies, but they feel helpless when confronted with fantasies. The hatred of the body is discussed and interpreted as a hatred of the internalized parent. (55 ref.)—*B. A. Stanton.*

907. Lustman, Seymour L. **The economic point of view and defense.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 189-203.—Examines the economic concept and point of view in relation to psychoanalytic theory. (30 ref.)

908. Moses, Rafael. **Form and content: An ego-psychological view.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 204-223.—"Psychoanalytic ego psychology as it stands today provides us with the theoretical framework for an exploration of the formal aspects of behavior as distinct from its motivational content. These formal aspects can be linked to ego functioning and ego structures." The interplay between form and content is discussed in relation to ego psychology. (75 ref.)—*B. A. Stanton.*

909. Noy, Pinchas. (Hebrew U., Jerusalem, Israel) **The development of musical ability.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 332-347.—Hypothesizes that the language of music is derived from preverbal, infantile auditory communication. Emphasizes that the elements of music (tone, pitch, timbre, duration, rhythm, and intensity) are all components of infantile, preverbal auditory communication. Artistic endowment is seen to result from retention of these components into adulthood. Examples of musical compositions are used to demonstrate how reactions to music result from regressions to earlier experiences. (25 ref.)—*B. A. Stanton.*

910. Rangell, Leo. **Choice-conflict and the decision-making function of the ego: A psychoanalytic contribution to decision theory.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 599-602.—Among the ego functions is a decision-making one. An attempt is being made to discover the historical antecedents of the individual's decision making and especially the unconscious ones. The ego, through internal scanning, screens the present partial gratification through past memories to ascertain if past traumatic data is revived and then either signals safety or anxiety. If anxiety is signaled, the ego has an internal intrasystemic decision dilemma to handle. There is ego "conflict" as to what to do next. The ego has choices and is obliged to make one. Unconscious and genetic determinants heavily decide what happens in these internal conflicts. Decision-making theory is important in present-day situations where decisions by 1 individual involve consequences for whole populations.—*J. Chyatte.*

911. Rosen, Victor H. **Sign phenomena and their relationship to unconscious meaning.** *International Journal of Psycho-Analysis*, 1969 (Apr), Vol. 50(2), 197-207.—Primary process may be largely a signaling and signifying activity; secondary process may be largely a use of symbols which have arbitrary conventional

referents. Sign phenomena are important in establishing unconscious meaning perhaps due to early signal systems set up between parent and child. Interpretation is a translation of signs-signals into referents. Free association is a replication of the disturbed encoding function in an attempt to determine, in controlled conditions, how the sign-signal functions went astray originally. "Unconscious meaning are the inferences we draw from this replication." (24 ref.)—*J. Chyatte*.

912. **Schur, Max. Affects and cognition.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 647-653.—Attempted to reformulate Freud's signal concept by emphasizing the cognitive process and by eliminating his anthropomorphic-teleological formulations, and extend the signal concept to other affects. This reformulation made Freud's objection to the existence of unconscious affects invalid. It is concluded, on the basis of these reconsiderations, that the cognitive factor was an intrinsic part of all affects. This formulation is believed to be a logical extension of Freud's definition "anxiety is a reaction to danger," and that it permits a full reconciliation of affect theory with the structural viewpoint. (26 ref.)—*Journal summary*.

913. **Silber, Austin. A patient's gift: Its meaning and function.** *International Journal of Psycho-Analysis*, 1969 (Jul), Vol. 50(3), 335-341.—Gifts can bind the receiver symbiotically to the giver. Children do not love for the gift as much as they feel the gift is love. To them giving and gift equal love. One patient's departing gift of an ashtray is analyzed in view of his subsequent resumption of analysis. Multiple meanings are possible when a gift is given.—*J. Chyatte*.

914. **Smirnoff, Victor N. The masochistic contract.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 665-671.—Describes Sacher-Masoch's 1870 contract with his wife. She was to flog him and mistreat him and he, in turn, would eliminate cruel women from his novels. This whipping fetish is presumably related to Sacher-Masoch's witnessing his aunt's adultery, his subsequent discovery, and his severe punishment. This is interpreted as a screen memory. Love object here plays 2 roles; pure and loving and harsh and sensual. (22 ref.)—*J. Chyatte*.

915. **Winnicott, D. W. The use of an object.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 711-716.—Object-relating can be described in terms of the experience of the S. The capacity to use an object is more sophisticated than the capacity to relate to objects; and relating may be to a subjective object, but usage implies that the object is part of external reality. This sequence is observed: S relates to object, object is in the process of being found instead of placed by the S in the world, S destroys object, object survives destruction, S can use object. The object is always being destroyed. This destruction becomes the unconscious backcloth for love of a real object, i.e., an object outside the area of the S's omnipotent control. Study of this problem involves a statement of the positive value of destructiveness. The destructiveness plus the object's survival of the destruction places the object outside the area in which projective mental mechanisms operate, so that a world of shared reality is created which the S can use and which can feed back into the S.—*Journal summary*.

PSYCHODIAGNOSIS

916. **Angenent, H. L.** (Inst. of Criminology, Groningen, Netherlands) **Testgebruik door de psycho-**

loog in het kinderbeschermtehuis. [Test usage by the psychologist in the emergency homes for child protection.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970 (May), Vol. 25(5), 302-314.—Netherlands provides temporary emergency homes for children and young people, identified as transients, the temporarily employed, unwed mothers, and referrals for observation purposes and special treatment. About 15,000 children and young persons are situated in 282 such homes. A questionnaire study was conducted about the test usage by the psychologists in such homes. A total of 145 standardized tests were reported. The tests were classified in order of usage: individual and group intelligence, specific intelligence, scholastic achievement, aptitude, educational readiness, motor abilities, attention span, developmental, perception, symbol usage, memory, vocational interest, visual abilities, and color blindness. (English summary)—*A. J. Ter Keurst*.

917. **Appelbaum, Stephen A. New ways with old tests.** *Menninger Quarterly*, 1968-1969 (Win), Vol. 22(4), 22-27.

918. **Brill, Henry.** (Pilgrim State Hosp., West Brentwood, N.Y.) **The role of classification in hospital psychiatry.** *Public Health Service Publication*, 1968, No. 1584, 29-35.

919. **Clausen, John A.** (U. California, Berkeley) **Some implications of classification in sociology for problems of classification in psychiatry and psychopathology.** *Public Health Service Publication*, 1968, No. 1584, 168-173.

920. **Clum, G. A. & Clum, M. Judith.** (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Sibling position as a factor in psychiatric illness and prognosis in a military population.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 271-274.—Birth order of 600 Navy enlistees, admitted to a psychiatric inpatient service, was not related to psychiatric admission or to a psychiatric disposition of discharge from service. Only- and 1st-born children were found to have poorer prognosis upon release from a psychiatric service. "Birth order was not found to be a factor in the prognosis of patients diagnosed character disorder, but was found to differentiate successful and unsuccessful adjusters in a group diagnosed as neurotic or situational maladjustment."—*E. J. Kronenberger*.

921. **Cole, Jonathan O.** (National Inst. of Mental Health, Psychopharmacology Research Branch, Chevy Chase, Md.) **Classification in research on the prediction of response to specific treatments in psychiatry.** *Public Health Service Publication*, 1968, No. 1584, 143-147.

922. **Conners, C. Keith.** (Harvard Medical School, Boston, Mass.) **Symptom patterns in hyperkinetic, neurotic, and normal children.** *Child Development*, 1970 (Sep), Vol. 41(3), 667-682.—Factor analyzed parent symptom ratings of 316 psychiatric clinic patients and 365 normal children. Factor scores discriminated between patients and normals and neurotic and hyperkinetic groups, but the same basic factor structure appeared in the groups. Age, social class, and race effects were slight. Symptom prevalence rates were higher in patients than in a normal sample. It is concluded that there are few qualitative differences between normal and psychiatrically ill children, though they differ in severity of symptomatology.—*Journal abstract*.

923. **Cooke, Gerald & Chodorkoff, Bernard.** (Wayne State U.) **Reliability of classification of behaviors**

within psychosexual stages. *Psychological Reports*, 1970 (Jun), Vol. 26(3), 751-754.—Presented items representing nonpathological behavior, attitudes, and characteristics to a panel of 6 clinicians familiar with psychoanalytic theory. Ss were asked to assign each item of the psychosexual stage represented by it. 1 yr. later, a 2nd panel repeated the task and interjudge agreement was calculated. Temporal agreement was calculated for the 4 judges common to both panels. Results indicate that psychoanalytically trained Ss can reliably assign behaviors, attitudes, and characteristics to psychosexual stages and that agreement exceeds the level reported for the American Psychiatric Association diagnostic system.—*Journal abstract*.

924. Epstein, Leon. (U. California, Medical Center, San Francisco) **Discussion: The role of classification in psychiatric practice.** *Public Health Service Publication*, 1968, No. 1584, 72-75.

925. Epstein, Leon. (U. California, Langley Porter Neuropsychiatric Inst., San Francisco) **Discussion: The role of classification in research in psychopathology.** *Public Health Service Publication*, 1968, No. 1584, 147-154.

926. Erickson, Marilyn T., Johnson, Nancy M., & Campbell, Frances A. (U. North Carolina) **Relationships among scores on infant tests for children with developmental problems.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 102-104.—30 preschool children referred for diagnosis of developmental problems were administered the Bayley Scale of Mental Development, the Cattell Infant Intelligence Scale, and the Vineland Social Maturity Scale. Results indicate that the scores on the 2 infant tests are so similar and highly correlated that they might be considered interchangeable in diagnostic settings. Clinically, the Bayley presented advantages of a greater variety of items and separate mental and motor scales, while the Cattell took less time to administer and could be combined with the Stanford-Binet. Although significantly correlated with the 2 infant tests, the Vineland consistently yielded higher scores.—*Journal abstract*.

927. Farley, F. H. (U. Wisconsin) **Moderating effects of psychopathology on the independence of extraversion and neuroticism.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 298-299.—Normal, neurotic, acute psychotic, and chronic psychotic Ss were administered the MPI. No significant relationships were found. Most of the correlations were low and positive.—*E. J. Kronenberger*.

928. Fink, Max. (New York Medical Coll., N.Y.) **Neurophysiological response strategies in the classification of mental illness.** *Public Health Service Publication*, 1968, No. 1584, 535-540.

929. Frank, George H. (New York U.) **On the nature of borderline psychology: A review.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 61-77.—Borderline psychological functioning reflects characteristics of both neurosis and psychosis, sometimes alternatively, sometimes contemporaneously. R. R. Grinker, B. Werble, and R. C. Drye's recent book described the history and behavioral functioning of the borderline personality; absent were the characteristics as seen through the purview of psychological tests. A review of research indicated that borderline psychopathology is often difficult to detect through interview; tests seem better able to reveal the presence of the more serious psychopathology which might underlie a neurotic-looking

adjustment. The more serious pathology is made apparent when the stimuli to which the patient is responding is ambiguous or vague (i.e., the projective techniques). The focus in borderline psychopathology is placed on the underlying ego or cognitive pathology. (100 ref.)—*Author abstract*.

930. Gardner, Elmer A. (Temple U., Health Science Center, Community Mental Health Center) **The role of the classification system in outpatient psychiatry.** *Public Health Service Publication*, 1968, No. 1584, 35-53.

931. Garstide, R. F., Kay, D. W., Roy, J. R., & Beamish, Pamela. (U. Newcastle upon Tyne, England) **M.P.I. scores and symptoms of depression.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 429-432.—Examined the relationship between MPI Neuroticism (N) and Extraversion (E) scores at follow-up and various features already recorded during the index admission 5-7 yr. earlier. Retardation was associated with low N scores and somatic complaints with high N scores on the MPI. E scores were related to age, early waking, and the personality trait called "with narrow interests." N scores correlated with Hamilton Rating Scale scores at follow-up.—*R. L. Sulzer*.

932. Gleser, Goldine C. (U. Cincinnati, Medical School) **Quantifying similarity between people.** *Public Health Service Publication*, 1968, No. 1584, 201-212.

933. Greenhouse, Samuel W. (National Inst. of Mental Health, Theoretical Statistics & Mathematics Section, Bethesda, Md.) **Discussion: Issues in the methodology and statistics of classification.** *Public Health Service Publication*, 1968, No. 1584, 240-246.

934. Grundvig, J. L., Needham, W. E., & Ajax, E. T. (Veterans Administration Hosp., Salt Lake City, U.) **Comparison of different scoring and administration procedures for the Memory-For-Designs test.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 353-357.—Compared 3 Memory-For-Designs (MFD) scoring systems, 2 presentations of the MFD, and 3 organic impairment groups. Under the standard 5-sec administration of the MFD, the Taylor or Modified Taylor scoring systems seemed to be best at differentiating degree of cerebral impairment, but under 1/2-sec exposure, the Graham-Kendall system was best.—*E. J. Kronenberger*.

935. Hammond, Kenneth R. (U. Colorado, Inst. of Behavioral Science) **Abnormal psychology: Nosology adrift.** *Public Health Service Publication*, 1968, No. 1584, 164-168.

936. Hammond, Leo K. (Ft. Logan Mental Health Center, Denver, Colo.) **Cognitive structure and clinical inference.** *Journal of General Psychology*, 1970 (Jul), Vol. 83(1), 107-118.—Outlines a theory of inference based upon the viewpoints of Brunswik and Heider. In this theory, inference proceeds from those characteristics of objects which are most proximal or available to perception, through the convergence of the implications of the proximal perception. The theoretical statement regarding the convergence of implications was tested by utilizing a correlational cognitive structure model. Inferences made by clinicians from clinical data concerning personality characteristics were found to follow the convergence of implications in the cognitive structure model. Thus, the way in which a clinician believes personality characteristics to be related in general was established as a determinant of the inferences he makes about individual cases. However, the diagnoses the clinicians made were not predicted successfully, and

several reasons for this failure are suggested.—*Journal summary.*

937. Holder, T., Drasgow, J., & Pierce, R. (Veterans Administration Hosp., Buffalo, N.Y.) **Examiner communication level and objective test performance.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 335.—Measure of intelligence and finger dexterity were obtained on 6 inpatients. Ratings of empathy, respect, genuineness, and concreteness, along with ratings of taped clinical interviews, were made by experienced raters. Personality characteristics of the examiner in an individual testing situation does account for some of the variability in objective test results and the concept of the "good guy" in therapy is also a factor in objective testing operations.—E. J. Kronenberger.

938. Hutt, Max L. & Gibby, Robert G. (U. Detroit) **An atlas for the Hutt Adaptation of the Bender-Gestalt Test.** New York, N.Y.: Grune & Stratton, 1970, \$2.85.

939. Kety, Seymour S. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Problems in psychiatric nosology from the viewpoint of the biological sciences.** *Public Health Service Publication*, 1968, No. 1584, 190-193.

940. Kramer, Morton. (National Inst. of Mental Health, Office of Program Planning & Evaluation, Chevy Chase, Md.) **Classification of mental disorders for epidemiologic and medical care purposes: Current status, problems, and needs.** *Public Health Service Publication*, 1968, No. 1584, 99-115.

941. Kuncze, J. T., Masuda, M., & Carter, T. E. (U. Missouri) **MMPI scores, psychiatric disturbance and catecholamine metabolites.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 291-296.—Evaluated MMPI results on 44 outpatients in relation to catecholamine secretion. Interrelationships of biochemical variables, age, and sex are presented. An interrelationship of biochemical variables and the MMPI indicated a number of significant differences. Ss with primarily neurotic defenses tended to have higher catecholamine excretion levels than characterological or schizoid defense patterns. The findings were related to reaction to stress and eventual favorable prognosis.—E. J. Kronenberger.

942. Lubin, Ardie. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Discussion: Systems based on premorbid history, course of illness, or reaction to treatment.** *Public Health Service Publication*, 1968, No. 1584, 491-506.

943. Lyerly, Samuel B. (Psychological Assessment Assoc., Washington, D.C.) **A survey of some empirical clustering procedures.** *Public Health Service Publication*, 1968, No. 1584, 220-229.

944. Marks, Isaac M. (Maudsley Hosp., London, England) **The classification of phobic disorders.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 377-386.—While mild fears are ubiquitous, intense phobias are uncommon in adults. Class I phobias are those of external situations, most common being agoraphobia, and Class II are those of internal situations that cannot be escaped, such as illness or the obsessive fears of harming others or of contamination. To predict response to treatment, a simple classification is that between monosymptomatic, e.g., animals or other specific situations, and diffuse. Such a classification does not predict symptomatology, age of onset, or sex incidence. Alternatively, the best classification may take

account both of the nature of the phobic situation and its specificity. (31 ref.)—R. L. Sulzer.

945. Mons, W. E. **Typology and the Rorschach.** *British Journal of Projective Psychology & Personality Study*, 1968 (Jun), Vol. 13(1), 11-12.—Applied Rorschach signs of neurosis and hysteria to responses of 131 commando or paratroop military personnel, termed "athletic types," who had nervous breakdowns during World War II. These were compared to responses of 123 cases of "the same type of soldier" who had "civilian type" breakdowns after the war. The war group showed 55% positive signs of neurosis and 26% of hysteria, whereas the postwar group showed 30% with positive signs of neurosis and 57% signs of hysteria. Results suggest that with the removal of the anxiety-creating effect of death, the postwar group, trained to obey "the suggestive force of the command," utilized anxiety in the familiar manner of the hysteric.—P. McMillan.

946. Munro, Helle. (Belmont Hosp., London, England) **Verbal fluency in test and group situations.** *British Journal of Projective Psychology & Personality Study*, 1968 (Jun), Vol. 13(1), 25-29.—Investigated verbal behavior in group meetings and on psychological tests of 20 19-67 yr. old psychiatric patients to determine the relationship between the extent to which a person is "mentioned" in group sessions, and the verbal fluency and/or extraversion he shows on standard psychological tests and special measures of fluency (i.e., rhyming, naming animals, word associations to a picture, etc.). Results indicate that "mention" correlates significantly with 2 of the verbal fluency tests and with neuroticism as measured by Eysenck's Personality Inventory.—P. McMillan.

947. Murphy, Lois B. (Menninger Foundation, Topeka, Kan.) **Discussion of papers by Brill, Weinstein, Gleser, Overall and Hollister, and Stein and Neulinger in the light of research in human development.** *Public Health Service Publication*, 1968, No. 1584, 173-190.

948. Nuttall, R. L., Phillips, Leslie, & Rosenfeld, J. E. (Boston Coll., Inst. of Human Sciences) **Attitudes and psychiatric symptomatology.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 263-270.—Examined the relation of symptomatic behaviors and attitudinal set by having 214 1st-admission males complete 3 symptom scales established to reflect the role orientations of Turning Against the Self, Turning Against Others, and Avoidance of Others. The "results indicate that it is possible to construct attitudinal scales on which scoring corresponds to the appearance of particular types of symptoms." The sets of attitudinal items making up the 3 scales are presented in table form which includes the direction of scoring for each item. Significant results are noted in relation to symptoms and corresponding attitude scales. A cross-validation is included.—E. J. Kronenberger.

949. Overall, John E. & Hollister, Leo E. (U. Texas, Medical School, Galveston) **Studies of quantitative approaches to psychiatric classification.** *Public Health Service Publication*, 1968, No. 1584, 277-299.

950. Paulson, M. J. & Lin, Tien-Teh. (U. California, Center for the Health Sciences, Los Angeles) **Age: The neglected variable in constructing an abbreviated WAIS.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 336-343.—WAIS records of 290 psychiatric patients of mixed age, sex, diagnosis, and socioeconomic level were analyzed by age through a stepwise regression

method, multiple regression equations, and multiple correlations. Results indicate that age is a factor in deriving estimates of WAIS IQ. "The age variable should be incorporated in all studies related to the prediction of WAIS Full Scale IQ from abbreviated batteries."—E. J. Kronenberger.

951. Rao, C. Radhakrishna. (Indian Statistical Inst., Research & Training School, Calcutta) **Discrimination among groups and assigning new individuals.** *Public Health Service Publication*, 1968, No. 1584, 229-240.

952. Rice, David G. & Kepecs, Joseph G. (U. Wisconsin, Medical School) **Patient sex differences and MMPI changes: 1958 to 1969.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 185-192.—Compared a group of 100 psychiatric patients under 30 yr. old tested from 1958-1960 on MMPI responses with a carefully matched group (N = 100) tested during 1967-1969. Marked sex differences were obtained. Women in the later group had significantly higher mean clinical and supplemented MMPI scale scores than women in the earlier group. Earlier and later male groups showed few significant scale differences. Statistical analyses indicate that these findings cannot be explained in terms of a differential response "set" for men and women. Results suggest an increase in MMPI indicated psychopathology for younger women, and are discussed in terms of the rapidly changing sexual and social role expectations for women during the past decade. (19 ref.)—*Journal summary*.

953. Rickels, K., et al. (U. Pennsylvania) **Differential reliability in rating psychopathology and global improvement.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 320-323.—Reports on 2 studies dealing with ratings of degree of patient psychopathology. "The reliability of psychopathology ratings was found to be low, but the ratings of global improvement were quite reliable." Problems in dealing with global neurotic psychopathology and rating global improvement are presented.—E. J. Kronenberger.

954. Rocha, Zaldo & da Nóbrega, Maria A. (U. Pernambuco, Recife, Brazil) **Sobre a utilização de um "perfil psicológico" no diagnóstico pluri-dimensional da criança com distúrbios reativos do comportamento.** ["Psychological profile" used as the context of the pluri-dimensional diagnosis of behavior disturbances in children.] *Neuobiologia*, 1969 (Dec), Vol. 32(4), 259-264.—Proposes the elaboration of a psychological profile starting from the "animus state" or "base humor," and describes the importance of the profile in the context of the pluri-dimensional diagnosis.—*English summary*.

955. Rosenman, M. F. & Lucik, T. W. (Central State Hosp., Milledgeville, Ga.) **A failure to replicate an Epilepsy scale of the MMPI.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 372.—An epileptic group and a brain-damaged control group were compared on the Ep scale of the MMPI. The results offered no support for the concept of a characteristic epileptic personality.—E. J. Kronenberger.

956. Schoonover, Sarah M. & Hertel, Richard K. (Northwest Mental Health Center, Lima, O.) **Diagnostic implications of WISC scores.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 967-973.—Compared the WISC scores of 351 children in 9 diagnostic categories in terms of differences in subtest scores, Verbal IQ-Performance IQ difference, subtest scatter, and subtest patterning. The 9 categories, psychoneurotic disorder, personality

pattern disturbance, personality trait disturbance, sociopathic personality disturbance, special symptom reaction, transient situational personality disorder, schizophrenic reaction, chronic brain syndrome, and mental deficiency, were not differentiated adequately by any of the above techniques. (21 ref.)—*Journal abstract*.

957. Schubert, Josef. (U. Saskatchewan, Regina, Canada) **Rorschachs of asthmatic children.** *British Journal of Projective Psychology & Personality Study*, 1968 (Jun), Vol. 13(1), 17-23.—The Rorschach and the WISC test responses of 57 6-14 yr. old asthmatic children to determine: (a) characteristics of these Ss compared to other referrals, and (b) whether there are subgroups within the asthmatic patient population. Ss were characterized according to whether their asthma was mild or severe, and whether their parents were ambivalent (A Group) or protective (O Group). Results indicate that A Group Ss were more likely to have severe asthma, to be emotionally constricted, and to respond to psychological treatment, whereas O Group Ss tended to show poorer psychological differentiation, give in easily, and "act out" their tensions.—P. McMillan.

958. Shakow, David. (National Inst. of Mental Health, Lab. of Psychology, Bethesda, Md.) **The role of classification in the development of the science of psychopathology with particular reference to research.** *Public Health Service Publication*, 1968, No. 1584, 116-143.

959. Shechtman, Audrey. (DePaul U.) **Age patterns in children's psychiatric symptoms.** *Child Development*, 1970 (Sep), Vol. 41(3), 683-693.—Studied age trends of childhood behaviors commonly considered symptomatic of pathology in 317 male and 229 female 5-17 yr. old outpatients in a mental health clinic. Data were also analyzed in terms of the externalizer-internalizer and severe and diffuse psychopathology factors derived by T. M. Achenbach. More symptoms appeared in younger Ss with a decrease in number over the age span studied. Age trends were demonstrated for specific traits. Rare traits were often those appearing in the severe and diffuse psychopathology factor or seemed to be age linked. Males were not differentiated on the externalizing-internalizing factor, while 9-14 yr. old females exhibited predominantly internalizing behaviors. It is concluded that age trends in symptoms are manifested in childhood which may have implications for the interpretation and classification of behavior disorders.—*Journal abstract*.

960. Sennett, E. R. & Stone, L. A. (Kansas State U.) **Ratio scaling of students on a judged adjustment continuum.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 317-320.—3 judges made magnitude estimations of the overall mental health status of 19 students residing in a rehabilitation living unit. The results led to conclusions dealing with direct-estimation methods to scale professional judgment, reliability, and subjective magnitude impressions.—E. J. Kronenberger.

961. Spiegel, D., Hadley, A., & Hadley, R. G. (Veterans Administration Center, Brentwood Hosp., Los Angeles, Calif.) **Personality test patterns of rehabilitation center alcoholics, psychiatric inpatients and normals.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 366-371.—Using the 3 groups, a test battery was administered to 180 Ss. A stepwise multiple discriminant analysis method was used to find linear combinations of variables which seemed to be superior to any single variable in separating the 3 groups. The MMPI produced

the most accurate classifications but classification accuracy was enhanced by combining variables from both tests utilized. Results are also presented for various psychiatric groups.—*E. J. Kronenberger.*

962. Stone, L. A. (U. North Dakota) **A law of clinical judgment: A psychological mechanism based on the logic of psychophysics.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 312-317.—Prognostic favorability and impairment severity scales were found to be highly related based on 2 independent groups of psychiatrist-judges. Empirically derived exponents for the relations are presented. "The suggestion was made that the power law of sensory psychophysics also may be an apt model for the study of complex conceptual and judgmental processes."—*E. J. Kronenberger.*

963. Thorne, F. C. **Psychological "twenty questions": A method for teaching diagnostic interviewing.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 331-334.—Presents psychological twenty questions (PTQ), a device to aid in diagnostic interviewing. The nature of PTQ is to establish certain facts which can be elicited only with optimum lines of questioning and narrowing down the attributes of the facts to be discovered. Rules for PTQ, case materials, and scoring methods are presented. Experience indicated that the method can be used for playing various client roles. The PTQ is intended to be used as a practicum teaching device in introductory courses in psychological diagnostic interviewing.—*E. J. Kronenberger.*

964. Torgerson, Warren S. (Johns Hopkins U.) **Multidimensional representation of similarity structures.** *Public Health Service Publication*, 1968, No. 1584, 212-220.

965. Walton, H. J., Foulds, G. A., Littmann, S. K., & Presley, A. S. (U. Edinburgh, Scotland) **Abnormal personality.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 497-510.—Psychiatrists show considerable variation in their use of diagnostic terms although they do reliably categorize patients in descriptive terms. 6 psychiatrists rated 40 patients on a list of 18 descriptive items, with item linkages allowing 4 clusters to emerge, each representing a different type of abnormal personality. Case descriptions illustrate male and female types of inhibited personalities, personality disorders, aggressive sociopathy, and inadequate sociopathy with addiction. A continuing investigation aims at the development of a psychological test with which to measure abnormal personality. (23 ref.)—*R. L. Sulzer.*

966. Watson, Riley L., Pasewark, Richard A., & Fitzgerald, Bernard J. (U. Wyoming) **Use of the Edwards Personal Preference Schedule with delinquents.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 963-965.—Attempted to determine if EPPS scores differentiate institutionalized delinquent and nondelinquent adolescents. Scores of 49 delinquent boys and 46 delinquent girls, age range 15-19 yr., were compared with scores of comparable nondelinquent groups. Delinquent boys scored significantly lower in achievement, deference, affiliation, and dominance. Delinquent females scored higher in heterosexuality and lower in endurance and deference. Incomplete description of presumed need constellations in delinquency and inconsistency in male and female results obtained with the EPPS makes questionable the use of this instrument for the stated purpose.—*Journal abstract.*

967. Weinstock, Harry I. (City Hosp. Center, Mt. Sinai Hosp. Services, Elmhurst, N.Y.) **The role of**

classification in psychoanalytic practice. *Public Health Service Publication*, 1968, No. 1584, 62-72.

968. Wilson, Paul T. (American Psychiatric Assn., Information Processing Project, Washington, D.C.) **A plan for refining the nosology of mental illness.** *Public Health Service Publication*, 1968, No. 1584, 53-61.

969. Ziv, Avner. (Tel-Aviv U., Ramat Aviv, Israel) **Children's behavior problems as viewed by teachers, psychologists, and children.** *Child Development*, 1970 (Sep), Vol. 41(3), 871-879.—30 behavior problems, based on E. K. Wickman's checklist, were ranked according to their severity by 165 8th grade boys and girls, 82 teachers, and 45 psychologists. A significant positive correlation was found between teachers' and psychologists' ranking. This result is different from that found in similar studies conducted in the United States. However, a qualitative analysis indicates that teachers still consider overt behavior problems more serious, while psychologists consider withdrawal problems to be more severe. Children ranked the problems more like the teachers than the psychologists. This is probably due to the teachers' socializing influence and the continuous interaction between teachers and students. (19 ref.)—*Journal abstract.*

970. Zubin, Joseph. (New York State Dept. of Mental Hygiene, New York) **Biometric assessment of mental patients.** *Public Health Service Publication*, 1968, No. 1584, 353-376.

BEHAVIOR DISORDER

971. Attkisson, C. Clifford. (U. Tennessee) **Suicide in San Francisco's skid row.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 149-157.—Investigated the relationships between alcoholism and suicide in San Francisco's South of Market area. Death and coroner's records were used to identify 110 male and 12 female documented suicides from 1958-1967. Data were available on 15 demographic and health-related variables for the suicide group and 5 variables for a comparison group of 18,956 skid row area residents. Cluster analyses identified 6 profile types among the suicide group: (a) prototype suicide, (b) aged and physically ill immigrant, (c) young, unmarried alcoholic, (d) alcoholic mentally disordered, (e) maritally disrupted and mentally disordered American, and (f) aged and mentally disordered immigrant. Results suggest that alcohol usage by itself does not discriminate within the suicide group, but its role is more apparent in interaction with other variables. The study also supports recent research which indicates that white males are the highest risk group for alcoholism and suicide in combination. (27 ref.)—*P. McMillan.*

972. Maitra, Amal K., Mukerji, Kamal, & Raychaudhuri, Manas. **Artistic creativity among the delinquents and the criminals: Associated perceptual style.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967 (Jul), No. 9, 7-10.—Administered the Welsh Figure Preference Test to 80 Ss divided into 4 equal groups: 1 of juvenile delinquents (14-18 yr. old) showing artistic talents, 1 of criminals indulging in artistic creativity, and 2 controls of nonartist normal counterparts. Data were scored on the Conformance Scale, the Revised Art Scale, and the median test was employed in testing the hypotheses. The experimental groups were characterized by nonconformity with the consensus and showed significantly higher tolerance and acceptance of ambiguity in their perception than

nonartist, normal Ss. Since this perceptual preference peculiarity is also usual with other creative artists who do not exhibit delinquent or criminal tendencies, results appear to confirm stability of this sort of distinctive perceptual activity. The available data also give credence to the developing, emerging nature of this perceptual style.—*Journal abstract.*

Drug Addiction

973. Wheeler, Lorraine & Edmonds, Carl. (Drug Referral Centre, Rushcutters Bay, New South Wales, Australia) **A profile of drug takers.** *Medical Journal of Australia*, 1969 (Aug), Vol. 2(6), 291-294.—Studied 100 drug-dependent clients who were seen at the Drug Referral Center in Sydney. Most were young adults, and the drugs taken ranged from marihuana to heroin. Data describe drug-dependent individuals who remain within the community, and who still require the help of its services.—*Journal abstract.*

Alcoholism

974. Gruzelier, J. H. & Corballis, M. C. (U. London, Birkbeck Coll., England) **Effects of instructions and drug administration on temporal resolution of paired flashes.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 115-124.—16 male alcoholics were shown pairs of light flashes separated by 0-100 msec. intervals and then judged whether there were 1 or 2 flashes. 2-flash fusion threshold was raised by administration of promazine hydrochloride and was higher for strict than for lenient instructions. Signal detection analysis showed that the drug reduced sensitivity but did not affect criterion, while instructions altered criterion placement without changing sensitivity. (23 ref.)—*Journal abstract.*

975. Hoffmann, Helmut & Abbott, David. (Minnesota State Hosp., Willmar) **Emotional self-description of alcoholic patients after treatment.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 892.—Compared 61 alcoholics just being admitted to the hospital on mood scales, Edwards Social Desirability (SD) scale, and Marlow-Crowne Social Desirability (MC-SD) scale with a 2nd group (N = 61) who received 3 wk. of treatment. It is concluded that hospitalization reduces the amount of guilt feelings and effects alcoholics to give a more socially desirable self-description (SD).—*Author abstract.*

976. Winokur, George; Reich, Theodore; Rimmer, John, & Pitts, Ferris N. (Washington U., Medical School) **Alcoholism: III. Diagnosis and familial psychiatric illness in 259 alcoholic probands.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 104-111.—Interviewed 103 female and 156 male alcoholic patients concerning their psychiatric status. Information was also obtained on family history of psychiatric illness in their 1st-degree relatives. Data indicate that (a) females became alcoholic at a later age than males; (b) primary affective disorder was diagnosed in a significant proportion of the females but not in the males; (c) personality disorder, mainly sociopathy, was found in a larger proportion of males than females; (d) morbid risks for alcoholism and affective disorder were given in all classes of 1st-degree relatives (i.e., male relatives suffer an increased risk of alcoholism and female relatives of affective disorder); (e) female alcoholics were more likely to have a family history of psychiatric disease than male;

(f) male relatives were more likely to have a psychiatric illness than female; and (g) affective disorders in relatives were usually depressive in nature and only rarely manic.—*Journal summary.*

Suicide

977. Buglass, Dorothy & McCulloch, J. W. (U. Edinburgh, Scotland) **Further suicidal behaviour: The development and validation of predictive scales.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 483-491.—Data on 511 postattempt patients were used to construct scales which discriminated between suicide attempt repeaters and nonrepeaters. The scale for men consisted of 3 items: alcoholism, alcohol at the time of attempt, and violence. The female scale included previous psychiatric treatment, drug addiction, dwelling mobility, childhood parental absence, psychopathy, and previous suicide attempt. Validation in a later year showed the female scale to be predictive while the male scale was not.—*R. L. Sulzer.*

978. Frederick, Calvin J. & Resnick, H. L. (National Inst. of Mental Health, Div. of Special Mental Health Programs, Chevy Chase, Md.) **Interventions with suicidal patients.** *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 103-109.—Reviews the status of screening, diagnosis, and treatment of suicidal patients. It is contended that, generally, there exists sufficient knowledge to screen and diagnose suicidal patients, while effective treatment techniques have not yet been developed. It is suggested that in devising new and innovative procedures, areas deserving further research include: (a) developing approaches to provide competent follow-up treatment, (b) involvement of "significant others" as resource persons, (c) more effective techniques of using group psychotherapy, and (d) use of the therapeutic opportunity provided by hospitalized suicidal patients for thorough clinical and biochemical study. It is further suggested that in the area of suicidal crises, volunteers could be more effectively utilized—both professionals who should feel concerned and move to act, and nonprofessionals who when properly screened and trained can provide invaluable assistance in many areas.—*M. Maney.*

979. Gobar, A. H. (Kabul U., Afghanistan) **Suicide in Afghanistan.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 493-496.—This strongly Islamic country shows a suicide rate of 1/4 case/100,000 population per year, the lowest rate reported in the world. Hanging, shooting, and stabbing are the chief methods, contrasting with domestic gas poisoning which is more common in some industrial nations. In addition to religion, factors possibly holding down the suicide rate are the small number of elderly persons and the fact that the old do not face neglect, abandonment, and social isolation but benefit from the strong family ties and general social structure.—*R. L. Sulzer.*

980. Kreitman, Norman; Smith, Peter, & Tan, Eng-Seong. (U. Edinburgh, Scotland) **Attempted suicide as language: An empirical study.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 465-473.—Proposes that suicide attempts should occur in socially linked groups of individuals more frequently than in the general population, the particular group at risk being that section of the community in which self-aggression is recognized as conveying certain information. Survey of close associates of 181 attempted suicides produced 17

positives, overrepresenting those under 35 yr. of age, especially females and those using drugs in the suicidal attempt. These findings are compatible with the hypothesis of cultural transmission of the predisposition.—R. L. Sulzer.

981. Lee, Mercile J. (Hartford Seminary Foundation, Conn.) **A search for meaning: A study of threatened, attempted, and completed suicides among selected college students.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5224-5225.

982. Lukianowicz, N. (33 N. Circular Rd., Belfast, Ireland) **Attempted suicide in children.** *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 415-435.—Reviews the psychiatric literature on attempted suicide in children and suggests a classification based on the degree of the determination to commit suicide. The problem is illustrated by 10 case studies of attempted, threatened, or contemplated suicide among 120 children referred for various reasons to 2 child guidance clinics. The etiology, symptomatology, and psychodynamics of attempted suicide in children are discussed. Conclusions are drawn regarding the treatment and the prevention of conditions leading to suicidal attempts in children. (46 ref.)—*Journal summary*.

983. Motto, Jerome A. (U. California, Medical School, San Francisco) **Newspaper influence on suicide: A controlled study.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 143-148.—Develops a previously reported approach to the contention that newspaper reports of suicidal behavior precipitate suicide among suggestible readers. The suicide rate during a 268-day period of complete cessation of newspaper publishing in a major metropolitan area was compared with the mean rate for the same calendar period of the prior 4 yr. and of the subsequent yr. When combined age and sex specific groups were compared, it was seen that the newspaper blackout was accompanied by a significant lowering of the suicide rate in the female population, especially in age groups under 35. Implications raised by these findings are discussed, with special concern for the role of the press in influencing the developing value system of receptive readers.—*Journal summary*.

984. Philip, Alistair E. (U. Edinburgh, Scotland) **Traits, attitudes and symptoms in a group of attempted suicides.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 475-482.—Examined 100 attempted suicides in order to provide a detailed description of those citizens of Edinburgh, Scotland, admitted to the hospital after suicidal behavior. $\frac{1}{2}$ showed diagnosis of character disorder, excess hostility was evident, excess anxiety, some introversion, and less conscientiousness than normals or neurotics was found. While there does not seem to be a unique suicidal personality, often there is poor personality integration, impulsiveness, and poor interpersonal relations. (32 ref.)—R. L. Sulzer.

985. Stanley, E. James & Barter, James T. (U. Colorado, Medical Center, Denver) **Adolescent suicidal behavior.** *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 87-96.—Presented a controlled followup study of 38 hospitalized adolescent suicide-attempters. In the prehospitalization phase there was no difference between the experimental group (suicide attempters) and the control group (psychiatrically ill but no suicidal behavior) in the incidence of parent loss, amount of family conflict, degree of social isolation, or

frequency of clear crises. Experimental Ss did seem to be significantly different in regard to the age of parent loss and the type of parental discord. After discharge, experimental Ss did not differ from control Ss in their adjustment. The subgroup which attempted suicide before but not after hospitalization also was not significantly different in their behavior or environmental conditions from controls. During the postdischarge phase, only Ss who attempted suicide both before and after hospitalization were clearly distinguishable from controls and the nonrepeat group. The repeat attempters had less adequate social lives, did less well in school, and were less likely to be living with a parent or parents. (16 ref.)—*Journal summary*.

986. Yufit, Robert I., Benzie, Bonnie; Fonte, Mary E., & Fawcett, Jan A. (Illinois State Psychiatric Inst., Chicago) **Suicide potential and time perspective.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 158-163.—Developed a semiprojective questionnaire to assess suicidal potential from the viewpoint of time perspective. It was hypothesized that the suicide-prone individual (a) "will evidence less involvement in the future than the nonsuicidal person," and (b) "is more likely to be involved in the past than in the present." The Time Questionnaire was administered to 2 clinical groups (70 patients with either primary depressive syndrome or schizophrenics with depressive features); and 2 nonclinical groups (35 mental health staff members and 57 students). Data were evaluated to test for the possibly confusing effects of clinical factors, including age, psychomotor retardation, diagnosis, and intensity of depression. Results confirm both hypotheses, and the questionnaire "appears to have differentiated the clinical and comparison groups." Further studies are needed, however, to indicate the extent to which the questionnaire can evaluate suicidal potential apart from depression.—P. McMillan.

Crime

987. Dods, Linda Y. (U. Connecticut) **Pro-social and anti-social conformity in incarcerated females.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5235-5236.

988. Górski, Janusz. **Problem efektywności kar dyscyplinarnych stosowanych względem wybitnie zdemoralizowanych więźniów młodocianych.** [The effectiveness of disciplinary sanctions applied toward very demoralized young adult delinquents.] *Przegląd Penitencjarny*, 1968, Vol. 6(1), 83-87.—Based on research with 154 incarcerated delinquents, it is concluded that disciplinary sanctions have a positive effect on the reeducation process when the prisoner has been given a job of some value or esteem which he fears losing. (French & Russian summaries)—C. R. Vestal.

989. Ketterling, Marvin E. (Milwaukee Technical Coll.) **Rehabilitating women in jail.** *Journal of Rehabilitation*, 1970 (May), Vol. 36(3), 36-38, 56.—Discusses a 4-mo program of intense education and counseling given females in a county jail. The effect of the program based on its impact on recidivism, county aid status, and employment was essentially statistically insignificant although it is reported that the experimental group (those receiving the training and counseling) did not reflect the 16% in increased arrest rate for women in Milwaukee County for 1963 compared to 1962. It is suggested that alcoholic inmates should be removed from the jail setting

and placed in a rehabilitative treatment center. The use of a psychiatric social worker with the remaining inmates is also urged.—*M. A. Seidenfeld.*

990. Morawski, Jacek. *O potrzebie badania gwary przestępczej.* [On the need for studies concerning the slang of the criminal population.] *Przegląd Penitencjarny*, 1968, Vol. 6(1), 72-82.—Traces new orientations of research on criminal slang, and advances several hypotheses. Results and uses of the 4 basic research orientations (etymologic, lexicologic, pragmatic, and semantic) are explained. Slang is regarded not only as a product of the criminal group, but as a great influence on the formation of attitudes and opinions of criminals, especially juvenile delinquents. This research on slang and other cultural elements of the prison milieu can further analysis of prisoners' behavior and predictions of their reactions under different stimuli. (French & Russian summaries) (32 ref.)—*C. R. Vestal.*

991. Snortum, J. R., Hannum, T. E., & Mills, D. H. (Claremont Men's Coll.) *The relationship of self-concept and parent image to rule violations in a women's prison.* *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 284-287.—54 inmates at a woman's reformatory were rated by psychologists on frequency of rule violations. These ratings were correlated with MMPI scores and with the inmate's ratings of her mother, father, self, and ideal self. Rule violations were found to be positively correlated with the Pd and Ma scales and with self-ratings on scales measuring destructive potential, asocial narcissism, and emotional discomfort. There was no significant relationship between rule violations and ideal-self ratings. A negative concept of the mother figure, not a negative view of the father, was related to chronic resistance to prison rules.—*E. J. Kronenberger.*

992. Wierzbicki, Piotr. *Poglady psychologów penitencjarnych na problem indywidualizacji: Badania ankietowe.* [Opinions of prison psychologists on individualization.] *Przegląd Penitencjarny*, 1968, Vol. 6(1), 60-71.—Results of a study of prison psychologists show the need to expand the methods of individual treatment by giving individual psychotherapy and more educational and professional consultations to young adults, inmates with psychic deviations, and demoralized recidivists. It is suggested that prisons increase psychological staffs to allow for more individualization, and that principles of individualization be expanded to all prison personnel. (French & Russian summaries)—*C. R. Vestal.*

Juvenile Delinquency

993. Aitken, John R. (U. Southern Mississippi) *A study of attitudes and attitudinal change of institutionalized delinquents through group guidance techniques.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4762.

994. Alemaskin, M. A. *Pervaya vsesoyuznaya konferentsiya po psikhologicheskomu izucheniyu trudnovospituemykh detei i podrostkov-pravonarushitelei.* [First All-Union Conference on the Psychological Study of Children with Behavior Problems and of Juvenile Delinquents.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 181-185.—Presents the proceedings of a 1969 conference held in Moscow, in which some 100 individuals participated and 43 presentations were made.—*L. Zusne.*

995. Cartwright, Desmond S., Howard, Kenneth I., & Reuterman, Nicholas A. (U. Colorado) *Multivariate*

analysis of gang delinquency: II. Structural and dynamic properties of gangs. *Multivariate Behavioral Research*, 1970 (Jul), Vol. 5(3), 303-323.—Develops measures of structural and dynamic properties of gangs: size, differentiation, primary pattern strength, competing pattern strength, and territorial dispersion; and cohesiveness, uniformity of attitude, and felt effectiveness. Except for size and dispersion, all measures are derived from applications of cluster and factor analysis. Evidence of construct validity is provided. The measurements are then related to mean scores on 5 factors of behavior for 16 gangs. It is found that: (a) less differentiated gangs engage in more property offenses, (b) gangs with stronger primary pattern engage in more conflict and stable sex behaviors, and (c) gangs with greater cohesion engage in less property offenses and conflict behaviors. A distinction between behavioral and attitudinal cohesiveness is discussed. (16 ref.)—*Journal abstract.*

996. Hammer, William T. (Vanderbilt U.) *The learning of social controls in juvenile antisocial personalities.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5238-5239.

997. Kessler, Clemm C. & Wieland, Joan. (U. Nebraska, Omaha) *Experimental study of risk-taking behavior in runaway girls.* *Psychological Reports*, 1970 (Jun), Vol. 26(3), 810.—Exposed institutionalized runaway and 6 nonrunaway girls to a risk-taking task. Contrary to expectations, nonrunaway Ss were greater risk-takers than the runaways. It is felt that running away does not represent adventurousness but rather a desire to find security. The alternative that runaways were risk-takers but became conservative in a test situation to avoid the consequences of failure is postulated.—*Author abstract.*

998. Knill, Franklin P. (U. Cincinnati) *The manipulation of teacher expectancies: The effect on intellectual performance, self-concept, interpersonal relationships, and the institutional behavior of students.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5239-5240.

999. Levinson, Boris M. & Mezei, Harry. (Yeshiva U.) *Self-concepts and ideal-self concepts of run-away youths: Counseling implications.* *Psychological Reports*, 1970 (Jun), Vol. 26(3), 871-874.—A comparative study of the self-concepts and ideal-self concepts of 25 runaway youths indicated that Ss feel deficient in the evaluative area followed by the activity and potency areas. Implications for counseling are discussed.—*Journal abstract.*

1000. Robbins, William C. (North Texas State U.) *Self-concept, personality adjustment, and measurable intelligence of delinquent boys.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5242-5243.

1001. Rosenmayr, L., Strotzka, H., & Firnberg, H. (Eds.) *Gefährdung und Resozialisierung Jugendlicher.* [Factors endangering youth and the resocialization of youth.] Vienna, Austria: Europa, 1968. 191 p.—Presents a collection of papers on measures for dealing with juvenile delinquency, and the mental health of juvenile delinquents. The papers are derived from a seminar held at the University of Vienna.—*I. D. London.*

1002. Tritan, Andrew R. (United States International U., San Diego, Calif.) *The psychology of rebellion: A study in human behavior.* *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5230.

Homosexuality & Sexual Deviation

1003. Bak, Robert C. **The phallic woman: The ubiquitous fantasy in perversions.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 15-36.—Discusses the influence exerted by early traumata on the causation and development of deviant sexual behavior, and presents numerous case histories. "The clinical case material reconfirms the finding that multiple perverse manifestations frequently occur in the same individual. They can be present concurrently or manifest themselves separately in different life phases. The clinical syndromes showed a preponderance of obsessional symptoms, impulsive character structures, and borderline personalities. . . . Castration anxiety and its phase specificity to the phallic phase play a central role in perversion." Among the causes of increased sensitivity to castration anxiety are emphasized the "disturbances in the early mother-child relationship which increase separation anxiety and clinging and may actually threaten survival." The oedipal conflict, constitutional predisposition, developmental factors, visual and tactile overstimulation, and the connection between perversion and musical talent are also discussed. Finally, acting out is examined as it is inherent in the perverse character. (33 ref.)—*B. A. Stanton.*

1004. Bentler, P. M., Sherman, R. W., & Prince, C. (U. California, Los Angeles) **Personality characteristics of male transvestites.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 287-291.—Tested 25 male transvestites using the Holtzman Inkblot Test. General adult and student norms were used as a basis for determining the deviation of the observed mean in the transvestite sample. The transvestite Ss indicated a high level of general intellectual response, used form rather than color, and had a relatively high body preoccupation, and pathological thought processes. The general level of perceptual differentiation was similar to that seen in the normative data.—*E. J. Kronenberger.*

1005. Greenacre, Phyllis. **Perversions: General considerations regarding their genetic and dynamic background.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 47-62.—Traces the formation of fetishes through each stage of psychosexual development and discusses fetishistic performance. The "importance of and variations in the phallic phase with its intimate relationship with the oedipus complex . . . are discussed as they give insight into the "complexities of infantile organization which already exists as the child enters this phase." The vicissitudes of pregenital development are considered to aid in understanding penis envy and the fear of castration. It is further noted that traumas play an important role in case of fetishism, transvestism, and related perversion. The role of aggression in perversions is also examined. (31 ref.)—*B. A. Stanton.*

1006. Kahn, M. & Masud, R. **Role of the "collated internal object" in perversion-formations.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 555-565.—Confusion in analytic theorizing on perversions centers around the necessity of the presence of an external object, the unconscious organized fantasy system in the pervert, and a real situation where the 2 can become reality. Perverse sexual events are an acting-out of an intrapsychic situation in which the collated internal objects play a central role. If the pervert acts out his intrapsychic situation alone through masturbatory activities only, danger is present and may lead to

death as a way of achieving orgasm. If the bias is against acting-out, the treatment of the perversion can bog down. (28 ref.)—*J. Chyatte.*

1007. Morgenthaler, Fritz. Panel on "Disturbances of male and female identity as met with in psychoanalytic practice." *International Journal of Psycho-Analysis*, 1970 (Apr), Vol. 51(2), 251-254.—Disturbances of sexual identity result from a disharmony between ego and drive development which proceed at different speeds. This is a narcissistic disorder. By the age of 1 yr. boys, by coordinating anatomical and visual stimuli, are predisposed to problem solving and abstracting. Girls tolerate visceral-genital sensations at that time and are predisposed to personal relationships and imitation. Feelings of sexual identity oscillate in homosexuals.—*J. Chyatte.*

1008. Newman, Lawrence E. (U. California, Medical School, Los Angeles) **Transsexualism in adolescence: Problems in evaluation and treatment.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 112-121.—Reviews definitional, diagnostic, and psychotherapeutic treatment problems for the transsexual adolescent patient. The transsexual, who has profound cross-gender aspirations, experiences an identity crisis in adolescence caused by "fast developing but unwanted pubertal changes," family and society pressures against his cross-gender desires, and his own "unhappiness with his assigned gender role." It is stressed that a treatment plan must be worked out and alternative diagnoses ruled out (i.e., transvestism, effeminate homosexuality, or biological intersexuality). It is recommended that an experimental trial of at least 1 yr. in the new gender role be successfully accomplished before sex reassignment surgery is considered. (21 ref.)—*P. McMillan.*

MENTAL DISORDER

1009. Baldwin, J. A. (U. Aberdeen Scotland) **Psychiatric illness from birth to maturity: An epidemiological study.** *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 313-333.—Reports a pilot study of all new referrals of children and adolescents to psychiatric services in an area with a population of 480,000 over a 2-yr period. Data were retrieved from standard psychiatric case register records and used to obtain referral rates specific for sex and age which were related to urban/rural dwelling, marital status, social class, referral agent, type of service 1st entered, and diagnosis. Results show that: (a) male rates were higher than female in childhood and remained stable in adolescence; (b) female rates were low in childhood and rose steeply in adolescence; (c) rates were lower in country than in city patients but of similar pattern; (d) rates for lower social class city males were high; (e) rates for city schools were higher than country schools associated with a city child guidance clinic; (f) rates for behavior disorders remained stable or fell with increasing age; and (g) rates for neuroses increased from age 15, particularly in females. Results are discussed in relation to previous studies and social, psychological, clinical, and artifactual hypotheses. The need for more comprehensive record-linking studies across administrative, legal, and professional boundaries is stressed. (27 ref.)—*Journal summary.*

1010. Birchnell, John. (Graylingwell Hosp., Chichester, England) **Depression in relation to early and recent parent death.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 299-306.—Groups of depressed

and nondepressed patients matched on age were drawn from a sample of 500 admissions to a Scottish hospital. Incidence of both early parent death and recent parent death was higher in a severely depressed subgroup of hospitalized depressives. An excess of mother deaths appeared responsible. (19 ref.)—*R. L. Sulzer.*

1011. **Birchnell, John.** (Graylingwell Hosp., Chichester, England) **Early parent death and mental illness.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 281-288.—After age matching, the incidence of parent death before age 10 was significantly higher in a sample of 500 admissions to a Scottish psychiatric hospital than in a sample from a general practice. Apparently, the most marked effects were in the earliest age span, for loss by daughters, for loss of fathers, and for early loss of mothers.—*R. L. Sulzer.*

1012. **Birchnell, John.** (Graylingwell Hosp., Chichester, England) **Recent parent death and mental illness.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 289-297.—Compared a sample of 500 admissions to a Scottish hospital with a similar sample size from a local general practice. Higher psychiatric 1st admission rates in patients who had recently suffered parent death support the hypothesis that the years following parental bereavement represent a period of adjustment and relative instability. Internal psychological adjustment to the loss may be as important as the external adjustment to altered family circumstances.—*R. L. Sulzer.*

1013. **Birchnell, John.** (Graylingwell Hosp., Chichester, England) **The relationship between attempted suicide, depression and parent death.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 307-313.—Attempted suicide appeared more often with severe depression, early parent death, or illegitimacy in 104 Scottish patients matched to controls.—*R. L. Sulzer.*

1014. **Bolt, Jean M.** (Southern General Hosp., Glasgow, Scotland) **Huntington's chorea in the west of Scotland.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 259-270.—The minimum estimate of prevalence is 5/100,000. Examination of 124 cases and information on another 594 allows discussion of factors affecting referral and survival, plus summary of the commoner clinical features and abnormal patterns of social behavior. For prediction of cases it is important to recognize that headache and backache occur often at an early stage. Psychotic and neurotic breakdown, especially in women, and development of neurological signs without full recovery are seen relatively early. Mild neurological signs such as slight ataxia or an uneven gait may be present for 20 yr. before the full picture. A national registration system of affected families would aid diagnosis and positive advice. (28 ref.)—*R. L. Sulzer.*

1015. **Crookes, T. G. & Hutt, S. J.** (St. John's Hosp., Aylesbury, England) **Perception of hidden figures by neurotic and schizophrenic patients.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 335-336.—Attempted to confirm the lowered capacity of schizophrenics to see hidden figures. Ss were 30 schizophrenics and 30 neurotics. All Ss were administered the Gottschaldt Figures Test, the Eysenck Personality Inventory, and the Vocabulary subtest of the WAIS. Results were not significant.—*M. Maney.*

1016. **Dewhurst, Kenneth; Oliver, J. E., & McKnight, A. L.** (Littlemore Hosp., Oxford, England) **Socio-psychiatric consequences of Huntington's disease.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 255-258.—Study of 102 patients shows a high incidence

of psychiatric, sexual, and social features of Huntington's disease which antedate the florid picture seen in mental hospitals. There are diagnostic, preventive, and eugenic implications to these findings on the early stages of the illness. The disturbed environment during the years before final hospitalization makes victims of the younger members of the families, whether or not they carry the bad gene.—*R. L. Sulzer.*

1017. **Gruenewald, Doris.** (Michael Reese Hosp., Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **A psychologist's view of the borderline syndrome.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 180-184.—Reports results of recent follow-up psychological testing of 10 Ss out of an original group of 51 patients hospitalized between 1961 and 1963, and diagnosed as showing the borderline syndrome. Ss had been part of a study by R. R. Grinker, B. Werble, and R. C. Drye leading to the identification of the borderline syndrome. The assessment battery consisted of 6 standard tests and an unpublished activity scale. The testing "supports the diagnosis in all essential points and corroborates the characteristics of the subgroups established by Grinker et al for the syndrome."—*P. McMillan.*

1018. **Lamont, John N.** (U. Washington) **Resistance to influence in depressives.** *Dissertation Abstracts International*, 1971 (May), Vol. 30(11-B), 5240-5241.

1019. **Maddocks, P. D.** (St. Thomas' Hosp., London, England) **A five year follow-up of untreated psychopaths.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 511-515.—On follow-up 10 of 59 psychopaths had settled down, while 10 were dead or lost. The others were mostly disabled with alcoholism or chronic hypochondria. Although the conviction rate falls with increasing age, 3 of 5 failed to adjust suggesting the need for treatment in addition to maturation.—*R. L. Sulzer.*

1020. **Murray, M. D., Page, J., Stotland, E., & Dietze, Doris.** (U. Washington) **Success on varied tasks as an influence on sense of competence.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 296-298.—72 male psychiatric patients, after completing a number of psychological tests, were administered a recognition recall test, a block-counting test, a logical consistency test, and mazes. 1/2 of the Ss were told that they would be working on only 1 kind of problem and the other 1/2 told they would be working on 3 different kinds of problems. The predicted effects of the task variable were slight and not sustained past the 1st trial on the mazes. Some interaction results for intelligence were noted and are discussed in relation to a significant negative correlation between the Phillips Prognostic Rating Scale and the Shipley scale.—*E. J. Kronenberger.*

1021. **Oliver, J. E.** (Burdorpe Hosp., Wroughton, England) **Huntington's chorea in Northamptonshire.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 241-253.—Compared the prevalence of this disease for the years 1954-1955 and 1967-1968. Prevalence figures show this clear-cut and obviously hereditary madness is being perpetuated, while data spanning 5-8 generations show the devastation wrought by the illness not only to afflicted members of the families but to their relatives and dependents. Eugenic advice is often lacking due to failure to diagnose, tardy diagnosis, misdiagnosis, family dispersal, inaccurate family histories, poor community records, and the failure of many persons in affected families to tell the truth to prospective mates.—*R. L. Sulzer.*

1022. **Rothstein, W. & Boblitt, W. E.** (William S. Hall

Psychiatric Inst., Columbus, S.C.) **Expressed fears of psychiatric inpatients.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 277-279.—Investigated the relative frequency with which 50 male and 50 female psychiatric inpatients responded to the various items on the Wolpe and Lange Fear Survey Schedule (FSS). A table of ranked frequency of expressed fears is presented. Females obtained higher fear scores than older people.—*E. J. Kronenberger.*

1023. **Spiegel, D.** (Veterans Administration Center, Brentwood Hosp., Los Angeles, Calif.) **Psychological health-sickness and the perception of self and others.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 274-276.—17 patients were ranked on a dimension of psychological "health-sickness" by 14 patients and professional treatment team members. Intercorrelations among the rank assignments made by various staff and patient groups are presented. A high order of agreement was noted although some differences did exist in self-judgments. The chief psychiatrist had a low order of agreement with the ward psychiatrist. Results indicate that a person with severe psychiatric disturbance can make congruent judgment about the behavior and thinking of others.—*E. J. Kronenberger.*

1024. **Washburne, Chandler.** (Fresno State Coll.) **The role theory of mental illness.** *Acta Symbolica*, 1970 (Spr), Vol. 1(1), 47-52.—Presents a "general outline for the role theory of mental illness. The implications of this theory for specific forms of illness, and for therapy have only been suggested, and some references provided that detail specific aspects." Role-taking is an exercise in language and communication. The key to the treatment of mental illness lies in what is the meaning of his behavior to the individual. Failures in role-taking are basic to much mental illness. A role theory of mental illness demands a role treatment of the illness.—*M. Cynamon.*

Neurosis & Emotional Disorder

1025. **Artiss, Kenneth L.** (10401 Old Georgetown Rd., Bethesda, Md.) **An administrative behavior pattern of certain obsessional characters.** *Contemporary Psychoanalysis*, 1970 (Spr), Vol. 6(2), 93-106.—As psychiatric consultant the author collected data on 12 male MDs, psychologists, and social workers mostly in psychiatric residence who "had violent confrontations leading to their being 'fired' or threatened and 2 having suicided under such stress." In relation to their "bosses" they all discovered what the boss wanted from them, gave evidence that they would provide it, and "somehow, mysteriously" failed to deliver. Of 7 spouses observed and/or interviewed "all were joyless females... appeared careworn." In the institution, "the entire working staff tends to become a transfixed audience" for the S while his "boss is made the villain and isolated."—*L. W. Brandt.*

1026. **Balint, Michael.** **Trauma and object relationship.** *International Journal of Psycho-Analysis*, 1969 (Oct), Vol. 50(4), 429-435.—The last major addition to trauma theory was in 1920 in Freud's *Beyond the Pleasure Principle*. Trauma is defined as "an external event causing severe psychical upheaval with lasting consequences which need sustained therapeutic efforts to understand and remedy." Theoretically, the etiology of the neuroses starts with an external sexual trauma for which the individual is unprepared or an internal trauma

produced by the individual's fantasy which is not classifiable as unexpected. Observation indicates that traumas usually occur in early childhood, are connected with a person intimately related to the S, and are usually his oedipal objects or their substitutes (nurses, tutors, etc.). Trauma is theorized as 3-phased; immature child is dependent on adult and trusts him; adult does something unexpectedly exciting (for the child); and child re-approaches adult to continue the exciting game and is ignored or refused.—*J. Chyatte.*

1027. **Brierley, Harry.** (General Hosp., Newcastle upon Tyne, England) **The habituation of forearm muscle blood flow in phobic subjects.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969 (Feb), Vol. 32(1), 15-20.—Forearm muscle blood flow is higher in 10 agoraphobic patients than in 10 normal controls while relaxing. It is hypothesized that this constant difference represents "free floating anxiety" level. Habituation over a substantial period of time is demonstrated and the suggestion is made that regression constants are better indices of blood flow than empirical values, i.e., the mean of 3 lowest measurements. A lack of mean response to a stressor was found among Ss in contrast to a large rapidly habituating response shown by controls. In view of the lack of stress responsiveness of Ss no new light is thrown on the positive feedback hypothesis. Comparison of the stressed blood flow responses of normals and Ss is strikingly similar to the pattern of psychogalvanic reflex responses. No simple application of physiological measurements to the assessment of anxiety in therapeutic situations is likely. (22 ref.)—*Journal summary.*

1028. **Flach, Frederic F. & Faragalla, Farouk F.** (Payne Whitney Psychiatric Clinic, New York, N.Y.) **The effects of imipramine and electric convulsive therapy on the excretion of various minerals in depressed patients.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 437-438.—Ss were 14 depressed patients. Results indicate "that ECT or imipramine therapy were associated with shifts in electrolyte excretion which varied among the patients studied. The common denominator in these shifts was the observable decrease in urinary calcium which was preceded or accompanied by a change in 1 or other of the measured electrolytes such as phosphate, magnesium, sodium and potassium."—*M. Maney.*

1029. **Grinker, Roy R. & Nunnally, Jum C.** (Michael Reese Hosp., Chicago, Ill.) **The phenomena of depressions.** *Public Health Service Publication*, 1968, No. 1584, 249-261.

1030. **Hay, G. G.** (Bolton District General Hosp., Farnworth, England) **Dysmorphophobia.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 399-406.—Studied 17 patients complaining about the appearance of some part of their bodies. 5 were found to be psychotic, and as a group they were severely disturbed. Body image complaint appears to be nonspecific as a symptom but a complaint prone to occur in patients of a particular personality type (sensitive and/or insecure) (17 ref.)—*R. L. Sulzer.*

1031. **Holder, Alex.** **Theoretical and clinical notes on the interaction of some relevant variables in the production of neurotic disturbances.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 63-85.—Identifies and defines the presence of 3 variables in neurotic disturbances: (a) assessment of the impact of trauma, (b) sexual and aggressive drives, and (c) influences on the

development and structuralization of the ego. 2 case histories are presented to demonstrate the interaction of these variables and the continuous variable changes which occur as the result of maturational processes. (15 ref.)—*B. A. Stanton.*

1032. Kiloh, L. G. (U. New South Wales, Kensington, Australia) **Depressive illness.** *British Medical Journal*, 1968 (Dec), Vol. 4(5634), 813-815.—Differentiates between endogenous and neurotic depression on the basis of onset and appropriateness. Criterion for the determination of abnormal depression are discussed, emphasizing the etiology and duration. Drug, ECS, and psychotherapy are discussed in relation to the type of depression.

1033. Kohut, H. **The psychoanalytic treatment of narcissistic personality disorders: Outline of a systematic approach.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 86-113.—Presents a "classification of the transference-like structures mobilized during the analysis of narcissistic personalities..." 2 transferences are examined: (a) the idealizing transference, the therapeutic activation of the idealized parent image; and (b) the mirror transference, the therapeutic activation of the grandiose self. The process of the working through phase of the analysis and other clinical problems in both transferences are considered as well as the reactions of the analyst.—*B. A. Stanton.*

1034. Lebovici, S. (3 Ave. du Président Wilson, Paris, France) **Clinical and technical notes concerning psychoanalysis with regard to phobias affecting men.** *International Journal of Psycho-Analysis*, 1970 (Jan), Vol. 51(1), 23-31.—Examines the difficulties met by the psychoanalyst in the cure of male anxiety hysteria. It is felt to be rarer than in women, but is at least as serious as its more severe form observed in women. Whereas infantile phobias occur with equal frequency in boys and girls, male anxiety hysteria stems from true phobic neurosis with severe inhibition areas manifesting themselves from childhood onwards. It is of prime importance to understand what happens to aggressivity when it is displaced onto the phobia-creating object, at both the metapsychological and the technical levels. In the case of women, the counteractiveness of aggressive impulse representatives is expressed by passivity, an accepted feminine trait. In men, fear of castration is accompanied by secondary and differentiated post-oedipal identifications. Therefore the effort of elaboration on the function of the superego is extremely inadequate in men suffering from phobias. In such cases, it is necessary to concentrate on the femininity and passivity, on the components of repressed anal eroticism through which these tendencies could be expressed. Unfortunately, femininity and passivity are culturally prohibited in men. Nevertheless, the integration of such tendencies represents a technical objective of the greatest importance, which is difficult to achieve and makes the psychoanalytical cure of these cases particularly arduous.—*Journal summary.*

1035. Stössel, S. & Lăzărescu, M. **Nevroză și activitate.** [Neurosis and activity.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 45-54.—Discusses the latest findings in the psychopathology of neurosis, presents several ways in which the neurotic episode is induced, and analyzes the role of activity and work recovery. It is concluded that the term psychogeny is inadequate. (French, German, & Russian summaries) (17 ref.)—*English summary.*

1036. Thomson, L. G. (Whitecroft Hosp., Newport, Isle of Wight, England) **On the genesis of affective illness: A pair of discordant twins.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 323-325.—Both twins experienced similar stressful events (husband's infidelity), but the one smaller at birth, the 1st born, who was raised with a more protective attitude of the mother, developed depression while her sister showed an adaptive response. The well twin was preferred by the father, was the leader in youth, and the livelier throughout.—*R. L. Sulzer.*

Psychosis

1037. ———. **Depression revealed.** *Nature*, 1968 (Sep), Vol. 219(5160), 1213.—Describes studies which demonstrated alterations in ion membrane transport and saliva composition in manic depressives. Saliva was collected in an undefined population of depressed and manic patients and controls. Flow pH, and Na concentrations were measured twice for each S. Results reveal: (a) slightly lower saliva flow rates in patients, (b) less Na and bicarbonate reabsorption in patients, (c) mean pH values of 7.27 and 7.38 for patients, and (d) mean pH values of 6.39 and 6.72 for controls. When the patients with manic and depressed states recovered, however, saliva pH returned to normal. Possible explanations included disturbed adrenocortical metabolism and altered membrane permeability.—*B. A. Stanton.*

1038. Basson, Charles A. (U. Cincinnati) **Affective content and contextual constraint in recall by paranoid, non-paranoid, and non-psychiatric patients.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5231.

1039. Campanini, Tito; Catalano, Alberto; de Risio, Carlo, & Mardighian, Giacomo. (U. Parma. Clinica delle Malattie Nervose e Mentali, Italy) **Vanilmandelicaciduria in the different clinical phases of manic depressive psychosis.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 435-436.—Ss were 7 39-58 yr. old untreated inpatient females. Ss were observed from 4-10 mo. during the natural evolution of manic-depressive psychosis. It is concluded that: "(a) there is an interrelationship between urinary excretion levels of vanilmandelic acid [VMA] and clinical state in the natural course of manic-depressive psychosis (on condition that anxiety is not present) in contrast to the output during normal intervals, (b) the highest VMA excretion rates occur in the manic phases; less elevated VMA values were found in mixed states, (c) VMA urinary excretion rates in depressive phases are within the fluctuation limits of VMA as found in our patients when they were clinically normal."—*M. Maney.*

1040. Dissanayake, S. A. & Leiber, D. M. (Bexley Hosp., Dartford Heath, England) **Hypopituitarism with paranoid psychosis: A description of two cases.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969 (Jun), Vol. 32(3), 233-235.—Describes 2 cases of hypopituitarism with paranoid psychosis without memory disturbance or mental confusion. In 1 S the psychosis had lasted for 16 yr. and persisted, in spite of treatment with substitute hormones and phenothiazines which restored his physical health. There was a complete remission in the other S with similar treatment whose symptoms had lasted for 2 yr.—*Journal summary.*

1041. Dvorkina, N. Ya. (Provincial Psychiatric Hosp., Orenburg, USSR) **O patomorfoze infektsionnykh**

psikhozov. [On the pathomorphosis of infectious psychoses.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 94-97.—Analyzed 411 cases of infectious psychoses over a 22-yr period (1946-1967). Data indicate (a) a change in infectious psychoses from acute to protracted and organic forms, (b) a gradual relative diminution of the number of psychoses with pictures of clouded consciousness, and (c) the growth of psychoses whose onset was marked by endogenic, transitory psychopathological syndromes. The pathomorphosis of infectious psychoses was closely tied to the pathomorphosis of infectious diseases—suggesting that they are the product of the same causes which lead, in the 1 case, to a change in the interrelationships between the infection and the macroorganism and, in the other case, to a change, for that very reason, in the mechanisms underlying the development of the psychopathological process. The evolution of infectious psychoses demonstrates the “absence of an essential difference between the picture of exo- and endogenic psychoses.”—*I. D. London.*

1042. **Glatzel, J.** (Friedrich-Wilhelm U., Nerven-klinik, W. Germany) **Über beziehungen zwischen streckenprognose und verlaufs typologie bei der zyklomye.** [The relationship between extended prognosis and progressive typology with cyclothymia.] *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 354-375.—Describes phases and frequency of cyclothymia in relation to classic prognosis based on age, frequency of attacks, and frequency of manic stages of manic depressive psychosis. In addition, the problem of residual syndromes in cyclothymic progression is discussed. (3 p. ref.)—*B. A. Stanton.*

1043. **Lorr, Maurice.** (Catholic U. of America) **A typology for functional psychotics.** *Public Health Service Publication*, 1968, No. 1584, 261-277.

1044. **Retterstøl, Nils.** (U. Oslo, Psychiatric Inst., Norway) **Paranoid psychoses with hypochondriac delusions as the main delusion: A personal follow-up investigation.** *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 334-353.—Presents both a historical outline of views on psychoses with hypochondriac delusions and a 5-yr follow-up study of 10 male and 5 female patients (4% of all psychiatric patients admitted over 2 periods) who presented hypochondriac delusions as the main delusion. The hospital diagnoses were reactive psychosis in 7 cases, psychosis e genere incerto in 7, and schizophrenia in 1. That the delusions were of hypochondriac nature could be explained as a symbolic reaction to a provoking conflict situation, or on the basis of: earlier life history, previous somatic illness, or previous psychic traumas. In some cases, especially schizophrenics, it was hard to explain why a hypochondriac rather than another delusion should have developed. The clinical course was favorable in 7 Ss: those with reactive psychosis, without and with relapse; and unfavorable in 8 Ss: those with chronic reactive psychosis, and schizophrenia. 7 Ss were in full social function, and the hypochondriac delusion had vanished in 13 cases. It is concluded that, in psychoses with hypochondriac delusion, the prognosis is dependent on the basic type of disease more than on type of hypochondriac delusion. (38 ref.)—*Journal summary.*

1045. **Vartanyan, M. E.** **Problemy prichinnosti v psikiatrii (geneticheskii i ékologicheskii aspekt).** [Problems of causality in psychiatry (genetic and ecological aspect).] *Zhurnal Nevropatologii i Psikiatrii*,

1970 (Jan), Vol. 70(1), 3-11.—Discusses causal problems in the various psychoses from a strictly deterministic viewpoint. Whatever the mechanisms may be which mediate the influence of social factors on the emergence and spread of mental diseases, “it is important to emphasize that all such influences cannot make themselves felt outside the biological (physiological) processes of the organism of the stricken person.”—*I. D. London.*

Schizophrenia

1046. **Abenson, M. H.** (Kaplan Hosp., Rehovoth, Israel) **EEGs in chronic schizophrenia.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 421-425.—Comparison of 210 schizophrenic recordings with 100 normal controls indicates that schizophrenia involves a brain disorder generalized or localized in the temporal regions. Subgroups and particular symptoms did not relate to specific EEG patterns except for an excess of choppy records in the catatonics. The most abnormalities of record were in the hebephrenic group. Doing pneumoencephalograms on the most deteriorated patients would be a way to test the idea of generalized brain disorder in schizophrenia. (32 ref.)—*R. L. Sulzer.*

1047. **Birley, J. L. & Brown, G. W.** (Maudsley Hosp., London, England) **Crises and life changes preceding the onset or relapse of acute schizophrenia: Clinical aspects.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 327-333.—Background study of 50 patients leads to the conclusion that both life events and reducing or stopping phenothiazines contribute as precipitants of acute schizophrenia. Symptomatology seems largely unrelated to its precipitants. (23 ref.)—*R. L. Sulzer.*

1048. **Enăchescu, C.** **Contribuții la studiul psihopatologic al neoformațiilor expresive la bolnavii schizofrenici.** [Contributions to the psychopathologic study of expressive neoformations in schizophrenic patients.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 63-80.—Shows that psychopathologic elements are characteristic of schizophrenia and affect the form and significance of the expressive symbols. Neoformations are due to the phenomena of automatism, autism, the delirious hallucinatory syndrome, the eccentricity of these patients, and reflect the new structure of their personality. Transformation of the expressive symbols parallels the psychotic transformation of the patient's personality. 3 stages are distinguished to which the following 3 forms correspond: paraformations, neoformations, deformations. They appear secondary to transformation of the symbolization function in schizophrenia. (French, German, & Russian summaries) (52 ref.)—*English summary.*

1049. **Frost, J. B.** (U. Liverpool, England) **Paraphrenia and paranoid schizophrenia.** *Psychiatria Clinica*, 1969, Vol. 2(3), 129-138.—Compares 8 paraphrenics and 8 paranoid schizophrenics on the basis of personality, family relationships, physical health, and social adaptation. Differences in the frequency of physical illness and character traits were noted with aloof independence prominent in the paraphrenics and angry resentful attitudes common in paranoid schizophrenics. Paraphrenics were noted to be admitted to hospitals at later average ages, to have shorter hospital stays, and to have fewer readmissions. It is suggested that their drive to try to understand their delusions is a factor which should be included in planning the treatment

program, as it may be utilized in supportive psychotherapy.—*Journal summary.*

1050. Garnezy, Norman. (U. Minnesota, Center for Personality Research) **Process and reactive schizophrenia: Some conceptions and issues.** *Public Health Service Publication*, 1968, No. 1584, 419-466.

1051. Hare, E. H. & Price, J. S. (Maudsley Hosp., London, England) **Birth rank in schizophrenia: With a consideration of the bias due to changes in birth-rate.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 409-420.—In a large scale study, an excess of schizophrenics was found in the later birth ranks for sibships of 2-4. Examination of the literature suggests that the widely discrepant conclusions may have resulted from changes in the reproductive habits of the population, a factor allowed for in this study. (28 ref.)—*R. L. Sulzer.*

1052. Higgins, Jerry. (U. California, Santa Barbara) **The schizophrenogenic mother revisited.** *British Journal of Psychiatric Social Work*, 1968 (Feb), Vol. 9(4), 205-208.—Argues that much of the confusion surrounding the concept of the schizophrenogenic mother is attributable to the fact that different types of schizophrenics come from different types of family constellations. Evidence supporting this assertion is reviewed, and the differential development of the child contingent upon the type of family organization is described.—*Journal summary.*

1053. Jansson, Bengt. (U. Göteborg, Sahlgren's Hosp., Sweden) **The prognostic significance of various types of hallucinations in young people.** *Acta Psychiatrica Scandinavica*, 1968, Vol. 44(4), 401-409.—Investigated the connection between prognosis and type, duration, frequency, form, and contents of hallucinosis. 84 hallucinosis cases out of 293 young people with suspected schizophrenia symptoms served as Ss. Results show that: (a) there is no significant relation between prognosis and hallucinosis in any particular sense organ; (b) hallucinosis with a diagnosis of schizophrenia shows a worse prognosis than under other conditions, while hallucinosis with affective or organic disorders show a significantly better prognosis when taken together; (c) there is no connection between premorbid personality and prognosis for hallucinosis of any particular type; and (d) neither imperative hallucinosis nor those of the Gedanken Lautwerden type always imply a serious prognosis, however, for those of a frightening or hypnagogic nature, the prognosis is considerably more favorable.—*M. Maney.*

1054. Johnson, J. E. & Oziel, L. J. (Xavier U., Cincinnati, O.) **An item analysis of the Raven Colored Progressive Matrices test for paranoid and non-paranoid schizophrenic patients.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 357-359.—An item analysis was made of the results of 200 mental hospital patients on the Raven Coloured Progressive Matrices (CPM). Paranoid schizophrenic Ss did not differ from nonparanoid schizophrenic Ss in their performance on the test, the CPM may lack the discriminative power to be considered a valid measure of intellectual reasoning in schizophrenic Ss for this population.—*E. J. Kronenberger.*

1055. Jortner, S. (Mid-Nassau Community Guidance Center, Hicksville, N.Y.) **Overinclusion responses to WAIS Similarities are suggestive of schizophrenia.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 346-348.—Analyzed the overinclusion responses on the

WAIS Similarities subtest for 56 schizophrenic and 56 nonschizophrenic Ss. Only 8 of the 112 Ss gave 1 or more overinclusion responses and all 8 were schizophrenic Ss. It is suggested that overinclusion seems to be a factor in schizophrenic distortions of thought, logic, language, and perception.—*E. J. Kronenberger.*

1056. Katz, Martin M. (National Inst. of Mental Health, Psychopharmacology Research Branch, Chevy Chase, Md.) **A phenomenological typology of schizophrenia.** *Public Health Service Publication*, 1968, No. 1584, 300-322.

1057. Kaufmann, L. & Muller, C. (U. Lausanne, Clinique psychiatrique, Lausanne, Switzerland) **Über Familienforschung und Therapie bei Schizophrenen.** [Family investigation and therapy with schizophrenics.] *Nervenarzt*, 1969 (Jul), Vol. 40(7), 302-308.. Presents case material to illustrate communication disturbances in a family having several schizophrenic members. Therapeutic contact with the family in a psychiatric clinic is described. Disturbances in sex roles between parents and children and communication disturbances are given primary consideration. (30 ref.)—*B. A. Stanton.*

1058. Lindinger, Helge C. **Familienumwelt und Prognose der Schizophrenie: Die Bedeutung verschiedener Familiensituationen für den Verlauf.** [Family environment and prognosis of schizophrenia: The significance of various family situations for outcome.] Bern, Switzerland: Hans Huber, 1968, 246 p.

1059. MacSweeney, David A. (West Park Hosp., Epsom, England) **A report on a pair of male monozygotic twins discordant for schizophrenia.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 315-322.—In probably the 1st report of monozygotic twins given thyroid during the neonatal period because of failure to make normal progress, it is shown that the twin becoming psychotic was lighter at birth, the 2nd born, had a more abnormal EEG, and had skull X-ray differences. At the time of the study, Ss were 25 yr. old. Since twin studies suggest that postnatal environment may be less important in schizophrenia than some say, it may be presumed that the lighter infant had a less generous blood supply in utero, that the hour between births may have caused some anoxic brain damage, and that adverse effects of thyroid extract given soon after birth might be causal. (17 ref.)—*R. L. Sulzer.*

1060. Mattsson, Nils B. & Gerard, Ralph W. (George Washington U., Biometric Lab.) **Typology of schizophrenia based on multidisciplinary observational vectors.** *Public Health Service Publication*, 1968, No. 1584, 507-534.

1061. Owens, John A. (U. Houston) **The GSR component of the orienting response in relation to duration of schizophrenia and phenothiazine level in outpatients compared to normals.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5241-5242.

1062. Parhon-Ştefănescu, Constanţa; Neicu, Valentina; Vujdea, Ileana, & Strassman, Elena. **Cercetări clinico-anamnestice în schizofrenie.** [Clinical-anamnestic investigations in schizophrenia.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 39-44.—Studied 50 patients separated into 3 main groups: (a) Ss with psychopathologic, heredofamilial antecedents, (b) Ss with harmful congenital factors, and (c) Ss without heredofamilial antecedents or congenital factors. It is concluded that the clinico-anamnestic study often gives indications concerning the differential diagnosis

between true schizophrenia and the schizophreni-form syndromes. Comparative investigations on the pathologic physiology of the different groups are suggested. (French, German, & Russian summaries)—*English summary*.

1063. Rosenman, Martin F. (U. South Carolina) **Impression formation in schizophrenics and normals.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5243.

1064. Sonninen, A., Siltala, P., & Siirala, M. (Helsinki, Finland) **On the fundamental prerequisites of language development: An autistic child experienced by a phoniatric team.** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 1-27.—Presents the case history of an autistic boy focusing on the intra- and interpersonal prerequisites of language development in a child where "psychological resistance to communication and anxious withdrawal from interpersonal relations are particularly salient." It is emphasized that fundamental prerequisites do not primarily concern only the functioning ability of the peripheral and central speech mechanism, but also include the establishment of real contact with the child's inner world, however elementary the mode of communication may be. It is suggested that ideal conditions for therapy with severe autistic children include: (a) effective cooperation between the speech therapist and the psychotherapist, (b) a psychotherapeutic team in speech clinics, (c) a testing program for early screening of all high risk cases, (d) supportive therapy for parents, and (e) continuous communication between treatment personnel and authorities.—*M. Maney*.

1065. Strenski, Antoinette; Payson, J. M., Muzekari, L. H., & Bohr, R. H. (Philadelphia State Hosp., Pa.) **Preferences and dislikes for color among chronic schizophrenics.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 310-311.—60 chronic schizophrenic Ss and 60 control Ss made color preferences and color dislikes. Results were rated as being in sharp contrast with previous findings. There were no significant differences between groups for most-liked color. The color black was chosen by 27% of the schizophrenic Ss and by 5% of the normal group as a liked color and 12% and 37%, respectively, as the disliked color. It is suggested that among chronic schizophrenic Ss culturally defined norms of color choice may be weakened as a result of institutionalization.—*E. J. Kronenberger*.

Schizophrenia Treatment

1066. Brown, Gaylia D. (Purdue U.) **A comparison of the effects of "intrusive" and "permissive" group treatments of hospitalized chronic schizophrenic patients.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5233.

1067. Karon, Bertram P. & Vendenbos, Gary R. (Michigan State U.) **Experience, medication, and the effectiveness of psychotherapy with schizophrenics.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 427-428.—May and Tuma suggested that only medication, not psychotherapy, made a difference in the outcome with schizophrenics. Unlike most projects that employ psychiatric hospital residents as therapists, at Michigan State University patients were treated by an experienced psychiatrist and an experienced psychologist. Patients treated by the experienced therapists improved more than controls tested after treatment by 1

of 5 experienced therapists. Differences in theoretical rationale, technique, and medication made less difference than experience of the therapists.—*R. L. Sulzer*.

1068. Needham, R. F. & Blignault, W. J. (Parramatta Psychiatric Center, New South Wales, Australia) **A comparison of an acridan derivative (Smith Kline and French 14336) and trifluoperazine in the treatment of chronic schizophrenia.** *Medical Journal of Australia*, 1969 (Sep), Vol. 2(11), 550-553.—Over a period of 28 wk., 27 pairs of hospitalized male patients matched for age, duration of chronic schizophrenia and total morbidity were studied. Assessment was made by means of the Nurses' Observation Scale for Inpatient Evaluation, a Brief Psychiatric Rating Scale, and global evaluation. Findings suggest that, at the dosage levels employed, Smith Klein and French (SKF) 14336 was neither superior nor inferior to trifluoperazine in controlling behavior or reducing psychopathology. Side effects were similar, except that in the group receiving SKF 14336 a polymorphous light eruption occurred in 10 cases.—*Journal abstract*.

PSYCHOSOMATIC DISORDER

1069. Goodwin, Donald W. (Washington U., Medical School) **Psychiatry and the mysterious medical complaint.** *JAMA: Journal of the American Medical Association*, 1969 (Sep), Vol. 209(12), 1884-1888.—When patients complain of pain or some other physical symptom, and no physical cause can be found, it is not enough to suggest that the symptom is functional or psychological. The physician should rule out 3 psychiatric disorders in which unexplained physical symptoms often dominate the clinical picture. These are hysteria, anxiety neurosis, and depression. Each is a definite syndrome with specific diagnostic criteria and a well-documented natural history. Hysteria and anxiety neurosis often can be managed as successfully by an internist or general practitioner as by a psychiatrist. Depression more often justifies a psychiatric referral. "Functional" symptoms which cannot be attributed to 1 of these syndromes often warrant further search for an organic cause. (15 ref.)—*Journal abstract*.

CASE HISTORY

1070. Biemond, A. (U. Amsterdam, Holland) **Wernicke's encephalopathy and Korsakow's syndrome.** *Psychiatria Clinica*, 1969, Vol. 2(3), 146-166.—Reports the case history and neuropathological substrate of a woman who 5½ yr. prior to her death developed Wernicke's disease, and who subsequently showed both permanent psychical disturbances and ataxia. Lesions proved to be present only in the mammillary bodies and the cortex of the cerebellar vermis. The symptomatology of Wernicke's disease is discussed. (21 ref.)—*Journal summary*.

1071. Blumenau, M. (Powick Hosp., Worcestershire, England) **The caseworker's dilemma: A case study.** *British Journal of Psychiatric Social Work*, 1968 (Spr), Vol. 9(3), 130-132.—Presents the views of a social worker undertaking casework with an elderly alcoholic patient. In wishing to also work with the patient's wife, the social worker saw herself as increasingly "engaged in preventive work" and "interested in broader concerns than simply the individual as a patient."

1072. Burlingham, Dorothy & Goldberger, Alice. **The re-education of a retarded blind child.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 369-390.—Presents a detailed case history of a backward, withdrawn, blind child with multiple handicaps and subjected to lack of stimulation, pain, and frustration in her early childhood. A lengthy treatment record and progress report of normal development are provided. A discussion by Alice B. Colonna follows.—*B. A. Stanton.*
1073. Burvill, P. W., Jackson, J. M., & Smith, W. G. (Royal Perth Hosp., Western Australia) **Psychiatric symptoms due to vitamin B₁₂ deficiency without anaemia.** *Medical Journal of Australia*, 1969 (Aug), Vol. 2(8), 388-390.—Attention is drawn to the protean and readily treatable psychiatric manifestations which may be associated with vitamin B₁₂ deficiency in the absence of the fully developed syndrome of Addisonian pernicious anemia. An illustrative case history is presented.—*Journal abstract.*
1074. Colonna, Alice B. **A blind child goes to the hospital.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 391-422.—Presents a comprehensive chronological case history of a blind child who was subjected to repeated hospitalizations between the ages of 14 mo. and 8 yr. The additional difficulties encountered by blind children during hospitalizations include the foremost difficulty of mastering new surroundings. Describes how a child therapist provided additional support and reassurance and succeeded in preventing more trauma before and during the time of the child's last hospitalization.—*B. A. Stanton.*
1075. Elisch, Paula. **Nonverbal, extraverbal, and autistic verbal communication in the treatment of a child tiqueur.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 423-437.—Discusses nonverbal communication in a child with a tic neurosis, increased motor latency, coprolalia, and unintelligible speech. Drawings are presented and interpreted to illustrate the child's severe psychological disturbances. How nonverbal, extraverbal, and autistic verbal communication may be used constructively as therapeutic tools is demonstrated.—*B. A. Stanton.*
1076. Eşanu, C., Semen-Negrea, Ecaterina, & Chivu, Viorica. (Academy of the Socialist Republic of Romania, Inst. of Medicine & Pharmacy, Bucharest) **Paroxysmal hypertension associated with endocrinological and psychical troubles (pheochromocytoma-like syndrome).** *Revue Roumaine d'Endocrinologie*, 1968, Vol. 5(1), 67-72.—Studies the case of a 41-yr-old female presenting severe organic and psychical troubles. The problems raised by the differential diagnosis between a pheochromocytoma and a pseudopheochromocytoma are discussed. The clinical examination and the laboratory tests led to a diagnosis of hysteroid psychosis associated with high arterial blood pressure. A treatment was applied, but as the suspicion of a pheochromocytoma was not positively refuted, follow-up is required.—*Journal abstract.*
1077. Fraser, W. I. & MacGillivray, R. C. (Lennox Castle, Glasgow, Scotland) **A case of cervico-oculo-acoustic dysplasia: The syndrome of Wildervanck.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 29-32.—Investigates the case of a 28-yr-old female with cervico-oculo-acoustic dysplasia making special reference to inner ear pathology and dwarfism, and discusses causal hypotheses. Its relative frequency in the Scottish population is stressed and a delineation of the condition is attempted, placing it in the First Arch Series of syndromes.—*Journal summary.*
1078. Glass, George S. & Bowers, Malcolm B. (Connecticut Mental Health Center, New Haven) **Chronic psychosis associated with long-term psychotomimetic drug abuse.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 97-103.—Presents case histories of 4 20-22 yr. old white males, hospitalized with chronic psychotic syndromes, who had allegedly used large quantities of psychotomimetic substances (LSD or similar compounds) for extended periods of time prior to hospitalization. Although no acute psychotic episode could be identified, psychotic behavior developed gradually over a period of time in which psychotomimetic drug use was associated with avoidance of certain maturational stresses. Several common clinical issues are identified in this group (i.e., massive avoidance of conflictful life situations, stressful interpersonal encounters, and painful affect). In these Ss, prolonged use of psychotomimetic substances, rather than precipitating an acute psychotic reaction, fostered a gradual retreat from reality and affective pain, leading to a chronic, egosyntonic psychotic syndrome which was relatively resistant to inpatient treatments. (21 ref.)—*Journal summary.*
1079. Gloning, I., Gloning, K., Jellinger, K., & Quatember, R. (U. Vienna, Neurological Inst., Austria) **A case of "prosopagnosia" with necropsy findings.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 199-204.—At necropsy, bilateral old encephalomalacias were found in the lingual and fusiform gyri. Neuropsychological examination revealed deficits in discriminating and identifying faces as well as complex visual patterns which cannot be readily verbalized. (French & German summaries)—*Journal abstract.*
1080. Grecu, C., Asgian, V., & Csiky, C. **Considerații asupra sindromului Korsakov în 4 cazuri clinice.** [Considerations on the Korsakov syndrome in four clinical cases.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Sep), Vol. 13(5), 469-475.
1081. Greger, J. & Bock, R. **Paranoide Reaktion einer Schwerhörigen nach gehörverbessernder Operation.** [Paranoid reaction of a deaf person following an operation to improve hearing.] *Psychiatria Clinica*, 1969, Vol. 2(3), 139-145.—Reports a case of a 60-yr-old deaf woman, who in spite of her severe deafness and the resulting difficulties in communication, had remained largely unimpaired as far as her interpersonal relationships were concerned. Only after an operation which suddenly restored her hearing was there a decompensation of her relationships with a transient paranoid response to her environment. This reaction would suggest that not only a sensory-social isolation, but equally a sudden cessation of a long existing but compensated acoustic communicative deficiency, can bring about a psychogenic paranoid-like reaction.—*English summary.*
1082. Holland, Norman N. Freud and H. D. **International Journal of Psycho-Analysis**, 1969 (Jul), Vol. 50(3), 309-315.—Hilda Doolittle, a poetess describes her 100 hr. with Freud in 1933 in her 1944 book *Tribute to Freud*. It is a series of free associations whose merit lies in the detailed description of Freud's office and method of analysis. Miss Doolittle had had a nervous breakdown and had intense hallucinations or mystical visions subsequently. Freud was intensely curious about the creative artist and used this analysis to educate both

himself and his patient in psychoanalytic method. His method was unusual psychoanalytic behavior but perhaps he was so active in an attempt to ward off a psychotic episode in the patient.—*J. Chyatte.*

1083. Ionesco, B., et al. (Academy of the Socialist Republic of Romania, Inst. of Endocrinology, Bucharest) **Syndrom de Turner a virilisation et avec une seule gonade malignisée.** [Turner's syndrome with virilization and unilateral gonad malignization.] *Revue Roumaine d'Endocrinologie*, 1968, Vol. 5(2), 155-160.—Presents a patient with several malformations specific to Turner's syndrome, also having virilization phenomena: hypertrophy of the clitoris and male pilosity with hirsute character. The internal genital organs are feminine but atrophic. On the left side there is a streak-gonad, on the right side a progonadal tissue undergoing a malignant transformation. The etiopathogenic hypotheses of the syndrome are discussed.—*English summary.*

1084. Kaldegg, A. (International Rorschach Society, London, England) **Friedel: A clinical study of culture pattern, personality and pathology.** *British Journal of Projective Psychology & Personality Study*, 1968 (Jun), Vol. 13(1), 5-10.—Presents the case of a 30-yr-old German woman who became emotionally disturbed while in nurses training in England. A diagnostic evaluation based on the Progressive Matrices, parts of the Wechsler, Lennep's 4-Picture-Test, and the Rorschach are presented. Following transfer to another hospital, the patient's symptoms of paranoid thinking became more prominent, even though she continued nurses training without any complaints from others. Her mental condition worsened while on leave in Germany. It is concluded that her defenses in her own country were less effective than those she was able to mobilize in a less familiar environment.—*P. McMillan.*

1085. Kolouch, Fred T. (U. Utah, Medical School) **Hypnosis in living systems theory: A living systems autopsy in a polysurgical, polymedical, polysychiatric patient addicted to Talwin.** *American Journal of Clinical Hypnosis*, 1970 (Jul), Vol. 13(1), 22-34.—Presents the case of a 50-yr-old married female patient who responded well to combined medical-psychiatric treatment, including hypnotherapy. The total medical situation, illnesses, diagnoses, and treatments are viewed in the model of living systems theory. The position of hypnosis in living systems is discussed.—*M. V. Kline.*

1086. Lush, Dora. **Progress of a child with atypical development.** *Journal of Child Psychotherapy*, 1968 (Dec), Vol. 2(2), 64-73.—A 3-yr-old girl referred for lack of speech, affectionless attitude to people, many phobias, and obsessional rituals and mannerisms was tentatively diagnosed as autistic. The patient's speech improved while waiting for treatment and reasons are suggested for this. Twice-weekly analytically based psychotherapy brought relief of her symptoms and changed her attitude to people and she became responsive and affectionate. Description is given in detail of 2 therapy sessions with discussion of material and theoretical concepts. Reasons for the patient's atypical development are suggested as are reasons for her recovery and ability to use the treatment.—*Author abstract.*

1087. Maenchen, Anna. **Object cathexis in a borderline twin.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 438-455.—The lack of gratification, the failure to anticipate gratification, and the lack of frustration interfere with the development of object relations and

with the evolution of normal personality. The result is archaic anxiety. The 1st recognition of the mother is more difficult for twins, and so is the "recognition" of the individual child for the mother of twins. Each individual twin has a different environment. If a twin symbiosis occurs, however, it plays a decisive role in the origin of a defect in object cathexis. The twin symbiosis drains or replaces entirely the mother-child symbiosis. Illustrative cases are presented. (49 ref.)—*Journal summary.*

1088. Michaelis, R. & Stegen, J. (U. Kiel, Psychiatrische und Nervenlinik, W. Germany) **Zykloides Drei-Phasen-Syndrom nach kontusioneller Hirnschädigung.** [Cycloid-three-phase-syndrome following cerebral contusion.] *Psychiatria Clinica*, 1969, Vol. 2(4), 193-203.—Describes a psychosis which occurred following a cerebral contusion and was characterized by 3 distinct phases: (a) loss of liveliness, depression, and sleep disturbance; (b) excessive need for sleep and polyphagia; and (c) a manifold increase in liveliness. This condition can be differentiated from cyclothymia by the hypersomnic middle phase. (26 ref.)—*English summary.*

1089. Nolan, G. & Hackman, Ann. (Purdysburn Hosp., Belfast, Ireland) **Cleidocranial dysostosis: Psychological observation of two cases.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 543-544.—This congenital condition with a defect in bone formation typically shows dwarfism, a large head with small face, and a depressed nose. Comparison with a normal sibling shows a marked deficit in general intelligence as well.—*R. L. Sulzer.*

1090. Perna, Dorris. (Cedars-Sinai Medical Center, Los Angeles, Calif.) **Psychogenic effect of marihuana.** *JAMA: Journal of the American Medical Association*, 1969 (Aug), Vol. 209(7), 1085-1086.—Presents a case of a 23-yr-old male to illustrate an association between the use of marihuana and psychosis. Prior to the S's 1st experience with marihuana, a history revealed emotional problems with no evidence of psychosis. The S's 1st experience with marihuana was unpleasant, and his 2nd experience resulted in a psychotic reaction. It is suggested that marihuana could have a psychogenic effect in individuals having healthy premorbid personalities.—*B. A. Stanton.*

1091. Popova, L. M. (Inst. of Neurology, Moscow, USSR) **O mnogoletnei iskusstvennoi ventilatsii pri paralichakh dykhatel'nykh myshts posle perenesenogo ostrogo poliomiellita.** [On artificial ventilation extending over many years in paralyses of the respiratory muscles following an attack of acute poliomyelitis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 12-18.—Presents a detailed case report and analysis of the homeostatic reactions over a 10-yr period. Data are included on the reaction of the respiratory center to adequate stimuli (hypercapnic gas mixtures). Chronic hypocapnia led to heightened excitability of the respiratory center in response to normal values of partial pressure of CO₂ in the arterial blood.—*I. D. London.*

1092. Poznanski, Z. & Pawlik, M. (Province Neurological Outpatient Clinic, Cracow, Poland) **Epileptic seizures provoked by television.** *Polish Medical Journal*, 1969, Vol. 8(2), 471-473.—Describes epileptic seizures developing in a 29-yr-old female patient during photic stimulation incurred while adjusting a TV set. Routine investigations failed to reveal any abnormalities and diagnosis was established only after EEG exami-

nation showing scant alpha and beta activity at rest.—*Journal abstract.*

1093. **Prabhakaran, N.** (Jawaharlal Inst. of Post-graduate Medical Education & Research, Pondicherry, India) **A case of Gilles de la Tourette's syndrome with some observations on aetiology and treatment.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 539-541.—Presents the case report of a 15-yr-old Muslim boy. On the assumption that the condition may be the product of organic brain damage acted on by psychological stress, suggested treatment includes a drug which acts on the basal ganglia, trifluoperazine, together with psychotherapeutic methods which alleviate social or psychological stress.—*R. L. Sulzer.*

1094. **Price, Joseph R. & Horne, Betty M.** (Vanguard School, Lake Wales, Fla.) **Family history indicating hereditary factors in hydrocephalus.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 40-42.—Traces the occurrence of 11 cases of hydrocephalus in 3 generations of 1 family. The father of this family also sired another family in which there were no known cases of this disorder. All 11 cases were children of female descendants of the original couple. Similar family histories are cited from the literature.—*Journal abstract.*

1095. **Radford, Patricia.** **A neurotic conflict.** *Journal of Child Psychotherapy*, 1968 (Dec), Vol. 2(2), 18-30.—Attempts to illustrate an understanding of neurotic conflict through the description of a 6-yr period of analytic work with a 12-yr-old boy. Using the Freudian theory that neurotic conflict is an intrapsychic one, the analysis attempted to undo the excessive defensive distortions of the boy's ego with its equally distorted image of its id and superego, which restricted development and inhibited drive activities. Masculine active drives were forbidden by a sadistic superego obtaining its authority from identification with a real and a fantasied powerful, hostile, "castrating" mother. Recognition and working-through of the myth of the omnipotence of his superego and his id freed his ego to mediate more realistically with his environment. (15 ref.)—*Author abstract.*

1096. **Rolla, Edgardo H.** **Symbol formation in phobias.** *Contemporary Psychoanalysis*, 1970 (Spr), Vol. 6(2), 160-168.—A case report illustrates the theoretical discussion of introjection and projection in phobias.—*L. W. Brandt.*

1097. **Rosenfeld, Sara.** **Choice of symptom: Notes on a case of retention.** *Journal of Child Psychotherapy*, 1968 (Dec), Vol. 2(2), 38-49.—Discusses specific features contributing to the symptom-formation in terms of the interaction between the psychopathology of 2 mothers and their 2 children: (a) interferences with the function of mothering with reference to the mothers' unconscious fantasies and reactivation of unconscious conflicts in response to phase-adequate instinctual manifestations in their children; (b) the emotional relevance of the patients' own body products as seen in the renewed investment of faces with object cathexis as a reaction to disappointment in the object; (c) timing of habit training at a transitional period from the oral to the anal phase; and (d) some comments on management.—*Author abstract.*

1098. **Searles, Harold F.** **A case of borderline thought disorder.** *International Journal of Psychoanalysis*, 1969 (Oct), Vol. 50(4), 655-664.—Presents a case report in which repression of oral activities (sucking and biting impulses) hindered flow of speech and thought.

1099. **Zaslow, Stephen L.** (24 N. Washington St., Pt. Washington, N.Y.) **The threat from below.** *Contemporary Psychoanalysis*, 1970 (Spr), Vol. 6(2), 169-179.—Presents the case of a 39-mo-old girl who suddenly wanted to sit on the potty instead of going to bed. It was finally discovered that the refusal to go to bed occurred for the 1st time following the 1st independent urination in the potty by the 21-mo-old sister. A fantasy by the elder sister was discovered of growing "littler" as the younger sister grew up. This is discussed in terms of object constancy and the development of concepts of time and of conservation.—*L. W. Brandt.*

MENTAL HEALTH & REHABILITATION

1100. **Allison, Kenneth & Dunn, Dennis J.** (Stout State U.) **A selected bibliography on work evaluation.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 40-41.

1101. **Barton, Everett H.** (U. San Francisco) **Vocational evaluation and work adjustment: Vocational development companions.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 35-37.—Discusses the interrelationship which exists between vocational evaluation and work adjustment. Combined, these 2 processes are viewed as leading to vocational development and those who administer the combined program are seen as "vocational development specialists."—*M. A. Seidenfeld.*

1102. **Deehy, Patrick T.** (Princeton U.) **The halfway house in the correctional sequence: A case-study of a transitional residence for inmates of a state reformatory.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5077.

1103. **Grimberg, Moises.** (Talbot Habilitation Community, Westboro State Hosp., Mass.) **The surrogate society: A new approach to rehabilitation.** *Journal of Rehabilitation*, 1970 (May), Vol. 36(3), 34-35.—Describes the efforts of a rehabilitation service to establish a society in microcosm in order to better prepare selected patients to meet the demands of competitive society and for vocational adjustment in their community. The results attained appear to be quite successful and give evidence that an inhospitable competitive society is more likely to be effective in returning the individual to effective life both within the institution and upon discharge to the outside world.—*M. A. Seidenfeld.*

1104. **Hoffman, Paul R.** (Stout State U.) **An overview of work evaluation.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 16-18.—Presents an overview of the historical background, definitions, concepts, and work trends related to work evaluation as it is applied to the rehabilitation of the disabled and disadvantaged.—*M. A. Seidenfeld.*

1105. **Leshner, Saul S.** (Jewish Employment & Vocational Service, Philadelphia, Pa.) **The relationship of work evaluation to work adjustment training.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 32-34.—Work evaluation and work adjustment are viewed as interacting processes which deal with the same behavioral variables but are perceived and administered in a different fashion by the counselor and impact differently on the client. Both are seen as counseling tools valuable in bringing the client within attainment of his potential for employment.—*M. A. Seidenfeld.*

1106. **Micalizzi, Francesco.** (Ed.) **Aggressivita e sanita mentale: Atti del IV Congresso regionale siciliano di igiene mentale.** [Aggression and mental health: Presented at the Fourth Regional Sicilian

Congress of Mental Hygiene.] Milan, Italy: Editrice Vita e Pensiero, 1969. xxii, 592 p.

1107. Miskimins, R. W., Green, H. J., Oetting, E. R., & Cole, C. W. (Colorado State U.) **Selection factors relating to placement of psychiatric patients for vocational rehabilitation.** *Manpower & Applied Psychology*, 1968 (Win), Vol. 2(2), 60-65.—Results provide considerable support for the major hypothesis of the study: not placed psychiatric patients are more disabled, i.e., less able to function "normally," than patients selected for placement by vocational rehabilitation counselors.—P. L. Crawford.

1108. Neff, Walter S. (New York U.) **Vocational assessment: Theory and models.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 27-29.—Briefly discusses some major problems in psychological assessment with particular attention focused on the effect of behavioral variability as influenced by the particular situation with which the individual is interacting. Also noted is the indirect and roundabout nature of behavioral assessment as well as other factors which tend to make prediction of vocational outcomes somewhat precarious. It is concluded that we are now approaching the time when considerable improvement can be made in assessment by extending the assessment process into actual industrial situations with the increased possibility of accurate situational analysis.—M. A. Seidenfeld.

1109. Overs, Robert P. (Curative Workshop of Milwaukee, Wis.) **Vocational evaluation: Research and implications.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 18-21.—Reviews the research on vocational evaluation as it is specifically related to the field of rehabilitation. It is pointed out that the principal research effort in this field has been focused on obtaining scientific support for the development and use of predictive devices or for measurement of the effect of the measurement of the total work evaluation process. Many of the difficulties that are attendant upon the use of such procedures are discussed. It is indicated that standardized tests of manual dexterity predict as well as, or even better than, job samples and may be administered in a much shorter time span and with greater savings to both the client and the staff in time and effort. Also discussed are some of the weaknesses in these procedures, and suggested are other approaches such as measuring the total work evaluation process through the use of total assessment scales that may prove more effective.—M. A. Seidenfeld.

1110. Pruitt, Walter A. (Stout State U.) **Basic assumptions underlying work sample theory.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 24-26.—Discusses the theoretical basis of the work sample theory and the primary assumption that individuals who may not be capable of adequate evaluation on psychological tests may be more successfully evaluated when given the opportunity to demonstrate on samples of simulated work.—M. A. Seidenfeld.

1111. Reiff, Robert & Scribner, Sylvia. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Rehabilitation and community mental health employability and disability issues.** *Journal of Rehabilitation*, 1970 (May), Vol. 36(3), 11-15.—Reviews some traditional concepts in assessing the employability of the mentally ill worker and some innovative approaches to developing working arrangements utilizing the mental health professionals to assist the mentally ill worker gain admittance to the labor market.—M. A. Seidenfeld.

1112. Roberts, Charles L. (International Assn. of

Rehabilitation Facilities, Washington, D.C.) **Definitions, objectives, and goals in work evaluation.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 12-15.—Discusses some of the confusion that exists between such terms as "prevocational evaluation," "vocational evaluation," and "work evaluation" and many other closely related words or phrases that are or have been concerned with means for appraising the potential capacity of an individual to perform certain activities considered predictive of work performance in actual employment. Coupled with this problem is the matter of how well the potential worker with a physical or mental disability will be able to adjust in the working situation and the goals that are considered to be essential elements in determining the success or failure in vocational rehabilitation. Emphasis is placed on the importance of these goals in the establishment of rehabilitation facilities that are capable of leading to proper evaluation of the rehabilitant.—M. A. Seidenfeld.

1113. Rosenberg, Bernard. (Inst. for the Crippled & Disabled, New York, N.Y.) **The professional in vocational evaluation.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 30-32.

1114. Sankovsky, Ray. (U. Pittsburgh) **Toward a common understanding of vocational evaluation.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 10-12.—Considers the meaning of the concept "vocational evaluation" as somewhat nebulous. An attempt is made to provide clarification by (a) more adequately establishing criteria and vocational goals, (b) collecting information regarding vocational potential, (c) decision-making on vocational objectives and predicting outcomes, and (d) determining the effectiveness of the evaluation process by feedback obtained through follow-up. Each of these steps is described.—M. A. Seidenfeld.

1115. Sindberg, Ronald M., Roberts, Allyn F., & Pfeifer, Edward J. (Central Wisconsin Colony & Training School, Madison) **The usefulness of psychological evaluations to vocational rehabilitation counselors: A preliminary study.** *Rehabilitation Literature*, 1968 (Oct), Vol. 29(10), 290-294.—Measured the usefulness of psychological reports to vocational rehabilitation counselors in an objective fashion. 2 factors in usefulness, the extent to which counselors followed the psychologist's specific recommendations and the extent to which the specific predictions were confirmed, were studied in a sample of 35 psychological reports. It was found that over 1/2 of the recommendations were rated as definitely followed or followed to a large extent, and nearly all of the predictions tested were rated as confirmed to some extent. However, nearly 1/2 of all of the specific predictions were rated as not tested at time of follow-up. It is concluded that psychological reports are generally helpful and useful to rehabilitation counselors, in terms of the usage of their recommendations and their predictiveness, although in a substantial number of cases the failure to test psychological predictions raises a question as to their value in that respect. (27 ref.)—*Journal abstract.*

1116. Spergel, Philip. (Moss Rehabilitation Hosp., Philadelphia, Pa.) **Vocational evaluation: Research and implications for maximizing human potential.** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 21-24.—Notes the dearth of acceptable research in vocational evaluation, and takes cognizance of the problem areas and suggests some methods of resolving them.—M. A. Seidenfeld.

1117. Stotsky, Bernard A., Goldin, George J., & Margolin, Reuben J. (Northeastern U.) **The physician and rehabilitation: A survey of attitudes.** *Rehabilitation Literature*, 1968 (Oct), Vol. 29(10), 295-299.—Surveyed physicians regarding their knowledge of rehabilitation services and investigated their attitudes with respect to various facets of rehabilitation. Questionnaires were sent to 1500 randomly selected physicians, 150 psychiatrists, and 30 physiatrists. A total of 535 questionnaires were returned, a 32% response rate. Findings showed that information concerning the existence of state rehabilitation agencies was lacking in over 1/2 of the sample. Where physicians were aware of the rehabilitation agency, many gaps existed in their information concerning its function, structure, and operation. Generally speaking, physicians were positive in their attitudes toward rehabilitation but did not relate to the institutionalized structures through which it is made available to patients. There were significant differences among the branches of medicine represented in the sample. Psychiatrists differed sharply from physiatrists and general practitioners for most responses. They related closely to the rehabilitation process, being especially concerned with the social and emotional aspects of rehabilitation. As might be expected, general practitioners and physiatrists were most concerned with the physical aspects of rehabilitation. (15 ref.)—*Journal summary*.

1118. Walker, Robert A. (Minneapolis Rehabilitation Center, Minn.) **A future for vocational evaluation?** *Journal of Rehabilitation*, 1970 (Jan), Vol. 36(1), 38-39.

1119. Wright, Beatrice A. & Shontz, Franklin C. (California State Coll., Dominguez Hills) **Process and tasks in hoping.** *Rehabilitation Literature*, 1968 (Nov), Vol. 29(11), 322-333.—Delineated 7 types of hope structures, 2 applying to children and 5 to adults. The main feature distinguishing child and adult hope structures is the absence of reality surveillance in the former. Whereas children's hopes are equivalent to desires, both desires and reality considerations support adult hopes. Adult hope structures varied according to the manner in which the person copes with the problem of uncertainty regarding the realizability of his hopes. Reality surveillance provides support for existing hopes and for hopes that eventually may be substituted. The process of hoping involves 4 cognitive-effective tasks: (a) reality surveillance, (b) encouragement, (c) worrying, and (d) mourning. The proper balance among these 4 tasks can best be effected when parents become actively involved with the child's rehabilitation and share questions and concerns with specialists and other parents in an atmosphere of mutual respect.—*Journal summary*.

1120. Zimmerman, Joseph; Stuckey, Thomas E., Garlick, Betsy, & Miller, Maurine. (Indiana U., Medical School, Inst. of Psychiatric Research) **Effects of token reinforcement on productivity in multiply handicapped clients in a sheltered workshop.** *Rehabilitation Literature*, 1969 (Feb), Vol. 30(2), 34-41.—Results "suggest that token reinforcement can be successfully applied to the problem of increasing productivity in multiply handicapped clients in a sheltered workshop. The use of points . . . led to a significant increase in work rates . . . and to differentially higher work rates . . . Furthermore, the removal of points was followed by a significant decrease in work rates. These findings systematically replicate results previously reported."—G. Steele.

COUNSELING & GUIDANCE

1121. Helfer, R. & Hess, J. (U. Colorado, Medical School) **An experimental model for making objective measurements of interviewing skills.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 327-331.—A model for making objective measurements of interviewing skills was standardized by training simulators to portray mothers. A measuring technique was developed with 11 behavioral categories used for interaction analysis. A 2nd instrument consisting of a checklist of factual material was filled out by raters. The training of the raters was presented along with data collection. The technique was capable of measuring individual differences in specific categories.—E. J. Kronenberger.

1122. Krumboltz, John D. & Thoresen, Carl E. (Eds.) (Stanford U.) **Behavioral counseling: Cases and techniques.** New York, N.Y.: Holt, Rinehart, & Winston, 1969. xi, 515 p. \$7.95.

1123. Taylor, Peter A., Ford, Susan F., & Cotter, Norman H. (U. Manitoba, Winnipeg, Canada) **A multivariate study of counselor viewpoints.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 45-50.—Investigated the perceived importance of some empirically determined goals of counseling. Such goals are viewed as differently structured and of differential importance to various referent groups (counselors, teachers, students).—P. McMillan.

Marriage & Family

1124. Alger, Ian & Hogan, Peter. (New York Medical Coll.) **Enduring effects of videotape playback experience on family and marital relationships.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 86-94.—Uses the playback of videotape recordings made during a therapy session as a new therapeutic tool. Participants grasp better the context and complexities of human interactions. Sharing this data with therapists leads patients to a more democratic therapeutic interaction, with implications for more democratic functioning in the families themselves.—*Journal abstract*.

1125. Roberts, Winifred L. (John Scott Health Centre, London, England) **Working with the family group in a child guidance clinic.** *British Journal of Psychiatric Social Work*, 1968 (Fall), Vol. 9(4), 175-179.—Discusses developments in a clinic operating in a working-class area "with a high percentage of deprived and disintegrated families." Methods of referral selection and treatment are reviewed. It is concluded that families most suitable for treatment are those who: (a) function at a primitive level and can only achieve growth as a unit, or (b) are sufficiently mature individually but prefer help as a unit.—P. McMillan.

Social Casework

PHYSICAL HANDICAP

1126. Brookfield, Katharine K. (Columbia U.) **Attitudes of the disabled and nondisabled toward self and toward disabled and normal persons.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5222.

Blindness & Visual Disorder

1127. Bradley, Noel. (1194 Cragmont Ave., Berkeley, Calif.) **Colour blindness: Notes on its developmental and clinical significance.** *International Journal of Psycho-Analysis*, 1970 (Jan), Vol. 51(1), 59-70.—Anomalous color vision exists in 1 out of 12 Caucasian males. 3 analysts are described who became aware of their defect only in adult life, and the meaning of color blindness to a 4th with normal vision is reported. An attempt is made to comprehend the developmental consequences of the defect and the successful effort to prevent awareness of it both subjectively and by others. It is claimed that color defect operates as an independent factor that may exacerbate a sense of uncertainty in the form of tendencies to doubt and of insecurity in object relations. (27 ref.)—*Journal summary.*

1128. Fraiberg, Selma. **Parallel and divergent patterns in blind and sighted infants.** *Psychoanalytic Study of the Child*, 1968, Vol. 23, 264-300.—Discusses the ego as the agency of adaptation for biological and environmental processes and investigates adaptive problems caused by blindness and other visual defects. Obstacles to adjustment and adaptation frequently occur in the areas of human relations, motor achievements, defense mechanisms, object relations, formation of stable mental representations, expression of aggression, and integration of experiences. In addition, the blind child's ego is seen to have prolonged vulnerability in childhood. Clinical examples are given. (16 ref.)—*Journal summary.*

1129. Heslinga, K. & Tieman, G. **Een onderzoek naar het rechtuit kunnen lopen van blinde kinderen.** [An investigation about the ability of blind children to walk directly forward.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970 (May), Vol. 25(5), 315-321.—Investigated whether or not blind children can maintain a specified direction in walking a certain distance in the absence of nonvisual cues. Ss were 35 totally blind, 6-20 yr. olds (21 boys and 14 girls). Ss were placed on a pavement and directed to walk 60 m. from the starting point. The variations in the directions walked described a curve centered at the starting point. Faces of the Ss were pointed toward the end of the southeast axis. Heels of the Ss were placed against a beam. No auditory and atmospheric cues were apparent. Each S walked the distance 6 times. Right- and left-handed canes were alternated after 3 attempts. Only 5 Ss attained the end once each. The median variation from the end was 8.29° within a range of 57°. Alternating the canes of the Ss did not produce any significant change. The lateral dominance of the Ss was indicated by a greater number of shifts to the right than to the left.—A. J. Ter Keurst.

1130. Kaplan, A. I. (Inst. of Defectology, Moscow, USSR) **Tsvetorazlichenie u lits s nizkim zreniem.** [Color discrimination in persons with limited vision.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 54-56.—Includes the results of a study of the capacity of color discrimination in 230 school and kindergarten children possessing either visual acuity below .05 or only color sensation. Along with normal trichromasia, a certain capacity to discriminate color was encountered with visual acuity below .01. In a number of cases, the various disorders of color discriminability were observed.—I. D. London.

1131. Montan, Karl. (Swedish Central Committee for

Rehabilitation, Bromma) **A better urban environment for people with visual impairment.** *Rehabilitation Literature*, 1960 (Jan), Vol. 30(1, Pt.1), 14-15.—Presents a study based on interviews with people with visual impairment and on practical tests. Many practical suggestions are contained as to the placing of lampposts and parking meters; methods of identifying names of streets, street numbers, and shops; guide railings and surfaces; acoustic signals, among other items, all of which affect the degree of ease and safety with which a person with visual impairment can move about.—*Journal abstract.*

1132. Rabkin, E. B. (All-Union Research Inst. of Railway Transport Hygiene, Moscow, USSR) **Metody spektral'noi indikatsii.** [Methods of spectral indication.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 43-48.—Develops a new spectral equation, which is applicable to that part of the spectrum, optimal for the functional capacity of the eye in the process of adaptation, and which allows for the exact differentiation of various forms of congenital color disorders.—I. D. London.

Deafness & Hearing Disorder

1133. Katsounis, Bill. (State University Coll. New York, Buffalo) **Differences in verbal creative thinking abilities between deaf and hearing children.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 727-733.—Obtained fluency, flexibility, and originality scores from Thinking Creatively With Words, Form A, given to 418 deaf and hearing 4th-6th graders. Divergent thinking scores were higher for deaf Ss. Fluency scores were dependent upon hearing status, grade level, and sex but not in interaction with each other. Flexibility scores were independent of hearing status, sex, and grade level. Originality scores were dependent upon hearing status, sex, and grade level and upon interaction of grade level with hearing status.—*Journal abstract.*

1134. Knox, Laura L. & McConnell, Freeman. (Bill Wilkerson Hearing & Speech Center, Nashville, Tenn.) **Helping parents to help deaf infants.** *Children*, 1968 (Sep), Vol. 15(5), 183-187.

SPEECH DISORDER

1135. Belova-David, R. A. & Grinshpum, B. M. (Eds.) **Narushenie rechi u doskol'nikov.** [Speech disturbance in preschool children.] Moscow, USSR: Prosveshchenie, 1969. 216 p.—Presents a collection of 11 papers examining the forms of different speech defects, and the principles and methods for overcoming them. They are based on the work of 15 yr. at the Moscow Municipal Psychoneurological Center for Children and Adolescents.—I. D. London.

1136. Bruten, Gene J. & Shoemaker, Donald J. (Southern Illinois U.) **Additional comments on "The modification of stuttering."** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 68-75.—Responds to comments by reviewers concerning E. J. Bruten and D. J. Shoemaker's "The modification of stuttering." Clarification is given on the authors' stand on procedures to be used for modifying stuttering, the relationship between negative emotion and fluency failure, and the role of constitutional and genetic factors in stuttering. It is concluded that critical comments on these issues have served a useful function in identifying areas that need

further research, but that the resulting data will probably require both sides to change their views. (20 ref.)—*M. Maney.*

1137. Fisher, Martin N. (Adelphi U., Inst. for Advanced Psychological Studies) **Stuttering: A psychoanalytic view.** *Journal of Contemporary Psychotherapy*, 1970 (Win), Vol. 2(2), 124-127.—Discusses how the psychoanalytic theory of stuttering relates to other theories and describes M. Fisher's investigation of the theory that stuttering is "a pregenital conversion neurosis" and "a monosymptomatic manifestation of fixation at the anal stage of psychosexual development." Results which showed that stutterers and nonstutterers assigned significantly different meanings to anal scenes, while they did not display these differences when examined using word stimuli, are interpreted as supporting the proposed psychoanalytic position. It is suggested that results imply reexamination of the approaches to therapy with stutterers, with a view toward more attention to character problems and less emphasis on speech rehabilitation which may serve only to reactivate the earlier childhood conflict with parents. It is further suggested that the training of speech therapists working with stutterers will eventually have to include a psychotherapeutic approach.—*M. Maney.*

1138. Frisch, Giora R. (U. Tennessee) **A neuropsychological investigation of "functional" disorders of speech articulation.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5237.

1139. Froeschels, Emil. (Pace Coll.) **Observations on aphasia and ideational type.** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 65-67.—Demonstrates "the logical necessity of knowing the premorbid psychologic type of an aphasic case both as an aid in clearing up the diagnostic problems and also in planning therapy." It is suggested that although "many more educators, especially those working with language-learning disorders, recognize the importance of testing children to find out among other things which type they belong to...typing should routinely be on either medical or educational records, for once the patient has suffered a cerebral insult it is very difficult if not impossible to ascertain the type."—*M. Maney.*

1140. Goodglass, H. & Hunter, M. (Veterans Administration Hosp., Boston, Mass.) **A linguistic comparison of speech and writing in two types of aphasia.** *Journal of Communication Disorders*, 1970 (Jun), Vol. 3(1), 28-35.—Samples of free narrative obtained in speech and writing from a Wernicke's (sensory) and a Broca's (motor) aphasic showed the same contrasting features in both media of expression. The Wernicke's aphasic was more fluent grammatically and had a greater proportion of nonpicturable nouns and verbs. The quality of grammatical errors was similar in both media with the Wernicke's aphasic making many more semantically based errors. Both Ss showed a reduced proportion of verbs to nouns in writing as compared to speech and particularly a reduction in the high-frequency nonpicturable verbs which occur in the filler-phrases of conversation.—*Journal abstract.*

1141. Kryshova, N. A., Shteingart, K. M., & Raichev, R. I. (Inst. of Physiology, Leningrad, USSR) **Nekotorye osobennosti sistemoi funktsii rechi pri afazii.** [Some characteristics of the systemic functioning of speech in aphasia.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 192(2), 462-465.—65 patients with 1-5 yr. old histories of aphasia and 60 normal controls were asked to repeat

words, name objects, and to associate verbally. Recordings were made of their pulse and respiration rates, GSR, and EMG from speech muscle groups and from the hand. Temporal parameters increased with increasing task complexity in both groups, but their absolute values were considerably higher in experimental Ss. Increase in pulse and respiration rates and in muscular tension of the hand were observed only in the experimental Ss. The latter also had a more pronounced GSR, which did not return to base level after the initial orienting response.—*L. Zusne.*

1142. Svobda, James S. & Weidner, William E. (Highland View Hosp., Cleveland, O.) **Auditory verbal recognition ability of aphasic adults under two conditions of listening.** *Acta Symbolica*, 1970 (Spr), Vol. 1(1), 12-14. The hypothesis that adult aphasics' auditory verbal recognition ability would be improved by wearing earphones was not sustained on a sample of 8 Ss. The use of earphones introduced variability into the response patterns of the Ss.—*M. Cynamon.*

NEUROLOGICAL DISORDER

1143. Argintaru, D., Tăranu, A., Morariu, M., & Matinea, I. **Studiul tulburărilor psihice în scleroza în plăci.** [The study of psychical disturbances in multiple sclerosis.] *Neurologia, Psihiatria, Neurochirurgia* 1968 (Nov), Vol. 13(6), 543-546.—Personality alterations, the most frequently detectable in multiple sclerosis, appear to be affective (41%); affective lability appeared in 19% of the cases, sclerotic eutonia in 17%, and neurotic depressive states in 5%. Intellectual disturbances were encountered in 12% of the cases, especially in the late phases of the disease. Acute psychical fits were seldom observed (2%), and mental confusion during the acute fits was fairly frequent. A similarly important role is played by the location and extent of the lesions and by the patient's personality. (French, German, & Russian summaries)—*English summary.*

1144. Arseni, C., Botez, M. L., Alexandru, Sen, & Dobrotă, I. **Tulburări de memorie la bolnavii cu rezecții ale lobului temporal.** [Memory disturbances in patients with temporal lobe resection.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 17-24.—Studied memory disturbances in 22 patients with resection of the temporal lobe for tumors and epilepsy. In Ss with right (N = 16) and left (N = 6) temporal resection, results were poorer than for controls. In A. Rey's word test for determination of verbal-auditory memory and in a reconstruction of a series of visual stimuli with Vermeyen figures, Ss with right temporal resection gave better results than those with left resection; in the "20 + 20" geometrical figures tests, Ss with left temporal resection gave better results. (French, German, & Russian summaries) (17 ref.)—*English summary.*

1145. Barbeau, André. (U. Montreal, Quebec, Canada) **L-dopa therapy in Parkinson's disease: A critical review of nine years' experience.** *Canadian Medical Association Journal*, 1969 (Dec), Vol. 101(13), 791-800.—Reviews the investigations of the past 10 yr. of cerebral catecholamines, particularly dopamine. The low dopamine content in the basal ganglia and in the urine of patients with Parkinson's disease led to the use of the precursor 3-(3,4-dihydroxy phenyl)-alanine (DOPA) in the treatment of this disorder. Both oral and iv routes were utilized and effects were noted upon

akinesia and rigidity. Doses were low and results controversial. Higher oral levels of L-dopa proved beneficial in action on parkinsonian symptoms and signs. Troublesome side effects, the worst of which were hypotension and a variety of abnormal involuntary movements came to light. New approaches to the therapy have been tried and the sum total of these observations challenges positions regarding a logical chain of events. It is felt that such new approaches will result in better and safer methods of treatment. (French summary) (124 ref.)—*Journal abstract*.

1146. Bogolepov, N. K., Pokrovskii, A. V., & Barinov, N. P. (2nd Moscow Medical Inst., USSR) **Nevrologicheskaya simptomatika ateroskleroticheskikh anevrizm bryushnoi aorty s sindromom Leriche.** [Neurological symptomatology of atherosclerotic aneurisms of the abdominal artery with Leriche's syndrome.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 65-71.—Presents an analysis of the neurological symptoms of 13 49-74 yr. old patients with atherosclerotic aneurisms of the abdominal artery with chronic obliteration of its bifurcational aperture. Neurological syndromes included autonomic, radiculoneuritic, and transitory and stable vascular spinal insufficiency. Clinical picture indicated lesions in the roots of the sacrolumbar plexus and its separate branches, autonomic innervation, and the spinal cord.—*J. D. London*.

1147. Bulandra, R. & Safirescu, Solange. **Considerații asupra tulburărilor psihice din scleroza în plăci.** [Considerations on psychical disturbances in multiple sclerosis.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Nov), Vol. 13(6), 547-552.—Noted mental pathologic manifestations in 14.6% of the 178 multiple sclerosis cases studied. Although the differential diagnosis between pathologic and normal reactive mental phenomena is not precise, critical analysis of the cases revealed certain elements which emphasize the pathologic character of the manifestations: (a) the nature of symptoms (euphoria and intellectual deficit), and (b) alternating psychical and neurologic phenomena. (French, German, & Russian summaries) (17 ref.)—*English summary*.

1148. Chernigovskaya, N. V. (Inst. of Neurology, Moscow, USSR) **K klinicheskoi kharakteristike i differentsial'nomy diagnozu giperkineticheskoi formy rasseyannogo skleroza.** [On the clinical characteristics and differential diagnosis of the hyperkinetic form of multiple sclerosis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 23-27.—41 patients with hyperkinetic multiple sclerosis were observed. This form of the disease is characterized by pronounced trembling of the dento-rubral type. Differential diagnostic criteria are presented for distinguishing this form from the trembling form of hepatocerebral dystrophy.—*J. D. London*.

1149. Chukhrova, V. A. (Inst. of Neurology, Moscow, USSR) **Izmenenie elektricheskoi aktivnosti mozga u bol'nykh botulizmom.** [Alteration of cerebral electrical activity in patients with botulism.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 52-55.—12 patients with severe forms of botulism were Ss in a study of the EEGs recorded during the disease. The data indicate that the toxin of botulism exercised a specific action on certain neurons of the brainstem reticular formation, producing corresponding changes in the dynamics of the brain potentials. At the end of the 2nd mo. of the disease, the EEGs did not differ from those of normal Ss or they displayed merely slight diffuse changes.—*J. D. London*.

1150. Csiky, K. **Aspecte psihiatrice ale accidentelor vasculare cerebrale.** [The psychiatric aspects of cerebral vascular accidents.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Sep), Vol. 13(5), 457-468.—Describes the acute reversible and irreversible psychotic forms of vascular cerebral accidents, both being considered as psychotic vascular conditions in hypertonic encephalopathies. The acute psychotic aspects of cerebral atherosclerosis are also dealt with, emphasizing the forms with remission, considered as manifestations of a cerebral circulatory insufficiency and the 1st signal of a general circulatory insufficiency. The description is given of both the clinical and EEG aspects of temporal oneiric pseudo-Korsakov syndrome, a form not yet described as psychotic accident in cerebral atherosclerosis. The efficiency of therapeutical interventions on various causal factors of the anoxic-vascular-circulatory complex is demonstrated in model cases. The importance of preventive and early treatment is emphasized. (French, German, & Russian summaries) (15 ref.)—*English summary*.

1151. De Morsier, G. (1 Promenade du Pin, Geneva, Switzerland) **Les hallucinations visuelles diencephaliques. Première partie.** [Visual diencephalic hallucinations: I.] *Psychiatria Clinica*, 1969, Vol. 2(3), 167-184.—Reviews reports concerning diencephalic hallucinations occurring in patients with vascular lesions, tumors, and traumatic brain lesions.

1152. Eisen, A. A. & Norris, J. W. (McGill U., Montreal, Quebec, Canada) **Adrenal steroid therapy in neurological disease: II.** *Canadian Medical Association Journal*, 1969, Vol. 100(2), 66-70.—Examines adrenal steroid therapy and its neuropsychiatric complications. Treatment of pyogenic meningitis, tuberculous meningitis, viral meningoencephalitis, Guillain-Barre syndrome, Carpal-Tunnel syndrome, Bell's palsy, infantile spasms, and cerebral edema are discussed. The complications of psychiatric manifestations, steroid-induced myopathy, benign intracranial hypertension, and steroid glaucoma are presented. (59 ref.)—*G. Steele*.

1153. Erokhina, L. G. & Puchinskaya, L. M. (2nd Moscow Medical Inst., USSR) **Izmeneniye bioelektricheskoi aktivnosti mozga pri tipichnoi nevrologii troinichnogo nerva i simpatol'giyakh litsa.** [Alteration of cerebral bioelectric activity in typical neuralgia of the trigeminal nerve and in facial sympathalgias.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 76-80.—Ss were 105 patients with various algetic syndromes of the face. In typical neuralgia, the EEG showed signs of excitation, desynchronization, and flashes of bilateral paroxysmal activity. These were especially marked in biopotential recordings during and immediately following a neuralgia attack. The data suggest that the observed changes in cerebral bioelectrical potentials indicate the involvement of the brainstem reticular formation in the complex mechanisms underlying the pathogenesis of typical neuralgia of the trigeminal nerve.—*J. D. London*.

1154. Glukhov, B. M. (Medical Inst., Novosibirsk, USSR) **Ob uchastii ribonukleazy v mekhanizme protivovirusnoi zashchity organizma pri kleshchevom entsefalite.** [On ribonuclease participation in the mechanism of antiviral defense of the organism in tick-borne encephalitis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 45-48.—It is shown that there is a significant increase in ribonuclease activity in the blood and cerebrospinal fluid in the acute period of

tick-borne encephalitis, with the degree of increased enzymatic activity in the blood inversely proportional to the severity of the clinical picture. In the convalescent stage, ribonuclease activity returns to normal.—*I. D. London.*

1155. Grudev, F. I. (Medical Inst., Semipalatinsk, USSR) **K klinike izmenenii nervnoi sistemy pri tulyaremi.** [On the clinical picture of changes in the nervous system in tularemia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 40-45.—Reports results of observations over a 20-yr period of 432 tularemia patients, displaying a variety of mental, neurological, and somatic disorders. The neurological changes incurred are described: affection of the autonomic nervous system, and disorders of the cranial nerves and sensory sphere. Meningitis, meningo-encephalitis, and encephalitis, seen in these cases, usually proceeded with psychotic and diffuse neurological symptoms. The major neuropsychiatric complication in tularemia involves diencephalo-autonomic changes with a marked algic syndrome.—*I. D. London.*

1156. Gusev, V. A. (Medical Inst., Gorky, USSR) **Tuberkuleznyy meningit i beremennost'.** [Tubercular meningitis and pregnancy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 36-39.—Presents a report based on 14 cases. The onset of the disease was most frequently seen in the 2nd half of pregnancy and was usually very severe.—*I. D. London.*

1157. Himmelhoch, Jonathan; Pincus, Jonathan; Tucker, Gary, & Detre, Thomas. (Yale U., Medical School) **Sub-acute encephalitis: Behavioural and neurological aspects.** *British Journal of Psychiatry*, 1970 (May), Vol. 116(534), 531-538.—Presents the case reports of 8 patients with subacute encephalitis. Behavioral abnormalities were prominent in all. The bizarre behavior induced physicians to ignore neurological findings, to overlook evidence of organic brain syndromes (such as intermittent lucidity and markedly abnormal EEGs), and to make functional diagnoses. Other characteristic features were, (a) the history of good premorbid functioning, (b) the patient's unambiguous role in a supportive, well-functioning family unit, and (c) the poor response of the behavioral symptoms to therapy (especially pharmacologic). (28 ref.)—*Journal summary.*

1158. Kalinovskaya, I. Ya. & Bunina, T. L. (Inst. of Neurology, Moscow, USSR) **Otonevrolgicheskaya simptomatika pri bokovom amiotroficheskom skleroze.** [Otoneurological symptomatology in lateral amyotrophic sclerosis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 55-60.—127 30-60 yr. old patients were observed in a study showing that otoneurological examinations supplement the clinical picture of the disease, promoting differential diagnosis and broadening conceptions of the topical aspects of the pathological process.—*I. D. London.*

1159. Lyudkovskaya, I. G. & Musatova, I. V. (Inst. of Neurology, Moscow, USSR) **K klinike i morfologii sindroma optikomielita pri ostrom rasseyannom entsfalomielite.** *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 28-32.—Reports on 5 cases involving a joint affection of the optic nerves and spinal cord. A detailed case history is included with histological data on the CNS.—*I. D. London.*

1160. Mamadzhanov, M. & Mamadzhanov, Ya. M. (Central Regional Hosp., Khodzhen, USSR) **Primenenie vnuritazovoi novokainovoi blokady pri ishiaradikulitakh.** [Application of intrapelvic novocaine

block in ischiadiculites.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 80-82.—47 patients and outpatients with acute forms and exacerbation of chronic forms of lumbosacral radiculitis and sciatica of varied etiology were observed. The statistics of recovery are presented.—*I. D. London.*

1161. Manelis, Z. S. (Medical Inst., Sverdlovsk, USSR) **Nekotorye voprosy patogeneza pervichnykh infektsionnykh entsfalomielopoliradikulonevritov.** [Several problems in the pathogenesis of primary infectious encephalomyelopolyradiculoneurites.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 32-36.—Making use of oscillography, rheography, capillaroscopy, and the Lendis test, the vascular functional state was studied in 146 patients. Correlation of the morphological and clinical data point to the special role of increased vascular permeability in the pathogenesis of these diseases.—*I. D. London.*

1162. Mordock, John B. & DeHaven, George E. (Pennsylvania State U.) **Movement skills of children with minimal cerebral dysfunction: The role of the physical therapist.** *Rehabilitation Literature*, 1969 (Jan), Vol. 30(1, Pt. 1), 2-8.—Provides a background for understanding the need for studies of the effects of remediation programs for children with minimal cerebral dysfunction. Reviews are included of: selected studies describing movement deficits of children with minor manifestations of cerebral dysfunction; studies relating movement skills to other perceptual and behavioral processes; articles expressing opinions or describing unresearched programs concerning needs for training in movement skills; and the role of the physical therapist and a rationale for remedial programs. (44 ref.)—*Journal abstract.*

1163. Moskalenko-Sadovnikova, L. G., Lange, E., & Heidel, G. (Medizinische Akademie Gustav Carus, Dresden, E. Germany) **Beitrag zu Klinik und Pathologie der Hirncysticercose.** [Contribution to the clinical picture and pathology of cerebral cysticercosis.] *Psychiatria Clinica*, 1969, Vol. 2(4), 212-231.—Reviews essential facts concerning clinical aspects and pathology of cerebral cysticercosis. Reports personal experience with 21 cases of the disease which were psychiatrically investigated and pathologically assessed. An attempt was made to distinguish between: (a) the pathodynamic activity of living and dead cysticercs, and (b) focal symptoms caused by cysticercs and remote symptoms located at distances up to 9 cm. from the cyst. (17 ref.)—*English summary.*

1164. Naku, A. G., Mikhlin, V. M., & Grinberg, D. M. (Medical Inst., Kishinev, USSR) **Kliniko-élektroentsfalograficheskie сопоставления при аментивном синдроме.** [Clinico-electroencephalographic correlations in the amental syndrome.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 87-93.—Studied the clinical picture and EEGs of 65 patients with amental syndromes of varied etiology, 25 former patients (4 mo.-4 yr. after clinical recovery), and 25 healthy students (controls). Relationships were established between type of bioelectrical activity at rest, reactivity of biocurrents, gravity of amentia, character of the leading syndrome, etiological factors, and supplementary clinical manifestations. The possible pathogenetic mechanisms of amentia and the essential nature of predisposal toward amental disorder of consciousness are discussed.—*I. D. London.*

1165. Rivina, E. Yu. **Ocherki po klinike i lecheniyu**

porazhenii ékstrapiramidnoi sistemy cheloveka. [Essays on the clinical picture and treatment of lesions in the human extrapyramidal system.] Moscow, USSR: Meditsina, 1968. 319 p.—The morphology, physiology, and pathophysiology of the extrapyramidal system are given extended treatment in this monograph.—*I. D. London.*

1166. Savenko, S. N. (Medical Inst., Chernovitsk, USSR) O trudnostyakh diagnostiki nekotorykh demieliniziruyushchikh zabolevanií nervoi sistemy. [On the diagnostic difficulties of several demyelinating diseases of the nervous system.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 18-23.—Diagnosis and differentiation are attended by great difficulties. The following are the most important symptoms for the diagnosis of diffuse multiple sclerosis: (a) severe mental disorders in the form of progressive organic dementia, (b) a distinct and usually symmetrical dilatation of the brain ventricles, and (c) gross changes in the EEG. Occasional cases of atypical multiple sclerosis are mistakenly diagnosed at their onset as schizophrenia with counterdisclosure with the advent of cerebellar symptoms in the terminal stage. In adults subacute leukoencephalitis sometimes proceeds with myoclonia and typical EEG changes.—*I. D. London.*

1167. Schaltenbrand, G. (Ed.) *Spezielle neurologische Untersuchungsmethoden*. [Special neurological methods of examination.] Stuttgart, W. Germany: Stuttgart U., 1968. 192 p.—Presents a collection of articles on the bases and application of contemporary examination procedures, utilized in neurology and neurohistology.—*I. D. London.*

1168. Smoczyński, S. (Medical Academy, Gdańsk, Poland) Psychopathological changes in cases with temporal electroencephalographic abnormalities. *Polish Medical Journal*, 1969, Vol. 8(2), 474-480.—Analyzes 130 cases with EEG changes in the temporal areas of the brain. Pneumoencephalography was performed in most Ss, along with thorough psychiatric, psychological, neurological and physical examination. Psychic disturbances were found in 129 Ss. Temporal lobe epilepsy was diagnosed in 56 Ss. Characteropathy was the most frequent diagnosis. In Ss with schizophrenic symptomatology, only in chronic cases could the relationship to temporal lobe damage be suggested. In the differential diagnosis simple schizophrenia, episodic schizophrenia-like syndromes and coexistence of schizophrenia with organic brain damage should be taken into account. (26 ref.)—*Journal abstract.*

1169. Tessier, Florence A. (U. California, Los Angeles) The development of young cerebral palsied children according to Piaget's sensorimotor theory. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4841.

1170. Vaneeva, G. G. (Medical Inst., Perm, USSR) Sostoyanie slukhovoí i vestibulyarnoi funktsii pri kleshchevom éntsefalite. [State of the auditory and vestibular functions in tick-borne encephalitis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 48-51.—50 patients with tick-borne encephalitis were Ss in a study of the auditory and vestibular functions in the acute period of the disease (the former through direct voice and audiometric methods; the latter through spontaneous, experimental, and optokinetic nystagmus). It is concluded that: (a) changes in these functions in tick-borne encephalitis are encountered regularly and are independent of the clinical form of the disease; (b) in

most patients the changes are temporary, but in a few, who have suffered a focal form of the disease, the changes persist even when tested 6-12 mo. after recovery; and (c) investigation of the auditory and vestibular functions should be part of the general examination, since in attenuated and febrile forms of the disease, they may have diagnostic importance.—*I. D. London.*

1171. Vinken, P. O. & Bruyn, G. W. (Eds.) *Handbook of clinical neurology: I-IV*. Amsterdam, Holland: North Holland Publishing, 1969. 2460 p.—These are the 1st 4 volumes of an intended set of 30 volumes in English to appear in the course of 8 yr. Volume I contains contributions on "disturbances of nervous functions"; Volume II, on "localization of clinical neurology"; Volume III, "disorders of higher nervous activity"; and Volume IV, "disorders of speech, perception, and symbolic behavior."—*I. D. London.*

1172. Voiculescu, V. & Mărcuțu, Viorica. Aplicarea calculului probabilităților în diagnosticul diferențial dintre accidentele cerebrale vasculare și debuturile acute ale tumorilor cerebrale. [Application of the probability calculus in the differential diagnosis between cerebral vascular accidents and the acute onset of cerebral tumors.] *Neurologia, Psihiatria, Neurochirurgia*, 1968 (Jan), Vol. 13(1), 11-16.

Brain Damage

1173. Butters, Nelson & Barton, Melvin. (Veterans Administration Hosp., Boston, Mass.) Effect of parietal lobe damage on the performance of reversible operations in space. *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 205-214. Tested 50 patients with cerebral damage on 3 tasks requiring the performance of reversible operations in space. Damage to either the right or the left parietal lobes resulted in impairments on all 3 tasks; lesions in other cortical areas resulted in slight, if any, deficits. It is suggested that the inability to assume different perspectives in imagery underlies many of the impairments associated with parietal lobe damage, i.e., constructional apraxia and right-left disorientation. (French & German summaries) (17 ref.)—*Journal abstract.*

1174. Crinella, Francis M. (Louisiana State U., A & M Coll.) An analysis of patterns of brain dysfunction and suspected brain dysfunction in school aged children. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5234-5235.

1175. De Morsier, G. (Promenade du Pin, Geneva, Switzerland) Le hallucinations visuelles diencéphaliques: II. [Diencephalic visual hallucination: II.] *Psychiatria Clinica*, 1969, Vol. 2(4), 232-251.—While observing a case of visual hallucinations localized in the left 1/2 of the visual field, without hemianopsia but showing left-sided sensorimotor hemiparesis, it was concluded that the symptoms could be explained by a lesion of the right diencephalon. A large number of antomoclinical cases have confirmed this hypothesis (i.e., vascular foci and hemorrhages in the thalamus, tumors, and changes in the diencephalon following cranio-cerebral trauma). In these cases the visual hallucinations resemble those found after lesions of or following stimulation of the occipito-temporo-parietal cortex, resulting from changes in the paraviscual sphere. Stereotactic experiments confirm the role played by the

diencephalon in the genesis of visual hallucinations. (German summary) (5 p. ref.).—*English summary.*

1176. Edwards, H. (Whitchurch Hosp., Cardiff, Wales) **The significance of brain damage in persistent oral dyskinesia.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 271-275.—Brain damage was found more often with elderly females having mouth motor problems than with controls matched on sex, age, and phenothiazine intake. The possible effects of prolonged medication with phenothiazines, which may either cause brain damage or potentiate fits in patients with preexisting disease of the brain, are discussed.—R. L. Sulzer.

1177. Johnson, J. (Manchester U., Royal Infirmary, England) **The EEG in the traumatic encephalopathy of boxers.** *Psychiatra Clinica*, 1969, Vol. 2(4), 204-211.—Investigates psychiatric and physiological results of cumulative brain trauma in 17 retired boxers by means of EEG findings, clinical impressions, and psychometric tests. Results show abnormal EEGs in 10 Ss, 1 of which was severely abnormal. EEG abnormalities consisted mainly of an alpha dominant record with slow background activity (7 cases) or flat, low voltage records with minimal or absent alpha rhythm (3 Ss). Psychometric tests (WAIS, Benton Visual Retention Test, and an Auditory Word Learning Test) were abnormal in 11 of 15 tested Ss. Further investigation with serial assessment of the same parameters is advocated.—B. A. Stanton.

1178. Pettit, John M. (Purdue U.) **Cerebral dominance and the process of language recovery in aphasia.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5278.

Epilepsy

1179. Boldyrev, A. I. **Osnovnye printsipy klassifikatsii épilepsii.** [Basic principles in the classification of epilepsy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 143-150.—Discusses various views that have been developed to deal with the problem of classifying the epilepsies. Regardless of the classification adopted, the complex features of epilepsy must be considered in its 3 basic aspects: etiological, anatomic, and clinical. (69 ref.).—I. D. London.

1180. Jasper, Herbert H., Ward, Arthur A., & Pope, Alfred. (Eds.) (U. Montreal, Quebec, Canada) **Basic mechanisms of the epilepsies.** Boston, Mass.: Little, Brown, 1969, xxiv, 835 p. \$30.

1181. Peters, U. H. (147 Niemannsweg, Kiel, W. Germany) **Das pseudopsychopathische Affektsyndrom der Temporallappenepileptiker: Untersuchungen zum Problem der Wesenänderung bei psychomotorischer Epilepsie.** [The pseudopsychopathic effect syndrome of temporal lobe epileptics: Investigations concerning the problem of character change in psychomotor epilepsy.] *Nervenarzt*, 1969 (Feb), Vol. 40(2), 75-82.—Describes a pseudopsychopathic affect syndrome isolated in 53 of 67 investigated patients with temporal lobe epilepsy. Although Ss did not demonstrate any constant character change, changes of affect and mood (varying between friendly and hostile-aggressive) were observed. Personality traits included infantile-egocentric and hypochondriacal manifestations. The consequence was a disturbed social adjustment. No evidence of IQ impairment was detected. (36 ref.).—B. A. Stanton.

1182. Petrov, V. S. (Bekhterev Psychoneurological Inst., Leningrad, USSR) **Ul'trastrukturnye osobennosti yadernykh i tsitoplazmaticheskikh élementov v kletkakh kory golovnogo mozga bol'nykh s épilepticheskimi pripadkami i bez nikh.** [Ultrastructural features of the nuclear and cytoplasmic elements in the cerebral cortical cells in patients with epileptic attacks and without them.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 106-115.—Materials, procured through biopsy of the tumorous cortex in 9 cases of brain tumor, were utilized in a study of the comparative electron-microscopic characteristics of the nuclear and cytoplasmic elements of the cerebral cortex in 2 groups of patients—those with and without epileptic seizures. In the region of the neoplasms altered nerve cells, isolated neurons with relatively preserved structures, and a morphologically distinct endoplasmic reticulum appeared. In most of the cerebral neurons and oligodendrocytes of Ss without epileptic seizures, there was a relatively small number of filamental and granular structures in the nuclei, ribosomes, mitochondria, membranes of the Golgi apparatus, etc. In similar brain cells of Ss with epileptic seizures, enlarged mitochondria with an electron-optically bright matrix and vesicles in the Golgi apparatus appeared, and inclusions with different ultrastructural organization along with relative preservation of the elements of the nuclei and nucleoli.—I. D. London.

1183. Robins, Max H. (150 Truax St., Trenton, Mich.) **Hypsarhythmia: Infantile spasms.** *Journal of the American Osteopathic Association*, 1968 (Apr), Vol. 67(8), 882-888.—Describes an unusual epileptic disorder of infancy which often results in severe mental retardation. The infantile spasms frequently are associated with a characteristic EEG pattern of hypsarhythmia and appear to be the clinical expression of extensive but often unrecognized brain damage occurring in the prenatal or early postnatal period. A case of infantile spasms in an 11-wk-old boy is reported that documents the effect of a massive insult upon an immature nervous system. The possibility that the spasms were secondary to some cerebral insult is considered. In such instances treatment is uniformly disappointing with poor control of spasms and invariable mental retardation. The best response to treatment has been achieved in primary or idiopathic cases in which the clinical picture was recognized early and treatment initiated shortly after the onset of the seizures. (19 ref.).—*Journal abstract.*

MENTAL RETARDATION

1184. Adams, Margaret E. **Developing child welfare services for the mentally retarded.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 23-26.—Discusses the function of normal child welfare services in providing social care to prevent, reduce, or alleviate social adjustment problems experienced by retarded children and their families. The way in which emerging societies can build up a preventive or remedial service for retarded children by utilizing their indigenous social resources was examined. This may have some applicability to grass-roots development of services in the United States. (17 ref.).—*Journal abstract.*

1185. Alpern, Gerald D. & Kimberlin, Carolyn C. (Indiana U., Medical School, Indianapolis) **Short intelligence test ranging from infancy levels through childhood levels for use with the retarded.** *American*

Journal of Mental Deficiency, 1970 (Jul), Vol. 75(1), 65-71.—Developed a short, general intelligence test for retarded children whose abilities ranged from infancy levels through childhood levels. Standard administration of Cattell and Stanford-Binet tests to 28 mongoloid children provided data statistically used to develop a $2\frac{1}{3}$ shorter test. The short and standard versions were then administered to a new sample of 31 retarded children. Correlation between the short and standard tests was .97. The average administration time for standard testing was 60 min. compared to 16 min. for the short form. Vineland scores and standardized psychiatric ratings developed correlations beyond the .001 level of confidence with the short form. The theory and techniques for intellectual evaluations of retarded children are discussed. (26 ref.)—*Journal abstract*.

1186. Ayers, George E. & Duguay, A. Robert. (Mankato State Coll.) **Critical variables in counseling the mentally retarded.** *Rehabilitation Literature*, 1969 (Feb), Vol. 30(2), 42-44, 50.—The emotional problems, level of intellectual functioning, personality characteristics, communication factors, learning ability, parental influences, and environmental factors are critical variables that necessitate consideration in counseling the mentally retarded. Regardless of the particular theoretical counseling technique or mode of therapy employed, all of these variables directly and indirectly influence the overall adjustment of the retarded. Hence, it is imperative that counselors become aware of them if they are to help the mentally retarded develop to their fullest physical, mental, social, educational, and vocational potential.—*Journal summary*.

1187. Ballinger, B. R. (Strathmartine Hosp., Dundee, Scotland) **Community contacts of institutionalised mental defectives.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 17-23.—Studied community contacts of 629 institutionalized mentally defective patients over a 3-mo period. Results show that: (a) 56.6% of the Ss were visited at least once during this period, but only 7.8% were visited 12 times or more; (b) 39% of the Ss received at least 1 item of mail, 7.9% made unaccompanied visits to town, and 15% had overnight leave during the 3-mo period; and (c) 26.8% of the Ss had little contact with the community, and these tended to have been in the hospital longer, to be older and less intelligent.—*Journal summary*.

1188. Bank-Mikkelsen, N. E. (Danish National Service for the Mentally Retarded, Copenhagen, Denmark) **Services for mentally retarded children in Denmark.** *Children*, 1968 (Sep), Vol. 15(5), 198-200.

1189. Baumeister, A. A. & Forehand, R. (U. Alabama) **Social facilitation of body rocking in severely retarded patients.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 303-305.—Presents 2 studies concerning the rate with which severely retarded persons engage in body rocking as influenced by variations in social context. Study I involved repeated observations of 4 individual patients, and Study II was conducted to determine whether the presence of other nonrocking patients would be an effect on rate of body rocking. Results indicate that rocking was much higher in the presence of other patients than when alone and that social facilitation of rocking does not appear to be imitative.—*E. J. Kronenberger*.

1190. Bricker, William A. (George Peabody Coll. for Teachers) **Identifying and modifying behavioral deficits.** *American Journal of Mental Deficiency*, 1970 (Jul),

Vol. 75(1), 16-21.—Develops the proposition that the major focus in behavior modification should be on procedures of instruction rather than on the process of learning itself. In the area of retarded development, this focal difference stresses analyses of defects in the program of instruction and how to eliminate these defects rather than analyses of the defects inherent in the child's nervous system. However, several changes must be made in current behavior modification technology if the techniques derived from this approach to developmental retardation are to have broad and important consequences. These recommended changes include means for generalizing repertoires, establishing the validity, replicability, and efficiency of training programs, and using training programs as diagnostic instruments. (24 ref.)—*Journal abstract*.

1191. Carlisle, A. Lindsay; Shinedling, Martin M., & Weaver, Richard. **Note on the use of the Slosson Intelligence Test with mentally retarded residents.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 865-866.—Administered the Slosson Intelligence Test (SIT) to 122 male and female institutionalized profound and severe retardates who had previously been given a Stanford-Binet, Kuhlmann Extension of the Binet Test, or Kuhlmann Test of Mental Development. A correlation of .91 was found between scores on the SIT and the Kuhlmann, indicating the SIT as a useful test with severe retardates.—*Journal abstract*.

1192. Chess, Stella & Korn, Sam. (New York U., Medical Center) **Temperament and behavior disorders in mentally retarded children.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 122-130.—Indicates that temperament influences the retarded child's adaptiveness and has important implications for management. 52 5-11 yr. old middle-class children (IQs from 50-75) who were living at home were studied. Results indicate that certain patterns of temperament appear to intensify the stresses to which the retarded child is especially subject. The risk for developing a disturbance is greatest in children who show irregularity in biological functions, withdrawal responses, nonadaptability, predominantly negative mood, and high intensity. Positive parental management of a mentally retarded child with several signs of vulnerability may help achieve better adaptation. Conversely, children who appear least at risk may manifest behavior disorders partly as a result of adverse patterns of care and other environmental pressures. Alertness to the impact of temperament on the Child-Environment interaction can decrease the probability of behavior disorder and strengthen the chances for maximum adaptation.—*Journal summary*.

1193. Devries, Rheta. (U. Illinois, Chicago Circle) **The development of role-taking as reflected by behavior of bright, average, and retarded children in a social guessing game.** *Child Development*, 1970 (Sep), Vol. 41(3), 759-770.—3 studies explored the performance of 3-7 yr. old bright and average, and 6-12 yr. old retarded children (Total N = 248) in a binary-choice, social guessing game. Results suggest a 5-stage sequence of development from a total lack of recognition of the need for secrecy and deceptiveness in the 1st to the 5th stage in which S was competitive and attempted to outwit the opponent by utilizing an irregular, shifting strategy. Stage changes were viewed in terms of increased role-taking ability. The development of competitive and deceptive hiding prior to competitive and deceptive guessing suggests that the child is able to take

account of the other's perspective before he is able to take account of the other's-taking-account-of the child's perspective. Psychometric ability seems to be a more crucial factor than age in the development of role taking at the lower end of the psychometric range, and CA seems to be a more crucial factor than psychometric ability at the average or above range.—*Journal abstract.*

1194. Francis, Sarah H. (Australian National U., Canberra, Capital Territory) **Behavior of low-grade institutionalized mongoloids: Changes with age.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 92-101.—Studied 112 low-grade institutionalized mongoloids. With increasing age, Ss exhibited an increase in self-oriented behavior, in postures, in rocking, and in diffuse movements, and a decreasing interest in the external world (as measured by the focus of their visual attention, manipulation of objects, and the amount of social contact in which they are engaged). More changes in behavior occur between the ages of 4 and 13 yr. and after 30 yr. old than at other ages. It is suggested that the behavioral changes are due to institutionalization rather than to aging.—*Journal abstract.*

1195. Hansen, Holger. (Columbia U.) **Epidemiological considerations on maternal hyperphenylalaninemia.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 22-26.—A review of all reported hyperphenylalaninemic (HPA) mothers and their offspring in the literature showed that most of the families were detected because of recognized mental retardation. Selection bias could explain that 19 of the 26 mothers had mentally subnormal children. However, intrauterine growth retardation, observed in at least 4/5 of the retarded progeny, more common than could be expected, may be attributable to maternal HPA. The maternal blood level did not correlate with progeny IQ when maternal IQ was controlled. Mental retardation was associated with subnormal IQ of the mother and with low birth weight and microcephaly of the child. The biochemical disturbance seems more likely to affect the offspring where it has affected the mother herself. (31 ref.)—*Journal abstract.*

1196. Haywood, H. Carl. (George Peabody Coll. for Teachers) **Mental retardation as an extension of the developmental laboratory.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 5-9.—Discusses how the study of mental retardation can produce more extensive knowledge about the nature and development of IQ and recommends certain strategies. Among these are: (a) sampling across a wide range of IQ, (b) the use of deviant-groups designs, (c) extreme caution in the use of MA matching, (d) finer distinctions within the diagnostic category of mental retardation, (e) control of such influencing variables as institutionalization and personality factors when comparing groups that differ in IQ, and (f) selection of tasks that have common meaning to Ss across a wide range of IQ.—*Journal abstract.*

1197. Heal, Laird W. (George Peabody Coll. for Teachers) **Research strategies and research goals in the scientific study of the mentally subnormal.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 10-15.—Examines the criticism that researchers in the area of mental subnormality have no rationale for selecting their normal comparison groups. An analysis shows research strategies to be in a 1-to-1 correspondence with the goals and assumptions of the investigator

who employs them. In addition, the comparative methodology as it relates to research in mental subnormality is discussed.—*Journal abstract.*

1198. Kirman, Brian. (Queen Mary's Hosp. for Children, Carshalton, England) **The mentally handicapped individual in society.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 9-16.—Discusses the effect that classification and definitions of psychological diseases, mental health legislation, and social and technical change have had on determining the place of the mentally handicapped in society, and on the kinds of institutions to care for them. It is stressed that classification and categories for the mentally deficient are artificial contrivances, unnatural laws, and are determined by the climate of the time. It is argued that the "full development of the human intellect and personality is only to be achieved in the open society," and that this concept should also be applied to the mentally ill who deserve greater status as individuals able to make unique contributions to society. (29 ref.)—*M. Maney.*

1199. Lamb, Lloyd E. & Norris, Thomas W. (U. New Mexico) **Relative acoustic impedance measurements with mentally retarded children.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 51-56.—Compared acoustic stapedius muscle reflex thresholds, measured with an electroacoustic impedance bridge, for 15 5-10 yr. old mentally retarded children and 15 4-11 yr. old normal children. All Ss had normal hearing sensitivity. Reflex thresholds were measured using pure tones of 250, 100, and 4000 Hz. as test signals. Signals were presented in ascending and descending series. Results show reflex thresholds for both groups to be consistent with findings previously reported for normally hearing adults of average IQ. Reflexes occurred at slightly lower levels for mentally retarded than for normal Ss. Descending reflex thresholds were lower than ascending for both groups. Considerable inter- and intra-Subject variability was observed.—*Journal abstract.*

1200. Lombardi, Thomas P. & Poole, Ronald G. (Arizona State U.) **Utilization of videosonic equipment with mentally retarded.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 7-9.—Describes the potential of a videosonic intercom system within a state institution for the retarded. Particular attention was given to the visual/auditory stimulation offered by video tapes produced for a speech and language development program. It appears that among the didactic materials and equipment designed for the retarded, videosonic instrumentation may increase quality and quantity in special education.—*Journal abstract.*

1201. Luckey, Robert E. & Chandler, Peter J. (Denton State School, Tex.) **Demonstration habilitative and self-care nursing projects for multi-handicapped retardates.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 10-14.—Complementary habilitative and self-care nursing projects were undertaken to demonstrate the feasibility of promoting optimal overall development and to combat the injurious effects of group custodial living while multihandicapped retardates were still in their formative yr. The primary aims were to: improve body flexibility and control; minimize the effects of structural anomalies; prevent physical malformation; and promote functional hand use, self-concept development, and socialization. Techniques included physical and occupational therapy, enriched staff-patient interaction, structured group activities, and self-identity games.

Results reveal that the overall physical and psychosocial condition of severely handicapped retardates can be significantly improved.—*Journal abstract.*

1202. Martin, Jack W. (U. Oregon) **Attending behavior of mentally retarded males during a fading procedure.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4832-4833.

1203. Mayer, Sondra M. (Teachers Coll., Columbia U.) **Field research on behalf of the handicapped.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 53.—Examined the possibility of a negative interview effect in employment of retardates. A survey of 87 employers concerning attitudes toward hiring retarded workers showed no attitude change in 88% of respondents. 1 employer showed a positive change and 3 indicated negative changes.

1204. Mittler, Peter. (U. Manchester, Hester Adrian Research Center, England) **Changing attitudes to the mentally subnormal.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 3-8.—The attitudes of the public, patients' families, professionals, administrators, and government toward the mentally subnormal are considered in the light of a critical examination of present services and difficulties. Although attitudes are changing for the better, they have not changed fast enough or always been concerned with the priorities. It is concluded that the impetus for these changes must come from the highest government levels, and that the "goodwill which exists toward positive reform should be exploited by those with a genuine interest in the field."—*M. Maney.*

1205. O'Grady, D. J., Berry, H. K., & Sutherland, B. S. (U. Cincinnati, Children's Hosp.) **Phenylketonuria: Intellectual developmental and early treatment.** *Developmental Medicine & Child Neurology*, 1970 (Jun), Vol. 12(3), 343-347.—8 children, diagnosed early (before 3 mo.) as phenylketonuric, and treated, showed average or above average intellectual development when tested between the ages of 3-8 yr. Some of the families had older siblings with the same disorder, treated later or untreated, all of whom showed marked deficit as compared with their healthy siblings, early treated phenylketonuric siblings, and parents.—*P. W. Priyser.*

1206. Penrose, L. S. (U. London, England) **Measurement in mental deficiency.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 369-375.—The ultimate criteria of subnormality are quantitative making this field biometrical in a way that the rest of psychiatry is not. IQ distributions show that intelligence is not Gaussian but skewed at the extreme lower end. Also the basic assumptions that abilities grow as a linear function of age and at all ages have the same degree of variation are untrue at the lower levels. Spearman's concept of "general intelligence" is termed nonsense, and it is suggested that more attention should be paid to the differences between scores on tests, the "profile" of a patient. Physical measurements of body size, head size and shape, skin ridges on hands and feet, sex chromosomes, and the analysis of family correlations are among the important uses of measurement. (27 ref.)—*R. L. Sulzer.*

1207. Phillips, Susan U. & Dingman, Harvey F. (U. Texas) **On the construction of persons.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 20-22.—Used the perspective of the theatrical performance developed by E. Goffman to distinguish between back and front regions (as onstage and backstage and dressing room

activities are differentiated) in the social performance of mentally retarded females from a hospital ward. The inappropriateness of overall social performance was traced to the absence of preparation in back regions, i.e., distinctions made by the administration between various activities, for front region activity. Rehabilitation of the retarded may necessitate a greater therapeutic emphasis on back region preparations.—*Journal abstract.*

1208. Pustel, G., Sternlicht, M., & Derespini, M. (Willowbrook State School, Staten Island, N.Y.) **Perception of emotionality by institutionalized mental retardates.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 306-307.—Compared retardates to schizophrenics and normals on tasks involving moonface line drawings. The retardates were least capable of producing flawless pictorial arrangements along a facial-emotional continuum. There was no significant difference between groups for judgment of matching moonfaces and stimulus words. While supporting previous research, the results indicate that retardates' errors differed in quantity from both schizophrenics and normals.—*E. J. Kronenberger.*

1209. Shapiro, Alexander. (Harperbury Hosp., Shenvley, St. Albans, England) **The clinical practice of mental deficiency.** *British Journal of Psychiatry*, 1970 (Apr), Vol. 116(533), 353-368.—Mental deficiency is social incompetence, usually with low intelligence, but often with personality defects produced by a variety of causes. Prevention and cure seem still to be in the province of research, but treatment aimed at enabling the person to function independently in society is best provided under the supervision of a psychiatrist specialist. Training should be pushed no farther than the capacity, it should aim to end some time with the goal for the patient being use for living of what he has learned. Large hospitals make possible integration of all aspects of care with provision for all required specialist services. Subunits can develop intensive therapy beyond the resources of community care. (18 ref.)—*R. L. Sulzer.*

1210. Small, John R. & Shafter, Albert J. (The Daily Register, Harrisburg, Ill.) **Publication of a newspaper by residents of a facility for the retarded.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 27-28.—There has been increased interest in recent yr. in developing comprehensive recreation or activity programs in residential facilities for the mentally retarded. 1 aspect of such programs has been publication of newspapers by the residents. The development of such a program was improved by the employment of a professional journalist who trained the aides to work with the residents. In addition to obtaining primary skills in journalism, the residents changed certain behavior and attitudes and developed greater social awareness.—*Journal abstract.*

1211. Smith, Jeffrey H. (Purdue U.) **An analysis of the early components of auditorily evoked responses of mentally retarded adults.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5280.

1212. Sternlicht, Manny; Deutsch, Martin, & Alperin, Norman. **Psychological evaluations and teacher assessments of institutionalized retardates.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 164-167.—Reviews a random sample of 100 cases referred to the psychologist by classroom teachers as to the extent of agreement between psychologist and teacher. The greatest discrepancy occurred in the referral category "working above potential." It is suggested that psychologists and teachers examine the relationship between measured

psychological potential and actual performance.—H. Kaczkowski.

1213. Taylor, John F., Winslow, Charles N., & Page, Horace A. (Kent State U.) **An MA growth curve for institutionalized mild and moderate retardates.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 47-50.—Used data from 636 Binet examinations given to 97 institutionalized mild and moderate retardates to derive a composite MA growth curve. The curve was negatively accelerated, and the period of marked slowing in mental growth appeared to begin at about the 10th birthday. After about the 13th birthday, the rate of mental growth appeared to stabilize at approximately $\frac{1}{4}$ the rate of mental growth for persons of normal IQ. (23 ref.)—*Journal abstract.*

1214. Weiner, Barbara J. (Purdue U.) **A comparison of the toy play characteristics of organic mentally retarded and normal children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5230-5231.

1215. Willis, Virginia L. & Garrison, Mortimer. (Temple U.) **Spoken language abilities of educable mentally retarded (EMR) and normal adolescents.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 696-698.—Analyzed stories told by 14 EMR and 14 normal adolescents for length, sentence length, type-token ratio, usage of parts of speech, and grammatical correctness. Normal Ss used longer sentences and a greater variety of words in contrast to the differences observed with written compositions. Results emphasize the importance of teaching communications skills directly.—*Journal abstract.*

1216. Wooster, Arthur D. (U. Nottingham, Inst. of Education, England) **Formation of stable and discrete concepts of personality by normal and mentally retarded boys.** *Journal of Mental Subnormality*, 1970 (Jun), Vol. 16(1), 24-28.—Compared 16 subnormal and 16 normal 14-14.10 yr. old boys to test the hypothesis that there would be a significant difference between the groups in their ability to achieve a stable self-concept and in the degree to which that self-concept was related to other concepts about people. It was also predicted that a related difficulty for the subnormal would be revealed by their greater use of groupings of concepts resulting from the inability to perceive differences. Ss ordered 8 pictures in response to injunctions which embodied 8 concepts. Results support the hypotheses, and it is suggested that the inability to make fine discriminations in social situations is 1 source of the social ineptitude of the subnormal. The inability of many subnormals to use their self-concept as a standard in making judgments about others is thought to contribute to this failure to form stable relationships with others.—*Journal summary.*

Learning & Motor Ability

1217. Auger, Robert A. (U. South Carolina) **The effect of stimulus shaping training on the establishment of a discriminatory response and post-generalization gradient with retardates.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5231.

1218. Ellis, Norman R., McCarver, Ronald B., & Ashurst, Hugh M. (U. Alabama) **Short-term memory in the retarded: Ability level and stimulus meaningfulness.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 72-80.—Compared 3 ability level (IQ) groups of 36 institutionalized retardates on a probe-type

short-term memory task using high meaningful and low-meaningful stimuli. It was predicted, on the basis of a multiprocess theory of memory, that primacy of the serial position curve would be facilitated in the higher-IQ Ss as a result of more adequate rehearsal strategies and higher language skills. Primacy performance was also expected to be facilitated by the more meaningful stimuli. Primacy performance was directly and substantially related to IQ. The effects of meaningfulness were negligible.—*Journal abstract.*

1219. Gallagher, Joseph W. (U. Alabama) **Effect of meaningfulness on learning syntactic units.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 27-32.—Examined the influence of meaningfulness (semantic consistency) and nonmeaningfulness (anomaly) on the learning of syntactic word pairs with 36 3rd grade normal and 36 institutionalized retarded children. Using a paired-associate technique, Ss were presented with either a list of meaningful word pairs or non-meaningful pairs. Results show that meaningful pairs were learned more readily than nonmeaningful pairs at both ability levels. No differences were found between normals and retardates for the meaningful pairs. Normals learned the nonmeaningful pairs with fewer errors than the retarded Ss. This latter finding is discussed in terms of types of overt errors made and presentation rate.—*Journal abstract.*

1220. Gallagher, Joseph W. & Reid, Donald R. (U. Alabama) **Effect of free association strength values on paired-associate learning.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 33-38.—Examined the influence of free association strength (FAS) on paired-associate learning with 75 1st and 75 3rd grade nonretarded children and 75 institutionalized retarded children matched for MA with the 3rd grade Ss. Results indicate that the mean number of errors decreases as FAS increases. Performance of the retarded Ss was similar to that of the 3rd grade group for the highly associated pairs, but for weakly associated pairs the retarded group's performance was more like that of the 1st grade Ss.—*Journal abstract.*

1221. Glenn, Sheila M. & Pickersgill, Mary J. (Goldsmiths' Coll., London, England) **Capacity of severely subnormal children with relation to the non-additivity of cues effect and to discrimination difficulty.** *Quarterly Journal of Experimental Psychology*, 1970 (May), Vol. 22(2), 305-317.—Trained 30 severely subnormal children to discriminate stimuli differing along 2 dimensions, both dimensions being relevant. Having learned to criterion Ss were then transfer-tested on each of the dimensions presented separately. Results show that Ss tended to respond in terms of dimensions and that slow learners tended to learn the discrimination in terms of only 1 dimension whereas faster learners tended to learn about both dimensions. In a further study with 68 Ss, it was found that the more difficult the discrimination to be made the more Ss tended to learn it in terms of only 1 of the 2 possible relevant dimensions. Some varying interpretations of the concepts of attention and capacity and their value and precision in explaining these results are considered. (15 ref.)—*Journal abstract.*

1222. Hall, Judy E. (U. Alabama) **The effect of response bias upon the oddity learning of mental retardates.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5256-5257.

1223. Hom, George L. (U. Oregon) **The effects of stimulus fading on the rote learning performance of**

institutionalized retarded children. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4830.

1224. Joubert, Charles E. (U. Alabama) **Refractoriness in the reaction times of normal and retarded subjects as a function of uncertainty and response-stimulus interval duration and frequency.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5258-5259.

1225. Kellas, George & Butterfield, Earl C. (U. Kansas) **Response familiarization and the paired-associate performance of noninstitutionalized retarded and normal children.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 81-87.—Following relevant, irrelevant, or no pretraining with the response terms of a paired-associate (PA) task, 46 normal and 46 retarded children were compared on PA performance. Analyses of free-learning, PA correct responses, type of errors committed, and stage analysis all indicate that the PA deficit results partly from a decreased ability to learn the response terms of a PA task. The superiority of normal children was related to the earlier beginning point for the associative learning phase. Results are discussed in relation to previous research with normal adults and research within the retarded population.—*Journal abstract.*

1226. McKinney, James D. (North Carolina State U., Raleigh) **A developmental study of the acquisition and utilization of conceptual strategies.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5260-5261.

1227. Saxon, Samuel A. (U. South Carolina) **An investigation of the effect of two biological rhythms on reaction time in mentally retarded individuals.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5266.

1228. Shealy, Allen E. (U. South Carolina) **Changes in preference values of tokens as a function of pairing with incentives of different preference values and amount of pairing.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5243-5244.

1229. Stinnett, Ray D. & Prehm, Herbert J. (Eastern Oregon Coll.) **Retention in retarded and nonretarded children as a function of learning method.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 39-46.—Studied rote learning and retention performance as a function of method used in original learning and intellectual level. 60 retarded and 60 nonretarded junior-high and high-school students were randomly assigned to 1 of 3 treatment groups to learn a paired-associate task. Retention was assessed by immediate recall, 24-hr recall, and relearning scores. Data analysis indicates inferior learning performance and a 24-hr retention deficit for retarded Ss. The analysis also indicates that learning method influences results of comparisons of rote learning and retention in retarded and nonretarded Ss.—*Journal abstract.*

1230. Talkington, Larry W. & Hall, Sylvia M. (Austin State School, Tex.) **Matrix language program with mongoloids.** *American Journal of Mental Deficiency*, 1970 (Jul), Vol. 75(1), 88-91.—Took pre- and posttest measures on experimental (N = 20) and control (N = 20) groups of mongoloids matched on IQ and CA. Ss who received the Matrix language training made significant gains in the language and concept areas of sentences, total language, differences, similarities, missing parts, and total concepts. Results support the feasibility of such a procedure for the training of

language and concept formation in such a population.—*Journal abstract.*

1231. Warrick, Jeanne D. (U. Alabama) **Effects of stimulus pretraining and method of stimulus presentation on short-term memory processes of normals and retardates.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5270.

Training & Vocational Rehabilitation

1232. Hammarback, Marvin D. (U. Oregon) **An investigation of the Community Adaptation Schedule with educable mentally retarded adolescents and young adults.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4773-4774.

1233. Krieger, George W. (Michigan State U.) **An exploratory study of the effect of model-reinforcement counseling on the vocational behavior of a group of male retarded adolescents.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4776-4777.

1234. Wilkie, Earl A., et al. (Elwyn Inst., Pa.) **Developing a comprehensive rehabilitation program within an institutional setting.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 35-39.—Describes the process of changing a traditionally custodial institution into a comprehensive rehabilitation facility. Problems of changing staff attitudes and developing a program of rehabilitation services are reviewed. Methods of marshaling institutional and community resources to provide evaluation, exploratory work experience, trade training, remedial and community education, community work experience, placement, counseling and follow-up services are described.—*Journal abstract.*

PHYSICAL ILLNESS

1235. Badalyan, L. O., Tamarkina, É. D., Bondarenko, E. S., & Zakoshchikova, L. V. (2nd Moscow Medical Inst., USSR) **Izmenenie aktivnosti fermentov v myshechnoi tkani pri progressivnyushchikh myshechnykh distrofiyakh.** [Alteration of enzymatic activity in muscle tissue during progressive muscular dystrophy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970 (Jan), Vol. 70(1), 72-76.—30 3-14 yr. old Ss with different forms of progressive muscular dystrophy (duration up to 13 yr.) were used to study (a) enzymatic activity (creatinphosphokinase, lactate and malate dehydrogenase) in affected muscle tissue, and (b) possible correlated changes in the clinical picture and course of the pathology. At first an increase in enzymatic activity was noted, followed by a tendency toward its decrease with growing severity of motor disorders. Maximal enzymatic activity was seen during the 1st years following the appearance of clinical symptoms. 16 Ss were drawn from 8 families. In these cases, among close family members in the normal category increased enzymatic activity was noted. Data indicate that enzymatic activity is a function of type of hereditary transmission. The highest indices of enzymatic activity were noted in patients with evidence of a recessive x-chromosomal type of transmission; less higher indices in those with autosomal-recessive and autosomal-dominant types. This reflects the hereditary heterogeneity of progressive muscular dystrophy and indirectly confirms the polygenic theory of the origin of this disease.—*I. D. London.*

1236. Billkiewicz, T. (Medical Academy, Gdańsk, Poland) **Total somatectomy and its psychopathological consequences.** *Polish Medical Journal*, 1969, Vol. 8(2), 481-493.—Considers the consequences that successive amputation of body parts and organs not essential to life may have for the human personality. It lies within the technical possibilities of modern surgery to obliterate the entire body, with the exception of the head, if what remains is subsequently coupled to a set of appropriate apparatus. The splanchnocranium and the organs of sense might be removed, leaving the brain, which would be kept alive according to the rules of tissue culture. This relic of man would preserve its personality, and compensate the absence of its body by means of a phantom body schema. Intellectual efficiency, affective life, memory of the past, even unproductive and nonmanifestable experiences of volition and aspiration would persist. In this regard, this human fragment would be superior to primitive living beings. If life is to continue in the sense of mnemosyneidesis, the tissular substrate of the reticular alerting system cannot be removed. In this fantastic backward reduction of man, the biochemical substrate will be reached which exists owing to uninterrupted metabolism. It is at this point that biochemical and neuro- and psychophysiological processes meet. However, no fantasy can solve the enigma of transition between the world of objective occurrences and that of subjective experiences. (28 ref.)—*Journal abstract*.

1237. Ford, R. Munro. (Royal Adelaide Hosp., South Australia) **Aetiology of asthma: A review of 11,551 cases (1958 to 1968).** *Medical Journal of Australia*, 1969 (Mar), Vol. 1(12), 628-631.—A review of asthma sufferers in S. Australia has shown that the dominant factors involved were extrinsic in 53.7% and intrinsic in 46.3% of all cases. In young children and in older adults, a much higher percentage of cases were in the intrinsic group, and in older children and in young adults, extrinsic causes predominated. Further analysis of these extrinsic causes showed that grass pollens and house dust were the 2 major factors involved. In this survey, 37.4% of patients showed a significant proportion of a combination of both extrinsic and intrinsic types of disease, which was particularly noticeable in the 5-14 and 45-59 yr. age groups, in which the type of disease seemed to be undergoing change. Many patients suffering from predominantly intrinsic disease also had extrinsic causes playing secondary roles in production of symptoms from time to time. A comparison of the types of asthma seen in 2 teaching hospitals (children's and adults') vs. those seen in private practice shows that a much higher incidence of the intrinsic type of asthma attended the hospitals as inpatients or outpatients, compared with that seen in private practice.—*Journal summary*.

1238. Katz, Jack L., Weiner, Herbert; Gallagher, T. F., & Hellman, Leon. (Montefiore Hosp. & Medical Center, Div. of Psychiatry, New York, N.Y.) **Stress, distress, and ego defenses: Psychoendocrine response to impending breast tumor biopsy.** *Archives of General Psychiatry*, 1970 (Aug), Vol. 23(2), 131-142.—Investigated by intensive interviews the adequacy of defenses of 30 women awaiting breast tumor biopsy. Criteria for adequacy were "affective state, functional intactness, and defensive 'reserve'." Hydrocortisone production rate was also obtained as a concurrent physiological measure of adequacy of defenses. Results show that the majority of Ss did not show significant

defensive breakdown. 6 types of defense patterns were noted: displacement, projection, denial, hope and prayer, stoicism-fatalism, and a combination of these. It is concluded that stressful situations are not equally distressful to all individuals, as the latter depends upon how the stress situation is understood, defended against, and perceived. (17 ref.)—P. McMillan.

1239. Kranz, Peter L. (Utah State U.) **A psychological investigation of seven hermaphroditic children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5223.

1240. Pascall, M. Lo schock. [The shock.] *Difesa Sociale*, 1969 (Apr), Vol. 48(2), 237-244.—Discusses the definition, etiology, symptomatology, classifications, and pathogenesis of shock, in its overlap with other clinical conditions. Particular attention should be given to forms of medicament shock and its treatment, with special reference to the importance of prevention and therapy and the necessity for a more effective organization of emergency first-aid outside of hospitals.—L. L'Abate.

1241. Poznanski, Elva & Poznanski, Andrew K. (U. Michigan, Medical School) **Psychogenic influences on voiding: Observations from voiding cystourethrography.** *Psychosomatics*, 1969 (Nov), Vol. 10(6), 339-342.—Reviews technical aspects of voiding cystourethrography and examines the experiences of radiologists in completing the procedure. It was found that ability to void during the procedure is affected by the Ss' age and parity. "Difficulty begins with adolescence, peaks in late adolescence and starts decreasing in the thirties." The sex and experience of the examiner are also important. The behavioral responses to the inability to urinate are examined. It is concluded that a wide variety of psychological maneuvers which relax and distract the S increase the success rate.—G. Steele.

1242. Roxburgh, Peter A. (Foothills Hosp., Calgary, Alberta, Canada) **Treatment of persistent phenothiazine-induced oral dyskinesia.** *British Journal of Psychiatry*, 1970 (Mar), Vol. 116(532), 277-280.—Compares the features of persistent oral dyskinesia and functional oral movements. The literature on the drug control of oral dyskinesia is reviewed. In a double-blind interrupted cross-over trial in 2 established cases of oral dyskinesia, thiopropazate dihydrochloride was found to be highly effective.—*Journal summary*.

1243. Schoenberg, Bernard; Carr, Arthur C., Peretz, David, & Kutscher, Austin H. (Eds.) **Loss and grief: Psychological management in medical practice.** New York, N.Y.: Columbia U. Press, 1970. xi, 398 p. \$12.50.

1244. Weinstein, Sidney; Vetter, Robert J., & Sersen, Eugene A. (New York Medical Coll., Neuropsychological Lab.) **Phantoms following breast amputation.** *Neuropsychologia*, 1970 (Apr), Vol. 8(2), 185-197.—Of 203 women with unilateral mastectomy, 33.5% reported phantom of the missing breast. With left mastectomy, the incidence of phantom was significantly higher in younger women. Premenopausal women in general, regardless of age, also demonstrated a significantly greater incidence of breast phantom. The following significant results were obtained concerning the character of the phantom: (a) phantoms after left mastectomy appeared earlier than those after right; (b) the longer the neoplasm existed prior to mastectomy, the longer the subsequent phantom existed postoperatively; (c) older Ss at time of mastectomy retained phantoms longer; and (d) phantoms of the nipple were paresthetic more often than those of the

total breast, which were more frequently perceived as natural. Variables not significantly associated with phantom incidence included: (a) duration of preoperative breast neoplasm, (b) preoperative quality of breast sensations, (c) breast volume, (d) number of breast-fed children, and (e) time between mastectomy and interview. (French & German summaries) (18 ref.)—*Journal abstract.*

1245. **Wendkos, Martin & Wolff, Kurt.** (Veterans Administration Hosp., Coatesville, Pa.) **Emotional problems in patients with angina pectoris.** *Psychosomatics*, 1969 (Nov), Vol. 10(6), 334-338.—Compared psychiatric data from 13 patients with angina pectoris and 7 patients with rheumatic heart disease to determine whether Ss with angina pectoris exhibit specific psychological characteristics. It was found that anginal Ss exhibited a "distinctive premorbid psychodynamic pattern" consisting of "a combination of unfulfilled oral needs, repressed hostility, a highly developed superego, and an exaggerated degree of compulsiveness." The need for recognition by the physician of these elements for proper treatment is emphasized. 2 illustrative cases are included.—*G. Steele.*

COMMUNITY SERVICES

1246. **Jungjohann, Eugen E.** (U. Düsseldorf, Psychiatrische Klinik, W. Germany) **Patientenselektion zur Aufnahme in eine Tagesklinik als alternative zur stationären Behandlung in einem Landeskrankenhaus.** [Patient selection for acceptance in a day clinic as an alternative to institutionalization in a state mental hospital.] *Nervenarzt*, 1969 (Feb), Vol. 40(2), 82-87.—Discusses criteria for selection of patients for daily outpatient psychiatric care as an alternative to hospitalization. Ss with family difficulties, manic depressive psychoses, and psychoneuroses are deemed especially amenable to outpatient care, while psychotic depressives with suicidal fantasies, chronic brain syndrome patients, chronic alcoholics, drug addicts, and retardates are deemed unsuitable for daily outpatient psychotherapy. The program should be designed to provide maximum flexibility so that patients who do not appear to benefit from outpatient care can then be institutionalized.—*B. A. Stanton.*

1247. **Lees, A.** (Hounslow Child Guidance Centre, London, England) **Looking towards integration: Experiments by a child guidance centre.** *British Journal of Psychiatric Social Work*, 1968 (Spr), Vol. 9(3), 133-138.—Discusses the changing role and function of a child guidance clinic team, with emphasis on furthering specialist roles, improving organization, and sharing professional knowledge with other agencies. The efforts of 1 clinic to achieve extended coordination with allied specialties in the community are examined.

1248. **Ma, Helen & Edmonds, Carl.** (Drug Referral Centre, Rushcutters Bay, New South Wales, Australia) **Drug referral centre.** *Medical Journal of Australia*, 1969 (Aug), Vol. 2(6), 289-291.—Describes the concept and work of the Bayside Cottage Drug Referral Center. Those who attend are adolescents and young adults who have gravitated to the inner Sydney area and include drug use in their behavior pattern.—*Journal abstract.*

1249. **Millard, D. W.** (Rubery Hill Hosp., Birmingham, England) **The clinician in the community.** *British Journal of Psychiatric Social Work*, 1968 (Spr), Vol. 9(3), 124-129.—Explores the relationship of the psychiatrist to

the community and reviews limitations in primary prevention and opportunities in psychogeriatrics. Greater flexibility and decentralization of services are urged.

1250. **Rutherford, Thelma V.** (Health & Welfare Council, Information & Referral Service, Washington, D.C.) **Values of information, referral, and follow-up services.** *Rehabilitation Literature*, 1968 (Dec), Vol. 29(12), 363-364, 383.—Presents the objectives of Information and Referral Services (IRS) as: (a) "providing information, referral, followup, and limited 'specialized' services to individuals and agencies"; (b) expediting the institution of services rapidly and in "accordance with one's real need"; (c) evaluating and determining follow-up; (d) determining gaps in service; and (e) assisting "agencies in becoming familiar with availability of resources in the community." IRS is viewed as an agency in microcosm, exhibiting the problems presented in the community. Methods are demonstrated in 2 examples.—*G. Steele.*

GERIATRICS

1251. **Andres, Reubin.** (National Inst. of Child Health & Human Development, Baltimore City Hosp., Md.) **Physiological factors of aging significant to the clinician: Summary of remarks.** *Journal of the American Geriatrics Society*, 1969 (Mar), Vol. 17(3), 274-277.—Reviews misconceptions concerning the "biological pattern of life" common to most medical students which lead to a discrepancy in research advances on aging and progress in the introduction of this knowledge into medical school curriculum. Better S selection and longitudinal study techniques are suggested as partial solutions to the unreliability of many studies. The problem of standards of normality is discussed.—*G. Steele.*

1252. **Brackenridge, C. J. & McDonald, C.** (U. Melbourne, Victoria, Australia) **The concentrations of magnesium and potassium in erythrocytes and plasma of geriatric patients with psychiatric disorders.** *Medical Journal of Australia*, 1969 (Aug), Vol. 2(8), 390-394.—Groups of female geriatric patients with toxic confusional states, senile dementia (with subdivision according to parietal lobe function), and chronic schizophrenia were matched with mentally healthy persons with respect to number, sex, and age. Magnesium and potassium concentrations were measured in red blood cells and plasma of ill and control Ss. Significantly high intracellular potassium and less consistently raised magnesium levels were found in all psychiatric categories. In chronic schizophrenia, hypermagnesemia was also demonstrated. Possible reasons for these anomalies are considered. Strong linear correlations were observed between each of 3 variables: duration of institutionalization and erythrocyte potassium and water contents, in mentally normal persons and between the latter pair in 2 groups of demented patients. In senile dementia, Ss with preserved parietal lobe function had a higher mean age and corpuscular potassium and water content than those and nonconfused demented patients. (35 ref.)—*Journal abstract.*

1253. **Finch, A. J., Welsh, D. Kent; Haney, J. R., & Dinoff, Michael.** (U. Alabama) **Comparison of two versions of a minimal social behavior scale.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 985-986.—Administered to 16 geriatric patients, distinguished by different degrees of social behavior, the Minimal Social

Behavior Scale (MSBS) in its original and a modified form employing a time factor. Results demonstrate the usefulness of the MSBS in discriminating levels of social behavior and the increased sensitivity by adding a time factor weighting.—*Journal abstract.*

1254. Linn, Margaret W. & Gurel, Lee. (Veterans Administration Hosp., Miami, Fla.) **Initial reactions to nursing home placement.** *Journal of the American Geriatrics Society*, 1969 (Feb), Vol. 17(2), 219-223.—Over a 2-yr period 238 male patients transferred from a general medical hospital to nursing homes were studied prior to placement and 1 wk. later. Ratings of the Ss by nurses, according to a disability scale, indicate no significant changes in the level of disability by the end of the 1st wk. This applied not only to the whole group of patients but to 2 subgroups: those with favorable, and those with unfavorable attitudes toward nursing homes. Other criteria, i.e., death in the nursing home or readmission to the hospital, also indicate stability in the condition of the patients. It would seem that negative reactions are measurable only at some time later than 1 wk. after placement. It is recommended that rehabilitative or supportive efforts be offered early in nursing home placement.—*Journal abstract.*

1255. Shore, Herbert H. (North Texas State U.) **Measuring institutional adjustment of the geriatric population in homes for the aged.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5228.

EDUCATIONAL PSYCHOLOGY

1256. Adams, Henry L., Mason, Evelyn P., & Blood, Don F. (Western Washington State Coll.) **Personality characteristics of American and English, bright and average college freshmen.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 831-834.—313 students in 3 American colleges and 1 English grammar school completed 3 personality tests. Published norms for the tests appeared to be outmoded because of changes in student personality characteristics during the past decade. Results indicate that brighter students have more personal adjustment problems and are more independent.—*Journal abstract.*

1257. Atkins, Jan W. (U. Tennessee) **A forced choice-technique for determining reinforcement priorities of primary school children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4820.

1258. Brody, Jozef. (U. Karlova, Prague, Czechoslovakia) **Error frequency: Regulator of the teaching algorithm.** *Kybernetika*, 1968, Vol. 4(6), 548-569.—Describes the mathematical formulation of the effectivity problem in the teaching process. The construction of a mathematical model of learning is presented. The resulting construction of the non-Markov algorithm is performed by means of an automatic computer. (Czech summary)—*Journal abstract.*

1259. Crown, Barry M. (Florida State U.) **An evaluation of selected cognitive and social dimensions in poverty intervention project participants.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4824.

1260. Etter, David C. (U. California, Los Angeles) **Adult learner characteristics and instructional objectives.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4754.

1261. Fiebert, Martin S. (California State Coll., Long

Beach) **The college classroom: Models of education—techniques for change.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 819-827.—Examined 3 models of education and the ideas of J. Farber and M. McLuhan to clarify some basic problems facing educators and students. Creative and courageous changes by individual instructors in their classrooms result in a more meaningful learning environment, increased satisfaction for teacher and learner, and greater role flexibilities resulting in more accurate personal perception and acceptance. Such changes could contribute to the modification of existing institutions. (27 ref.)—*Journal abstract.*

1262. Friedenberg, Edgar Z. (State U. New York, Buffalo) **The economic context of the student role.** *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 47-52.—Education in our society could be viewed as a form of involuntary servitude in addition to being viewed as a form of investment in one's future. Students accept a marked decline in standard of living and forego earnings of some \$1000-4500 a yr. Their future gains, however, seem more clearly attributable to the credential they gain by acceptance of the student status than to demonstrable consequences of their educational experience. The notion of paying students to attend school is discussed.—*Journal abstract.*

1263. Frolova, O. N. K. Krupskaya o voprosakh pedagogiki. [N. K. Krupskaya on the problems of pedagogy.] *Doshkol'noe Vospitanie*, 1970 (Feb), Vol. 43(2), 95-98.—Presents a survey of selected writings of Lenin's wife on pedagogical theory and its realization in practice.—*J. D. London.*

1264. Goldin, Paul. **The school as resistant patient: A model for the participation of mental health professionals in reducing racial and ethnic tensions.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 146-152.—Describes the activities of a team of volunteer mental health professionals in a large urban junior high school who identified and ameliorated racial and ethnic tension. The problems encountered and the methods evolved to deal with them are explicated.—*H. Kaczowski.*

1265. Leclair, Lowell V. (Michigan State U.) **A study of the relationship of three factors—perceived need deficiency, importance of need fulfillment, perception of education as a mobility facilitator—to participation in educational activities.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4756-4757.

1266. Leveque, Kenneth L. & Walker, Ronald E. **Correlates of high school cheating behavior.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 159-163.—Studied the correlates of cheating behavior of 336 high school boys on a geometry test. Results support the general findings of previous investigations, i.e., students when given the opportunity will tend to cheat. Teacher ratings of student honesty and cheating score correlated at .42, $p < .01$.—*H. Kaczowski.*

1267. Mindlina, T. **Obuchenie i podgotovka detei k shkole vo Frantsii.** [Teaching and preparation of children for school in France.] *Doshkol'noe Vospitanie*, 1970 (Jan), Vol. 43(1), 94-98.—Critically discusses the French preschool situation and that of the 1st yr. ("the preparatory grade") in the elementary school. Official psychological and pedagogical assumptions are questioned.—*J. D. London.*

1268. Muller, Sarah D. & Madsen, Charles H. **Group desensitization for "anxious" children with reading**

problems. *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 184-189.—Assigned 28 7th graders (16 boys; 12 girls, mean age = 12.8) to either a desensitization group or a reading placebo group. As a general finding, the placebo treatment was as effective in reducing reports of behaviors generally called anxiety. It is concluded that "reading anxiety was perhaps more amenable to 'in vivo' rehearsal without relaxation."—H. Kaczkowski.

1269. Nevskii, V. *Literatura po doshkol'nomu vospitaniyu*. [Literature on preschool education.] *Doshkol'noe Vospitanie*, 1970 (Feb), Vol. 43(2), 127-128.—Presents a list of Soviet publications appearing in the 2nd quarter of 1969, although date of publication in some cases is earlier than 1969.—I. D. London.

1270. Samorukova, P. O znakomlenie detei o prirodoi po metodu E. I. Tikhevoi. [Acquainting children with nature by the method of E. I. Tikheeva.] *Doshkol'noe Vospitanie*, 1970 (Jan), Vol. 43(1), 44-47.—Discusses the views of E. I. Tikheeva on the role of nature in preschool training, as presented in her various publications in the 1920s.—I. D. London.

1271. Sax, Arnold B. (U. Houston) A comparative study of personality characteristics between seventh-grade students classified as educationally deprived and non-educationally deprived. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4838.

1272. Schutz, Richard E. Computer-assisted educational research (CAER). *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 108-111.—Describes the characteristics of the CAER system whose purpose is to select a problem, design the study, and analyze the data.—H. Kaczkowski.

1273. Smirnov, A. A. (Ed.) *Voprosy detskoj i pedagogicheskoj psikhologii na XVIII Mezhdunarodnom kongresse psikhologov*. [Problems of child and pedagogical psychology in the 18th International Psychological Congress.] Moscow, USSR: Prosveshchenie, 1969. 256 p.—Presents a collection of 4 survey articles, covering and critically assessing the various papers on child and pedagogical psychology read at the 1966 Congress held in Moscow. Included is a glossary of technical terms.—I. D. London.

ATTITUDE & ADJUSTMENT

1274. Betz, E. L., Klingensmith, J. E., & Menne, J. W. (Iowa State U.) The measurement and analysis of college student satisfaction. *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 110-118.—Analyzed the development and current status of the College Student Satisfaction Questionnaire as part of a project directed at the systematic study of college student satisfaction as an analog to job satisfaction. Construct validity was suggested by analysis of covariance results indicating that type of residence and year in school, but not sex, were significantly related to scores on several satisfaction dimensions.—S. M. Amatora.

1275. Centra, J. A. & Linn, R. L. (Educational Testing Service, Princeton, N.J.) On interpreting students' perceptions of their college environments. *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 102-110.—Explored the relationships between student-perceived college environment as measured by the College and University Environment Scales (CUES) and objective institutional characteristics. CUES scores for 75 colleges were related to college mean scores of

entering freshmen on the Scholastic Aptitude Test, sex composition of students in attendance, religious affiliation, and size of entering class. Although multiple correlations were all relatively high, there was substantial variance on the 5 CUES scales not predictable from the set of 5 institutional characteristics.—S. M. Amatora.

1276. Densch, Berthold & Garth, Julia. A multidisciplinary approach to truancy. *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 194-197.—Describes the multidisciplinary team approach used to attack attendance problems in Chicago's public elementary schools.—H. Kaczkowski.

1277. Golding, Eugene B. (Mississippi State U.) An analysis of the utilization of video-tape and still-camera activities on personality adjustment of selected seventh grade students. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4718-4719.

1278. Hirsch, Steven J. & Keniston, Kenneth. (Northern Virginia Mental Health Inst., Falls Church) Psychosocial issues in talented college dropouts. *Psychiatry, Washington, D.C.*, 1970 (Feb), Vol. 33(1), 1-20.—40 Yale undergraduates were studied throughout a period during which they were deciding whether or not to continue college. 31 of the Ss did eventually drop out. 25 of the 40 Ss were interviewed and the others were assessed from Health Service records. In all cases dropping out was a serious decision involving a crisis situation. The major areas of psychosocial problems were seen to be: (a) problems in identification with the father, (b) disengagement from academic involvements in response to conflict, and (c) transference of family conflict to the institution as a parentis in locis (exacerbated by the fact that student attendance at Yale tends to be in the "family tradition"). Dropouts were also seen as being developmentally out of phase with the college's demands on their maturity. (30 ref.)—E. Uprichard.

1279. McDaniel, Norman H. (North Texas State U.) Factors relating to personal-social adjustments of first- and second-grade children in self-contained and term-teaching classrooms. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5226.

1280. Phillips, Gerald M. (Pennsylvania State U.) Student attitudes and moods. *Acta Symbolica*, 1970 (Spr), Vol. 1(1), 31-46.—Describes the use of an extracurricular free self-expression procedure to encourage communication with instructors. The reflection in these "ramblings" of changes in student attitudes and moods over 5 yr. is discussed. The most important single characteristic of college students seems to be a paradoxical preoccupation with the impact they make on others coupled with a concern for self-realization. A collection of 33 examples of these student writings is included.—M. Cynamon.

1281. Rubin, Dorothy. (Trenton State Coll.) Halo effect in self-rated attitudes of certain black college freshmen. *Psychological Reports*, 1970 (Jun), Vol. 26(3), 940.—Administered a survey of study habits and attitudes to 29 Negro undergraduates enrolled in a required noncredit, developmental reading course. All extreme responses were isolated to determine whether any patterns existed among Ss' definite responses. Ss' replies were almost diametrically opposite to their observed behavioral patterns, indicating Ss were answering in ways Ss felt were the expected direction, thus exhibiting a pronounced halo effect.—Author abstract.

1282. Sanford, Edward W. & Seiders, Nancy D.

Change in value status of elementary school children after introduction to a value-oriented rationale. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4837-4838.

1283. Soares, Louise M. & Soares, Anthony T. **A study of students' sex attitudes and teachers' perceptions of students' sex attitudes.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 172-174.—75 disadvantaged high school students were given a special unit of instruction on sex. Results indicate that the training sessions changed the sex attitudes of the students. Middle-class teachers perceived quite accurately the sex attitudes of disadvantaged students.—H. Kaczowski.

TESTING

1284. Carpenter, James B. (Purdue U.) **The effects of multiple-choice test item format on test validity.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5272.

1285. Connett, William E. (Southern Illinois U.) **The relationship of selected personological, context, and focal stimulus variables to cognitive test performance: A theoretic framework and experimental study.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4823-4824.

1286. Efron, Marvin. (U. South Carolina) **The influence of communication ability on the incidence of over-referral in the use of the school vision tester.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4825.

1287. Maier, Norman R. & Casselman, Gertrude G. (U. Michigan) **The SAT as a measure of problem-solving ability in males and females.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 927-939.—Attempted to determine (a) the relationship between mental operations involved in solving 5 insight problems and those used in taking the Scholastic Aptitude Test (SAT), and (b) whether the sex difference in problem-solving performance is still present in undergraduates when SAT scores are equated. 264 male and 210 female Ss were tested. It was found that the SAT Math scores were correlated with problem-solving ability for both sexes, while the SAT Verbal showed little correlation for either sex. All problems contributed to the Math form correlation. Females scored significantly lower than males on the Math form and on the insight problems but did equally well on the Verbal. Matching of scores on the Math form did not remove the sex difference in problem-solving ability. When these scores were divided into subgroups by level, females with high Math scores were responsible for most of the male-female difference in problem solving. Further analysis to determine reasons for this sex difference suggested a qualitative difference in cognitive style as opposed to differential motivation. Females seem to rely relatively more on recall and males on problem solving when taking the SAT Math. (18 ref.)—*Journal abstract*.

1288. Souren, Grégor; van der Kloot, Wim, & van Bergen, Annie. **Proefleiders zonder pl-verwachtings-effect.** [Examiners without the "examiner-expectation" effect.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970 (May), Vol. 25(5), 324-325.—Reports on the effect of the expectation of the examiners on the performance of the testees. It reported that the

expectations of the examiners had no effect on the performances of those examined.—A. J. Ter Keurst.

1289. Waugh, Douglas & Moyse, C. A. (Dalhousie U., Halifax, Nova Scotia, Canada) **Medical education. II: Oral examinations: A videotape study of the reproducibility of grades in pathology.** *Canadian Medical Association Journal*, 1969 (Apr), Vol. 100(14), 635-640.—Investigated the ability of oral examinations to predict performance by examining individual videotape interviews of 8 medical students by 11 examiners. Results indicate wide divergency and lack of consistency with the exception of Ss' near the top of the class. Ss' perceptions of their own behavior on the videotapes was discussed. It is concluded that "the oral examination can provide the opportunity for the assessment of student characteristics not easily evaluated by other means."—G. Steele.

SPECIAL EDUCATION

1290. Alper, Theodore G. (U. Oregon) **A comparison of two treatment approaches for the behavior problems of elementary school children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4762.

1291. Boskis, R. M., Vlasova, T. A., Rozanova, T. V., & Shif, Zh. I. **Problemy psikhologii anomal'nykh detei.** [Problems in the psychology of nonnormal children.] In A. A. Smirnov (Ed.), *Voprosy detskoi i pedagogicheskoi psikhologii na XVIII Mezhdunarodnom kongresse psikhologov.* (See PA, Vol. 45:1) 184-251.—Presents a critical survey of the papers read at the Congress on "special psychology," investigating the influence of sensory defects, speech disorders, and mental retardation on psychological development in children.—I. D. London.

1292. Furneaux, Barbara. **The special child.** Baltimore, Md.: Penguin, 1969. 208 p. \$1.25(paper).

Gifted

Remedial Education

1293. Graeme, Sharron C. & Harris, Mary B. (U. New Mexico) **Improving word recognition in retarded readers.** *Reading Teacher*, 1970 (Feb), Vol. 23(5), 418-421, 464.—To determine the efficacy of instructing retarded readers in the use of dictionary pronunciation symbols, 20 4th graders reading at least 1 yr. below grade level were randomly assigned to 1 of 2 groups. The control group was told that increased oral reading would facilitate word pronunciation, and each S read aloud during sessions. The experimental group received instructions in 4 approximately equal phases: presentation of symbols, finding pronunciations, group attempts to pronounce, and individualized pronunciations. Both groups received 4 wk. of daily 15-min sessions. Pre-and posttests on a list of 20 multisyllable words selected from the Ginn Reading Series indicate that both groups increased significantly in mean number of correct and attempted words, while the experimental group significantly improved over the control group only in mean words attempted. It is suggested that since both groups significantly improved, a combination of the 2 methods might prove most effective.—R. Wiltz.

1294. Ingram, T. T., Mason, A. W., & Blackburn, I. (U. Edinburgh, Scotland) **A retrospective study of 82**

children with reading disability. *Developmental Medicine & Child Neurology*, 1970 (Jun), Vol. 12(3), 271-281.—Studied 82 dyslexic children, 66 boys and 16 girls, preselected so as to be without adverse home environment, interrupted schooling, low IQ, or poor motivation. The most severe reading disability could exist without neurological evidence of brain damage, and when brain damage was evident the dyslexia was more often associated with backwardness in other school subjects.—P. W. Pruyser.

1295. Radin, Norma. (U. Michigan, School of Social Work) **Some impediments to the education of disadvantaged children.** *Children*, 1968 (Sep), Vol. 15(5), 170-176.

1296. Weithorn, Howard B. (U. Southern California) **The functional aspects of Adlerian constructs in understanding and assisting disadvantaged children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4786.

Sensory & Physical Handicaps

1297. Avery, Constance D. (Connecticut Inst. for the Blind, Hartford) **A psychologist looks at the issue of public vs. residential school placement for the blind.** *New Outlook for the Blind*, 1968 (Sep), Vol. 62(7), 221-226.—Discusses the social and academic advantages and disadvantages of public vs. residential school placement for the legally blind.

1298. Eachus, Herbert T. (U. Massachusetts) **The effects of token reinforcement and verbal remediation on the rate, accuracy, and length of sentence composition by deaf children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4825.

1299. Franks, Frank L. & Nolan, Carson Y. **Development of geographic concepts in blind children.** *Education of the Visually Handicapped*, 1970 (Mar), Vol. 2(1), 1-8.—"Blind students' need for knowledge in discrimination of forms, textures and symbols used in embossed maps has given direction and emphasis to this research." 2 studies were conducted to examine blind students of various ages and grade levels knowledge of directional and geographical concepts. Under directional concepts, most Ss mastered the concept of right and left, yet were less knowledgeable in the concept of north, south, etc. (although sufficiently knowledgeable). Under the geographical concepts, Ss given a list of 70 terms to define and describe showed far less ability than in the previous study. It is concluded that: (a) higher scores at some grade levels appeared to be a result to repetition of terms in curriculum content, (b) increased repetition contributed to higher overall gains, although short-lived, and (c) much repetition and reintroduction of terms produced higher scores which diminished noticeably over relatively short periods of time.—P. Shibelski.

1300. Lewis, Marian. (Tennessee School for the Blind, Donelson) **Must visually handicapped students be low achievers in math?** *Education of the Visually Handicapped*, 1970 (May), Vol. 2(2), 60-61.—Although blind students have proven their ability to compete with sighted students in literary subjects, they seem to show consistently lower scores (up to 20% lower) in mathematics. A study of apparatus used for calculation in Braille classes was conducted to determine the most efficient type and to aid in improving of apparatus and methods. A survey was conducted to ascertain the various apparatus and methods used in both public and

residential school, which revealed a great diversity of apparatus and teaching methods. There appeared to be no uniform method or level at which various methods and apparatus were used. The principal means of calculation was the Braillewriter, but the cubarithm slate, Crammer abacus, etc. were also utilized. More differentiation in testing methods and further study was advised.—P. Shibelski.

1301. Romig, Denise A. & Van Atta, Ralph E. (New Mexico School for the Visually Handicapped, Alamogordo) **A validity study of the "Adolescent Emotional Factors Inventory."** *Education of the Visually Handicapped*, 1970 (May), Vol. 2(2), 38-46.—Investigates the validity of the Adolescent Emotional Factors Inventory (AEFI), developed by M. Bauman, H. Platt, and S. Strauss, as an indicator/predictor of adjustment or maladjustment of visually handicapped youths to school. The AEFI is comprised of 10 scales: Sensitivity, Somatic Symptoms, Social Competency, Attitudes of Distrust, Family Adjustment, School Adjustment, Morals, Attitudes about Blindness, and Validation. The AEFI was administered to 155 blind adolescents (mean age = 16). Results are presented in the form of the intercorrelation matrix of the 9 subscales. All intercorrelations were significant (.01 level), indicating that the AEFI is affective for assessment of adjustment and maladjustment in visually handicapped adolescents.—P. Shibelski.

1302. Steele, Nancy W. (George Peabody Coll. for Teachers) **Learning by blind children of low ability: The relative efficiency of reading and listening.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4840-4841.

Mental Retardation & Learning Disorder

1303. Beter, Thais R. (Louisiana State U.) **The effects of a concentrated physical education program and an auditory and visual perceptual reading program upon academic achievement, intelligence, and motor fitness of educable mentally retarded children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4706-4707.

1304. Brown, John L. (U. Southern California) **The Frostig program for the development of visual perception in relation to visual perception ability and reading ability.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4822.

1305. DeVoss, Henry. (U. Oregon) **A study of social contingencies observed in work-study environments of mentally retarded high school students.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4824.

1306. Funk, Dean C. (U. Oregon) **The effects of a physical education program on the educational improvement of trainable mentally retarded children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4810.

1307. McElroy, Arthur A. (U. Oregon) **Comparison of grade equivalent scores among batteries on two subtests of the Metropolitan Achievement Tests with educable mentally retarded children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4688-4689.

1308. Olson, David O. (Texas A & M U.) **An experimental study to determine success or performance with selected woodworking hand tools by**

children with specific learning handicaps. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4803.

1309. Smith, Etoyal G. (U. Alabama) **A comparison of two methods of teaching motor skills to trainable retarded children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4817.

1310. Whyte, Lillian A. (Columbia U.) **The development of classification ability in children of below average intelligence.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4700-4701.

1311. Younie, William J. (Teachers Coll., Columbia U.) **A tentative description of the school-work study teacher of the mentally retarded.** *Mental Retardation*, 1968 (Oct), Vol. 6(5), 15-19.—Describes characteristics, problems, and suggestions for improving teacher preparation that were elicited from 103 inservice, work-study teachers. Teachers indicated that although they are quite similar in outward characteristics to other secondary school teachers they have unique needs which must be provided for in teacher preparation, certification, and supervision programs.—*Journal abstract*.

Emotional Disorder

1312. Haley, Betty B. (Louisiana State U.) **The effects of individualized movement programs upon emotionally disturbed children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4811.

COUNSELING & GUIDANCE

1313. Brewer, Ted E. (North Texas State U.) **Relationships among individual short-term counseling, academic achievement, personality factors, and college persistence of certain junior college students.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4765-4766.

1314. Ellison, Martha. (Kentucky Dept. of Education, Frankfort) **The counselor as seen by a curriculum development specialist.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 66-72.—Considers the various roles of the counselor defined as "that person within the full-time staff of the school who is charged with helping pupils in an organized way in selecting and interpreting their experiences, in the formation of healthy attitudes, and in their growth toward intellectual, emotional, moral, and physical maturity."—*P. McMillan*.

1315. George, Flavil H. (North Texas State U.) **The relationship of the self concept, ideal self concept, values, and parental self concept to the vocational aspiration of adolescent Negro males.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4772.

1316. Grace, Evelyn R. (North Texas State U.) **The relationship between personality traits and vocational interests in the choice of field of study of selected junior college students in business administration.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4827.

1317. Hull, Joshua S. (Michigan State U.) **An investigation of identification of male college students with their fathers as a variable influencing vocational interests and vocational counseling.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4775.

1318. Jansen, D. G. & Robb, G. P. (Ft. Worth Psychological Services Center, Tex.) **Differences between counseled and non-counseled students on the MMPI.** *Journal of Clinical Psychology*, 1970 (Jul), Vol. 26(3), 391-393.—56 male and 59 female matched pairs of counseled and noncounseled university students were compared on the basis of MMPI scores. Counseled males and counseled females had significantly higher scores on all but 3 and all but 4 MMPI scales, respectively. Counseled Ss had a greater incidence of MMPI scores 2 or more standard deviations above the mean. It is suggested that the maladjustment of the counseled students cannot be easily dismissed and the college counselors might be involved to a greater degree with clients suffering serious emotional difficulties than is widely assumed.—*E. J. Kronenberger*.

1319. Kondrat'eva, L. L. & Klimov, E. A. **Pervoe vsesoyuznoe soveshchanie po voprosam profilaktitsii i profkonsul'tatsii v shkole.** [First All-Union Conference on Problems of Vocational Counseling in Schools.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 178-180.—Presents the proceedings of a 1969 meeting held in Leningrad. Summaries of the 203 papers presented appeared in a special publication.—*L. Zusne*.

1320. Mechanick, Phillip, et al. (U. Pennsylvania, Medical School) **Concepts in university mental health services.** *JAMA*, 1969 (Jun), Vol. 208(13), 2453-2456.—A group of medical students under faculty supervision has developed an experimental advisory service to assist troubled college students who are reluctant to seek formal psychiatric care because of fears of its "stigma," suspicion of university administration, and/or a belief that older professional personnel cannot understand the problems of their generation. Walk-in centers ("talking points"), located at strategic areas on campus, are manned during key hours. Complete anonymity of contacts is guaranteed. Psychiatric staff members hold regular supervisory sessions to review cases. In the 1st 14 wk. of operation, 71 clients (1% of the undergraduate population) were seen. Problems have included depression, social maladjustment, incipient psychosis, fear of pregnancy, and suicidal attempts. Clients requiring professional care are referred.—*Journal abstract*.

1321. Miller, F. T., Pinkerton, Rolff S., & Hollister, W. G. (U. North Carolina) **An "action-facilitation" entry pattern of mental health consultation.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 359-362.—Describes a program of school mental health consultation in which the consulting team initiates the program rather than responding to invitation. Such a requirement entails developing sanctions to consult, obtaining points of entry into the consultee's system, and devising flexible operating approaches. The program focuses on the importance of preventive mental health, continuous rather than short-term orientation, and the consultant as a helper rather than an administrator within the system.—*P. McMillan*.

1322. Nelson, Dennis E. & Jones, G. Brian. **Selected guidance system components related to instruction.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 153-158.—Describes a design for a comprehensive guidance system which will be an integral part of an individualized education system. A number of developmentally oriented components are explicated and explained. The "personal problem solving behaviors" component has been selected for initial study and program development.—*H. Kaczowski*.

1323. Salim, Mitchell. (West Irondequoit Central School District, New York) **Program development via a guidance model.** *Counselor Education & Supervision*, 1968 (Fall), Vol. 8(1), 61-65.—Presents results of a 2-yr study on the "role and contribution of the school counselor as it relates to the school's concern for motivation, under-achievement, and other all-school problems."—P. McMillan.

1324. Snyder, Benson R. & Kahne, Merton J. (Massachusetts Inst. of Technology) **Stress in higher education and student use of university psychiatrists.** *American Journal of Orthopsychiatry*, 1969 (Jan), Vol. 39(1), 23-35.—Reports demographic and personality characteristics of student users and nonusers of a college psychiatric service. Techniques used to clarify the importance of the social structure of the college environment in stressing, shaping, or retarding the intellectual and emotional development of its students are described.—*Journal abstract*.

PERSONNEL

1325. Carson, Mary R. (U. Washington) **A descriptive study of roles: Elementary school counselors, psychologists, and social workers.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4767.

1326. DiGiorgio, Anthony J. (Purdue U.) **Discriminant function analysis of measured characteristics among committed career groups with requisite graduate training.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4769-4770.

1327. Galhoff, Peter E. (Purdue U.) **An analysis of the personal and situational factors influencing school counselors' career patterns.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4771-4772.

1328. Hyman, Irwin A. (Temple U.) **The traineeship in school psychology: A report on growth and growing pains.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 351-353.—Examines problems involved in field placements for trainees in school psychology, including inadequate role definition and supervision, and inappropriate selection of training sites. The merits of the university model are presented with the conclusion that this model may be the most effective for training in school psychology.—P. McMillan.

1329. Lindstrom, Allan R. (U. Denver) **Identifying characteristics and role perceptions of two-year college counselors.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4778-4779.

1330. Malley, Patrick B. (U. Pittsburgh) **The relationship of selected personality variables to employment as a school counselor and persistence in graduate education.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4779-4780.

1331. Roberts, Robert D. **Perceptions of actual and desired role functions of school psychologists by psychologists and teachers.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 175-178.—Obtained 135 school psychologists' and elementary school teachers' perceptions of the role functions of a school psychologist by means of a questionnaire. Results show that psychologists and teachers report considerable diversity in the functions performed and responsibilities assumed by the school psychologist. The same type of discrepancy exists between the 2 groups when the ideal function is examined. School psychologists report they should be

more involved in the mental hygiene role.—H. Kaczowski.

1332. Weick, Ray K. (North Carolina State U.) **A study of personal values and their relationship to perception of organizational elements.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4761.

Teachers & Teacher Training

1333. Barnett, S. A. (U. Glasgow, Scotland) **The "instinct to teach."** *Nature*, 1968 (Nov), Vol. 220(5169), 747-749.—Considers whether teaching is a prerogative of man by deciding what behavior can be accepted as teaching in another species. The concept of teaching contains the notion that the teacher's behavior is guided by the pupil's performance. Teaching seems to occur when an animal is punished for approaching or obstructing another. Other kinds of teaching are aided by imitation, or learning by observation. The ontogeny of imitation on and of teaching among human beings is suggested for further study. (27 ref.)—*Journal abstract*.

1334. Barrett, Thomas C. (North Carolina State U.) **Relationship between perceived faculty participation in the decision-making process and job satisfaction in the community colleges of North Carolina.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4821-4822.

1335. Bond, Patricia Y. (North Texas State U.) **The effects of feedback on teachers' verbal behavior and attitudes toward in-service education.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4850.

1336. Brown, William E. (Indiana U.) **The influence of student information on the formulation of teacher expectancy.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4822-4823.

1337. Bruce, Larry R. (Michigan State U.) **A determination of the relationships among SCIS teachers' personality traits, attitude toward teacher-pupil relationship, understanding of science process skills and question types.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4850-4851.

1338. Buckley, Eugene F. (North Texas State U.) **The relationship between student-teacher perceptions and pupil perceptions of the student teacher.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4672-4673.

1339. Harris, Albert J. **The effective teacher of reading.** *Reading Teacher*, 1969 (Dec), Vol. 23(3), 195-204.—Discusses characteristics of the effective reading teacher and reviews the related research. Findings suggest that supervisor ratings of teachers do not significantly correlate with student improvement, and that a more acceptable, though incomplete, criterion would be student improvement on achievement tests. Other findings indicate that the effective teacher: (a) uses mild rather than harsh criticism; (b) has an unemotional, quiet tone of voice; (c) engages in frequent verbal interaction with pupils; and (d) asks a variety of questions. Studies also indicate that the beginning teacher might become more effective through training in micro-teaching, programed tutoring, or self-criticism of recorded lessons. It is suggested that teachers might be kept enthusiastic and interested if encouraged to try new ways of increasing their own effectiveness. (18 ref.)—R. Wiltz.

1340. Kratoski, Peter C. (Pennsylvania State U.) **A study of professorial role satisfaction among faculty**

members at selected Catholic colleges. *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4791.

1341. Laubacher, M. Coronata. (Wayne State U.) **The relationship of personality and self-concept to the degree of competency in the student teaching of a selected group of Marygrove College seniors.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4858-4859.

1342. Smith, Charles F. (U. Massachusetts) **The degree of compromise and elements involved in job-satisfaction expectancy in the initial job interview process.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4745.

1343. Willis, Bill J. (George Peabody Coll. for Teachers) **The influence of teacher expectation on teachers' classroom interaction with selected children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5072.

SCHOOL LEARNING & ACHIEVEMENT

1344. Bemis, Katherine A. (U. New Mexico) **Relationships between teacher behavior, pupil behavior, and pupil achievement.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4764.

1345. Blanchard, Robert W. (U. Massachusetts) **Father availability and academic performance in third grade boys.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5232-5233.

1346. Granik, G. G. (Inst. of Psychology, Moscow, USSR) **Экспериментальное исследование путей выработки приемов умственного работы в связи с задачей программирования курса русского языка.** [Experimental study of ways of working out methods of mental application in connection with the goal of a programmed course of the Russian language.] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 70-94.—Presents materials from 2 series of experiments in which 150 5th-7th graders (50 high performers, 100 average and poor performers) participated. Level of grammatical competence is shown to be a great factor in the ability of pupils to independently work out methods of mental application in dealing with Russian grammar.—*J. D. London*.

1347. Hall, Hurst M. (U. Alabama) **Listening comprehension and reading achievement in first and second grade children of selected social class and intellectual levels.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4828.

1348. Hillman, Bill W. (U. Oregon) **Composition of the family constellation and its effect on school achievement: A test of an Adlerian hypothesis.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4829-4830.

1349. Jones, Richard H. (U. California, Los Angeles) **The effect of grouping practices in a community junior college on student dropout, achievement, and attitudes.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4722-4723.

1350. Kennedy, W. A. (Florida State U.) **A follow-up normative study of Negro Intelligence and achievement.** *Monographs of the Society for Research in Child Development*, 1969, Vol. 34(2), 40.—Presents "a reassessment of a representative sample of the stratified, random sample of 1,800 Negro elementary school children who were tested in the fall of the 1960 academic year. The mean of the Stanford-Binet, Form L-M, in 1960 was

79.2; in 1965 it was 79.4, a nonsignificant change. The standard deviation in the sample increased from 12.6 in 1960 to 14.3 in 1965, and the range in scores increased slightly. Although there was a tendency for the IQs to remain constant across grade level, as had been observed in 1960, there was again the obvious decline in IQ associated with chronological age.... The California Achievement Test data revealed a continuation of the trend, so clearly noticed in 1960, for Negro children to continue to fall behind academically, such that the amount of retardation at the 10th grade level is severe. Although the number of dropouts in the sample thus far has been small, nevertheless the children are clearly in serious academic difficulty when compared with the national normative sample."—*A. Barclay*

1351. Laurent, James A. (U. Oregon) **Effects of race and racial balance of school on academic performance.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4831.

1352. Little, Ellis & Nowell, Gadis. (U. Illinois, Chicago Circle) **Integration and scholastic performance: A pilot study of Chicago public high school graduates attending the University of Illinois, Chicago.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 887-891.—Examined GPAs of 897 white undergraduates representing 25 urban public high schools. Socioeconomic status and individual ability were considered. The scholastic performance of Ss who attended integrated high schools was compared with that of Ss who attended white-segregated high schools. With no refinement as to ability or socioeconomic status, Ss from integrated high schools performed as well as Ss who attended white-segregated high schools. However, when the above average ability—above average socioeconomic status groups—are compared, findings are barely significant (if $p = .05$). The question of whether there is some suppression of achievement associated with attendance at an integrated high school is raised.—*Journal abstract.*

1353. Niskanen, Erkki A. (U. Helsinki, Inst. of Education, Finland) **School achievement and personality: Description of school achievement in terms of ability, trait, situational and background variables: III. Operations at the factor level.** *Research Bulletin, U. Helsinki, Institute of Education*, 1968, No. 23, 39 p.—Describes the method-centered portion of a series of studies on school achievement as follows: (a) structure of school achievement, (b) relation to selected personality variables, and (c) application of multidimensional statistical operations. Ss were citizenship school pupils (compulsory school yr. 7 and 8), and included approximately 168 boys and girls. "The information provided by correlation coefficients, factor analyses, congruence coefficients and canonical analyses can be employed to describe school achievement in terms of the personality variables included in the study. The content of this information is presented in Part IV of the study." (53 ref.)—*P. McMillan*.

1354. Reimanis, Gunars. **Teacher-pupil interaction and achievement striving in the kindergarten.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 179-183.—Observed the achievement behavior of 45 kindergarten boys who had been rated as to their degree of internal reinforcement control (IRC). The achievement striving of high IRC boys was significantly related to the ratio of teachers' approval over disapproval. Low IRC boys needed frequent positive approval to become achievement oriented.—*H. Kaczowski*.

1355. Schowengerdt, George C. (U. Missouri) **The relationship of student and instructor PAS type to student achievement in calculus.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5228.

1356. van der Linden, F. J. (Hoogveld Inst., Nijmegen, Netherlands) **Intelligentie en school-prestaties van jonge schoolkinderen.** [Intelligence and scholastic performance of young schoolchildren.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970 (May), Vol. 25(5), 278-301.—Ss were 89 6-7 yr. old 1st graders, almost equally divided between the sexes. The translated forms of the Terman-Merrill Intelligence Test, the Science Research Associates Primary Abilities Test, and the Raven Coloured Progressive Matrices measured intelligence. School performance was tested by achievement tests standardized in the Netherlands. 6 factors with loadings above .40 were identified by factor analysis: school achievement, verbal reasoning, space insight, numerical values, "practical" thinking, and "elementary" understanding. The results of the testing of Dutch children on the intelligence tests were comparable to those of American children. No definite conclusions could be given about the generality or specificity of intelligence factors among the Ss. No special verbal and memory factors were evident. (28 ref.)—A. J. Ter Keurst.

Prediction

1357. Biggs, D. A., Roth, J. D., & Strong, S. R. (U. Minnesota) **Self-made academic predictions and academic performance.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 81-86.—Attempted to identify and measure self-made academic predictions of entering college freshmen. Scores on the College Opinion Survey (COS) were related to high school rank (HSR), GPA for 1st quarter in college, Scholastic Aptitude Test (SAT) scores, and scores on the Academic Achievement scale of the SVIB. COS scores were most significantly related to past performance (HSR). Self-made academic predictions did not increase multiple correlation predictions of GPA beyond that obtained with SAT, HSR, and Academic Achievement.—S. M. Amatora.

1358. Blue, Arthur W. (Iowa State U.) **Prediction of learning ability across culture.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5220.

1359. Gropper, Robert L. (George Peabody Coll. for Teachers) **Comprehension of narrative passages by fourth-grade children as a function of listening rate and eleven predictor variables.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4827.

1360. Khan, S. B. (Ontario Inst. for Studies in Education, Toronto, Canada) **Affective correlates of academic achievement: A longitudinal study.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 76-80.—A modified version of the Survey of Study Habits and Attitudes (SSHA) was administered to students in the 8th grades of 3 junior high schools. Factor scores obtained from factor analysis of the interitem correlations were used separately and in conjunction with aptitude measures to predict achievement scores obtained 4 yr. later. When cross-validated on new samples, the regression weights did not hold for predicting performance in natural science and mathematics for the new male sample. The attitudinal predictors did not significantly increase any multiple correlation for males and increased only 1 correlation for

females when used in conjunction with aptitude measures.—S. M. Amatora.

1361. Owen, Steven V., Feldhusen, John F., & Thurston, John R. (Purdue U.) **Achievement prediction in nursing education with cognitive, attitudinal, and divergent thinking variables.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 867-870.—Attempted to determine whether 2 attitude measures, designed for prediction of achievement in nursing education, and a set of divergent thinking (DT) tests could increase the predictive efficiency of an established set of cognitive measures. Data were gathered from 5 schools of nursing. A set of cognitive predictor variables was used as the basic prediction battery. The following attitudinal and DT tests were used: Nurse Attitudes Inventory (NAI), Nursing Sentence Completions (NSC), Consequences, Alternate Uses, and a creativity self-rating scale. Criteria were 7 semester and cumulative grade averages. Separate multiple regression analyses were used to find the optimum sets of predictors within each of the 4 sets of measures. Each attitudinal and DT optimum set was then combined with the optimum cognitive set to determine the increase in predictive efficiency beyond the optimum cognitive set alone. The multiple correlations were significantly increased for 3 criteria when the optimum divergent thinking variables, the NAI, and the NSC were added to the optimum cognitive sets of predictors.—*Journal abstract.*

1362. Ramos, Robert A. (U. Tennessee) **An investigation of the effect of moderator variables on the regression and factor structure of predictors and criteria.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5275.

1363. Reynolds, Richard J. & Hope, Amy G. (U. Georgia) **Typology as a moderating variable in success in science.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 711-716.—Examined a Myers-Briggs Type Indicator (MBTI) for its utility as a predictor of intellectual behaviors. For 158 beginning, 168 intermediate, and 58 advanced high school students measures of GPA, IQ, and science achievement and aptitude were obtained. MBTI subscales were dichotomized and criteria were analyzed relative to the resultant 8 groups. MBTI subscales provided evidence that typology may well be a moderating factor in intellectual performance. The intuition scale indicated typological differences moderating performance. MBTI was more appropriate for heterogeneous groups and lost its discriminatory utility with homogeneous groups.—*Journal abstract.*

1364. Szabo, Michael. (Purdue U.) **The relationship of intellectual, personality, and biographical variables to success and its prediction in an independent study science course at the college level.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4845-4846.

Overachievement & Underachievement

CURRICULUM & PROGRAMS

1365. Anderson, Richard J. (U. Florida) **Stability of student interests in general psychology.** *American Psychologist*, 1970 (Jul), Vol. 25(7), 630-632.—Interests of psychologists changed from pre- to post-World War II, as recognized in P. H. Kriedt's restandardization of the Psychologist scale on the SVIB. In 1951, the

preferences of 129 psychology students were established by rank-ordering 10 subtopics. The stability of the pattern was checked by administering the same questionnaire to 162 students in 1968 under similar conditions. Median ranks were almost identical. Personality and adjustment was most preferred at 2.5 in 1951 and 2.6 in 1968. The nervous system and glands ranked lowest at 7.3 in 1951 and 7.5 in 1968. Order of preference correlated .915. It is concluded that although the interests of psychologists and psychology students have changed markedly between the pre- and post-World War II periods, the preferential interests in the 10 topic areas compared show very high stability from 1951-1968.—*Author abstract.*

1366. Artley, A. S. (U. Missouri) **The teacher variable in the teaching of reading.** *Reading Teacher*, 1969 (Dec), Vol. 23(3), 239-248.—Argues that despite the large number of studies on reading methods, reading improvement "does not appear to be a function solely of approach or method." Research on teacher effectiveness has also been disappointing because: (a) the teacher, rather than the reading teacher, has been focused upon; (b) procedures, course content, and understanding and commitment of the teacher have not been studied; and (c) changes in pupil behavior have only been indirectly studied. To provide the necessary information, a series of studies are proposed which would: (a) formulate a concept of reading maturity, (b) decide how to measure the correlates of reading growth, (c) determine the teacher and teaching variables which promote such growth, (d) measure such variables and relate them to reading growth, and (e) improve the program of teacher education in reading.—*R. Wiltz.*

1367. Campbell, Myra G. (U. Southern California) **Prekindergarten training and its relationship to the first grade reading achievement of educationally disadvantaged children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4673-4674.

1368. Downing, John. (U. London, Inst. of Education, England) **How children think about reading.** *Reading Teacher*, 1969 (Dec), Vol. 23(3), 217-230.—Attempted to replicate recent research findings which indicate that children's thinking processes differ from adults' in such a way as to produce difficulties for children in understanding the purpose of reading and the abstract technical terms of the language. Preliminary results from interviews with 13 5-yr-old children generally confirm these findings: Ss were found to "have only a vague notion of the purpose of the written language and of what activities are actually involved in reading." It is suggested that these difficulties cannot be overcome by teaching the children the formal rules of the language. Instead, "the essential need of beginning readers... is rich and personally relevant language experiences and activities..." which orientate children to the purposes of reading and writing and generate understanding of technical language concepts. (19 ref.)—*R. Wiltz.*

1369. Dusewicz, Russell A. **Early childhood education for disadvantaged two-year-olds.** *Psychological Reports*, 1970 (Jun), Vol. 26(3), 954.—Exposed 10 disadvantaged Negro 2 yr. olds to an academic preschool enrichment program of programed sequences of environmental interactions after sensory training. Cognitive ability on the Slosson Intelligence Test showed a mean gain in MA of 6.94 mo., representing a growth rate of 3.45 times the normal over an average 1.56-mo period. Results of the Vineland Social Maturity Scale showed a

mean gain of 2.88 mo. for a mean growth rate of 1.85 times the normal. "It is suggested that early childhood and preschool programs might well profit from an emphasis on fundamental abilities and working with children under 3 yr. of age."—*M. Daniels.*

1370. Evans, Charles L. (North Texas State U.) **The immediate effects of classroom integration on the academic progress, self-concept, and racial attitude of Negro elementary children.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4825-4826.

1371. Frager, Stanley & Stern, Carolyn. **Learning by teaching.** *Reading Teacher*, 1970 (Feb), Vol. 23(5), 403-405, 417.—Evaluated 2 procedures for counseling 6th grade tutors of kindergarten children. On the basis of Stanford Achievement Test reading scores, 48 tutors were evenly divided into 2 groups of high and low achievers, with 1/2 in each group given traditional tutor counseling and 1/2 taught an experimental 5-step procedure emphasizing basic learning principles. Kindergarten in need of remedial work were divided into 3 groups receiving traditional counseling, experimental counseling, or no counseling. Pre- and postmeasures on the criterion test provided with the McNeil ABC Learning Activities indicate that Ss receiving tutoring, regardless of method, were significantly superior to untutored Ss. Significant differences were found between experimental and control low-achieving tutors in changes in school morale, attitudes, attendance, and feelings about themselves. Findings "support the recommendation that low-achieving students make effective tutors of younger disadvantaged children, and at the same time, profit considerably themselves."—*R. Wiltz.*

1372. Hansen, Halvor P. (U. of the Pacific) **Language pedagogy for teachers of deprived children.** *Acta Symbolica*, 1970 (Spr), Vol. 1(1), 3-11.—Oral language experience is considered very important. Transformational grammar is briefly described. The child's own language competence should be used as a base for further language instruction. (15 ref.)—*M. Cynamon.*

1373. Karnes, Merle B., Teska, James A., & Hodgins, Audrey S. (U. Illinois, Coll. of Education, Champaign) **The effects of four programs of classroom intervention on the intellectual and language development of 4-year-old disadvantaged children.** *American Journal of Orthopsychiatry*, 1970 (Jan), Vol. 40(1), 58-76.—Evaluated the differential effects of 4 preschool intervention programs (a traditional nursery school program vs. a community-integrated program vs. the Montessori program vs. an experimental program) through pre- and postbatteries of standardized tests. The interventions represented levels of structure along a continuum from the traditional to the highly structured preschool. Evaluation procedures consisted of: (a) intellectual functioning as measured by the 1960 Stanford-Binet Individual Intelligence Scale, Form L-M; (b) language development as measured by the Illinois Test of Psycholinguistics Ability, experimental edition, 1961; and (c) vocabulary comprehension as measured by the PPVT. The Frostig Developmental Test of Visual Perception was administered at the time of the post-battery. Results from all instruments differentiated among the programs, and clearly favored the highly structured preschool.—*Journal abstract.*

1374. Moehle, John H. (Superintendent of Schools, Carle Place, Long Island, N.Y.) **How one school system plans to handle sex education.** *Child &*

Family, 1968 (Fall), Vol. 7(4), 342-347.—Presents a sex education program which is integrated into the regular curriculum and taught by regular teachers. Kindergarten through 3rd grade children are excluded from the program. It is concluded that sex education is most useful when "it falls into a natural teaching area."—G. Steele.

1375. Rosen, Carl L. & Ortego, Philip D. (U. Texas, El Paso) **Language and reading problems of Spanish speaking children in the Southwest.** *Journal of Reading Behavior*, 1969 (Win), Vol. 1(1), 51-70.—Examines 5 major categories of language problems of Spanish speaking children: (a) the vague definition of bilingualism, (b) inadequate timing of 2nd language instruction, (c) improper learning context for 2nd language instruction, (d) the issue of language equivalence on a bilingual scale, and (e) dealing with individual differences attributable to individual child status. The difficulties involved in a number of current approaches used to teach reading to Spanish speaking children are discussed, and the necessity for developing new and more appropriate techniques, i.e., linguistically oriented reading materials, a language experience approach, and a bilingual approach based upon the unique needs of the Spanish speaking child is emphasized. It is concluded that while no approach should be considered a panacea, a number of techniques appear promising. (70 ref.)—R. Wiltz.

1376. Sie, Maureen S. (Iowa State U.) **Pupil achievement in an experimental nongraded elementary school.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4783-4784.

1377. Suppes, Patrick & Ihrke, Constance. **Accelerated program in elementary-school mathematics: The fourth year.** *Psychology in the Schools*, 1970 (Apr), Vol. 7(2), 111-126.—Describes the 4th yr. of a longitudinal study of the accelerated program in elementary school mathematics conducted at Stanford University. As in previous studies, the report contains curriculum descriptions, group composition, class procedures, and behavioral data. In general, the results indicate that pupils in the accelerated program tend to be well above grade level on most measures in the study.—H. Kaczowski.

Teaching Methods & Teaching Aids

1378. Alderfer, Clayton P. (Yale U.) **Teaching organizational change to "insiders" and "outsiders."** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 397-401.—Reports an attempt in a teaching situation to combine intellectual content and interpersonal process within a single course. Ss were approximately 20 advanced graduate students, of whom about 1/2 were members of the administrative sciences department ("insiders"), and the others, members of other graduate departments ("outsiders"). As the course progressed, (a) a split developed between the 2 groups which illustrates (a) pertinent issues of competitiveness and other aspects of group dynamics, (b) the relative distribution of time for content and process teaching, and (c) the role of the instructor.—P. McMillan.

1379. Arney, V. I. (Linn County Board of Education, Cedar Rapids, Ia.) **"Personalized" productions of 8mm films improve student motivation and involvement.** *Journal of Learning Disabilities*, 1968 (Sep), Vol. 1(9), 519-522.—Discusses some of the mechanics in-

involved in, and projects which resulted from a school program in which students either helped produce films or were filmed while participating in various activities. It is demonstrated that the use of motion picture films in education motivates students to learn, personalizes studies, and creates mutual involvement in teacher-student planning.—M. Maney.

1380. Biryukov, B. V. & Landa, L. N. (Inst. of Psychology, Moscow, USSR) **Metodologicheskiy analiz ponyatiya algoritma v psikhologii i pedagogike v svyazi s zadachami obucheniya.** [Methodological analysis of the concept of algorithm in psychology and pedagogy in connection with the goals of instruction.] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 17-38.—Presents 21 separate commentaries in depth on the algorithmic approach in psychology and pedagogy, and the methodological conclusions derived.—I. D. London.

1381. Bozhovich, E. D. & Granik, G. G. (Inst. of Psychology, Moscow, USSR) **Programirovanie nekotorykh razdelov sintaksisa russkogo yazyka v svyazi s zadachei razvitiya kul'tury rechi uchashchikhsya.** [Programming of several sections of Russian syntax in connection with the aim of raising the level of speech in pupils.] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 64-69.—Presents an analysis of the initial stages of programmed instruction for the development in pupils of methods for the construction and use in speech of grammatically correct sentences, involving "verbal adverbs." Experimental results are encouraging.—I. D. London.

1382. Feldhusen, Hazel J., Lamb, Pose, & Feldhusen, John. (Cumberland School, West Lafayette, Ind.) **Prediction of reading achievement under programmed and traditional instruction.** *Reading Teacher*, 1970 (Feb), Vol. 23(5), 446-454.—60 female and 58 male 1st graders were evenly divided into an experimental group in which programmed instruction supplemented the basic reading program, and a control group in which the basic program was not supplemented. Sex, IQ, and 16 background characteristics were also examined for possible relations to the dependent variable of achievement on 3 subtests (Word Knowledge, Word Discrimination, and Reading Comprehension) of the Metropolitan Achievement Test, Form A. Results indicate that the experimental group scored significantly higher than controls and that high IQ Ss scored significantly higher than low IQ Ss. No significant main effect was found for sex, and there were no significant interactions. The following background characteristics were significantly related to achievement scores: IQ, father's occupation, parents' education, word-meaning readiness, matching readiness, and a total readiness score. Limitations of the study in terms of possible E bias, uncontrolled instruction time, and a nonrandom sample are noted.—R. Wiltz.

1383. Granik, G. G. (Inst. of Psychology, Moscow, USSR) **O dvukh sposobakh obucheniya priëmam umstvennoy raboty pri programirovani kursa russkogo yazyka.** [On two ways of teaching methods of mental application in a programmed course of the Russian language.] *Voprosy Algoritmizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 95-105.—Presents materials from a study, in which 20 6th graders were Ss, to determine ways of forming the most effective "systems of mental operations" in a programmed course dealing with Russian grammar.—I. D. London.

1384. Grunwald, Bernice. (Alfred Adler Inst., Chicago, Ill.) **Role playing as a classroom group procedure.** *Individual Psychologist*, 1969 (Nov), Vol. 6(2), 34-38.—Offers suggestions and illustrative examples of the use of role-playing in the classroom.—A. R. Howard.

1385. Landa, L. N. (Inst. of Psychology, Moscow, USSR) **Nekotorye voprosy algoritimizatsii i programmirovaniya obucheniya.** [Some problems in algorithmization and programmed instruction.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 3-16.—Presents an overview of the results of research, conducted in the Laboratory of Programed Instruction of Moscow's Institute of Psychology, and included in the articles in this issue.—I. D. London.

1386. Lutenbacher, David A. (U. Southern Mississippi) **An investigation of the effect of team teaching upon achievement, motivation and attitude.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4728-4729.

1387. Orlova, A. M. (Inst. of Psychology, Moscow, USSR) **Nekotorye voprosy postroeniya i ispol'zovaniya programmirovannogo posobiya po russkomu yazyku.** [Some problems in the construction and utilization of a programed textbook on the Russian language.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 106-142.—Presents materials from a study attempting to "rationalize the process of school learning through utilization (full or partial) of the principles of programed instruction" as applied to the Russian language textbook for 6th graders.—I. D. London.

1388. Shenshev, L. V. (Inst. of Psychology, Moscow, USSR) **Adaptivnye vozmozhnosti obuchayushchikh ustroystv s vnutrennim programmirovaniem.** [Adaptive potentialities of teaching devices with internal programing.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 168-196.—Presents an analysis from the viewpoint of game theory.—I. D. London.

1389. Shenshev, L. V. (Inst. of Psychology, Moscow, USSR) **Nekotorye printsipy konstruirovaniya lingafonnykh uzlov dlya programmirovannogo obucheniya.** [Some principles for the construction of language laboratories for programed instruction.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 197-209.—Discusses the construction and operation of different types of "linguaphonic centers [language laboratories]" for the programed learning of foreign languages.—I. D. London.

1390. Shenshev, L. V. (Inst. of Psychology, Moscow, USSR) **Ob optimal'nom raspredelenii funktsii mezhdu chelovekom i obuchayushchimi ego ustroystvom.** [On the optimal distribution of functions between man and his teaching machine.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 154-167.—Discusses the problem, its history, and possible future resolutions, including "hybridization" of the educational film and teaching machines.—I. D. London.

1391. Vaizer, G. A. (Inst. of Psychology, Moscow, USSR) **Ob algoritmicheskom podkhode v obuchenii fizike.** [On the algorithmic approach to physics instruction.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 143-153.—The application of algorithms is shown to be an important means of raising the effectiveness of physics instruction.—I. D. London.

1392. Yudina, O. N. & Granik, G. G. (Inst. of Psychology, Moscow, USSR) **O nekotorykh sposobakh dinamicheskoi adaptatsii obucheniya na osnove diagnostiki prichin oshibok.** [On some methods of dynamic adaptation of instruction on the basis of diagnosis of the reasons for errors.] *Voprosy Algoritimizatsii i Programirovaniya Obucheniya*, 1969, No. 1, 53-63.—It is shown that the "goal of dynamic adaptation [individualization] of instruction, based on diagnosis of the reasons for errors, can be accomplished even without teaching machines by means of a programed textbook."—I. D. London.

PERSONNEL & INDUSTRIAL PSYCHOLOGY

1393. Heneman, Herbert G. (U. Minnesota) **Contributions of industrial relations research.** *Manpower & Applied Psychology*, 1968 (Win), Vol. 2(2), 5-16.—Presents a brief overview of research accomplishments, contributions, and needs of industrial relations research in the United States.—P. L. Crawford.

1394. Moses, Joseph L. (Pace Coll.) **Utilization of the behavioral scientist in industry.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 367-370.—Contends that behavioral scientists are underutilized in industrial organizations. Possible roles suggested for the behavioral scientist in an "ideal" organization include resource person, consultant, trainer, disseminator of behavioral science knowledge, and professional liaison.—P. McMillan.

1395. Platonov, K. K. (Ed.) **Lichnost' i trud.** [Personality and work.] Moscow, USSR: Mysl', 1965. 366 p.—Presents a collection of 15 articles in the form of chapters, submitted by over 15 contributors, primarily on "personality formation in the work process from the position of the psychological theory of personality." Problems, connected with small groups and interpersonal relations in the work context, are also considered.—I. D. London.

VOCATIONAL CHOICE & GUIDANCE

1396. Lee, Sang M. (Virginia Polytechnic Inst.) **Job selection by college graduates.** *Personnel Journal*, 1970 (May), Vol. 49(5), 392-395.—A survey in 1 college revealed that appealing job, potential for advancement, and the kind of people met in the organization are factors of prime importance considered by college graduates (N = 514) in selecting the starting position.—P. L. Crawford.

1397. Mirande, Alfred M. (U. Kentucky) **On occupational aspirations and job attainments.** *Rural Sociology*, 1968 (Sep), Vol. 33(3), 349-353.—Questions results from W. P. Kuvlesky and C. B. Bealer's (see PA, Vol. 41:16530) investigation which found a weak relationship between adolescent aspirations and occupational attainment. It is argued that: (a) findings were conditioned by the measure of congruence employed, (b) measures of attainment and/or aspiration were restrictive and arbitrary, and (c) bias away from high prediction was built in by selecting a rural sample.—M. Maney.

SELECTION & PLACEMENT

TRAINING

1398. Bealer, Robert C. & Kuvlesky, William P. (Pennsylvania State U. On occupational aspirations and job attainments: A reply.) *Rural Sociology*, 1968 (Sep), Vol. 33(3), 353-356.—Responds to specific criticisms by A. M. Mirande (see PA, Vol. 45:Issue 1) of C. B. Bealer and W. P. Kuvlesky's (see PA, Vol. 41:16530) investigation of adolescent aspirations and occupational attainment, concluding that "no compelling grounds" for adjustment of stated conclusions are presented. It is contended that no pretense was made that the conclusions drawn were definitive but that they were an attempt to provide directions for future research and as such are open to possible qualifications as facts warrant.—M. Maney.

1399. Meyer, John M. (U. California, Los Angeles) **Effect of demonstrator and observer positions upon learning a perceptual motor skill.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 4878.

1400. O'Connor, Robert D. & Rappaport, Julian. (U. Illinois) **Application of social learning principles to the training of ghetto blacks.** *American Psychologist*, 1970 (Jul), Vol. 25(7), 659-661.—Describes an employment training program applying the principles of reinforcement, modeling, role playing and programmed learning. The program was instituted by psychologists working with a local affiliate of The Opportunities Industrialization Center, an organization administered by blacks and focusing on unemployed ghetto residents. 6 men representing the hard core unemployed, were trained for jobs as child care aides to fill positions at a local state-operated mental health center. All 5 who completed the 12 1-hr sessions passed civil service examination, and 4 were hired. Procedures for avoiding delay of gratification problems and recruiting difficulties are discussed in light of current social learning theory.—Author abstract.

TASK & WORK ANALYSIS

1401. Bitter, James A. (U. Missouri) **Bias effect on validity and reliability of a rating scale.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(2), 70-75.—Attempted to determine the effect of rater bias on the predictive validity and rater reliability of the Work Adjustment Rating Form (WARF). The results suggest that (a) the WARF is subject to rater bias that can significantly affect the scale's predictive validity for individual raters, (b) rater bias did not affect the mean predictive validity and the mean reliability estimate of the WARF, and (c) rater bias can be minimized by using more than 1 rater.—S. M. Amatora.

1402. Jeanneret, Paul R. (Purdue U.) **A study of the job dimensions of "worker-oriented" job variables and of their attribute profiles.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5273-5274.

1403. Susman, Gerald I. (Pennsylvania State U.) **The concept of status congruence as a basis to predict task allocations in autonomous work groups.** *Administrative Science Quarterly*, 1970 (Jun), Vol. 15(2), 164-175.—This field study investigated work groups in an oil refinery whose members were allowed to make their own decisions about task allocation. The concept of status congruence was utilized to predict that tasks

would be assigned on the basis of the consistency between valued task and valued member attributes. The data supported the hypothesis for 1 job classification, but were consistently in the opposite direction of predictions for another. Supplementary field data indicated that the value of job and task attributes varied with rank of formal job classification. Implications of the findings for increased understanding of autonomous group functioning are discussed. (25 ref.)—Journal abstract.

PERFORMANCE & JOB SATISFACTION

MANAGEMENT & ORGANIZATION

1404. Burke, W. Warner. (National Training Lab. Inst., Center for Organizational Studies, Washington, D.C.) **Training organization development specialists.** *Professional Psychology*, 1970 (Sum), Vol. 1(4), 354-358.—Describes a residential training program for organization development specialists, which uses principles of experience-based learning. This program was designed and conducted by National Training Laboratory Institute members for 4 wk. each summer since 1967. Participants are internal change agents from a variety of organizations, the largest group being from business and industry. The program covers theories and strategies of change, organization, diagnosis, consultation, team building, intergroup confrontation, and other related areas.—Journal abstract.

1405. England, George W. & Kolke, Ryohji. (U. Minnesota, Industrial Relations Center) **Personal value systems of Japanese managers.** *Journal of Cross-Cultural Psychology*, 1970 (Spr), Vol. 1(1), 21-40.—As a total group, 394 Japanese managers were found to have pragmatic primary value orientations and to be morally and ethically oriented. Possible relationships between their values and their organizational behavior are suggested.—A. Krichev.

1406. Gordon, Leonard V. **Correlates of bureaucratic orientation.** *Manpower & Applied Psychology*, 1968 (Win), Vol. 2(2), 54-59.—Studied the postulation of a personality construct based on a particular organizational model (bureaucratic), the development of a measure of this construct, and its preliminary validation. It is concluded that a reliable measure of individual differences has been derived from the bureaucratic organizational model, and construct validity information so far available is highly positive.—P. L. Crawford.

1407. Rizzo, John R., House, Robert J., & Lirtzman, Sidney I. (Western Michigan U.) **Role conflict and ambiguity in complex organizations.** *Administrative Science Quarterly*, 1970 (Jun), Vol. 15(2), 150-163.—Describes the development and testing of questionnaire measures of role conflict and ambiguity. Analyses of responses of managers show these 2 constructs to be factorially identifiable and independent. Ss were a 35% random sample of the central offices and main plant of the firm and a 100% sample of the research and engineering division. Derived measures of role conflict and ambiguity tended to correlate in the 2 samples in expected directions with measures of organizational and managerial practices and leader behavior, and with member satisfaction, anxiety, and propensity to leave the organization. (33 ref.)—Journal abstract.

1408. Smith, Clagett G. (U. Notre Dame) **Consul-**

tation and decision processes in a research and development laboratory. *Administrative Science Quarterly*, 1970 (Jun), Vol. 15(2), 203-215.—The study of the relationship between consultation and decision processes in an industrial research laboratory showed the efficacy of multidirectional consultation coupled with a pattern of shared, decentralized decision making. The loose, decentralized pattern was closely associated with more science-oriented activity, while the hierarchical pattern with more practical or organizationally relevant activities. The relationships obtained between this loose or hierarchical pattern and performance were mediated by coordination, adequacy of work expectations, and level of member involvement. The results also suggest that when decision centers are consistent with consultation centers, implying a congruence between authority and expertise, the overall structure of the laboratory is less important. (18 ref.)—*Journal abstract*.

1409. Snyder, Sherwin L. (Indiana U.) **Organization choice: A study of accountants in public and private employment.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-B), 5275-5276.

1410. Turrill, Robert B. (U. California, Los Angeles) **Use of the semantic differential in relating perceived self-organizational environment similarity to the meaning of membership in a bureaucracy.** *Dissertation Abstracts International*, 1970 (May), Vol. 30(11-A), 5070-5071.

SPECIAL ENVIRONMENTS

ADVERTISING & CONSUMER PSYCHOLOGY

1411. Granbois, Donald H. (Indiana U.) **Improving the study of customer in-store behavior.** *Journal of Marketing*, 1968 (Oct), Vol. 32(4, Pt. 1), 28-33.—Improved retail decisions can result from attempts to measure customer response to price, display, store layout, and other controllable variables. It is shown how the combination of entrance interviews and direct observation can provide management with more meaningful information from the study of customer in-store behavior.—*Journal abstract*.

1412. Kunkel, John H. & Berry, Leonard L. (Arizona State U.) **A behavioral conception of retail image.** *Journal of Marketing*, 1968 (Oct), Vol. 32(4, Pt. 1), 21-27.—Describes the problems involved in defining retail store image. The result of these problems has been an avoidance of definition or definitions based on a variety of assumptions about the internal psychological state. An alternative approach to the image concept is presented in which the usual assumptions about the internal state are avoided and a behavioral model of man in combination with procedures based on unstructured instruments is used. The procedures involved in the acquisition and maintenance of retail images are outlined, and implications for practitioners and academicians are indicated.—*Journal abstract*.

1413. Myers, James H. & Alpert, Mark I. (U. Southern California) **Determinant buying attitudes: Meaning and measurement.** *Journal of Marketing*, 1968 (Oct), Vol. 32(4, Pt. 1), 13-20.—Argues that out of many possible attitudes toward purchasing decisions only a few relate to or determine buying behavior. These attitudes are defined, their meaning and relevance to

marketing strategy are described, and methods of measuring them are discussed.—*Journal abstract*.

ENGINEERING PSYCHOLOGY

1414. Dmitrieva, M. A. **Konferentsiya po inzhenernoi psikhologii v LGU.** [A conference on engineering psychology at LSU.] *Voprosy Psikhologii*, 1970 (May), Vol. 16(3), 186-187.—Presents the proceedings of a 1969 conference held at Leningrad State University.—*L. Zusne*.

Displays & Controls

DRIVING & SAFETY

1415. Duckstein, Lucien; Unwin, Ernest A., & Boyd, Eugene T. (U. Arizona) **Variable perception time in car following and its effect on model stability.** *IEEE Transactions on Man-Machine Systems*, 1970 (Sep), Vol. MMS-11(3), 149-156.—Studied the functional variation of perception time (T) in car following to introduce a variable time delay into a previously proposed nonlinear model. It is hypothesized that the ratio of a just noticeable difference in visual angle ($\Delta\theta$) to the visual angle (θ) is a constant. This hypothesis leads to a model in which T is proportional to relative spacing and inversely proportional to relative speed. Results agree with the model for negative relative speeds 3-18 ft/sec. A 2nd-order approximation is used to explain behavior for relative speeds of less than 3 ft/sec in absolute value. This 2nd-order approximation also agrees well with data taken previously with relative acceleration (1-4.7 ft/sec²) and initial relative speed (1.9-2.9 ft/sec). A brief discussion of ideal following distance clarifies the stability analysis. The introduction of a variable time delay and ideal following distance into the proposed car-following model changes the size of the minimum asymptotic stability region but not the basic properties of the model. The word asymptotic is used in the dynamic stability sense as in the classical control theory literature.—*Journal abstract*.

1416. Hartman, Bryce O. & Cantrell, George K. **Psychologic factors in "landing-short" accidents.** *Flight Safety*, 1968 (Jun), Vol. 2(1), 26-32.—Reviews human factors and biomedical studies pertinent to prediction of accidents during approach and landing and describes the kind of study which would yield a multivariable prediction of the probability of a landing-short accident under the most common conditions. (18 ref.)—*Journal abstract*.

1417. Stanojlovic, Bosco R. **Man and safety in aviation.** *Flight Safety*, 1969 (Feb), Vol. 2(3), 3-10.—Reviews present standards of aviation safety and discusses the causes of accidents, learning curve, safety expectations, crashworthiness, emergency evacuation, fire, midair collision, and training. It is stressed that man in aviation is the focal point of air safety and the factor responsible for all successes and failures. The importance of pride in work, personal dignity, and high ethical and moral standards as basic requirements for high safety standards is discussed. The need for more research of human factors, especially variations in aircrew discipline and efficiency caused by environment and social factors, is emphasized.—*G. Steele*.

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This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

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JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.)—(10) *Journal abstract*.

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- 3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., [Parapsychology].
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- 5a—Year and month of the primary publication issue.
- 5b—Volume number followed by issue number in parentheses.
- 5c—Inclusive pagination of the article.
- 6—Text of the abstract.
- 7—Reference to a previous entry in *Psychological Abstracts*.
- 7a—PA—*Psychological Abstracts*.
- 7b—PA volume number.
- 7c—PA abstract number.
- 7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.
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- 9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).
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BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

- 1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.
- 2—Designation of editor.
- 3—Address of first-named author/editor only.
- 4—Book title.
- 5—Place of publication.
- 6—Publisher's name.
- 6a—Year of publication.
- 6b—Prepagination.
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BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

- 1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.
- 2—Address of first-named author only.
- 3—Chapter title.
- 4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.
- 4a—Editor's name.
- 4b—Editor designation.
- 4c—Book title.
- 5—Referral information.
- 5a—PA—*Psychological Abstracts*.
- 5b—Volume number.
- 5c—Issue number.
- 6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement (e.g., in. = inch, wk. = week, hr. = hour, etc.):

AA = Alcoholics Anonymous
AC = alternating current
ACTH = adrenocorticotrophic hormone
AM = ante meridiem
amp. = ampere

bpm = beats per minute

C = centigrade
¢ = cents
CA = chronological age
cc = cubic centimeter
CER = conditioned emotional response
CFP = critical flicker frequency
CNS = central nervous system
cps = cycles per second
CR = conditioned response (or reflex)
CRF = continuous reinforcement
CRT = cathode ray tube
CS = conditioned stimulus
CVC = consonant-vowel-consonant

db. = decibel
DC = direct current
DL = differential limen
DNA = deoxyribonucleic acid
DRL = differential reinforcement of low rates

E = experimenter
ECS = electroconvulsive shock
EEG = electroencephalogram (or -graphy)
EKG = electrocardiogram
EMG = electromyogram
ESP = extrasensory perception
Exp. = experiment

F = Fahrenheit
ft-c = foot-candle
ft-L = foot-lambert

g = gravity
gm. = gram(s)
GPA = grade-point average
GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
im = intramuscularly
ip = intraperitoneally
IQ(s) = intelligence quotient(s)
ITI = intertrial interval
iv = intravenously

kc. = kilocycle
kg. = kilogram
kg/m = kilogram per meter
kHz. = kilo-Hertz

LD = lethal dose
LSD = lysergic acid diethylamide

m. = meter
M = mean
M = mole or molar
ma. = milliamperes
MA = mental age
MAO = monoaminooxidase
mL. = millilambert
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)

N = number
NREM = nonrapid eye movement

O = observer

p = probability
% = percent

PM = post meridiem
pps = pulses per second
PRI = partial reinforcement effect
PSE = point of subjective equality
psi = pounds per sq. in.

r = product-moment correlation
r = roentgen
REM = rapid eye movement
rms = root mean square
RNA = ribonucleic acid
rpm = revolutions per minute
RT = reaction time

S = subject
SEU = subjectively expected utility
SPL = sound pressure level

TV = television

UCR = unconditioned response
UCS = unconditioned stimulus
UHF = ultrahigh frequency

V = volt
VHF = very high frequency
vs. = versus

YMCA = Young Men's Christian Association
YWCA = Young Women's Christian Association

Test abbreviations include:

California E Scale (Ethnocentrism)
California F Scale (Fascism)
CMA scale = Children's Manifest Anxiety scale
CPI = California Psychological Inventory
CTMM = California Test of Mental Maturity
EPPS = Edwards Personal Preference Schedule
MA scale = (Taylor) Manifest Anxiety scale
MMPI = Minnesota Multiphasic Personality Inventory
MPI = Maudsley Personality Inventory
16 PF = Cattell's 16 Personality Factor Questionnaire
SVIB = Strong Vocational Interest Blank
TAT = Thematic Apperception Test
WAIS = Wechsler Adult Intelligence Scale
WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
Assoc. = associates
Co. = company
Coll. = college
Corp. = corporation
Dept. = department
Div. = division
Inst. = institute
Hosp. = hospital
Lab. = laboratory
Inc. = incorporated
U. = university

Ave. = avenue
Bldg. = building
Blvd. = boulevard
Ct. = court
Dr. = drive
Ft. = fort
Mt. = mount
Pkwy. = parkway
Pl. = place
PO = post office
Rd. = road
St. = street
N, S, E, W = North, South, East, West
U.S. = United States
USSR = Union of Soviet Socialist Republic

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ERRATUM

In PA, Vol. 43:8980, the journal title should read: *Quarterly Journal of Experimental Psychology*.

GENERAL

OBITUARIES

1418. Kaneko, Takayoshi. (Tokyo U. of Education, Japan) **The late Professor Torao Obonal and his psychological works.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 186-188.—Recounts the life and work of 1 of Japan's outstanding and unique psychologists who died in 1968. The largest number (about 120) of his studies centered on sensation and perception. He was primarily an experimental psychologist in the orthodox Helmholtz-Wundt tradition.—R. D. Nance.

HISTORY

1419. Bordi, Sergio. (Istituto di Psicoanalisi, Rome, Italy) **La psicoanalisi e le scuole dissidenti.** [Psychoanalysis and dissident schools.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Mar), Vol. 31(2), 131-143.—Presents a historical overview of 1st- and 2nd-generation revisionists of psychoanalysis.—L. L'Abate.

1420. Camfield, Thomas M. (U. Texas) **Psychologists at war: The history of American psychology and the First World War.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5370.

1421. Helson, Harry. (U. Massachusetts) **E. G. B.: The early years and change of course.** *American Psychologist*, 1970(Jul), Vol. 25(7), 625-629.—Discusses why E. G. Boring left the laboratory to become the foremost historian of experimental psychology. The position of psychology in general and at Harvard in particular in the mid-1920s is examined, and it is concluded that Boring turned to history because he could not accept the current phenomenological or behavioristic approaches. The *Zeitgeist* had rendered Titchenerian structuralism obsolete so it was natural for Boring to devote himself to the history of the great sensory tradition. His inclusion of James and Freud among the "very great" psychologists showed his growth in appreciation of men outside the structuralist school. Boring's career exemplified the positive and negative interactions of eponyms with the *Zeitgeist* which he maintained was an essential factor in the progress of science. (19 ref.)—*Author abstract*.

1422. Kantor, J. R. (U. Chicago) **Newton's Influence on the development of psychology.** *Psychological Record*, 1970(Win), Vol. 20(1), 83-92.—Although the eminence of Newton in mathematics, astronomy, and physics is universally known, his powerful and mis-

leading influence upon psychology is not generally appreciated. In accordance with the spiritistic philosophy current in his time, and on the basis of his prismatic color experiments, he constructed a model of perception which has dominated psychological thinking for centuries in complete variance from fact and naturalistic theory.—*Journal abstract*.

1423. Lapointe, Francois H. (Georgia Coll., Milledgeville) **Origin and evolution of the term "psychology."** *American Psychologist*, 1970(Jul), Vol. 25(7), 640-646.—Presents a historical review of the term "psychology." It is noted that while the word contains Greek elements, it does not have origins in Greek antiquity. This study suggests that the word originated in the 16th century "to refer to 1 aspect of spiritual being" and was 1st used as a title of academic lectures by Philipp Melancthon (1497-1560). Further development of the term through the mid-19th century is presented, including a table providing a chronology from Melancthon through Herbert Spencer's "Principles of Psychology" (1855). (25 ref.)—P. McMillan.

1424. Siegmund, Georg. (28 Abt-Richard-Str., Fulda/Neuenberg, W. Germany) **Pawlos Kampf gegen die Seele.** [Pavlov's fight against soul.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 24-40.—Presents a concise, comprehensive biography of Pavlov. (30 ref.)

PHILOSOPHY

1425. Eccles, J. C. **The importance of brain research for the educational, cultural, and scientific future of mankind.** *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 61-68.—Presents a philosophical discussion of consciousness as an emergent property of neural activity having causal efficacy, this opposing epiphenomenal view. The fundamental importance of consciousness of self to each individual renders inadequate "the materialistic, mechanistic, behavioristic, and cybernetic concepts of man, which at present dominate research." It is argued that the process of creative evolution cannot alone explain origin of self. An appeal is made to scientists to admit to their values as well as to the limits of their ability to offer final causal explanations.—J. Crabbe.

1426. Khlystova, Z. S. (USSR Academy of Medical Sciences, Research Lab. for Experimental-Biological Models, Moscow) **Filosofskoe osveshchenie vzaimootnoshenii struktury i funktsii v modelirovani tkanykh protsessov.** [Philosophical illumination of the interrelationships between structure and function in simulating tissue processes.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 15-17.—Presents a philosophical analysis, confirming that structure and function are labile in their continuous interaction with the factors of the external and internal environment of man.—I. D. London.

1427. Leont'ev, A. N. (Moscow State U., USSR) **Chuvstvennyi obraz i model' v svete leninskoï teorii otrazheniya.** [Mental representations versus models in the light of Lenin's theory of reflection.] *Voprosy Psikhologii*, 1970(Mar), Vol. 16(2), 34-45.—Discusses the similarities and dissimilarities between mental representations and various kinds of models in terms of Lenin's theory of reflection. Although mental representations may be described as a kind of model, they are incomparably richer in content than any physical model since they are included in the system of relationships of objective reality rather than being passive mirror images of the parameters of an isolated object. (English summary)—*L. Zusne.*

1428. Manina, A. A. (Inst. of Experimental Medicine, Leningrad, USSR) **Vzaimosvyaz' struktury i funktsii v norme i pri patologii.** [Interconnection of structure and function in the normal state and in pathology.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 26-31.—Presents a Marxist analysis at the subcellular level.—*I. D. London.*

1429. Moed, H. K. (U. Amsterdam, Lab. of Psychology, Netherlands) **Constancy and contrast: IIC.** *Acta Psychologica, Amsterdam*, 1970(Jun), Vol. 32(3), 205-268.—Discusses the "distinction between the inner and the outer process in the description of perception [which] does not conform to the usual distinction between the inner and the outer 'world'."

1430. Moraczewski, Albert. (Texas Medical Center, Inst. of Religion, Houston) **The divorce of psyche and soma.** *Psychosomatics*, 1970(May), Vol. 11(3), 151-156.—Considers the problem of how biological and psychological information can be reconciled into a unity represented by the pronoun "I." The mind-body problem is reexamined from 3 viewpoints: (a) relating subjective experience to neurochemical phenomena, (b) relating neuronal activity to subjective experience, and (c) developing information from split-brain experimentation. Despite these evidences of dualism, it is contended that an overriding characteristic of an organism is its obvious behavioral unity. Thus the tendency in medicine and psychiatry to divide the psyche and soma is only an attempt to better understand the relationship between the 2 aspects of man. (18 ref.)—*P. McMillan.*

1431. Natanson, Maurice. (U. California, Santa Cruz) **Other selves.** In M. Natanson, "The journeying self: A study in philosophy and social role." (See PA Vol. 45:Issue 2) 27-46.

1432. Natanson, Maurice. (U. California, Santa Cruz) **The journeying self: A study in philosophy and social role.** Reading, Mass.: Addison-Wesley, 1970. ix, 262 p. \$3.95(paper).

1433. Natanson, Maurice. (U. California, Santa Cruz) **The self.** In M. Natanson, "The journeying self: A study in philosophy and social role." (See PA Vol. 45:Issue 2) 8-26.

1434. Perkins, Richard B. **A critique of the contemporary concept of visual space and the visual-physical space dichotomies.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Oct), Vol. 46(10), 755-759.—Discusses and analyzes the source of the gross ambiguity which exists in the literature regarding the meaning of the concept of visual space and physical space. 2 different concepts of consciousness are suggested in place of the former visual-physical space dichotomy.—*Journal abstract.*

1435. Sarkisov, D. S. (Vishnevskii Inst. of Surgery, Moscow, USSR) **Sovremenniy etap v razviti pre-**

dstavlenii o edinstve struktury i funktsii. [Current stage in the development of concepts concerning the unity of structure and function.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 17-25.—Presents a historical survey and an analysis of the current stage of understanding of the unity of structure and function, including the problem of the primary and the secondary.—*I. D. London.*

1436. Siguan-Soler, Miguel. (U. Barcelona, Spain) **Mensche und Zeitlichkeit.** [Man and temporality.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 12-24.—Presents a philosophical discussion of temporality. The 1st form in which temporality occurs is that of the volatility of reality. While man attempts to "objectify" time through concept building (i.e., 1 hr., 1 yr.), time spans are perceived differently by individuals. Man is not temporal while he is a spectator of changing reality; his temporality lies in his destination to die.—*B. A. Stanton.*

1437. Strigacheva, E. I. **Strukturnye osnovy edinstva, razlichiya i vzaimosvyazi form patologicheskogo protessa (filosofskii aspekt).** [Structural bases of unity, difference and interconnection in the forms of the pathological process (philosophical aspect).] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 6-14.—Presents a philosophical analysis, demonstrating that even the "destructive process" has its laws of development, "regress" having its counterpart in "progress."—*I. D. London.*

PARAPSYCHOLOGY

1438. Joesting, Robert & Joesting, Joan. (Challenge Foundation, Chapel Hill, N.C.) **Position effects and target material in ESP.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 75-78.—The 1st and 3rd segments of a mail-in precognition test involving over 100,000 adolescents used standard ESP targets while the 2nd and 4th segments used words as targets. 50 male and 50 female protocols with high scores on the 1st segment and low scores on the 2nd segment were used in the pilot study, there being twice as many of each sex for the replication. Both pilot and replicating studies show significantly higher scoring on the 4th segment than on the 3rd.—*Journal abstract.*

THEORY & SYSTEMS

1439. Anastasi, Anne. (Fordham U.) **On the formation of psychological traits.** *American Psychologist*, 1970(Oct), Vol. 25(10), 899-910.—Discusses mechanisms whereby the traits identified through factor analysis may be formed. R. C. Tryon's 3-pronged analysis of the origin of traits, the overlapping of psychological components, correlations between independent environmental fields, and correlations between independent gene blocks are examined. Subsequent theoretical developments in terms of such mechanisms as transfer, generality of concepts, learning sets, Piaget's operations, problem-solving styles, and cognitive strategies are also discussed. Relevant research following developmental, comparative, and experimental approaches is surveyed. (72 ref.)—*Author abstract.*

1440. Auersperg, Alfred. (963 Casilla, Concepción, Chile) **Genetisch-interpretierte Informationstheorie und kybernetisch-orientierte Informationstheorie im Lichte der Energielehre von Teilhard de Chardin.** [Genetically-interpreted information theory and cyber-

netic-oriented information theory in light of Teilhard de Chardin's energy precept.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 88-99.—Discusses the heuristic orientation of the genetic information theory vs. Norbert Wiener's neodeterministic approach (objective determinism) to cybernetics.

1441. Caruso, Igor A. (45 Lainzerstr., Vienna, Austria) **Über einige Aspekte der Forschung und Praxis in der Tiefenpsychologie.** [Several aspects of research and practice in depth psychology.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 199-207.—Cites numerous regional organizations of depth psychologists in Europe and Latin America and discusses future goals for the formation of an international association of depth psychologists. The impact of social forces on current research and practice in depth psychology is emphasized.—B. A. Stanton.

1442. Lambley, Peter. (U. Cape Town, South Africa) **Psychology and epistemology: Operationism revisited.** *Psychological Record*, 1970(Spring), Vol. 20(2), 229-234.—Reappraised the position of operationism in the light of P. W. Bridgman's later epistemology. It is argued that operationism, as it was applied in psychology, was used as a panacea-like answer to all problems of meaning. To avoid the extremities of such a formulation the epistemological value of using operationism as a tool to understand the complexities of investigation is advocated. (22 ref.)—*Journal abstract.*

1443. Pongratz, Ludwig J. (U. Würzburg, Psychologische Inst., W. Germany) **Das Logogramm der Psychologie.** [The logogram of psychology.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 67-76.—Examines 4 aspects of the psychological life of the individual: the conscious, the unconscious, feelings, and behavior. A diagrammatic representation (logogram) of the order and mutual interaction of these 4 factors is presented.—B. A. Stanton.

1444. Danks, Joseph H. & Glucksberg, Sam. (Kent State U.) **Psychological scaling of linguistic properties.** *Language & Speech*, 1970(Apr), Vol. 13(2), 118-140. Examined adults' abilities to judge selected properties of sentences in 3 studies. In the 1st 2, Ss rated the grammaticalness of sentences varying in grammaticalness according to linguistic theory. The judgments showed high within-S consistency and between-Ss agreement. The resultant scales were linear, indicating that grammaticalness may be viewed as a unitary dimension. There was, however, some indication that differential interpretability affected the judgments. In the 3rd study, Ss rated sentences on the basis of: (a) grammaticalness, (b) meaningfulness, (c) familiarity, or (d) ordinariness. Using a principal components analysis of the ratings, grammaticalness and meaningfulness were represented by orthogonal factors while familiarity and ordinariness could not be distinguished from one another. Implications of the data for the relations between linguistic and psychological analyses of language and language behavior are examined. (23 ref.)—*Journal abstract.*

py/counseling training: On the dimensions of interpersonal perception, conflict confrontation, and levels of supervisor offered conditions. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5685-5686.

1446. Gabriel, Hugh P. & Danilowicz, Delores A. (New York U., Medical School) **Psychiatric concepts in pediatric residencies: A review of NIMH-supported training programs.** *Journal of Medical Education*, 1969(Oct), Vol. 44(10), 939-944.—Describes several programs designed to provide pediatric residents with some knowledge of mental health. The collaborative attempts by the departments of pediatrics and psychiatry have provided important advances in medical education; but to date these programs have not been organized to provide necessary information about the relative value of their content and teaching methodology. It is hoped institutions planning similar collaborative curricula will not only utilize the information obtained from these earlier programs but will structure their efforts so that the efficacy of the results can be assessed. Only in this way can medical education be effectively advanced.—*Journal summary.*

1447. Katahn, Martin. (Vanderbilt U.) **A survey of the interest in continuing education among mental health professionals in the Southeastern states.** *American Psychologist*, 1970(Oct), Vol. 25(10), 941-952.—Describes a questionnaire sent to 600 mental health professionals, designed to determine their interest in a university sponsored interdisciplinary center for continuing education. Data indicate that areas of greatest interest were behavior modification, drug/alcohol usage, and community mental health (including consultation, family group therapy, crisis intervention, and training of lay personnel). 70% of respondents indicated interest in learning practical applications of operant methodology and behavior therapy. Most respondents indicated satisfaction with previous continuing education experiences. Since a majority received their highest degree at least 5-10 yr. before, it is suggested that a definite need exists for programs designed to help professionals update their knowledge and skills. A center for advanced study currently operating in the Southeastern United States is described.—*Author abstract.*

1448. Keller, Fred S. (3532 Old Colony Rd., Kalamazoo, Mich.) **Comments and queries: "English spoken here."** *Psychological Record*, 1970(Spring), Vol. 20(2), 259-262.—The classical requirement of foreign-language reading knowledge for doctoral candidates in psychology has failed to provide the community of scholars that was its aim. An alternative is suggested which places the learning of a 2nd language within a larger international context and gives greater meaning to other-language mastery at lower educational levels.—*Journal abstract.*

1449. Philippot, M. & Chevolet, D. (Faculté des Lettres et Sciences Humaines, Rennes, France) **A propos de la formation des étudiants en psychologie: Une cinquième faculté est-elle nécessaire?** [On the training of psychology students: Is a new school necessary?] *Information Psychologique*, 1968(Apr), No. 30, 37-50.—Reviews the present curriculum, and suggests that more emphasis be placed on (a) case discussions, (b) sensitivity training, (c) training in group relations, and (d) role playing. It is suggested that this is enough of a departure from the usual behavior pattern in most of the universities to require the organization of a new unit.—S. G. Vandenberg.

EDUCATION & TRAINING

1445. Does, Richard B. (Michigan State U.) **A process analysis of supervision in psychothera-**

PROFESSIONAL DEVELOPMENTS

1450. Fine, Reuben. (225 W. 86, New York, N.Y.) **Psychoanalysis, psychology and psychotherapy.** *Psychotherapy. Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 120-124. "... it is simply absurd that when the student takes psychology he will learn in detail the RIs for all the major senses, the perception of colors, the laws of learning, etc., but will be taught nothing about love, sex, the family, war, crime or artistic creativity." An urgent plea in made for the "sincere acceptance of psychoanalysis by psychology." This would involve 5 substantial changes in the present academic structure of psychology. (22 ref.) H. K. Moore.

1451. Kohut, H. **Scientific activities of the American Psychoanalytic Association: An inquiry.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 462-484. Presents a slightly altered version of the final report of the Ad Hoc Committee on Scientific Activities presented in 1969 to the Executive Council of the American Psychoanalytic Association. The task of the committee was to survey the current state of psychoanalytic scientific activities and to assess the role played by the Association with regard to them.—D. Prager.

1452. Spiegel, Don & Keith-Spiegel, Patricia. (Brentwood Hosp., Veteran Administration Center, Los Angeles, Calif.) **Assignment of publication credits: Ethics and practices of psychologists.** *American Psychologist*, 1970(Aug), Vol. 25(8), 738-747. Reports results from respondents (454 American Psychological Association members, 261 psychologists with 5 or more publications, and 117 Veterans Administration psychologists) to a questionnaire concerned with publication credit practices in collaborative research situations. Questionnaire items were presented in terms of hypothetical situations requiring multiple-choice responses in the areas of the paid consultant, continuing research team, authorship order when contributions are equal, and a variety of classes of research assistants. Tentative guidelines are presented on the basis of results obtained. In general, it is noted that neither power nor status should determine credit assignment.—P. McMillan.

1453. Wolff, Wirt M. (U. Texas, Medical School, Dallas) **A study of criteria for journal manuscripts.** *American Psychologist*, 1970(Jul), Vol. 25(7), 636-639. Surveyed 66 editors of certain clinical-personality journals as to their rankings of, and comments, about 15 manuscript criteria. Findings show high interjudge agreement and a significant consensus in a comparable study of related journals. Results reflect agreements among judges of journal articles that could expedite manuscript preparations. (17 ref.)—Author abstract.

INTERNATIONAL PSYCHOLOGY

1454. Melekhov, D. E. **Sotsial'noe i trudovoe ustroistvo psikhicheskii bol'nykh i invalidov v SSSR.** [Social and occupational rehabilitation of mental patients and the incapacitated in the USSR.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 161-167. Presents a survey of the development and characteristics of social psychiatry in the Soviet Union, and its influence on the development of social psychiatry in other countries. (30 ref.)—I. D. London.

1455. Rozanova, T. **XIX Mezhdunarodnyi psikhologicheskii kongres.** [19th International Psychological

Congress.] *Defektologiya*, 1970, Vol. 2(1), 91-94.—Presents summaries of papers read at the 1969 Congress, held in London, which deal with mental capacities and functional abilities of normal and handicapped children.—I. D. London.

1456. Whittaker, James O. (Pennsylvania State U., Psychosocial Lab., Middletown) **Psychology in China: A brief survey.** *American Psychologist*, 1970(Aug), Vol. 25(8), 757-759.—Discusses evidence that psychology still exists as a viable profession within China. 3 specialties appear to predominate: medical (or clinical), educational, and industrial. Graduate training is available in these specialties at a few universities including Peking. Research is carried out mainly at the Chinese Academy of Sciences in Peking and Peking University, although educational research in psychology is probably conducted more widely. Although professional psychology is quite limited, perhaps as many as 40,000-50,000 students are enrolled in lower-level psychology courses.—Author abstract.

1457. Jones, Richard M. (State U. New York, Old Westbury) **Possible functions of dreaming.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 335-344.

GENERAL BOOKS & REFERENCE WORKS

METHODOLOGY & RESEARCH TECHNOLOGY

1458. Brown, Steven R. (Kent State U.) **On the use of variance designs in Q methodology.** *Psychological Record*, 1970(Spr), Vol. 20(2), 179-189.—Misgivings concerning the use of variance design and analysis in the structuring and evaluation of Q samples derive from the basic assumptions of deductive methodologies. Several alternative uses of variance design, as discussed by W. Stephenson, are suggested. Criticism of Stephenson's use of factorial arrangement is based on a misunderstanding of his position, too strict a reliance on the logical properties of Q samples, and failure to realize the synthetic quality of self-referent statements. Principles are illustrated with empirical examples.—Journal abstract.

1459. Feldman, Carol F. & Hass, Wilbur A. (U. Chicago) **Controls, conceptualization, and the interrelation between experimental and correlational research.** *American Psychologist*, 1970(Jul), Vol. 25(7), 633-635.—Studies of the correlational type allow direct inferences about population differences, and indirect inferences about their causes. Studies of the experimental type allow direct inferences about situational factors, and indirect inferences about the behavior of individuals in general, in natural situations. Both types require controls of analogous forms to support the full range of inference-making and psychological conceptualization. It is with respect to such conceptualization that efforts at control must be evaluated.—Author abstract.

1460. Kalinovskii, A. P. **Printsipy postroeniya nekotorykh avtomatizirovannykh sistem obrabotki fiziologicheskoi informatsii.** [Principles underlying the construction of some automatized systems for the treatment of physiological information.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta* (See PA, Vol. 45:Issue 2) 182-185.—Examines the process of treating physiological information

as consisting of (a) primary treatment, i.e., isolation of a number of defined physiological indices from the general flow of data, measurements of values, and transformations into a form suitable for analysis; and (b) secondary treatment or analysis, whose goal and character are determined by the aims of the research and the conditions under which it is conducted.—*I. D. London.*

1461. Khumal', Kh. A. **Vysokoplotnaya sistema magnitnoi tsifrovoy zapisi dlya nakopleniya fiziologicheskoi informatsii bol'shogo ob'ema s posleduyushchim avtomaticheskim vvodom v ETsVM.** [High-density system for a magnetic digital record to store physiological information of great volume with subsequent automatic lead into an electronic computer.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45: Issue 2) 170-173.—Describes a method of initial registration of information in digital form with the possibility of reproduction in analogous form, and direct lead into an electronic computer. In order to secure a sustained continuous recording, special methods for the synchronization and demarcation of zones, and a leading-in device affixed to the electronic computer are developed.—*I. D. London.*

1462. Lachenmeyer, Charles W. (Franklin Delano Roosevelt Veterans Administration Hosp., Montrose, N.Y.) **Experimentation: A misunderstood methodology in psychological and social-psychological research.** *American Psychologist*, 1970(Jul), Vol. 25(7), 617-624.—Attempts to place experimental methodology in its proper perspective in psychological and social psychological research. Deficiencies in traditional definitions of experimentation are examined, and an alternative conceptualization is proposed that more closely satisfies the fact of continuity between all scientific investigative procedures. A typology of experimentation is also proposed based on the functions of experimentation vis-à-vis the theory construction process. Results of the narrow conceptualization of experimental methodology extant in present research is discussed. Finally, a strategy of research is proposed that will be fundamental to the eventual development of psychological and social psychological theory. (34 ref.)—*Author abstract.*

1463. Maklyukov, M. I. **Inzhenernye metody sinteza aktivnykh RC-ili'trov diya fiziologicheskoi apparatury.** [Engineering methods for the synthesis of RC-active filters for physiological instrumentation.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45: Issue 2) 115-122.—Presents a synthetic method for calculating RC-active filters in accordance with given frequency characteristics. Application of the Butterworth and the Chebyshev approximating functions was handled through regenerative links having low and high frequency, and frequency range characteristics.—*I. D. London.*

1464. Parin, V. V. (Ed.) **Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.** [Contemporary apparatus and technique in physiological experimentation.] Moscow, USSR: Nauka, 1969. 296 p. Presents a collection of 67 articles on (a) the construction of apparatus and the theory in physiological research, and (b) "the methodology of their application" in physiological experimentation. The collection represents an issue of the series *Problemy Biologicheskoi Kibernetiki* [Problems of Biological Cybernetics].—*I. D. London.*

1465. Shadrintsev, I. S., Magedov, V. S., & Kozharikov, V. I. **Uplotnenie fiziologicheskoi informatsii v telemetricheskikh kanalakakh svyazi.** [Condensation of physiological information in telemetric communication channels.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45: Issue 2) 178-182.—Examines a number of questions connected with the transmission of a great volume of physiological information through telemetric communication channels with limited carrying capacity. Various procedures leading to condensation of transmitted information (preliminary measurements, preliminary statistical treatment, short-interval sampling, focus on only significant deviations, etc.) are explored.—*I. D. London.*

1466. Smith, Nathaniel C. (Ohio State U.) **Replication studies: A neglected aspect of psychological research.** *American Psychologist*, 1970(Oct), Vol. 25(10), 970-975.—A survey of the literature on replication and cross-validation research has revealed that psychologists have tended to ignore replication research. A review of the functions of and deterrents to replication studies is presented. Consideration of the factors influencing replication research suggests that the experimental method, as adopted from physics and chemistry, is invalid for investigating human behavior (31 ref.)—*Author abstract.*

1467. Verplanck, William S. (U. Tennessee) **An "overstatement" on psychological research: What is a dissertation?** *Psychological Record*, 1970(Win), Vol. 20(1), 119-122.—Supports psychological research that is primarily descriptive ethological rather than experimental, in the sense in which this word has been used in psychology. The physical-science model to which psychology has tailored itself has not proven a productive one.—*Journal abstract.*

1468. von Hattingberg, Immo. (Leutoburger Wald Sanatorium, Bad Rothenfelde, W. Germany) **Grundfragen und Methoden der Angstforschung.** [Fundamental problems and methods of research on anxiety.] *Psychologische Beiträge*, 1969, Vol. 11(3), 305-322.—Discusses difficulties in differentiating between fear and anxiety. Describes 3 possible methods of conducting investigations concerning anxiety in humans: (a) independent observation of behavior (Freud), (b) self-knowledge (Kierkegaard and Sartre), and (c) physiological and anatomical investigations. Problems which result from the use of each method are discussed (French & English summaries) (31 ref.) B. A. Stanton.

MODELS & MATHEMATICAL MODELS

1469. Ardila, Ruben. (National U., Bogotá, Colombia) **Mathematical learning theories.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 189-204.—Reviews current research on mathematical psychology in the field of learning. Mathematical learning theory is defined and some history of mathematical models is given. Estes' stimulus sampling theory is analyzed in detail, and a critical evaluation is attempted. (42 ref.)—*R. D. Nance.*

1470. Attinger, Ernst O. & Millendorfer, Hans. (U. Virginia) **Performance control of biological and societal systems.** *Perspectives in Biology & Medicine*, 1968(1st), Vol. 12(1), 103-123.—Using a general systems approach attempted "to enlarge the narrow framework within which specialists usually consider biological and

societal systems. By emphasizing both the similarities in their organization and the need for multidisciplinary approaches for their analysis, it leads to the development of cybernetic models for the study of the behavior of complex systems and of the interaction between component systems. By means of a parametric performance analysis, the effects of changes in various system parameters may be analyzed when the system is subjected to stress. From such an analysis one obtains a ranking of parameters, subsystems, and interphases with respect to performance which, in turn, will indicate the nature of possible control mechanisms and their standing within the hierarchy of control systems. The general approach is illustrated by 2 examples at the organismic and societal level. (19 ref.)—*J. Crabbe*.

1471. **Bredenkamp, Jürgen.** (47-51 Hauptstr., Heidelberg, W. Germany) **Über die Anwendung von Signifikanztests bei theorie-testenden Experimenten.** [The application of significance tests in theory-testing experiments.] *Psychologische Beiträge*, 1969, Vol. 11(3), 275-285. —Emphasizes the need for knowledge of the probabilities of both statistical errors in multiple-hypothesis theory-testing. Mathematical models are presented to illustrate the application of 3 types of significance tests to theory-testing experiments. (French & English summaries)—*B. A. Stanton*

1472. **Graen, George; Alvares, Kenneth; Orris, James B., & Martella, Joseph A.** (U. Illinois) **Contingency model of leadership effectiveness: Antecedent and evidential results.** *Psychological Bulletin*, 1970(Oct), Vol. 74(4), 285-296. —Analyzes the contingency model of leadership effectiveness and its supporting research from strategical and procedural perspectives. Numerous potential and realized problems are discussed. It is concluded that although the antecedent probability based upon previously published reports appeared to be greater than 0, the evidential probability based upon the evidence reviewed herein approaches 0. Thus, the resulting inverse probability casts grave doubt on the plausibility of the contingency model. (29 ref.)—*Journal abstract*.

1473. **Miehle, William & Siegel, Arthur I.** (Applied Psychological Services, Science Center, Wayne, Pa.) **Defect signal detection model based on variable confidence.** *Human Factors*, 1970(Aug), Vol. 12(4), 409-420. —Assumes a person has varying levels of confidence that a defect or a target exists. He will say that a defect or target exists when his confidence is equal to or exceeds a criterion level. For a single criterion level, he will say that no target or defect exists when his confidence is below criterion level. For a double criterion level, he will say no when his confidence is below a lower value than criterion level. Otherwise, he will try again. When a defect exists, the confidence frequency function increases with increasing confidence. When no defect is present, a different (decreasing) function describes the behavior. Confidence varies between 0 and 1. For a given frequency function, reliability is calculated as a function of the relative number of defects and the criterion level. The optimum criterion level and maximum reliability are found. Operating characteristic curves are presented. For a single criterion level, results are given for the following types of frequency functions: linear, exponential, normal, step, and arbitrary. Discrete distributions are also considered. An example for a double criterion level is also presented.—*Journal abstract*.

MATHEMATICS & STATISTICS

1474. **Bentler, P. M.** (U. California, Los Angeles) **A comparison of monotonicity analysis with factor analysis.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 241-250. —Describes a technique for determining latent sources of monotonic covariation among the n variables of an N by n data matrix. The data matrix is mapped into a square symmetric n by n matrix of monotonicity coefficients, summarizing the monotonic relationships among the variables. A roots and vectors representation of the derived matrix then maps the variables into a Euclidean space. The metric of the columns of the data matrix can be ignored to yield a final result which is invariant with respect to any monotonic transformations of the variables' scales. Artificial data are used to illustrate how this procedure recovers multidimensional Guttman scales, and how it compares to factor analysis.—*Journal summary*.

1475. **Edgington, Eugene S.** (U. Calgary, Alberta, Canada) **Hypothesis testing without fixed levels of significance.** *Journal of Psychology*, 1970(Sept), Vol. 76(1), 109-115. —Hypothesis testing without fixed levels of significance is common practice in psychology, although almost all psychological statistics books require the researcher to set a level of significance in advance. The reason for this requirement and its irrelevance to the use of hypothesis testing for providing a measure of the evidence against the null hypothesis are discussed. The interpretation of probability values in the absence of fixed levels of significance is considered, and it is recommended that students be taught statistics from the standpoint of the use of exact probabilities as measures of evidence against the null hypothesis.—*Journal summary*.

1476. **Hofstee, W. K.** **De betrouwbaarheid van slaag-zak-beslissingen.** [The reliability of pass-fail decisions.] *Nederlandsche Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 380-383. —The reliability of a testing-instrument is less important than the reliability of the decisions, particularly in binary-test situations. The quality of a test must be considered in terms of the number of erroneously-made correct and incorrect answers. Frequently the reliability based on the scores of the entire range of a test may render a false impression about the decisions made by the Ss. An internal "phi-consistency" coefficient determining the reliability of the decisions is presented. The formula includes the correction provided by the Spearman-Brown formula.—*A. J. Ter Keurst*.

1477. **Hope, K.** (Edinburgh U., Scotland) **The complete analysis of a data matrix: Application and interpretation.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 657-666. —Discusses the various practical problems which arise when K. Hope's method of Complete Analysis is applied to an entity by variable matrix. Underlying assumptions are that (a) correlation coefficients or cosines are adequate measures of association between dimensions, and (b) distance is an adequate measure of similarity between entities or groups.—*R. L. Sulzer*.

1478. **Howard, Kenneth I. & Krause, Merton S.** (Northwestern U.) **Some comments on "Techniques for estimating the source and direction of influence in panel data."** *Psychological Bulletin*, 1970(Sep), Vol. 74(3), 219-224. —Further techniques for the determination and description of causal influence in nonex-

perimental data were recently introduced by A. H. Yee and N. L. Gage (see PA, Vol. 42:14714). These methods, however, do not rest on an adequate formulation of causal logic. Some elements of such a formulation are presented, and their application to the procedures outlined by Yee and Gage are indicated. Attention is given to the selection of rival hypotheses, the assumptions underlying the several analytic techniques, and the function of plausibility and prior substantive commitment in the analysis of nonexperimental research.—*Journal abstract.*

1479. Isaac, Paul D. (Ohio State U.) **Linear regression, structural relations, and measurement error.** *Psychological Bulletin*, 1970(Sep), Vol. 74(3), 213-218.—Distinguishes between situations to which linear regression analysis is applicable and situations which involve linear structural relations. Although both situations involve estimates of linear parameters, the parameters serve a different purpose in the 2 situations, and, consequently, their estimates in general will differ. The assumptions and predictive nature of regression are reviewed and contrasted with the assumptions and nature of linear structural relations. In the structural relation, there is no question about 2 regression lines; only 1 line is of interest. The implications of measurement errors for the 2 situations are pointed out. An example is given in which linear regression analysis was used inappropriately, and in which the analysis for a linear structural relation would have been appropriate.—*Journal abstract.*

1480. Knepp, Dennis L. & Entwisle, Doris R. (Johns Hopkins U.) **Testing significance of differences between two chi-squares.** *Psychometrika*, 1969(Sep), Vol. 34(3), 331-333.—Presents a test for the difference between 2 χ^2 's requiring evaluation of the difference with respect to the $T(x)$ Bessel function. Included is a table of the 5 and 1% points for the Bessel function with degrees of freedom up to 100.—*Journal abstract.*

1481. Lord, Frederic M. (Educational Testing Service, Princeton, N.J.) **Estimating true-score distributions in psychological testing: An empirical Bayes estimation problem.** *Psychometrika*, 1969(Sep), Vol. 34(3), 259-299.—Considers the problem: Given that the frequency distribution of the errors of measurement is known, determine or estimate the distribution of true scores from the distribution of observed scores for a group of examinees. Typically this problem does not have a unique solution. However, if the true-score distribution is "smooth," then any 2 smooth solutions to the problem will differ little from each other. Methods for finding smooth solutions were developed (a) for a population, and (b) for a sample of examinees. (26 ref.)—*Journal abstract.*

1482. May, Richard B. & Konkin, Patrick R. A **nonparametric test of an ordered hypothesis for k independent samples.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 251-257.—If a researcher hypothesizes a complete ordering of k groups, he may study the significance of the trend by a simplification of Jonckheere's test. This test is based on Kendall's S statistic. Tables are presented for $n = 2-30$ and for $k = 3-10$. Also presented are 4 alpha levels.—*N. M. Chansky.*

1483. Murrell, J. F. (Inst. of Aviation Medicine, Farnborough, England) **Multidimensional scaling of an aircraft handling rating scale.** *Ergonomics*, 1969(Nov), Vol. 12(6), 925-933.—Submitted the items of

the Cooper Aircraft Handling Rating scale to 12 qualified test pilots who judged how far apart the items should be on the scale. The resulting single dimension scaling of the items does not give an equal-interval scale. Analysis of the responses by Ss indicates that problems arise in comparing ratings given by different users of the scale. Action to modify the scale is suggested but this is not proposed as a complete resolution of the problems raised. (German & French summaries)—*Journal abstract.*

1484. Oaten, Allan. (Michigan State U.) **Approximation to Bayes risk in compound decision problems.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5745.

1485. Perlson, Michael R. (Purdue U.) **Factorial dimensionality and subgrouping as a basis for modification of prediction.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5730-5731.

1486. Schönplüg, Wolfgang. (Ruhr U., Psychologische Inst., Bochum/Querenburg, W. Germany) **Psychische Vorgänge beim psychologischen Skalieren: I. Urteilstendenzen bei der Benutzung von Skalen mit sieben Stufen.** [Psychic processes in psychological scaling: I. Judgment tendencies in the use of scales with 7 grades.] *Psychologische Beiträge*, 1969, Vol. 11(3), 286-293.—80 undergraduates graded 2 lists of randomly selected word pair concepts on a 7-grade impression differential scale. Intraindividual correlations were determined for the frequency with which each S chose each of the 7 grades. Results are factor analyzed and show 2 main factors: (a) an accentuation factor, and (b) a differentiation factor. A trend appeared in that Ss had a propensity to choose grades at the middle of the scale. (French & English summaries)—*B. A. Stanton.*

1487. Schönplüg, Wolfgang. (Ruhr U., Psychologische Inst., Bochum/Querenburg, W. Germany) **Psychische Vorgänge beim psychologischen Skalieren: II. Urteilstendenzen bei der Benutzung von Skalen mit drei und elf Stufen.** [Psychic processes in psychological scaling: II. Judgment tendencies in using scales that have three and eleven grades.] *Psychologische Beiträge*, 1969, Vol. 11(3), 295-304.—63 undergraduates rated 15 polar adjective pairs from a list developed by Ertel. Ss were given an impression differential scale with 3 grades, and 80 Ss were given a scale with 11 grades. Grade choice frequency was assessed and factor analyzed. Results of the 3-grade scale show that Factor 1 demonstrated alternation between choice of a central grade and a marginal grade, while Factor 2 showed a preference for marginal grades. Results of choices with the 11-grade scale showed accentuation and differentiation factors and a preference for central grades. (French & English summaries)—*B. A. Stanton.*

1488. Werts, Charles E. & Linn, Robert L. (Educational Testing Service, Developmental Research Div., Princeton, N.J.) **Path analysis: Psychological examples.** *Psychological Bulletin*, 1970(Sep), Vol. 74(3), 193-212.—Demonstrates the usefulness of path analysis by applying it to a set of kindred problems: (a) the correlation of true scores over time, allowing specified measurement errors to be correlated; (b) the "bouncing beta" in stepwise regression analysis; (c) the specification of the number and interrelationships of latent variables in a set of data; (d) adjustments for covariate unreliability in the analysis of covariance; and (e) the analysis of multitrait-multimethod matrices. (16 ref.)—*Journal abstract.*

1489. Wolfe, John H. (U.S. Naval Personnel &

Training Research Lab., San Diego, Calif.) **Pattern clustering by multivariate mixture analysis.** *Multivariate Behavioral Research*, 1970(Jul), Vol. 5(3), 329-350.—Reformulated cluster analysis as a problem of estimating the parameters of a mixture of multivariate distributions. The maximum-likelihood theory and numerical solution techniques are developed for a fairly general class of distributions. The theory is applied to mixtures of multivariate normals and mixtures of multivariate Bernoulli distributions. The feasibility of the procedures is demonstrated by 2 examples of computer solutions for normal mixture models of the Fisher Iris data and of artificially generated clusters with unequal covariance matrices. (24 ref.)—*Journal abstract.*

1490. Zimmerman, Donald W. (Carleton U., Ottawa, Ontario, Canada) **Variability of test scores and the split-half coefficient.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 20(2), 259-266.—Demonstrates that the correlation between half test scores over repeated random test splits, across persons, and across occasions is given by Kuder-Richardson (KR) Formula 21. The condition under which KR 21 equals test reliability is given.—*N. M. Chansky.*

Factor Analysis

1491. Hofstee, W. K. **Factoranalyse over on-bepaalde aantallen variabelen.** [Factor-analysis about unlimited number of variables.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 377-379.—Describes an ALGOL program developed for component analysis of matrices in which the number of variables is large and the number of entities limited. The upper-limit of the number of entries over the number of factors depends on the "memory-size" of the computer. The factors to be extracted from the data should not exceed the number of persons or entries.—*A. J. Ter Keurst.*

COMPUTERS & PROGRAMING

1492. Alekseev, S. G. & Volkov, A. F. **Nekotorye voprosy obrabotki graficheskoi informatsii s ispol'zovaniem poluavtomaticheskikh ustroystv schityvaniya.** [Some questions on the treatment of graphic information with utilization of semiautomatic computer equipment.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 185-187.—Examines a device for the treatment of telemetric information—1 which projects the telemetric information onto a screen from a 35-mm film and supplies solutions to problems involving the transformation and ascertainment of the coordinates of any point of the graph.—*I. D. London.*

1493. Glushkov, N. N., L'vov, V. A., & Storozhuk, V. M. **Preobrazovatel' vremennyykh sootnoshenii impul'snoi aktivnosti neuronov v tsifrovuyu formu dlya vvoda v pamyat' EVM.** [A transformer of time relations of neuronal impulse activity into digital form for lead into the memory of the electronic computer.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 212-216.—Describes a device which facilitates the introduction into the computer memory of information on neuronal impulse activity from (a) the output of a biopotential-amplifier directly during the experiment, or (b) a magnetograph with recording in analog form.

Results of experiments issuing from the determination of interimpulse intervals of neurons in the somatosensory cortex against background rhythm and during strychnine poisoning are presented.—*I. D. London.*

1494. Ivannikov, Yu. G. **Primenenie EVM dlya stereotaksicheskikh raschetov.** [Application of the electronic computer for stereotaxic calculations.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 233-235.—Describes a method based on the computer transformation of coordinates after preliminary correction of distortions in the X-ray picture, utilized for calculation of stereotaxic coordinates.—*I. D. London.*

1495. Shure, Gerald H. & Meeker, Robert J. (System Development Corp., Santa Monica, Calif.) **A computer-based experimental laboratory.** *American Psychologist*, 1970(Oct), Vol. 25(10), 962-969.—Describes a computer-based laboratory, developed and applied in behavioral research over a 6-yr period. The laboratory design is described in terms of general capabilities, physical configuration, 2 computer systems (dedicated and time-sharing), and associated equipment. Descriptions are given of computer-managed experiments to illustrate computer advantages: (a) rapid preexperimental assessments of Ss; (b) presentation of instructions, and generation of stimuli and their controlled presentation; (c) improved methodology in executing experimental conditions; (d) recording of computer-mediated social interaction; and (e) control of social interaction (simulated Ss programmed to incorporate complex contingencies). Novel methodological capabilities include: on-line interviewing during the experiment, in-process assistance for Ss, implementing complex communication networks (to alter communications, to randomize interaction of Ss, or to implement alterable hierarchical relationships), and real-time data analysis (providing E with in-process results and analyses as bases for possible on-line intervention). The problems of bringing this technology to a wider community of behavioral scientists are discussed, particularly that of getting the investigator into a context governed by unfamiliar procedures. (29 ref.)—*Author abstract.*

1496. Stukovská, Magda. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Efektivnost stol'nykh počítačov v základnom výskume.** [Effectiveness of table-computers in basic research.] *Studia Psychologica*, 1970, Vol. 12(1), 78-80.

1497. Tonkonogii, I. M. (Bekhterev Research Psychoneurological Inst., Leningrad, USSR) **O primenenií ideí i metodov kibernetiki v neiropsikhologicheskikh issledovaniyakh.** [On application of the ideas and methods of cybernetics in neuropsychological research.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 49-53.—Based on a wide range of data, discusses the recognition of images, in order to explore, for example, the findings and prospects of neuropsychological research, based on the conceptions and methods of cybernetics and on its newly developing branch, bionics.—*I. D. London.*

TESTING

1498. Crombag, H. F. (Rijksuniversiteit, Leiden, Netherlands) **Vergelijking van een examen met open vragen en een meerkeuze-toets.** [Comparison between an open question examination and a multiple-

choice test.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 349-359. —Investigated to what extent a traditional criminal law examination with open end questions measured the same thing as an achievement test with multiple choice questions. Ss were 315 law students. Each test item measured a corresponding bit of information. Each test consisted of 20 questions. The r between open-end and multiple choice was +.66 and +.94 after correction for attenuation. The internal reliability was .62 and .80, respectively. The factor analysis of the results indicated that Factor I consisted of knowledge of criminal justice and Factor II indicated that a certain test item was not pertinent. Further factor analysis indicated a bipolarity of factors that suggest that they do not measure anything that can be ascribed to the specific form of the tests. It is concluded that both tests measure the same factors equally well. In general, a multiple-choice test should contain more items to assure the equal reliability with the open-end test.—A. J. Ter Keurst.

1499. de Groot, A. D. (U. Amsterdam, Netherlands) **Some badly needed non-statistical concepts in applied psychometrics.** *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 360-376. —Discusses the social implications of a testing program. Acceptability is the "4th" dimension added to the dimensions of reliability, validity, and profitability. The aspects of acceptability are objectivity, transparency, and justifiability of differential decisions. Complete objectivity of a test is attained when all the pertinent data of a subject up to the final decision can be administered by a machine. Transparency of a test requires that a testee has available all the information he needs about the test itself so that his best possible performance can be developed. The justifiability of differential decision depends on the testee's acceptance of the test as being representative of the material being tested, equitable in its aim of being valid in composition and having a high predictive-validity. Analysis of acceptability requires a nonstatistical reasoning borrowed from legal disciplines rather than from scientific methodology. (22 ref.)—A. J. Ter Keurst.

1500. Franke, Joachim. (U. Erlangen-Nürnberg, Inst. für Wirtschafts- und Sozialpsychologie, W. Germany) **Eine Konzeption zum systematischen Aufbau Eignungsuntersuchungen.** [A concept for the systematic organization of aptitude testing.] *Psychologische Beiträge*, 1969, Vol. 11(3), 390-405. —Describes a concept which serves as a guide and memory-aid in the planning of aptitude testing to enable the practical psychologist to recognize quickly which partial tasks in the course of data selection, data gathering, and data processing have not yet been solved. The visualization, facilitated by the demonstrative pattern, of the optimum condition of the aptitude testing procedure is intended to simplify the decision as to where an improvement of the mode of procedure can most easily be realized. Replacement of aspects of personality theory by theoretical role aspects in aptitude testing is suggested. (French summary) (20 ref.)—English summary.

1501. Hicks, Lou E. **Some properties of ipsative, normative, and forced-choice normative measures.** *Psychological Bulletin*, 1970(Sep), Vol. 74(3), 167-184. —Evaluates and summarizes the relevant literature describing mathematical and empirical properties of ipsative and nonipsative measures. The need for a simple procedure for quantifying the "degree of ipsativity" in

measuring instruments is indicated. It is concluded that although nonipsative (normative or forced-choice normative) measuring instruments can be highly effective in most assessment situations, purely ipsative instruments possess such extensive psychometric limitations that use of such instruments is not recommended. (2 p. ref.)—Journal abstract.

1502. Shoemaker, David M. & Osburn, H. G. (Oklahoma State U.) **A simulation model for achievement testing.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 267-272. —Computer simulation of achievement testing requires 3 features be present: items, Ss, and S passing or failing of items. Test content "is simulated by fixing the tetrachoric correlations among the items." S ability level is defined as relative to his reference group and is therefore represented by a Z score. Passing or failing an item is determined in the following manner: (a) the probability of passing an item is found, (b) a number between 0 and 1 is randomly selected from a rectangular distribution, and (c) if a is greater than b, the item is passed. An application is presented.—N. M. Chansky.

1503. van der Ven, A. H. (Catholic U., Nijmegen, Netherlands) **Het aantal overgeslagen items als testscore in tests met tijdlimiet.** [The sum of omitted items as a test-score in time-limited tests.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 418-428. —3 "error-models" are indicated: the Poisson-error, the binomial-error, and the generalized binomial-error models. The assumption was made that the score of omitted items follows for a testee a Poisson distribution model. The Interest, School-Progress and Intelligence (ISI), a time-limit test of intelligence, was administered to 2000 5th and 6th grade Ss. In 3 of the 6 subtests of the ISI, the Poisson model was rejected. Reliability r_s , ranging from .40-.70, for the number of test items omitted were calculated for each of the subtests. It is concluded that the number of test items omitted as a test score has a low reliability.—English summary.

Construction & Validation

1504. Dicks, Paul. **Elaboration d'un test de vocabulaire allemand (WST 41).** [Construction of a German vocabulary test (WSI 41).] *Information Psychologique*, 1969(Jan), No. 33, 3-22. —An existing German vocabulary test was modified, and administered to 829 recruits classified on the basis of their education into 6 groups. The new test called WST 41 correlated .57 with the Domino 48 test and .60 with the Progressive Matrices. Norms are provided for students of different levels of education. (16 ref.)—S. G. Vandenberg.

1505. Droege, Robert C., Showler, William; Bemis, Stephen, & Hawk, John. (U.S. Dept. of Labor, Manpower Administration, Washington, D.C.) **Development of a nonreading edition of the General Aptitude Test Battery.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 45-53. —To provide a basis for comprehensive aptitude measurement of the disadvantaged, a non-reading edition of the General Aptitude Test Battery (GATB) was developed. The follow-up experiment analyzed the interrelationships of the experimental nonreading test and the GATB for a sample of high school seniors. Results indicate that composites of the nonreading test could be developed that had relatively high correlations with GATB aptitudes. The 1 exception

was the inability to develop a nonreading counterpart of the GATB measure of clerical perception. This investigation was followed by research to standardize the nonreading aptitude tests on disadvantaged individuals.—S. M. Amatora.

1506. Kuder, Frederic. **Some principles of interest measurement.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 205-226.—12 principles are offered as guides to the development of vocational interest inventories: (a) capacity to distinguish between occupational groups, (b) adequate sampling of interests within a vocational domain, (c) invariance of item form, (d) freedom of item form from response bias, (e) avoidance of job titles in interest items, (f) presence of internal validity checks, (g) equipotentiality of use with males and females, (h) score stability, and (i) reporting of scores in order of magnitude of interests. (21 ref.)—N. M. Chansky.

1507. van Naerssen, R. F. **Tweekeuze-items in studietoetsen.** [Two-choice items in study-tests.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 393-403.—Discusses the advantages of the 2-choice multiple-choice (MC) and true false (TF) tests. MC tests are frequently less ambiguous than the TF, can avoid the frequent non-discriminatory answers of the 4-point MC, and may take less time to construct than the 4-point MC. The problem is whether splitting a 4-choice MC into 2 2-choice MC will affect the reliability. Ss were 92 secondary-school pupils who responded on a 50-item 4-choice MC and on a 2-choice 100-item MC. The tests were parallel. The r of the item-test was higher for the 2-choice than for the 4-choice but the difference was not significant. When the intercorrelations between less difficult tests are very high, the 4-choice is more reliable than the 2-choice test of double length.—A. J. Ter Keurst.

EXPERIMENTATION & OBSERVATION

1508. Fisch, Rudolf. (U. Saarbrücken, Psychological Inst., W. Germany) **Hinweise für den Bau eines elektrophysiologischen Mehrzwecklabors.** [Suggestions for the construction of an electrophysiological multiple purpose laboratory.] *Psychologische Rundschau*, 1970(Jul), Vol. 21(3), 180-186.—Insulation against acoustical noise and stray potentials were the chief demands for the laboratory. In addition communication between S and E from the control room containing the electronic measurement equipment was necessary. Optimal arrangements of the rooms, shielding against noise, air-conditioning, 1-way mirror screening, and projection openings are discussed.—W. J. Koppitz.

1509. Hutt, S. J. & Hutt, Corinne. (Park Hosp. for Children, Human Development Research Unit, Oxford, England) **Direct observation and measurement of behavior.** Springfield, Ill.: Charles C Thomas, 1970. xii, 224 p. \$14.95.

1510. Levine, Anson J. (U. Houston) **An evaluation of functional ecological psychology.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5715-5716.

1511. Stoyva, Johann M. (U. Colorado, Medical School, Denver) **The public (scientific) study of private events.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 355-368.

APPARATUS

1512. Abdrakhmanov, M. I., Stakhov, A. A., & Shapiro, M. G. **Magnitomekhanicheskie gazoanalizatory kisloroda tipa MMG.** [MMG-type magnetomechanical gas analyzer of oxygen.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 139-141.—Describes the principle of action, basic features, and advantages of instruments which are most promising for the automatic analysis and regulation of oxygen content in complex mixtures of gases.—I. D. London.

1513. Aleev, L. S. & Bunimovich, S. G. **Upravlenie dvizheniyami cheloveka s pomoshch'yu mnogokanal'nogo elektronnoho ustroystva.** [Controlling human movements with the aid of multichannel electronic equipment.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 216-222.—The neuromuscular apparatus is excited in normal and pathological conditions by electrical impulses, amplitudemodulated by the averaged value of EMGs picked up from similarly situated body "motor points." The device makes it possible to control the movements of 1 person by picking up signals from another.—I. D. London.

1514. Alyamovskaya, V. A., Dubrovskii, N. A., Krylov, L. M., & Sosnina, O. V. **Generatory periodicheskikh signalov dlya biofizicheskikh izmerenii.** [Generators of periodic signals for biophysical measurements.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 152-155.—Examines the circuits for 2 generators of periodic signals widely applicable in varied psychophysical and electrophysiological measurements: (a) a generator of calibrated right-angular impulses, and (b) a generator of sawtooth voltage.—I. D. London.

1515. Arnaumov, A. L. **Printsipy konstruirovaniya mnogokanal'nykh reografrov.** [Principles underlying the construction of multichannel rheographs.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 65-66.—Analyzes (a) the possibilities of constructing multichannel rheographic systems for physiological research, and (b) the rationale for the choice of optimal interelectrode distances and the choice of frequencies of alternating current and its voltages.—I. D. London.

1516. Beach, Garnet. (Rockefeller U.) **A sensitive activity transducer.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 237-239.—Describes a highly flexible inexpensive apparatus designed to record the movements of laboratory animals. The magnitude of even very small movements (e.g., sniffing and quivering movements of a rat following injection of a CNS stimulant) can be reflected in a polygraph record. Diagrams for electrical circuit and transducer tube are provided.—P. McMillan.

1517. Bokser, O. Ya. & Klevtsev, M. I. **Analiz tochnosti i razreshayushchei sposobnosti reflektometrov.** [Analysis of the accuracy and resolving power of reflexometers.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 142-144.—Analyzes the error components of electromechanical and electronic reflexometers employed in research on CR activity and stimulation.—I. D. London.

1518. Bol'shov, V. M. & Smirnov, V. I. **Trékh-**

kanal'nyĭ reopletizmograf. [Three-channel rheoplethysmograph.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 69-73.—Describes a 3-channel electronic apparatus, 2 channels of which are rheoplethysmographic. The 1st 2 channels allow recording of impedance changes in live tissue with frequencies of 0-120 cps. The 3rd channel records EKG characteristics.—I. D. London.

1519. Buckalew, L. W. & Cartwright, G. M. (Georgia Southern Coll.) **The contiguity platform: A high response manipulandum.** *Psychological Record*, 1970(Spring), Vol. 20(2), 247-250.—Describes a platform replacement of the standard bar of the Skinner box. Features of this modification include high response-reinforcement contiguity, fast acquisition, high response rate, and minimal E involvement. Platform data reveal good illustrations of standard learning phenomena associated with the bar. Use of the contiguity platform is suggested as appropriate and advantageous for animal drug studies and classroom illustrations of conditioning phenomena.—*Journal abstract*.

1520. Dadashev, R. S. **Printsipy postroeniya mashin dlya kontrolya i diagnoza sostoyaniya organizma.** [Principles of instrument construction for the inspection and diagnosis of the state of the organism.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 188-204.—Presents a mathematical analysis of the stages and principles of such construction, including (a) the gathering of physiological data, (b) the analysis and treatment of primary signals, (c) algorithmization of the results of analysis, and (d) the construction of apparatus for the inspection and diagnosis of organismic states.—I. D. London.

1521. Dalton, Leslie W., Henton, Wenden W., Taylor, Henry L., & Allen, James N. **A closed system audio helmet for monkeys.** *USAF ARL Technical Report*, 1969(Dec), No. 69-17, 3 p.—Describes a closed system audio helmet for monkeys which is both reliable and inexpensive. The need for head restraint is eliminated and also permits self-feeding. No problem was experienced in the daily fitting of the helmet; the operation required less than 5 min.—*Journal abstract*.

1522. Davis, Stanley D. (Case Western Reserve U., Engineering Design Center) **A continuous activity monitor for small caged animals.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 953-954.—Describes a simple system for continuously monitoring activity of small caged animals. The system, comprising a piezo-electric transducer, diode rectifier and low-pass filter, can be used with any appropriate recording DC voltmeter and is suitable for long-term application.—*Journal abstract*.

1523. Dubrovskii, N. A., Korabchevskaya, A. V., & Sosnina, O. V. **Elektronnyi klyuch dlya bioakusticheskikh izmerenii s malymi perekhodnymi protsessami.** [Electronic key for bioacoustic measurements with small transitory processes.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 156-158.—Examines the basic circuit of an electronic multivibrator key for different kinds of bioacoustic research. The circuit allows the procurement of carrier impulses with temporally regulated step-up and down.—I. D. London.

1524. Falaleev, A. G. **Sinkhronnaya registratsiya**

ryada fiziologicheskikh protsessov vo vremya vypolneniya modelirovannykh sorevnovatel'nykh nagruzok. [Synchronous registration of a number of physiological processes during simulated competitive muscular activity.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 272-273.—Describes equipment which, as it synchronously records EEGs, EKGs, EMGs, respiration, etc., makes it possible during the process to (a) "perform muscular work and program direction or distance," (b) voluntarily regulate physical exertion, (c) perform movements simulating the basic motor skills of athletes, and (d) calculate the absolute mechanical power developed by the athlete.—I. D. London.

1525. Golubtsov, K. V. & Volodin, B. I. **Pre-dvaritel'nyĭ usilitel' postoyannogo toka k ostillografu tipa S1-19 i S1-4 dlya registratsii biopotentsialov.** [A preamplifier of direct current to oscillographs of the S1-19 and S1-4 types for recording biopotentials.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 104-105.—Describes a 3-cascade preamplifier of direct current with a coefficient of amplification in the order of 1000, especially prepared to function with the Soviet oscillographs S1-4 and S1-19, widely used in electrophysiological research.—I. D. London.

1526. Hudston, Ramulph & van Houten, Ronald. (Dalhousie U., Halifax, Nova Scotia, Canada) **A cartridge for running long variable-interval tapes.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 165-166.—Describes an inexpensive cartridge for tapes up to 10 m. long, which contains the tapes within an area of less than 1 sq. ft. Construction is not difficult, and requires only 2-3 hr. to build. The cartridge has operated reliably for 6 mo. of almost continuous use. Figures providing a photograph and diagram are included.—P. McMillan.

1527. Karpenko, A. E. & Lavitskii, V. D. **K voprosu o ratsional'noi klassifikatsii datchikov fiziologicheskoi informatsii.** [On the rational classification of devices presenting physiological information.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 27-32.—Examines the state of affairs within and without the Soviet Union regarding instrumentation which presents various kinds of physiological information. The necessity of a systematic classification of such instrumentation is demonstrated and an example adduced.—I. D. London.

1528. Karpenko, A. E. & Razvin, M. A. **Opyt primeneniya mnogokanal'nogo magnitnogo registratora v usloviyakh kliniki i ėksperimental'noi laboratorii.** [An experiment in the application of a multichannel magnetic recorder under the conditions of the clinic and experimental laboratory.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo ėksperimenta*. (See PA, Vol. 45:Issue 2) 173-177.—Examines the applicational features of magnetic tapes, and the major possibilities of their utilization in medicophysiological examinations; and analyzes examples of the utilization of an 8-channel magnetic recorder (type: KRM-01).—I. D. London.

1529. Klochkov, A. M., Elin, P. A., Serov, V. F., & Sergeeva, L. I. **Opyt primeneniya tekhnicheskoi magnitnozapisyvayushchei sistemy dlya registratsii fiziologicheskikh pokazatelei organizma lĕtchika.**

[An experiment in the application of a technical magnetorecording system for registration of physiological indices of the aviator's organism.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 164-170.—Presents the experimental results of such registration of physiological indices (EEG, EMG, EKG, GSR, respiration, body temperature) in flight, and analyzes and prescribes their subsequent treatment by computer.—I. D. London.

1530. Levshankov, A. I., Markelov, I. M., Rafal'son, A. E., & Slutskii, M. E. Radiochastotnyi mass-spektrometr dlya izucheniya funktsii vneshnego dykhaniya. [Radiofrequency mass-spectrometer for studying the functions of external respiration.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 136-138.—Describes the principle of action, construction, and method of application of the apparatus, used to determine the composition of the air breathed.—I. D. London.

1531. Losev, I. I. Spetsial'nye usilitel'nye pribory dlya mikroelektroodnykh issledovaniy. [Special amplifying apparatus for microelectrode research.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 108-109.—Presents a description of the apparatus.—I. D. London.

1532. Losev, I. I., et al. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) Avtomaticheskaya kormushka dlya issledovaniya instrumental'nykh uslovykh refleksov u sobak. [Automatic food-trough for studying instrumental conditioned reflexes in dogs.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 181-183.—Presents details of the construction of an automatic feeder where only 1 cup of food is made accessible through lifting a lever by raising the forepaw and keeping it raised throughout the act of eating, thereby diminishing the factor of weight in certain experiments employing tensometric recordings. Thus, it is shown that disturbed motor reactions during eating in dogs with ablated motor cortex did not result from muscular weakness, but resulted from disturbed coordination of 2 motor reactions (eating and raising of forepaw).—I. D. London.

1533. Mangushev, R. G. & Yakhin, F. A. Transistoroe rele dlya vremennogo analiza refleksa. [Transistor relay for reflex time analysis.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 159-160.—Examines a semiconductive device, functioning with a commutator of voltage duration in studies of motor RT.—I. D. London.

1534. Millner, Edward C. (St. Elizabeth Hosp., National Center for the Prevention & Control of Alcoholism, Washington, D.C.) A simple mechanical uptake roller for cumulative recorder data. *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 199-200.—Describes a simple, inexpensive mechanical uptake roller which processes records in less than 10 min. that had previously required over 1 hr. The roller requires little maintenance and stores records in a roll labeled by date and session number. Construction time averages 4 hr. for 1 man, and approximate cost is \$6-\$10. A schematic diagram of a construction guide is provided.—P. McMillan.

1535. Mintsis, A. M. Pribor dlya mikroelektroodnykh

issledovaniy. [Apparatus for microelectrode research.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 236-237.—Describes apparatus intended for microelectrode research on the CNS of animals of moderate size in neurophysiological and electrophysiological studies. The electrodes can be introduced into strictly defined points of the brain and spinal cord.—I. D. London.

1536. Oppenheimer, Jess. (549 Moreno Ave., Los Angeles, Calif.) Orientation apparatus for human subjects. *Journal of Learning Disabilities*, 1968(Sep), Vol. 1(9), 507-515.—Describes various devices designed to help improve audio and visual perception. These devices, called visual, tactile, or audio "Concentrators," are of relatively simple construction and may be modified to deal with different types of perceptual problems.

1537. Parin, V. V. & Utyamyshev, R. I. Vvedenie. [Introduction.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 5-14.—Recounts the developments in the Soviet Union in the latter 1/2 of the 1960s leading to furtherance of new ideas in the design of technical apparatus in physiological research, and promotion of their manufacture and application.—I. D. London.

1538. Popov, I. I. Izmerenie bioelektricheskikh signalov na bortu letatel'nykh apparatov. [Measurement of bioelectric signals on board aircraft.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 101-103.—Examines a design for a portable transistor amplifier of biopotentials, and presents a theoretical analysis of the errors introduced through output of bioelectrical potentials from the body surface. A mathematical relationship is exhibited which shows the magnitude of relative error to be a function of the parameters of signal source and input resistance of the amplifier.—I. D. London.

1539. Prokudin, V. M. Rtutno-plastmassovyi tenzodatchik dlya fiziologicheskikh issledovaniy. [Mercurio-plastic device for conveying tensile information in physiological research.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 42-44.—Describes a simple method for preparing such a device.—I. D. London.

1540. Schastlivyi, O. Ya. & Prokudin, V. M. Primenenie otechestvennykh promyshlennyykh samopishushchikh priborov v fiziologicheskoy eksperimente. [Application of Soviet-manufactured self-recording devices in the physiological experiment.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 266-268.—Discusses several Soviet self-recording devices, especially those with built-in amplifiers, which can find wide application in physiological research.—I. D. London.

1541. Serov, N. P. Razdelitel'naya vysokochastotnaya pristavka k stimulyatoru s maloi emkost'yu vykhoda otnositel'no zemli. [Separative high-frequency reinforcer for a stimulator with small output volume relative to the earth.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 148-149.—Describes an instrument with small output resistance, developed to counter artifacts which emerge as the result of simultaneous stimulation

of the experimental object with electrical impulses and registration of biopotentials.—I. D. London.

1542. Shcherbakov, K. K. **Pribor dlya issledovaniya funktsii vneshnego dykhaniya cheloveka v usloviyakh pol'eta i v stendovykh eksperimentakh.** [Apparatus for studying the functions of human respiration under conditions of flight and in shooting experiments.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 132-136.—Describes a small economical piece of apparatus for studying the "complex of indices for human respiration." It consists of information-presenting devices and an electronic part, permitting a determination of the complex of spirometric and pneumotachometric indices of respiratory functions.—I. D. London.

1543. Silverman, R. W., Jenden, D. J., & Fairchild, M. D. (U. California, Medical School, Los Angeles) **A complete multiple unit counter with integrated output.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 949-952.—Describes a complete analyzer which measures and records variations of multiple unit activity. It can be directly connected to conventionally used electrodes and yields an output of 0-10 V depending on the frequency of multiple unit firings above an adjustable minimum threshold amplitude. The output can be integrated or averaged and processed by analyzing a potentiometric recorder chart output or by digital techniques.—*Journal abstract.*

1544. Tolkunov, B. F. **Opyt ispol'zovaniya amplitudnogo analizatora dlya issledovaniya vremennykh kharakteristik vyzvanoi i spontannoi aktivnosti neuronov golovnogogo mozga.** [An experiment in the utilization of an amplitude-analyzer to investigate the time characteristics of evoked and spontaneous activity of cerebral neurons.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 149-151.—Examines a circuit design utilizing an amplitude analyzer in neurophysiology. Basic to the apparatus is an amplitude analyzer (AI-100), and a specially constructed block, determining the program of analysis and transforming the temporal parameter into the amplitude parameter corresponding to it.—I. D. London.

1545. Utyamyshev, R. I. **Sovremennye printsipy konstruirovaniya fiziologicheskoi apparatury i nekotorye voprosy ee unifikatsii.** [Contemporary principles of the construction of physiological apparatus and some questions concerning its unification.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 15-26.—Examines the structural design of physiological apparatus, representing a constructional "synthesis of unified elements."—I. D. London.

1546. Utyamyshev, R. I., Neumyvakin, I. P., & Shovkoplyas, A. M. **Malogabaritnaya apparatura dlya izucheniya funktsii vneshnego dykhaniya.** [Small apparatus for studying the functions of external respiration.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 127-131.—Examines the principles of construction, design solutions, and technical characteristics of small apparatus for studying the respiratory functions. Such apparatus employs measuring devices of the wing and thermoanemometric types.—I. D. London.

1547. Utyamyshev, R. I., et al. **Malogabaritnaya apparatura dlya fiziologicheskikh issledovaniy.** [Min-

ature instrumentation for physiological research.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 85-100.—Presents a technical analysis of instrumentation consisting of devices for the presentation and initial transformation of physiological information for subsequent recording in analog form on a real timescale. The designs examined assume transistors, but several measuring channels contain "hybrid schemata" involving the use of electron tubes and elements of semiconductor technology.—I. D. London.

1548. Volkov, V. G. **Pribor dlya statisticheskogo analiza spaikovoï aktivnosti neuronov.** [Apparatus for statistical analysis of neuronal spike activity.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 144-147.—Describes the basic circuit and characteristics of a small transistor converter-reinforcer, intended for joint operation with a multichannel amplitude analyzer.—I. D. London.

1549. Yakovlev, V. V. **Rol' datchika-preobrazovatelya v fiziologicheskome eksperimente.** [The role of devices presenting and transforming information in the physiological experiment.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 33-36.—Examines the specifications guiding the construction and application of devices expected to yield reliable physiological data. Thorough testing of such instrumentation is advised.—I. D. London.

1550. Zaikin, M. G. **Trebovaniya, pred'yavlyayemye k istochnikam pitaniya tranzistornykh usilitelei biopotentsialov.** [Requirements demanded of power sources for transistor amplifiers of biopotentials.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 122-126.—Examines problems connected with the construction of semiconductive voltage stabilizers, intended to power transistor amplifiers of biopotentials. Analytic relationships of permissible voltage-pulsation for different biopotential amplifier cascades are deduced.—I. D. London.

1551. Zherbin, M. F. & Lazareva, A. M. **Tranzistornyi usilitel' dlya registratsii biotokov myshts.** [Transistor amplifier for recording muscle biocurrents.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 105-108.—Describes and analyzes a design for a portable transistor amplifier of biopotentials, distinguished for its high stability under change of external conditions. The amplifier can be utilized as a preamplifier for magnetophonic recording of biocurrents and in a telemetric system for the transmission of myograms.—I. D. London.

EXPERIMENTAL PSYCHOLOGY

1552. Ben Shakhar, Gerson; Lieblich, Israel, & Kugelmass, Sol. (Hebrew U., Jerusalem, Israel) **Guilty knowledge technique: Application of signal detection measures.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 409-413.—Applied procedures for the computation of optimal cutoff points suggested by signal detection theory to an information detection situation with 60 undergraduates. The use of different payoff matrices relevant to a security screening situation

and to a criminal court case produces different cutoff points to be used to classify the GSRs.—*Journal abstract.*

1553. Gumenik, William E. & Glass, Robert. (U. Toledo) **Effects of reducing the readability of the words in the Stroop Color-Word Test.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 247-248.—Decreasing the readability of words, by partially obscuring them with a mask, increased the susceptibility of reading and decreased the susceptibility of color naming to interference in the Stroop color-word conflict situation with 60 undergraduates. The conflict interfered with both reading and color-naming performance, with and without the mask, but the degree of interference was inversely related to the relative strength of the response.—*Journal abstract.*

1554. Khomeriki, T. L. (Burdenko Research Inst. of Neurosurgery, Moscow, USSR) **Latentnyi period migatel'nykh reflektov u cheloveka v otvet na raz-drazhenie glaz vozdukhnoi struei.** [Latent period of human wink reflexes in response to stimulation of the eye with an air-puff.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 16-19.—18-40 yr. olds were Ss in this EMG study. Air puffs were used as stimulation for (a) both eyes simultaneously, (b) 1 eye, and (c) open and closed eyes. The value of the latent period of the wink reflex was not a function of position of the electrode leads (upper and lower lids, outer corner of the eye). With simultaneous stimulation of both eyes, the latent period on the left and right was the same. With stimulation of only 1 eye, the latent period was always shorter on the side of stimulation. With simultaneous stimulation of both eyes when closed, the latent period was shorter than was the case with stimulation of both eyes when open.—*I. D. London.*

1555. Kimble, Gregory A. & Perlmuter, Lawrence C. (U. Colorado) **The problem of volition.** *Psychological Review*, 1970(Sep), Vol. 77(5), 361-384.—The problem of volition is partly a verbal problem, as the extent to which it has been ignored by experimental psychologists seems to imply. However, the attributes of such behavior suggest a variety of empirical approaches, some of which are reviewed. 3 new experiments, designed to demonstrate certain of these properties, are presented. These experiments employ what is believed to be a simple example of the automatization of a voluntary act. Results suggest that this process involves a novel form of reinforcement and that automatic acts are relatively independent of their consequences and are inhibited by the process of paying attention to them. (68 ref.)—*Journal abstract.*

PERCEPTION

1556. Fine, Paul A. (Rutgers State U.) **Effect of language as an organizing factor in the perception of a clearly structured form.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5709.

1557. Hatfield, Jimmy L. & Soderquist, David R. (U.S. Army Medical Research Lab., Ft. Knox, Ky.) **Coupling effects and performance in vigilance tasks.** *Human Factors*, 1970(Aug), Vol. 12(4), 351-359.—Measured the performance of 32 male volunteers on 90-min auditory and visual vigilance tasks in conventional and theory of signal detection indices as a function of coupling, sense mode, and time on task. Order effects, correlations between sense modes, and possible effects of observing

responses were also examined. Regardless of the coupling condition or sense mode involved, β increased while hits and false alarms decreased as time on task increased. There was no significant decline in d' over time on task for either sense mode or coupling conditions. In general, conventional measures of performance were similar for the auditory and visual tasks. Significant cross-modality correlations were obtained for false alarms, latency, and β values. No order effects were observed. Results are discussed in terms of expectancy theory and an observing response model. (23 ref.)—*Journal abstract.*

1558. Kinney, Jo A. & Luria, S. M. (U.S. Naval Submarine Medical Center, Vision Branch, Groton, Conn.) **Conflicting visual and tactual-kinesthetic stimulation.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 189-192.—Investigated the relative importance placed on visual rather than tactual or kinesthetic cues under water. In matching disks of various sizes to common coins from memory, 20 Ss consistently chose disks much smaller than the actual size of the coins and more closely approximating their optical size in water, even when permitted to see their own hands. In Exp. II, the performance of a motor task, learned to criterion while blindfolded, was significantly more disrupted under water than in air when 5 Ss were permitted to look. Both sets of results demonstrate the dominance of vision over the other 2 senses. The importance of the under-water environment as a naturally distorted one, requiring no lenses or prisms to produce optical distortions, is emphasized.—*Journal abstract.*

1559. Melamed, Lawrence E. (Kent State U.) **The role of response processes in the formation of cross-modality assimilation effects.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 185-188.—Found the enhanced judgments of intensity of soft tones judged along with a series of bright lights (assimilation effect) to be dependent on the fact that the lights were judged coincidentally. Ss were 90 female undergraduates. This dependence was not observed in a parallel investigation of contrast effects in judgments of tones alone. Both the form of the assimilation effect and its specific dependence on judging both stimulus modalities argues against a sensory explanation. Instead, it is argued that this cross-modality assimilation effect represents a resolution of the specific difficulties involved in judging 2 qualitatively different modalities on 1 judgment scale.—*Journal abstract.*

1560. Weber, Robert J. & Castleman, Judy. (Oklahoma State U.) **The time it takes to imagine.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 165-168.—Conducted 3 experiments dealing with letter processing in visual and speech imagery. Exp. I and II, with 16 and 20 undergraduates serving as Ss, indicated that speech imagery is more rapid than visual imagery (about 6 letters/sec for speech vs. about 2 letters/sec for vision). Postexperimental scaling of subjective fatigue also revealed differences between imagery modalities, with visual imagery conditions consistently more fatiguing than speech conditions. Exp. III, with 5 undergraduates, dealt with error rates in learning to classify letters on the basis of visual image properties or arbitrary letter names. Results show much more efficient performance for classification based on visual image properties. It is concluded that visual and speech imagery modes differ fundamentally in the manner in which they process information.—*Journal abstract.*

Illusion

1561. Pearlstein, Richard C. (Washington U.) **Relationship of onset OR and terminal OR to the development of a concept of stimulus duration.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5721.

1562. Pressey, A. W. & Dewar, M. J. (U. Manitoba, Winnipeg, Canada) **A reversed Poggendorff illusion.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 227-228. —Modified the Poggendorff configuration so that the direction of illusion was reversed. The reversed illusion was found to be prevalent and reliable in a sample of 96 naive undergraduate Os. It was inversely correlated with the classical Poggendorff illusion. —*Journal abstract.*

1563. Somiya, Tamotsu. [Experimental examination of vibrating-method based on κ -sensitivity and its application and its application to geometrical illusions.] *Japanese Journal of Psychology*, 1969(Dec), Vol. 40(5), 255-266. —Based on experimental results of the on-off response of the human fovea, a hypothesis was proposed that light sensitivity possesses 2 aspects of τ and κ . 4 methods were devised to prove the hypothesis, and the present study is based on the 2nd method (i.e., when grating lines are vibrated in the face of a geometrical figure, they are distorted according to the characteristic of the figure). Experiments were conducted to test this procedure and to examine the relationship between the distortions of the grating lines and various geometrical illusions. (32 ref.) —*English abstract.*

Time

1564. Hawkes, Glenn R. & Worsham, Robert W. (Virginia Commonwealth U.) **Time perception for helicopter vibration and noise patterns.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 71-77. —Studied judgments of stimulus duration for noise and for vibration for stimuli ranging from .5-5 sec. 2 methods were used, production and reproduction, with either noise or quiet backgrounds. 8 male undergraduates served as Ss. No significant effects were found for kind of stimulation or for background condition. A consistent significant effect of method was reported, a finding interpreted as supporting the notion of a psychobiologic clock. Durations tended to be underestimated with the production method and overestimated with the reproduction method. The findings may be applicable to the task of the helicopter pilot or to others involving relatively intense stimulus environments. —*Journal summary.*

1565. Van Wulfften Palthe, P. M. **Time sense in isolation.** *Psychiatria, Neurologia, Neurochirurgia*, 1968(May), Vol. 71(3), 221-241. —Time sense is a function of upper brainstem paraconsciousness. Its estimation of time span is given intuitively without reasoning and moved by an inner certainty in the absence of nearly total external information. In 1-hr experiments of extreme isolation and solitary confinement, the estimates of 32 Ss oscillated steadily around 60% of real time. In cave experiments lasting several mo. and employing 65 Ss, the situation was less extreme, but the estimates by the alternating cortical and brainstem consciousness show an average of 60% of real time; however, the estimates of the time span after a sleep period differs considerably from those following a period of activity and with a lesser dispersion range. The terrestrial 24-hr rhythm is intrinsically present in the

estimates. Estimation falls considerably short of real time, hence duration seems unexpectedly long. —*Journal summary.*

1566. Vroom, P. A. (State U., Utrecht, Netherlands) **Effects of presented and processed information on duration experience.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 115-121. —Studies on the relation between cognitive processes and time experience suggest that apparent duration increases with the transmission rate of information. Experiments support the proposition that estimated time lengthens with the sequence speed of stimuli presented during a given period. However, it appears that the way in which transmission is defined is of great importance for the nature of the effect. When the S has to behave actively, i.e., by translating the stimuli into binary choices, it is found that experienced duration decreases with the number of processed bits. It is demonstrated that these opposite effects are not in the 1st place due to the specific perceptual or physical properties of the tasks. —*Journal abstract.*

VISION

1567. Bartley, S. Howard & Ball, Richard J. (Michigan State U.) **Effects of intermittent photic input on brightness, hue, saturation, visual acuity, and stereopsis.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(May), Vol. 46(5), 315-318. —Reviews effects on sensory end result from using subfusional intermittent photic stimulation, particularly with part-spectrum inputs. These effects include brightness enhancement with inputs in the region of 500 m μ . In this region and, to a lesser extent in others, temporally induced desaturation may occur. Temporally induced hue changes are grouped around 2 neutral points. There is evidence for supersaturation in some regions of the spectrum. Visual acuity is impoverishable under the same manipulations that produce brightness enhancement but so far no marked effect on stereopsis has been demonstrable. (30 ref.) —*Journal abstract.*

1568. Fry, Glenn A. (Ohio State U., Coll. of Optometry) **Positive afterimage and measurements of light and dark adaptation.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Jun), Vol. 46(6), 397-409. —Proposes that the positive afterimage is generated by energy given off by a substance which accumulates during exposure of the retina to light and dwindles away when the eye is kept in darkness. An attempt is made to show how this proposal is related to such phenomena as the latent period, the rate of rise and fall, the negative phase, the flight of colors, neutralization, and the effect of the positive afterimage on the absolute threshold and binocular brightness matches. —*Journal abstract.*

1569. Jeeves, M. A. & Dixon, N. F. (U. St. Andrews, Scotland) **Hemisphere differences in response rates to visual stimuli.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 249-251. —In a series of experiments studying response times to unstructured visual stimuli it was found that visual stimulation going initially to the right hemisphere is responded to faster than stimulation going initially to the left hemisphere. A model is described to account for these results and also for consistent differences in rate of responding depending upon which of 4 possible response pathways is involved. —*Journal abstract.*

1570. Mayzner, M. S. (New York U.) **The disinhibited effect in sequential blanking.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 218-219.—H. K. Hartline and F. Ratliff (see PA, Vol. 29:3463) proposed a disinhibition effect in Limulus and recent studies have attempted to demonstrate such effects in the human visual system. The present study provides an analogue to the Hartline and Ratliff paradigm for the human visual system. Results from 10 male undergraduates suggest that such disinhibition phenomena may be operative in man's visual system.—*Journal abstract*.

1571. Millodot, Michel & Harper, Paul. (Brown U., Hunter Lab. of Psychology) **Measure of visual acuity by means of eye movements.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Dec), Vol. 46(12), 938-945.—Administered subjective and objective tests of visual acuity to 5 university students with normal vision, using the same target, with the same luminance and at the same distance. Objective measurements were obtained by evoking and arresting a pendular eye movement in response to a grating moved sinusoidally back and forth. Eye movements were recorded by a very precise electronic apparatus including a computer of average transients. Objective and subjective measurements of acuity were found to be highly correlated. The absolute value of acuity was higher when measured subjectively than when objective measures were used. The correlation between the objective and subjective measurements are in agreement with other investigations which differ greatly in method. (16 ref.)—*Journal abstract*.

1572. Saur, Roger L. (General Motors Corp., Research Lab., Warren, Mich.) **Influence of physiological factors on discomfort glare level.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(May), Vol. 46(5), 352-357.—Each of 35 Os adjusted the intensity of a sun-sized source to his borderline between visual comfort and discomfort (BCD). The measured BCD intensity of each O was compared with many of his physiological and visual characteristics. Os who complained of glare during daylight automobile driving had a lower BCD intensity which, however, could not be associated with any physiological or visual characteristics. This finding substantiates the concept that discomfort glare is a psychological phenomenon.—*Journal abstract*.

Perception

1573. Berger, Ralph J. (U. California, Santa Cruz) **REM sleep and mechanisms of oculomotor control.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 277-294.

1574. Bongard, M. M. & Golubtsov, K. V. (Inst. for Problems of Information-Transmission, Moscow, USSR) **O tipakh gorizontalnogo vzaimodeistviya, obespechivayushchikh normal'noe videnie peremeshchayushchikh po setchatke izobrazhenii (modelirovanie nekotorykh funktsii zreniya cheloveka).** [On types of horizontal interaction, providing normal vision of images displaced over the retina (simulation of several functions of human vision).] *Biofizika*, 1970, Vol. 15(2), 361-373.—Describes a model and its circuits, capable simultaneously of both normal perception of moving objects and the complete absence of perception of stationary images. A new type of horizontal interaction between channels was used to combine these properties. This was accomplished using a unidirectionally prop-

agated signal, produced through nonlinear transformation of the brightness gradient. The model automatically reproduces a number of properties of human vision: decline of visual acuity with low brightness, the Mach effect, and many features attendant upon the perception of stationary images.—*I. D. London*.

1575. Doty, Richard L. (Michigan State U.) **The effect of instructions on the middle category of a method of limits investigation of the "straight up-and-down position."** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 9-17.—Obtained measures of the visual "straight up-and-down" position for 18 male and 25 female undergraduates under 2 sets of instructions. One group of Os was told they were taking part in a study of tilt, and responded either "tilted" or "no" to settings of a luminous line of light. The other group was told the study was one of verticality, and responded either "no" or "vertical" to the same range of stimuli. The middle category of the tilt-instruction group was significantly larger than that of the vertical-instruction group. Tilt-instruction females had larger middle categories than tilt-instruction males and vertical-instruction males and females. Middle category sizes decreased with successive trials for both instructional groups.—*Journal summary*.

1576. Guralnick, Michael J. & Harvey, Karen G. (American U.) **Response requirements and performance in a visual vigilance task.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 215-217.—*Journal abstract*.

1577. Iida, Takeo. [Effects of lightness, hue, form, and orientation on area-balance in two-color-combinations.] *Japanese Journal of Psychology*, 1970(Apr), Vol. 41(1), 35-40.

1578. Kahneman, Daniel & Wolman, Ruth E. (Hebrew U., Jerusalem, Israel) **Stroboscopic motion: Effects of duration and interval.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 161-164.—Presents an extension of a study by D. Kahneman (see PA, Vol. 42:6484) accounting for the effects of temporal factors on a stroboscopic motion. The quality of stroboscopic motion induced by the successive presentation of 2 illuminated squares obeys 2 rules. For all stimulus durations shorter than 100 msec., optimal motion occurs when the stimulus onsets differ by about 120 msec. For stimulus durations longer than 100 msec., optimal motion occurs when the 2nd stimulus begins at the termination of the 1st stimulus. The 2 rules relating quality of motion to duration suggest a single principle, i.e., that the quality depends only on the interval between the visual responses to the 2 stimuli. The interresponse interval at which motion is optimal is independent of stimulus duration.—*Journal abstract*.

1579. O'Reilly, Joseph P. (U. Hawaii) **Adaptation to visual displacement through a water-air interface.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5719.

1580. Pressey, A. W. (U. Manitoba, Winnipeg, Canada) **Sex differences on tests of visual figural aftereffects.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 78-88.—Determined the nature of sex differences on tests of visual figural aftereffects (FAEs). In Exp. I, in which the method of adjustment was used with 280 female and 280 male undergraduates, the FAE increased as a negatively accelerated function of inspection time but no significant sex differences were exhibited. In Exp. II, in which a method of detection was

employed, 159 women reported significantly fewer occurrences of FAEs than 152 men. Inspection time, however, had no significant effect on the size of the FAE. In Exp. III with 80 male and 80 female Ss, an adjustment technique was used and, once again, sex differences were not revealed. It is concluded that sex differences are dependent on the method used to measure FAEs and that women exhibit smaller (or fewer) FAEs because they adopt a more conservative attitude in situations which have a high level of uncertainty.—*Journal abstract.*

1581. Schmerler, John F. (Rutgers State U.) **The visual perception of accelerated motion.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5724.

1582. Sheppard, Joseph J., Stratton, Roy H., & Gazley, Carl. (Rand Corp., Santa Monica, Calif.) **Pseudocolor as a means of image enhancement.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Oct), Vol. 46(10), 735-754.—Human Os can distinguish more different colors than different shades of gray. If the scale of grays in a complex black-and-white image, i.e., X-ray, is transformed into a scale of colors, perception of the details will be greatly enhanced. In 1 versatile but expensive method of producing such pseudocolor images, the black-and-white image is photoelectrically scanned and a computer produces 3 pseudocolor separation positives (or negatives) directly on 35-mm film. A simpler and inexpensive method was developed which used purely photographic procedures. Examples of results with this procedure applied to chromosome photomicrographs. X-ray films, and pathological specimens are presented.—*Journal abstract.*

1583. Udo de Haes, Helias A. (Zoological Lab., Leiden, Netherlands) **Stability of apparent vertical and ocular countertorsion as a function of lateral tilt.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 137-142.—In Exp. I the inter- and intraindividual variance of the apparent vertical was established as a function of lateral body tilt. Both quantities increased with increasing degree of tilt, with a maximum at the inverted positions (150-180°). Because the apparent vertical depends mainly on the stimulation of the statolith organs, findings imply that these organs become less effective in indicating the vertical. In Exp. II the ocular countertorsion reflex was recorded photographically, simultaneously with measurement of the apparent vertical. This eye reflex, which also depends on the stimulation of the statolith organs, showed no change in variance level at body positions from 30-180°. The result is discussed with respect to the origin of the change in effectiveness of the statolith organs. (35 ref.)—*Journal abstract.*

1584. Welch, Robert B. & Abel, Marilyn R. (U. Kansas) **The generality of the "target-pointing effect" in prism adaptation.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 226-227.—12 undergraduates were used as their own controls in target-pointing and no-target conditions of prism (20 diopters) exposure. Before and after each exposure condition, target-pointing accuracy was tested via forward and lateral arm movement, the 1st of these being identical to the target-response made during prism exposure in the target-pointing condition. Target-pointing enhanced adaptation (the "target-pointing effect"), whether measured by the forward or lateral movement. This finding contradicts the suggestion that the target-pointing effect is limited to

measures of adaptation that entail visuomotor responses identical to those occurring in the exposure period of the target-pointing condition.—*Journal abstract.*

Size & Distance & Depth Perception

1585. Nelson, Thomas M. & Ladan, Carol J. (U. Alberta, Edmonton, Canada) **Size perceptions under several field conditions.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Jun), Vol. 46(6), 418-425.—Studied the apparent increase in the size of the moon compared with its size at zenith in an experiment using 70 undergraduates, chosen for their ability to match size reliably. Unlike previous research, this experiment was conducted in a laboratory setting, permitting study of variables in isolation and combination. Variables studied were: eye elevation, photic gradients, terrain characteristics, and apparent distance and movement. Results show that natural conditions were simulated satisfactorily. It is concluded that present unifactor theories are not sufficient for explanation of the phenomenon. All factors yield illusory effects in isolation. Results suggest that factors are not all additive regarding their size effects.—*Journal abstract.*

1586. Tolin, Phillip. (Central Washington State Coll.) **Relative size as a cue to the relative distances of random stereogram images.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 212-213.—With random letter stereograms as stimuli, 3 groups of 15 undergraduates, each made judgments of relative size and relative distance of paired stereo images varying in size but not in distance, as indexed by amount of retinal disparity. Ss in Group D were instructed that members of the stereo pairs differed in size and distance; Ss in Group S were told that there were distance differences but not size differences; Ss in Group N were told nothing about either relative sizes or relative distances. Differences in instructions regarding relative size did not affect relative size judgments: Ss typically reported the objectively larger image as being larger. Ss in all 3 groups reliably reported the objectively smaller image as being the more distant image.—*Journal abstract.*

Color Vision

1587. Dudek, Richard A. & Colton, George M. (Texas Technological Coll.) **Effects of lighting and background with common signal lights on human peripheral color vision.** *Human Factors*, 1970(Aug), Vol. 12(4), 401-407.—Investigated 2 aspects of binocular peripheral color vision important to an industrial situation, i.e., relative color fields of red, yellow, green, and blue test lights; and false color identification under independent variables of color of background, environmental light, and test position. 4 males with a similar peripheral vision field (within $\pm 2^\circ$ of one another) were used. In general, blue and yellow lights used on a gray background with a low level of environmental light gives the best results for the greatest recognition distance of color and the least number of errors made. Ss displayed large variation, indicating justification for an industrial firm to institute testing procedures to obtain workers who meet specific peripheral color vision requirements.—*Journal abstract.*

1588. Helson, H. & Lansford, T. G. (U. Massachusetts) **The role of spectral energy of source and background color in the pleasantness of object**

colors. *Applied Optics*, 1970, Vol. 9(7), 1513-1562.—5 men and 5 women rated 125 object colors on 25 colored backgrounds in 5 sources of illumination. Foods and complexions were also rated in the same sources. Main effects were found to be highly significant statistically: (a) lightness and chromatic contrasts of object and background colors were more important than quality of illuminants; (b) men preferred cool source and background colors, and women warm colors; (c) best background colors had either low chroma and high reflectance (pastel colors) or low chroma and low reflectance; (d) most important factor determining pleasantness of color combinations was lightness contrast; (e) some closely related color families may be substituted for one another to make good color combinations; and (f) interactions of source, background, and object colors help to account for the conflicting statements often found in the literature regarding color harmony.—*Author abstract.*

1589. **Hidalgo, Zeta D.** (Indiana U., Div. of Optometry) **Effects of intermittent stimulation on hue and saturation discrimination of color defectives and normals.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Dec), Vol. 46(12), 929-938.—Extended the investigation of R. J. Ball and S. H. Bartley (see PA, Vol. 43:7623) on inducing and reducing errors of color defectives on saturation discrimination to hue discrimination tasks. 12 color defectives (6 were male optometry students) and two normals were tested on standard and specially designed pseudo-isochromatic plates illuminated intermittently by a daylight source. A range of 2-12 cycles of light and dark/sec was used and the lengths of the light pulse varied from $\frac{3}{4}$ - $\frac{1}{4}$ the cycle duration. Errors on hue and saturation discrimination plates increased with short light pulses. Results complement those of the previous experiment except that instances of real improvement in color vision test performance at long pulses are difficult to establish with certainty.—*Journal abstract.*

Form & Pattern Discrimination

1590. **Bláha, Svatopluk.** **The convergence of a committee solution of the pattern recognition problem.** *Kybernetika*, 1969, Vol. 5(6), 474-483.—Deals with the problem of the convergence of the error-correction training procedures with a correction increment for the committee solution of pattern recognition problem. The training procedure converges, if the angles between solution vectors and weight vectors are reduced at every step of training process. It was proven that the type of training procedures described cannot secure the convergence to the solution of the problem. Only stochastic training can be successful. (Czech summary)—*Journal abstract.*

1591. **Dick, A. O.** (U. Rochester) **Stimulus variables in single-letter recognition.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 195-196.—Examined the role of some stimulus variables in determining single-letter recognition in 30 undergraduates. The 26 letters of the alphabet were presented individually with systematic manipulations of size and exposure duration. Results show that recognition accuracy is a function of both size and exposure duration. These data imply that present conceptions of feature analysis are somewhat incomplete.—*Journal abstract.*

1592. **Nielsen, Vigo H.** (Indiana U., Div. of Optometry) **Recognition of regular polygons in relation to visual acuity.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(May), Vol. 46(5), 378-386.—Determined recognition thresholds, under favorable viewing conditions, for a Landolt C and 5 equal area regular polygons having 3, 4, 5, 6, and 8 sides. In Part I (Landolt C) there were 6 Os and 2168 presentations. In Part II (polygons) there were 7 Os and 10,080 presentations. Threshold for the Landolt C was established where the outer diameter subtended a visual angle of 1.93 min. of arc (visual acuity 2.59). Thresholds for the 5 polygons were established where the length of a side in each polygon subtended a visual angle between 2 and 2.5 min. of arc. Data indicate a direct proportionality between the reciprocal threshold distances of the 5 polygons and their number of sides. Furthermore, data suggest that the discrimination of a regular polygon is a function of the length of its sides. Comparison is attempted between recognition of clinically-used visual acuity targets and regular polygons. (17 ref.)—*Journal abstract.*

1593. **Sorenson, Ralph T.** (Cornell U.) **Facilitation of identification by attention.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5726.

1594. **Turvey, M. T. & Kravetz, S.** (U. Connecticut) **Retrieval from iconic memory with shape as the selection criterion.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 171-172.—Studied selection of items from iconic memory on the basis of shape by means of the G. Sperling (see PA, Vol. 36:1BC295) partial report procedure. 6 undergraduates served as Ss. Results indicate that partial report by shape was superior to whole report, that partial report by location was superior to partial report by shape, and that the accuracy of report as a function of delay of indicator declined at the same rate for selection by shape and selection by location. Results are discussed in the framework of the flow of visual information within S.—*Journal abstract.*

1595. **van Hasselt, P.** (Katholieke U., Nijmegen, Netherlands) **Vorm-waarneming bij de mens: Een overzicht van de psychologische literatuur.** [Human form perception: A survey of literature.] *Gawein*, 1968(Aug), Vol. 16(6), 281-304.

Eye Movement

Brightness & Contrast Discrimination

1596. **Flock, Howard R. & Noguchi, Kaoru.** (York U., Toronto, Ontario, Canada) **An experimental test of Jameson and Hurvich's theory of brightness contrast.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 129-136.—252 brightness functions for 7 simultaneously presented black, gray, and white squares on black, gray, and white backgrounds approximated power curves with positive exponents when illuminance was varied in 7 steps over 1.9 log luminances. 12 Ss with a median age of 20 yr. participated in the experiment. Mean exponents were significantly larger for whiter vs. blacker squares and for squares on the white vs. gray background. Mean exponents also increased more for squares on white than on black or gray backgrounds. Finally, a white replacing a black background elicited increasingly larger decremental responses as the squares varied from black to white. D. Jameson and L. Hurvich's opponent-process

theory, tested by the experiment, was not predictive. (19 ref.)—*Journal abstract.*

1597. Sato, Aiko. (Nara Women's U., Japan) [Brightness enhancement of flicker and response variability.] *Japanese Journal of Psychology*, 1969(Dec), Vol. 40(5), 267-272.—Measured increment thresholds and apparent brightness of flicker to confirm the hypothesis that at low range of flicker, when apparent brightness increases, O's response variability increases. Underlying this phenomenon is the principle of optimum efficiency of neural activity, operating through the mediation of temporal configuration of stimuli. Therefore, as long as the stimulus is flicker, similar results will be obtained if Os are given some other task than brightness matching. Results indicate that at 6-12.5 cps, thresholds were lower and response variability larger than at 19-46 cps. At 4-8 cps, apparent brightness increased and variability was larger than at 12.5-46 cps. Os were divided into 2 types in response variability.—*English abstract.*

1598. Wildman, Kenneth N. (Florida State U.) **Visual sensitivity at an edge.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5728.

AUDITION

Perception

1599. Bothe, Gary G. & Marks, Lawrence E. (Florida State U.) **Absolute sensitivity to white noise under auxiliary visual stimulation.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 176-178.—Measured absolute sensitivity to white noise with O in the dark, in constant illumination, and in the dark but with sound-synchronized flashes of light at 3 different intensities. A confidence rating procedure was used, and results were analyzed in terms of the theory of signal detectability. There appeared to be no consistent effect of auxiliary visual stimulation on absolute auditory sensitivity for the 4 Os examined.—*Journal abstract.*

1600. Elfner, Lloyd F. & Delaune, William R. (Florida State U.) **Detection of shift in binaural images: A rating method approach.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 158-160.—Two practiced listeners were run in a lateralization task in which a rating method was employed. The detection of right and left shifts from the center position was determined. The effect of frequency of the signal was also assessed in the lateralization task. In addition, 9 naive undergraduate listeners were run in a similar situation to determine the feasibility of using the rating method approach with untrained Ss. 1st-half, 2nd-half comparisons were determined to check reliability of the technique and also to evaluate the effect of number of trials. Results indicate the procedure is promising for the study of directional shifts in binaural stimuli with practiced listeners.—*Journal abstract.*

1601. Ingham, J. G. (Llandough Hosp., Penarth, Glamorgan, England) **Individual differences in signal detection.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 39-50.—Examines whether individual differences in sensitivity and response bias can be studied, using indices like the d' and β of signal detectability theory. Sensitivity, measured by d' , is not influenced by variations in β provided the variance of the noise distribution is equal to that of the signal-plus-noise distribution, but no such deduction can be made for β .

The intraindividual variances can be assumed to be approximately equal, and d' may therefore be estimated without contamination by β . It cannot be assumed, however, that β remains stable for different levels of d' ; in fact it can be shown to depend upon the decision strategy adopted by S. The consistency and orthogonality of indices of sensitivity and bias have been examined in an auditory detection task. Reasonably consistent estimates of d' were obtained from as few as 40 responses. The bias index β was less satisfactory but another index related to it was more promising. The latter was orthogonal to d' , under certain conditions, in the 2-dimensional space describing interindividual variation in detection behavior.—*Journal abstract.*

1602. Larkin, Willard & Greenberg, Gordon Z. (U. Maryland) **Selective attention in uncertain frequency detection.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 179-184.—Studied uncertain frequency detection of brief sinusoids in noise in a special Yes-No paradigm that included single-frequency trials randomly interleaved with trials on which either of 2 frequencies could be presented. Contrary to implications from previous studies, and to sensory filter models of attention, Os' deliberate attempts to impose narrow- or wide-band listening had only a small effect on the relative detectability of signals at 500 and 1100 Hz. If frequency selectivity is to be understood as sensitivity adjustment (rather than as a recognition process), the relevant parameters may be entirely stimulus determined. (19 ref.)—*Journal abstract.*

1603. Sarris, Viktor; Tews, Birgit, & Schönpflug, Wolfgang. (U. Duesseldorf, W. Germany) **GSR and the anchoring of pitch judgments.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 193-194.—Tested and confirmed the arousal hypothesis that anchor stimuli produce specific GSR effects. Ss were 90 undergraduates. Further investigation is recommended concerning whether or not the quartic GSR trend that was found reflects context effects.—*Journal abstract.*

1604. Simon, J. Richard; Hinrichs, James V., & Craft, John L. (U. Iowa) **Auditory S-R compatibility: Reaction time as a function of ear-hand correspondence and ear-response-location correspondence.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 97-102.—Presents 2 experiments concerned with identifying the factors responsible for stimulus-response (S-R) compatibility in auditory information processing. In Exp. I, 32 undergraduates pressed keys located to the right or left of the body midline in response to monaurally presented tonal commands signifying right- or left-hand responses. Ss performed on both uncrossed- and crossed-arms trials. Results indicate that ear-response-location correspondence was the crucial factor accounting for S-R compatibility. In Exp. II, 32 Ss responded with the right or left hand, depending on the ear in which a monaural tone was presented. Ss followed both corresponding and noncorresponding ear-hand instructions on uncrossed- and crossed-arms trials. Results indicate that both ear-hand correspondence and ear-response-location correspondence contributed to S-R compatibility.—*Journal abstract.*

1605. Warren, Richard M., Obusek, Charles J., Farmer, Richard M., & Warren, Roslyn P. (U. Wisconsin, Milwaukee) **Auditory sequence: Confusion of patterns other than speech or music.** *Science*, 1968(May), Vol. 164(3879), 586-587.—Accurate perception of temporal order is essential for many auditory tasks. Yet in an

experiment with 150 undergraduates, the temporal pattern of 4 successive sounds (i.e., hisses, buzzes, and tones) could not be recognized even when the duration of each sound was considerably longer than either average phoneme in normal discourse or notes of melodies. Although each stimuli was perceived, their order remained elusive.—*Journal abstract.*

Speech Discrimination

1606. Sherman, Paul S. (Kansas State U.) **Dichotic and monaural perception of temporal patterns composed of speech and nonspeech elements.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5725.

Audiometry

1607. Altshuler, M. W. (Veterans Administration Outpatient Clinic, Philadelphia, Pa.) **The Stenger phenomenon.** *Journal of Communication Disorders*, 1970(Aug), Vol. 3(2), 89-105.—Offers as a model for a Stenger test: (a) a simultaneous presentation and withdrawal of a pulsed tone signal should be utilized; (b) one should begin with the tone to the good ear close to threshold which will precipitate a constant response from the S; (c) the ascending technique should be used in the poor ear starting at 0-db hearing level; (d) discrete presentations should be in 5 db. steps with the pause time and stimuli time sporadically altered to avoid rhythmicity; (e) the tone to the good ear should not be "faded away"; (f) the test should be accomplished quickly and incorporated into the routine pure tone audiometry which is preceded by adequate, standardized instructions. The Stenger phenomenon is a multifaceted phenomenon. In addition to a concise and comprehensive review of the literature and the research, research needs are indicated, comments and some personal opinions are made, and a comprehensive bibliography is offered. (52 ref.)—*Journal abstract.*

1608. Smedley, Thayne C. (Stanford U.) **The influence of masker intensity on contralateral threshold shifts under three psychophysical methods in naive normal hearing listeners.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5737.

CHEMICAL SENSES

1609. Martin, Sandra & Pangborn, Rose M. (U. California, Davis) **A note on responses to ethyl alcohol before and after smoking.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 169-170.—Measured differential sensitivity before and after smoking a cigarette by 10 smokers, using 10 nonsmokers as controls. Stimuli consisted of reagent grade ethanol in 8 concentrations ranging from 4-12%. No significant differences were observed between smokers and nonsmokers or before vs. after smoking, although slightly higher overall correct responses and correspondingly smaller just noticeable differences were obtained for the nonsmokers. No practice effects were noted among the controls between the 1st and 2nd set of samples. Findings confirm previous results which had been recently questioned.—*Journal abstract.*

1610. Meiselman, Herbert L. & Halpern, Bruce P. (U.S. Army Natick Lab., Pioneering Research Lab., Mass.) **Human judgments of *Gymnema sylvestre* and**

sucrose mixtures. *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 945-948.—Investigated the effects of the sweet suppressant, *Gymnema sylvestre* (G), in mixture with sucrose in an experiment with 11 nonsmoking male undergraduates. Both an aqueous decoction and purified *Gymnemic acid* were studied. The initial impression of sweetness of the mixture of G and sucrose was not different from the sweetness of a suitable control. The lack of suppression was attributed to the relatively slow buildup of effect of G. This buildup and the following recovery were quantitatively examined. At least 30 sec. were needed for the full effect of G to appear, and recovery was not complete 50 min. later. (18 ref.)—*Journal abstract.*

SOMESTHESIA

1611. Dickinson, J. (Loughborough Coll. of Education, Leicestershire, England) **A note on the role of peripheral vision in static balancing.** *Ergonomics*, 1969(Nov), Vol. 12(6), 935.—Investigated the ability to balance statically using minimal visual cues. It was found that sighted levels of proficiency were not consistently achieved in the absence of background structure.—*Journal abstract.*

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

1612. Baekeland, Frederick. (State U. New York, Downstate Medical Center, Brooklyn) **Laboratory studies of effects of presleep events on sleep and dreams.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 49-58.

1613. Baekeland, Frederick & Hartmann, Ernest. (State U. New York, Downstate Medical Center, Brooklyn) **Sleep requirements and the characteristics of some sleepers.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 33-43.

1614. Broughton, Roger J. (U. Ottawa, Medical School, Ontario, Canada) **The incubus attack.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 188-192.

1615. Cartwright, Rosalind D. (U. Illinois) **The relation of daytime events to the dreams that follow.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 227-231.

1616. Dewan, Edmond M. (U.S. Air Force Cambridge Research Lab., Data Sciences Lab., Bedford, Mass.) *International Psychiatry Clinics*, 1970, Vol. 7(2), 295-307.

1617. Ephron, Harmon S. & Carrington, Patricia. (New York Medical Coll., N.Y.) **On the functions of the sleep phases.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 269-277.

1618. Ephron, Harmon S. & Carrington, Patricia. (New York Medical Coll., N.Y.) **The dream as a "guardian of sleep": Indications for further research.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 344-351.

1619. Fisher, Charles; Byrne, Joseph V., Edwards, Adele, & Kahn, Edwin. (Mt. Sinai Medical School, City U. New York) **REM and NREM nightmares.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 183-187.

1620. Foulkes, David. (U. Wyoming) **Personality and dreams.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 147-153.

1621. Foulkes, David. (U. Wyoming) **Stage REM**

variability and dreaming. *International Psychiatry Clinics*, 1970, Vol. 7(2), 165-171.

1622. Globus, Gordon G. (U. California, Irvine) **Rhythmic functions during sleep.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 15-21.

1623. Globus, Gordon G. (U. California, Irvine) **Sleep duration and feeling state.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 78-84.

1624. Greenberg, Ramon. (Tufts U., Medical School) **Dreaming and memory.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 258-267.

1625. Hartmann, Ernest. (Tufts U., Medical School) **A note on the nightmare.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 192-197.

1626. Hartmann, Ernest. (Tufts U., Medical School) **The D-state: A review and discussion of studies on the physiologic state concomitant with dreaming.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 405-422.

1627. Hartmann, Ernest. (Tufts U., Medical School) **What sleep is good sleep?** *International Psychiatry Clinics*, 1970, Vol. 7(2), 59-69.

1628. Hauri, Peter. (U. Virginia, Medical School, Sleep & Dream Lab.) **Evening activity, sleep mentation, and subjective sleep quality.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 270-275.—Investigated sleep mentation and subjective sleep quality in 15 young males after 3 kinds of evening activities: 6 hr. of exercise, 6 hr. of studying, and 6 hr. of relaxation. During REM periods, Ss dreamt less about physical activity after the evening of exercise and less about thinking and problem solving after studying. After studying, there was more social interaction/character in Ss' dreams. Mentation from NREM periods after exercise also showed less physical activity, but after studying it was characterized by a more tense mood. Ss were involved more in what was going on in NREM mentation after studying. Ss said they slept soundest after exercise, and the more they felt involved in REM mentation, the less soundly they reported sleeping. (18 ref.)—*Journal abstract*.

1629. Hauri, Peter. (U. Virginia, Medical School) **What is good sleep?** *International Psychiatry Clinics*, 1970, Vol. 7(2), 70-77.

1630. Hord, David J. (Claremont Graduate School, Calif.) **Components of the human orienting reflex during sleep.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5712.

1631. Hirsch, Carolyn J. (U. Florida) **The scientific study of sleep and dreams.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 387-402.

1632. Kahn, Edwin. (Mt. Sinai Medical School, City U. New York) **Age-related changes in sleep characteristics.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 25-28.

1633. Keenan, Richard. **Content analysis and visual scanning theory in dreams.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(1), 17-20.—Reviewed the association between dreaming and the appearance of bursts of rapid conjugate eye movements (REM) during sleep in 15 all-night sessions with a single S.—*M. V. Kline*.

1634. Kleitman, Nathaniel. (U. Chicago) **Does dreaming have a function?** *International Psychiatry Clinics*, 1970, Vol. 7(2), 352-353.

1635. Kleitman, Nathaniel. (U. Chicago) **Study wakefulness: Study the rest-activity cycle: Don't just study sleep!** *International Psychiatry Clinics*, 1970, Vol. 7(2), 381-384.

1636. Naitoh, Paul. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Sleep loss and its effects on performance.** *USN Medical Neuropsychiatric Research Unit Report*, 1969(Aug), No. 68-3, 51 p.—Discusses the effects of sleep loss on human task performance under total, partial, and selective deprivations of sleep. Some of the frequently used psychological tasks in studies of total sleep loss were described in sufficient detail so that Es could choose adequate tasks to fit their experimental objectives. Factors which play critical roles in determining the degree of task sensitivity to total sleep loss are listed. Effects of shortened hr. of sleep on human task performance are discussed. Effects of selected sleep deprivation on performance are also commented upon. Almost all studies conducted on sleep loss under laboratory conditions are covered, including a series of ongoing experiments on total and selective sleep deprivations at the Navy Medical Neuropsychiatric Research Unit, San Diego. A bibliography on sleep deprivation with author and subject indices is included. (351 ref.)—*Journal abstract*.

1637. Pearlman, Chester A. (Harvard Medical School, Boston, Mass.) **The adaptive function of dreaming.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 329-334.

1638. Shapiro, Arthur. **Comments on the 90-minute sleep-dream cycle.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 21-23.

1639. Shapiro, Arthur. **Suggestions for urgently needed research.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 384-386.

1640. Tart, Charles T. (U. California, Davis) **Waking from sleep at a preselected time.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(1), 3-16.—10 college students attempted to awaken themselves from normal sleep at home, at times selected by the E. These times were randomly distributed through the night. The results were statistically significant, and indicate an ability to awaken at a preselected time. (24 ref.)—*M. V. Kline*.

1641. Van de Castle, R. L. (U. Virginia, Medical School) **Temporal patterns of dreams.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 171-181.

1642. Webb, W. B. (U. Florida) **Individual differences in sleep length.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 44-47.

1643. Webb, W. B. (U. Florida) **Length and distribution of sleep and the intrasleep process.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 29-31.

1644. Wilkinson, Robert T. (Medical Research Council, Cambridge, England) **Methods for research on sleep deprivation and sleep function.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 369-381.

1645. Witkin, Herman A. (State U. New York, Downstate Medical Center, Brooklyn) **Individual differences in dreaming.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 154-164.

HYPNOSIS & SUGGESTIBILITY

1646. Kinney, Jill C. (Stanford U.) **Modification of hypnotic susceptibility.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5675.

1647. Matheus, John M. (Washington U.) **Effects on subject suggestibility of experimenter prestige under hypnotic induction, task motivated, and waking**

Imagination conditions. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5676-5677.

1648. Miller, Robert J., Lundy, Richard M., & Galbraith, Gary G. (Pennsylvania State U.) **Effects of hypnotically induced hallucination of a color filter.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 316-319.—Examined the ability of 10 hypnotized undergraduates to hallucinate the presence of a colored filter before their eyes. Ss were presented with a green number of low brightness projected onto a screen. A bright red light was simultaneously projected onto the same area of the screen so that the number was not visible to the naked eye but was clearly visible when a green filter was worn. All Ss reported hallucinating the green filter and reported a resultant change in the color of the red stimulus. No S, however, was able to see the number.—*Journal abstract*.

1649. Sommerschild, Harold S. (Michigan State U.) **Posthypnotic conflict, repression and psychopathology.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5702.

MOTIVATION & EMOTION

1650. Brown, Sheila F. (Rutgers State U.) **Defense mechanisms and the behavioral control of stress.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5684.

1651. Epstein, Seymour & Roupelian, Armen. (U. Massachusetts) **Heart rate and skin conductance during experimentally induced anxiety: The effect of uncertainty about receiving a noxious stimulus.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 20-28.—45 undergraduates were divided into 3 equal groups differing in expectancy for receiving an unavoidable noxious stimulus on the count of 10 in a 15-number countup. One group was told that the likelihood of receiving a shock was 5%, another 50%, and another 95%. 2 trials were presented. In the 1st, no S received a shock; in the 2nd, all Ss received a shock. For both heart rate and skin conductance, the 5% expectancy group exhibited the greatest, and the 95% group the least, arousal during the anticipatory period. On both measures, the 5% expectancy group exhibited the greatest impact effect. It is concluded that within limits, low expectancy about the occurrence of an unavoidable threatening event increases anticipatory anxiety as well as the reaction to impact. (19 ref.)—*Journal abstract*.

1652. Glass, David C., Gordon, Andrew, & Henchy, Thomas. (Russell Sage Foundation, New York, N.Y.) **The effects of social stimuli on psychophysiological reactivity to an aversive film.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 255-256.—Induced stress in 78 male undergraduates by an aversive film, and measured stress responses by tonic skin conductance and self-reports of tension. Contrary to initial expectations, skin conductance levels were greater in the presence of a friend than a stranger and greater than in a condition where Ss watched the film alone. Results also show that a friend who was blocked from view produced higher levels of skin conductance and subjective tension than did a friend who was visible to the S, whereas the effect was just the opposite for visible and nonvisible strangers. Both sets of findings are interpreted in terms of conflicting needs for anonymity and emotional comparison.—*Journal abstract*.

1653. Hammerton, M. & Tickner, A. H. (Medical

Research Council, Cambridge, England) **An investigation into the effects of stress upon skilled performance.** *Ergonomics*, 1969(Nov), Vol. 12(6), 851-855.—Investigated the effect of an anxiety-producing situation upon skill in an acquisition tracking task. Parachutists at 3 levels of practice were examined. 19 experienced Regular Army men, 9 Regular Army trainees, and 16 Territorial Army (TA) trainees. It was found that the TA were more affected ($p < .05$) than the Regular trainees, who were more affected ($p < .001$) than the experienced Regulars, who were not affected at all. It is concluded that anxiety does produce a decrement although such decrements can be minimized by appropriate training. An investigation into the best form of such training is suggested. (German & French summaries)—*Journal abstract*.

1654. Martens, Rainer & Landers, Daniel M. (U. Illinois, Motor Performance & Play Research Lab., Children's Research Center) **Motor performance under stress: A test of the inverted-U hypothesis.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 29-37.—Investigated whether the relationship between arousal and motor performance among junior high school males supports the inverted U hypothesis. Based on the CMA scale, Ss were either low, medium, or high in trait anxiety and were subjected to 1 of 3 levels of psychological stress. A 3×3 factorial design was used with 10 Ss/cell. Results support the inverted U hypothesis for the stress factor and the anxiety factor separately. These 2 factors, however, did not interact to affect motor performance. Heart rates, palmar sweat prints, and questionnaire responses provided corroborative support for the behavioral results. (32 ref.)—*Journal abstract*.

1655. Ryan, Thomas A. (Cornell U.) **Intentional behavior: An approach to human motivation.** New York, N.Y.: Ronald Press, 1970, vii, 590 p.

1656. Skultin, Richard. (U. Southern California) **Verbal reports of emotional states and onsets and offsets of conditioned stimuli.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5725-5726.

ATTENTION & EXPECTANCY & SET

1657. Crandall, James E. (U. Idaho) **Preference and expectancy arousal: Further evidence.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 267-268.—Investigated undergraduates' reactions to videotaped lectures in order to determine whether or not the relations between preference and expectancy arousal, and preference and expectancy confirmation, would be the same as previously found with different procedures and much simpler stimuli. The results were generally consistent with the earlier research, and extend the generality of the finding that capacity of stimuli to arouse expectancies has a more positive effect upon interest than does capacity to confirm expectancies.—*Author abstract*.

1658. Daniel, Jozef. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Further variants of Stroop's interference test.** *Studia Psychologica*, 1970, Vol. 12(1), 81-81.

1659. Halmiová, Olga. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Attentiveness and strength of the excitation processes.** *Studia Psychologica*, 1970, Vol. 12(1), 75-78.—Supports the hypothesis that Ss with weak excitation processes will perform better in a short-term test

than those with strong excitation processes. A 10-min Bourdon test administered to 30 17-18 yr. old boys and girls, revealed a correlation of statistical significance between weakness of excitation processes and speed of performance. This was true even after the addition of a 2nd task (counting sound stimuli). Since results of other studies are partially contradictory, it is suggested the data in further experiments be verified.—*Journal summary*.

1660. Šípoš, Ivan. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Vigilance performance in verbal signals.** *Studia Psychologica*, 1970, Vol. 12(1), 29-33.—From groups of words presented every 5 sec., 53 undergraduates in a 1-hr session, (a) identified 1 of 3-10 words with which they had been made acquainted before the experiment (33 Ss), and (b) at a signal word, wrote down the 3rd (10 Ss) or 4th (10 Ss) word preceding the signal word. 90 different words were repeated in the test, and the set of words was balanced as to word frequency (high-low) and 3 word categories (nouns, adjectives, verbs). Results show that Ss' performance in the 1-hr session did not decline as a function of time. (Czech & Russian summaries)—*Journal abstract*.

MOTOR PERFORMANCE

1661. Carment, D. W. & Latchford, Margaret. (McMaster U., Hamilton, Ontario, Canada) **Rate of simple motor responding as a function of coaction, sex of the participants, and the presence or absence of the experimenter.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 253-254.—48 male and 48 female undergraduates performed a simple motor task, $\frac{1}{2}$ alone and $\frac{1}{2}$ coacting. $\frac{1}{2}$ of these Ss responded while E was not present. The dependent variable was rate of responding. Ss responded more rapidly and social facilitation appeared only when E was present. In E's absence rate of responding declined and solitary Ss responded more rapidly than coacting Ss. Implications for a learned-drive interpretation are noted.—*Journal abstract*.

1662. Flaningam, Michael R. (U. Arizona) **Influence of rest interval content on pursuit rotor learning and performance.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5709-5710.

REACTION TIME

1663. Baron, Robert A. (U. South Carolina) **Effects of magnitude of model's apparent pain on observer reaction time.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 229-231.—Hypothesized that the degree of emotional arousal vicariously induced among 48 male undergraduates would increase as the magnitude of pain cues emitted by the model increased. Thus, it was predicted that O RT would decrease as the suffering of the model appeared to grow in intensity. Results indicate that contrary to the prediction, O RT increased significantly as the magnitude of pain shown by the model increased.—*Journal abstract*.

1664. Bernstein, Ira H. & Eason, Thomas R. (U. Texas, Arlington) **Use of tone offset to facilitate reaction time to light onset.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 209-210.—4 undergraduates participated in a visual discriminative RT task to explore the phenomenon of intersensory facilitation. Previous research has indicated that RT to a joint visual-auditory

event is more rapid than RT to the visual component alone, even when the auditory component is noninformative. In the present study, a tone offset was used in place of the usual affirmative event (click.) Results indicate that RT is more rapid when the tone offset in conjunction with the occurrence of the visual event as compared to when the tone remained on throughout the trial. The effect was comparable in magnitude to that obtained in prior studies using an affirmative auditory event.—*Journal abstract*.

1665. Orenstein, Howard B. (Furman U.) **Reaction time as a function of perceptual bias, response bias, and stimulus discriminability.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 38-42.—Examined the effects of stimulus discriminability, stimulus frequency, and response frequency in a choice RT task with 60 undergraduates. 2 levels of response frequency ratio (i.e., 1 of 2 responses occurred 2 or 5 times as often as the other) were combined with 3 levels of stimulus configuration. Configuration was defined by the spatial distance between 3 stimulus lights. Perceptual bias was assessed by the difference in RT between stimuli of equal or unequal presentation probability associated with the same response. Response bias was assessed by the difference in RT between stimuli of equal presentation probability associated with separate responses which had unequal frequencies of occurrence. Results offer evidence for perceptual bias only, but these effects depend upon the arrangement of the stimulus configuration.—*Journal abstract*.

1666. Remington, Robert J. (IBM Corp., Research Triangle Park, N.C.) **The repetition effect: A methodological consideration.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 221-222.—Examined the appropriateness of averaging RTs for stimulus events with different probabilities of occurrence in determining the magnitude of the repetition effect. Each of 5 Ss performed under 2 experimental conditions: (a) a 2-choice condition in which the stimulus events were equiprobable, and (b) a 2-choice condition in which 1 of the stimulus events appeared with the probability of .7. A detailed analysis of the data demonstrated how the commonly used averaging process can lead to misleading interpretations regarding the nature of the repetition effect.—*Journal abstract*.

LEARNING

1667. Baum, Morrie. (Bishop's U., Lennoxville, Quebec, Canada) **Extinction of avoidance responding through response prevention (flooding).** *Psychological Bulletin*, 1970(Oct), Vol. 74(4), 276-284.—Discusses the resistance to extinction of avoidance responding, and describes a treatment for hastening extinction. The treatment, known as response prevention (flooding), consists of thwarting the avoidance response while forcing the S to remain in the situation which it fears. Behavior therapy analogues to response prevention are reviewed, and the various factors which determine the efficacy of response prevention with animals are described. Pharmacological and behavioral techniques for enhancing the effectiveness of response prevention are noted. 3 theories (2-process theory, competing response theory, and a relaxation analysis), which attempt to explain why and how response prevention works, are discussed, and it is concluded that no 1 theory provides

an adequate account of all the results obtained. (49 ref.)—*Journal abstract.*

1668. Foppa, Klaus. (2 Sennweg, Bern, Switzerland) **Psychologie des Lernens.** [Psychology of learning.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 83-88.—Proposes that learning may be categorized into 3 main processes: acquisition of knowledge through rote memorization, acquisition or change of behavior, and classic conditioning. Tolman's theory of "purposive behavior" and trends in syntactic content of material being used in current learning experiments are discussed.—*B. A. Stanton.*

1669. Krebs, George E. (Rutgers State U.) **Verbal labels and stimulus complexity in acquisition of recognition and reproduction of visual forms.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5714.

1670. Mash, Eric J. (Florida State U.) **Behavioral contrast in humans: Concomitant changes in state anxiety test scores and reward predictions as a function of extinction and threat of electric shock.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5693-5694.

1671. Muller, Douglas G. (New Mexico State U.) **The transfer of letter training to a word reading task.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 97-107.—Examined reading from a transfer of paired-associates learning view. 10 adult volunteers from upper division education courses were randomly assigned to each of 11 treatment conditions. Ss learned names to artificial letters and words. The transfer paradigms employed were A-B, A₁-B₁; A-B, A₂-B₂; A-Observe A₁-B₁; A-B, C₁-B₁; A-B, C₂-B₂; and —, A₁-B₁. The subscript, c, indicates compounds of 1st task stimulus or response elements. Results approximate those of corresponding traditional paradigms with all groups displaying positive transfer.—*Author abstract.*

1672. Parker, Ronald K. (City U. New York, Center for Advanced Study in Education) **The effects of state instructions and schedules of reinforcement on resistance to extinction.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 233-234.—Used 70 female undergraduates in an experimental design manipulating state instructions and 7 schedules of reinforcement (0-100% in increments of 1/6). The state instructions required Ss to guess before each trial if they were ever going to be reinforced again throughout 30 acquisition and 60 extinction trials, i.e., S guessed whether she was in an experimental state of acquisition or extinction. The most lean schedules of reinforcement (1/6 and 2/6) were most resistant to extinction; however, the resistance to extinction was not related in an orderly fashion to schedule of reinforcement.—*Journal abstract.*

1673. Pozar, L. **Study of some factors conditioning perceptual-motor learning.** *Studia Psychologica*, 1970, Vol. 12(1), 81-83.

1674. Reader, A. V. (U. Manchester, England) **Conditional reflexes and learning machines.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 98-105.—Describes a proposed learning machine which learns by avoidance but also exhibits CR behavior. The design provides for any number of CRs, the mechanisms of which simultaneously share the common memory of the avoidance learning machine. The process of reinforcement-extinction of the CR is different from the reinforcement-inhibition mechanism of the avoidance learning machine.—*Journal abstract.*

1675. Seligman, Martin E. (Cornell U.) **On the generality of the laws of learning.** *Psychological Review*, 1970(Sep), Vol. 77(5), 406-418.—That all events are equally associable and obey common laws is a central assumption of general process learning theory. A continuum of preparedness is defined which holds that organisms are prepared to associate certain events, unprepared for some, and contraprepared for others. A review of data from the traditional learning paradigms shows that the assumption of equivalent associability is false. Examples from experiments in classical conditioning, instrumental training, discrimination training, and avoidance training support the assumption. Language acquisition and the functional autonomy of motives are also viewed using the preparedness continuum. It is speculated that the laws of learning themselves may vary with the preparedness of the organism for the association and that different physiological and cognitive mechanisms may covary with the dimension. (2 p. ref.)—*Journal abstract.*

1676. Sturges, Persis T. & Donaldson, Patricia L. (Chico State Coll.) **Acquisition of incorrect and correct alternatives with increased intervals before and after informative feedback.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 86-90.—Combined 3 delay and postinformative feedback intervals with 1 or 2 trials on 20 verbal triplets, with stimulus material absent during the intervals in Exp. I and present in Exp. II. Ss were 162 and 90 undergraduates, respectively. 2 tests measured the words identified as stimulus words, correct and incorrect alternatives, and associations between the stimulus word and correct and incorrect alternatives. Feedback delay resulted in more incorrect stimulus-response associations in both experiments and more correct alternatives and stimulus words identified in Exp. I. Increased postfeedback intervals resulted in more incorrect alternatives and stimulus words identified in Exp. II. It is concluded that Ss use delay and postfeedback intervals to acquire information about all units of the items rather than simply to rehearse the correct alternative.—*Journal abstract.*

1677. Wong, Martin R. (Michigan State U.) **Similarity and prompting effects in retroactive facilitation of meaningful learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5305.

Conditioning

1678. Abell, Andrew T. (Westminster Coll., New Wilmington, Pa.) **Words functioning simultaneously as negative operant reinforcers and unconditioned stimuli.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 254.—A conditioning device made of paper (reinforcer form) allowed exposures of unpleasant words and of neutral ones to be dependent upon motor responses to 2 CVCs. Ss were 112 undergraduates. As predicted, Ss tended to expose neutral words rather than unpleasant ones, and subsequently rated the CVC associated with unpleasant words as less pleasant than the other trigram.—*Journal abstract.*

1679. Bakker-DePree, B. J., Defares, P. B., & Zwaan, E. J. (U. Groningen, Netherlands) **The conditioning of evaluative meaning.** *Acta Psychologica, Amsterdam*, 1970(Jun), Vol. 32(3), 281-289.—Performed 4 experiments for conditioning evaluative meaning in nonsense syllables with lower technical school students. The procedure developed by C. K. Staats and A. W. Staats

(see PA, Vol. 33:741, and 7843) had to be modified in 2 ways to be effective. 1st, an additional measurement of evaluative meaning of the nonsense syllables was introduced before the conditioning trials. These evaluative scores (ES1) were used (a) to select an initially neutral syllable for conditioning, and (b) to measure the conditioning effect by subtracting the evaluative score obtained after the conditioning trials (ES2) from the ES1. 2nd, a distraction task was given during the conditioning trials. Conditioning could only be demonstrated if the criteria of selection for the UCS nouns and semantic differentials were based on the evaluative meaning responses to these words from the Ss' population.—*Journal abstract.*

1680. Cerekwicki, Louise E. (U. Wisconsin) **Effects of conditioned stimulus relatedness and interstimulus interval upon differential eyelid conditioning to words.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5707-5708.

1681. Johns, Themis R. (U. Miami) **Heart rate control in humans under paced respiration and restricted movement: The effect of instructions and exteroceptive feedback.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5712-5713.

1682. Vandercar, David H. (U. Miami) **Heart rate: Classical conditioning of a discrimination between lateral geniculates to hypothalamic or septal US stimulation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5726-5727.

1683. Weiner, Harold. (St. Elizabeths Hosp., Lab. of Human Behavior, Washington, D.C.) **History-related effects upon human escape responding: Are induction or extinction processes involved?** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 207-208.—Exposed 18-63 yr. olds given either a fixed ratio (FR) 40 or DRL 20-sec conditioning history to an extinction procedure and then conditioned them under an escape schedule. Despite comparable cessation of responding during extinction, FR 40-history Ss produced high-rate escape responding, while DRL 20-sec-history Ss gave low-rate escape responding. Taken in conjunction with previous findings, results suggest that response induction rather than differential extinction is responsible for the persistence of FR- and DRL-history effects upon escape responding.—*Journal abstract.*

Verbal Learning

1684. Dey, Mukul K. (McMaster U., Hamilton, Ontario, Canada) **Generalization of position association in rote serial learning.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 248-255.—36 male undergraduates practiced 2 serial lists of identical length in haphazard alternation. At each position in a list, a maximum number of intruding responses arrived from the same position in the other list, and the frequency of intrusion from a nonidentical position in the other list declined with increased positional disparity in either direction. The reliability of this gradient-like phenomenon, which could not be verified by the method of trend analysis because of insufficient data, is partially indicated by the occurrence of interlist intrusions at a significantly higher rate between identical than between nonidentical positions. Results support the hypothesis that associations not only develop between the items of a rote series and their serial positions but also generalize between positions in inverse proportion to the intervening distance.—*Journal abstract.*

1685. Gaite, Andrew J. (U. Toronto, Ontario, Canada) **A study of retroactive inhibition and facilitation in meaningful verbal learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5285.

1686. Heslip, John R. (U. Kansas) **A cluster of preceding items as a cue in serial learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5712.

1687. Kazelskis, Richard. (U. Georgia) **Serial learning and cognitive style.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5287-5288.

1688. Melone, Frank A. (Syracuse U.) **Effect of priming serially learned common usage and slang definitions on associative responses to double-entendre words.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5717.

1689. Okaichi, Hiroshige. (Doshisha U., Kyoto, Japan) [The effects of induced muscular tension and original muscular tension in verbal learning.] *Japanese Journal of Psychology*, 1970(Apr), Vol. 41(1), 20-29.—88 undergraduates in 2 experiments learned a list of nonsense syllables or paired verbs. Time intervals between list presentation and recall were 0, 100, 200, and 360 sec. for nonsense syllables, and 0, 60, 120, and 180 sec. for paired verbs. Ss were divided into 4 groups by whether they were given induced muscular tension (MT) during learning and recall, and then further divided into subgroups of high and low MT. Results indicate that recall was facilitated under induced MT, and was better in high MT groups than in low. The aftereffect of induced MT was shown up to 120 sec. after acquisition. (37 ref.)—*English abstract.*

1690. Paul, Coleman. (Adelphi U.) **Acquired equivalence of correct alternatives after verbal discrimination learning.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 123-125.—10 undergraduates learned a verbal discrimination list consisting of 12 word pairs. In a subsequent transfer task, the 24 words constituting the 12 pairs were presented singly; a common label was "learned" to each of the formerly correct words and a different common label, to each of the formerly incorrect members of their respective pairs. Results indicate that correct and incorrect alternatives, respectively, had acquired functional equivalence. Results help to explain "rule" effects in verbal discrimination performance.—*Journal abstract.*

1691. Persensky, J. J. & Senter, R. J. (U. Cincinnati) **An investigation of "bizarre" imagery as a mnemonic device.** *Psychological Record*, 1970(Spr), Vol. 20(2), 145-150.—Examined the role of bizarre mental imagery as a mnemonic device in the learning of 2 serial verbal lists using various instruction conditions, i.e., free learning (FL), paired-associate learning (PA), and mnemonic techniques (MN). Number of stimulus lists and type of material to be learned were also investigated. The instructions and test materials were presented in printed form to a group of 179 undergraduates. Results indicate that the mnemonic instruction condition facilitated performance when compared with the other conditions. No significant effects were found for number of stimulus lists or type of material. Support for the use of bizarre mental imagery in mnemonic systems for the learning of serial verbal lists is presented.—*Journal abstract.*

1692. Prytulak, Lubomir S. (Stanford U.) **Natural language mediation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5722.

1693. Skeen, David R. (Muskogum Coll.) **Study**

interval, manipulated frequency, and verbal discrimination learning. *Psychological Record*, 1970(Win), Vol. 20(1), 111-117.—Investigated 2 hypotheses suggested by a frequency theory of verbal discrimination learning: (a) that an increase in study time would facilitate acquisition of a verbal discrimination list; and (b) that increasing familiarization with stimulus materials prior to training would retard acquisition rate of a verbal discrimination list. Ss were 80 female undergraduates. 2- and 4-sec study intervals were factorially combined with verbal discrimination pairs of high and low frequency. Free recall learning was employed to produce frequency differentials among discrimination pairs. No evidence was found to support the hypothesis regarding a possible relationship between study time and verbal discrimination acquisition. A significant effect in speed of acquisition due to differential frequency was obtained, indicating faster learning of low frequency pairs.—*Journal abstract*.

1694. Snyder, C. R. & Katahn, Martin. (Vanderbilt U.) **The relationship of state anxiety, feedback, and ongoing self-reported affect to performance in complex verbal learning.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 237-247.—Feedback consisted of comparisons with high, average, and low standards of achievement; the verbal-learning task correlated .40 with actual classroom learning. 30 male undergraduates served as Ss in each of 3 groups. Higher anxiety was found to be significantly related to poorer performance on the task. Going from high, to average, to low standards of comparisons, there was a significant trend for performance to improve. Positive self-reported affects correlated positively with performance and negative affects correlated negatively. For the medium- and low-anxiety groups, a majority of the positive affects correlated positively and a majority of the negative affects correlated negatively. For the high-anxiety group, however, a majority of the positive affects correlated negatively and a majority of the negative affects correlated positively with performance. Affect change preceded establishment of any significant affect-performance correlations. That the significant effects of feedback and anxiety were not reflected in the self-report scales of affect highlights the importance of verifying the outcome of experimental manipulations assumed on an a priori basis to alter the S's internal state.—*Journal abstract*.

1695. Suls, Jerry M. & Weisberg, Robert W. (Temple U.) **Processing syntactically ambiguous sentences.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 112-114.—Used intrasentence word association to investigate the psychological organization of syntactically ambiguous sentences. 85 undergraduates learned an ambiguous sentence preceded by a disambiguating verbal context, and then responded to words from the sentence with other words from the sentence. The verbal context presented to a given S made 1 of the interpretations of the ambiguous sentence highly probable. It was predicted that the pattern of intrasentence word associations would conform to that of the deep structure called for by the context. Results support the predictions and indicate that the interpretation given an ambiguous sentence is related to the verbal context in which the sentence appears. Results also indicate that deep structure relations played a dominant role in determining the psychological organization of sentences, as assessed through intrasentence word association.—*Journal abstract*.

1696. Wike, Sharron S. (U. Kansas) **The effects of feedback, guessing and anticipation rate upon verbal discrimination learning.** *Psychological Record*, 1970(Spr), Vol. 20(2), 171-178.—Investigated the effect of: (a) feedback of the correct items vs. the incorrect items, (b) 1st-trial guessing vs. no guessing, and (c) anticipation rate of 2 vs. 6 sec. upon verbal discrimination learning using 80 undergraduates. Correct feedback lead to fewer errors. A pair of items A and B may be mastered by learning A is correct or B is incorrect or both. Ss with the correct feedback reported using the strategy A was correct more often, and Ss with the incorrect feedback reported using the strategy B was incorrect more often. Correct feedback also resulted in a higher proportion of correct items recalled.—*Journal abstract*.

1697. Wike, Sharron S. (U. Kansas) **The effects of feedback, first-trial guessing and anticipation rate upon verbal discrimination learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5727-5728.

1698. Wike, Sharron S. & Wike, Edward L. (U. Kansas) **The isolation effect and verbal discrimination learning.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 217.—Studied verbal-discrimination learning in a 2×2 factorial design with isolation vs. no isolation of a pair of items as 1 factor and isolation vs. no isolation of the correct item feedback as the other factor. Ss were 36 undergraduates, 9 to a group. It was found that there were significantly fewer errors on the isolated item when the pair was isolated, but not when the feedback was isolated.—*Journal abstract*.

1699. Wong, Martin R. (U. South Florida, Coll. of Education) **Retroactive inhibition in meaningful verbal learning.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 410-415.—Attempted to generate retroactive inhibition with meaningfully learned prose materials by tightly specifying the similarity dimension between original learning and interpolated learning, and by defining identical stimulus elements for original learning, interpolated learning, and test of original learning. A 3×5 analysis of covariance design was used with 5 treatments varying in amount of guidance given to the Ss, and 3 retention intervals. Data were obtained from 685 undergraduates. Results show no statistically significant differences to indicate retroactive inhibition. However, mean scores for all 6 groups which read similar interpolated learning material were lower than each appropriate control group. (22 ref.)—*Journal abstract*.

1700. Woodward, Addison E. (U. Toronto, Ontario, Canada) **A search for the stimulus in serial learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5729.

1701. Yamagata, Kyoko. (Kyoto U., Japan) [The effects of overlearning on backward serial learning.] *Japanese Journal of Psychology*, 1970(Apr), Vol. 41(1), 9-19.—Studied the effect of amount of List-I learning (1 perfect recitation and overlearning) on backward serial learning by anticipation in Exp. I and II, and the recall method in Exp. III. There was no transfer effect in Exp. I and II, but in Exp. III, positive transfer was obtained and overlearning was found in the earlier stage of learning. Results are discussed in terms of the differences in the nature of the task and the procedure employed, and the concept of the sequential organization is suggested as a possible explanation. (30 ref.)—*English abstract*.

Verbal Paired Associate Learning

1702. Aagard, James A. (Utah State U.) **Affect and meaningfulness as variables in mediate association.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5705-5706.

1703. Adams, Jack A. & Bray, Norman W. (U. Illinois) **A closed-loop theory of paired-associate verbal learning.** *Psychological Review*, 1970(Sep), Vol. 77(5), 385-405.—Basic to the theory are 2 associative states, a dependency of recall on stimulus identification, mediation, and response feedback which is compared against an internal reference mechanism for judgment about correctness of the response. Data in support of the theory are presented. (3 p. ref.)—*Journal abstract.*

1704. Dey, Mukul K. (McMaster U., Hamilton, Ontario, Canada) **Influences of the sequence of similar stimuli on paired-associate learning.** *Acta Psychologica; Amsterdam*, 1970(Jun), Vol. 32(3), 290-300.—2 independent groups of 20 Ss practiced a list of tone-word pairs by the anticipation method—Group I (C-R) under the clustering of similar stimuli and Group II (R-R) under the random sequence—to an incomplete criterion. Practice was resumed by the 2 groups following a brief intermission and carried on to the finish under random sequence. Group C-R exhibited superior performance before but inferior performance after the intermission in comparison with Group R-R, suggesting a facilitative influence of clustering upon immediate performance but an opposite effect upon learning. Alternative interpretations using the concepts of psychological refractory state and reactive inhibition in the context of current theories of paired-associate learning are discussed.—*Journal abstract.*

1705. Gaudry, Eric & Spielberger, Charles D. (U. Melbourne, Victoria, Australia) **Anxiety and intelligence in paired-associate learning.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 386-391.—Investigated the effects of anxiety and intelligence on paired-associate learning in a factorial design with 2 levels of anxiety and 2 levels of intelligence. Ss were 72 undergraduates, 17-26 yr. old. Latency measures were obtained over 15 anticipation trials; separate analyses were made for early and later stages of learning. Results show that (a) early in learning, high anxiety facilitated performance for high-IQ Ss and impaired performance for low-IQ Ss relative to their low-anxiety counterparts; (b) later in learning, high anxiety tended to facilitate performance for both high- and low-IQ Ss; and (c) in both stages of learning, the performance of high-IQ Ss was superior to that of low-IQ Ss. Results are discussed in terms of C. D. Spielberger's extension of Spence-Taylor Drive Theory. (26 ref.)—*Journal abstract.*

1706. Goldman, Jacquelin. (U. Florida) **Semantic satiation in paired associates.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 235-236.—Investigated the relationships between recall and connotative meaning changes as a result of satiation in paired associates in 33 undergraduates. Connotative changes only occurred concomitantly with recall errors and then primarily on the activity factor. Scoring-method differences raise questions concerning the bipolarity assumption involved in the use of semantic differential scales usually employed to detect meaning change.—*Journal abstract.*

1707. Hannon, John; Janke, Mary, & Davison, Meredith. (California Dept. of Mental Health, Stockton State Hosp.) **Stimulus compounding vs social reinforcement in adult paired-associate learning.** *Psy-*

chonomic Science, 1970(Aug), Vol. 20(4), 239-240.—Tested 28 adults in a paired-associate learning task using the method of anticipation, each S learning 4 lists of 8 nonsense-syllable/adjective pairs under 4 counterbalanced conditions. 1 list was accompanied by item-specific color and flicker, another by nonitem-specific color and flicker. Still another list was accompanied by neither color nor flicker, but S was socially reinforced after each correct response. The 4th list did not involve color, flicker, or reinforcement. Item-specific color and flicker facilitated learning; the other 3 conditions did not differ reliably.—*Journal abstract.*

1708. Hatano, Giyoo & Kuhara, Keiko. (U. Tokyo, Japan) [Experimental studies of meaningful learning: II. Meaningfulness and retroactive inhibition.] *Japanese Journal of Psychology*, 1970(Feb), Vol. 40(6), 304-309.—Examined how the retroactive inhibition effect (RIE) is dependent on the meaningfulness of learning. 3 groups of undergraduates learned a series of 3 lists of paired-associates. Group I learned Lists 2 and 3 meaningfully; Group II learned List 2 but not List 3, and Group III learned neither. Results were as follows: (a) When the original learning was meaningful, RIE was small, (i.e., mean reduction ratio of correct responses was 5.2%). In rote learning, however, the effect was much larger, (i.e., mean reduction ratio was 53%). (b) Meaningfulness in interference learning was not related to the size of RIE.—*English summary.*

1709. Merryman, Coleman T. (Indiana U.) **Effects of strategies on associative symmetry.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5717.

1710. Reich, John W. & Alexander, Ralph A. (Arizona State U.) **Stimulus property mediation of paired-associates learning.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 213-225.—Mediational theory was extended and applied to paired-associates learning and transfer, using 80 undergraduates. Independent variables were stimulus mediational properties, prior stimulus familiarization, and sex of Ss. Stimuli varying in the number of mediating responses elicited by them (physical objects and their names) were initially paired with nonsense trigrams. Testing for transfer effects involved stimulus-trigram pairings opposite to those in the initial learning situation. Results revealed that the predicted enhancing effects for physical objects occurred in the initial learning phase. However, names of the objects were more facilitative of transfer. The implications of the results for the extended mediational theory are discussed. (25 ref.)—*Author abstract.*

1711. Wolford, George L. (Stanford U.) **Functions of multiple associations in verbal learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5728-5729.

Reinforcement

1712. Bartol, Geoffrey H. & Duerfeldt, Pryse H. (U. Portland) **Self-reinforcing behavior: The effects of base rate and dependency.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 151-161.—Examined the effect on later self-reinforcement (SR) of SR base rate, 30% vs. 60% direct reinforcement (DR) training and low, medium, or high dependency (determined by the EPPS) in the context of a word-association task. Ss were 44 male undergraduates. Later SR rate was significantly influenced by SR base rate and DR training but not by dependency level. (24 ref.)—*Author abstract.*

1713. Eisenberger, Robert. (U. California, Riverside) **Is there a deprivation-satiation function for social**

approval? *Psychological Bulletin*, 1970(Oct), Vol. 74(4), 255-275.—Examines the replicability and interpretation of J. L. Gewirtz and D. M. Baer's findings that the reinforcement efficacy of social approval increases with prior deprivation of approval and decreases with prior satiation of approval. These results were successfully replicated in an impressive number of studies using choice measures of instrumental performance. While studies employing rate or duration measures have yielded weak and inconsistent effects, methodological deficiencies in these studies make their interpretation highly equivocal. Experimental evidence suggests that changes in approval-contingent performance resulting from deprivation-satiation operations are not attributable simply to changes in general sensory deprivation, general drive level, or cue properties of approval comments. Therefore, the view that the withholding and presentation of approval alter the motivation for obtaining approval is supported. (57 ref.)—*Journal abstract*.

1714. Kelly, J. F. & Hake, D. F. (Southern Illinois U.) **An extinction-induced increase in an aggressive response with humans.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 153-164.—9 14-18 yr. old students pulled a knob on a schedule of monetary reinforcement. Concurrently, Ss escaped or avoided periodic presentations of a tone by pressing a button that required 1.5 lb. (6.67 N) of force or by punching a padded cushion that required 20 lb. (88.96 N) of force. The punching response was designated as an aggressive response because the force of this response together with its topography was comparable to responses of humans that deface objects and produce escape or counter aggression from other humans. It was found that button pressing was the preferred concurrent avoidance response and there were few punches. However, when the monetary reinforcer was discontinued (extinction) punching increased for 7 of the 9 Ss, but there was no consistent change in the rate of button pressing. When the punching response was replaced by another nonpreferred but nonaggressive response, neither this response nor button pressing increased during extinction. Hence, the increase in punching during extinction cannot be attributed solely to the fact that it was a concurrent or nonpreferred response.—*Journal abstract*.

MEMORY

1715. Bobrow, Samuel A. (Stanford U.) **Memory for words in sentences.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5706-5707.

1716. Foote, Russell A. & Pollio, Howard R. (U. Tennessee) **The role of associative organization in free recall under five different presentation conditions.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 205-207.—Investigated the effects of different presentation conditions on recall of lists differing in interitem associative strength (IIAS) with 121 undergraduates. Results showed the usual superiority of a highly organized list over a list having no such organization under discrete presentation conditions, but no difference in recall when Ss were allowed to deal with all items simultaneously and impose their own organization. This finding is interpreted to mean that typical discrete-item presentation conditions permit Ss to use only the most obvious organizational principles in accomplishing recall—roughly those defined by IIAS—whereas under

conditions when such restrictions are removed Ss are free to develop idiosyncratically meaningful structures and consequently show minimal differences in recall due to differences in IIAS.—*Journal abstract*.

1717. Furukawa, Yoshikazo. (Doshisha U., Kyoto, Japan) [The effect of motivation upon reminiscence.] *Japanese Journal of Psychology*, 1970(Feb), Vol. 40(6), 340-344.

1718. King, David J. & Forrester, William E. (State University Coll. New York, Oswego) **The influence of semantic and acoustic similarity on retention of short sentences.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 222-223.—Used short sentences as the learning material in retroactive-interference (RI) and proactive-interference (PI) designs. Ss were 300 undergraduates. The relative influence of acoustically and semantically similar interfering sentences in the 2 designs was studied. Significant PI but no significant RI effect was found. Both acoustically and semantically similar material interfered with retention, with the latter having a more powerful influence.—*Journal abstract*.

1719. Kitano, Eimasa. (Kanazawa Municipal Coll. of Fine & Industrial Arts, Japan) [A socio-psychological study on memory trace: The effect of attitude upon memory and its transformation.] *Japanese Journal of Psychology*, 1970(Feb), Vol. 40(6), 310-318.—5 radical and 5 conservative Ss underlined those statements out of a group of 10 with which they agreed. Later the 10 statements were memorized and tested for recall. In both groups, endorsed statements were recalled better than those not endorsed. In terms of the transformation of memory traces, substitution was most frequent for the endorsed statements, followed by omission, simplification and rationalization. For nonendorsed statements, simplification appeared most often, followed by rationalization, omission, and substitution. (29 ref.)—*English summary*.

1720. LeMay, Ernest H. (State University Coll. New York, Plattsburgh) **Effects of degree of interpolated learning on the recall of first-list responses at two retention intervals.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 251-252.—Investigated the effects of degree of interpolated learning (IL) on the retention of the responses in paired-associate learning with 120 undergraduates. There were 8 groups formed from the factorial arrangement of 2 retention intervals (immediate and 24 hr.) and of 4 levels of number of IL trials (0, 2, 4, and 6). Results show that in the immediate-recall condition response recall was poorest when IL was present, although degree of IL was not significant. There was no effect of IL trials when the retention interval was at 24 hr.—*Journal abstract*.

1721. Malloy, Thomas E. (U. New Mexico) **The effects of concept learning on stimulus selection in recognition memory.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5716.

1722. Marshall, Philip H. (U. Illinois) **Stimulus and response influences on recognition.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 238-239.—Presented visually clear and degraded items to 48 undergraduates to test the hypotheses that: (a) items clear on original presentation would be recognized better than items degraded on original presentation, and (b) increasing the number of sensory modalities used during both presentation and test increases recognition capability. Some support for the degradation hypothesis was obtained. Increasing the number of modalities significantly improved recognition.—*Journal abstract*.

1723. **Phye, Gary & Baller, William.** (Iowa State U.) **Verbal retention as a function of the informativeness and delay of informative feedback: A replication.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 380-381.—In a replication of P. T. Sturges' (see PA, Vol. 43:4789) study, undergraduates learned course-related material, were given an initial retention test, and received information feedback under 1 of 3 answer conditions: no distractors, 3 distractors, or 7 distractors. Informative feedback was either immediate or given after 48 hr. Retention was measured either immediately after informative feedback presentation or after 7 days. Insufficient support was found for the assertion that increase in knowledge of alternatives within the delayed informative feedback condition results in better retention performance over time.—*Journal abstract.*

Short Term & Immediate Memory

1724. **Craik, Fergus I. & Levy, Betty A.** (Birkbeck Coll., London, England) **Semantic and acoustic information in primary memory.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 77-82.—Although it is widely believed that verbal items are coded in primary memory (PM) in an acoustic or articulatory fashion, there is some evidence to indicate that PM may be a flexible system using the most salient characteristics of stored items. The possibility that semantic-associative attributes could facilitate free recall from PM was explored with 85 undergraduates. Clusters of 6 words, related either acoustically or semantically, were placed in the middle or at the end of free recall lists. From Ss' recall scores, pure PM functions were calculated for acoustic, semantic, and control lists. It was found that while both acoustic and semantic similarity facilitated total recall, this facilitation was limited to secondary memory (SM). Recall from PM was poorer for semantic than for control words; it is suggested that Ss sometimes retrieved semantic clusters from SM, even though the clusters occupied terminal list positions. (18 ref.)—*Journal abstract.*

1725. **Dornič, Stanislav & Halmiová, Oľga.** (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Recognition in short term memory: Effect of stimulus colour.** *Studia Psychologica*, 1970, Vol. 12(1), 83-85.

1726. **Furukawa, Yoshikazu.** (Doshisha U., Kyoto, Japan) [Reminiscence phenomena in printing task: Reminiscence on recall and printing performance.] *Japanese Journal of Psychology*, 1970(Apr), Vol. 41(1), 1-8.—8 groups of Ss practiced a printing task for 5 min. without rest, and then, after a 15-sec, 2-, 5-, or 8-min rest, received a recall test or 5 retrials. Reminiscence in recall appeared at 2 min., while reminiscence in printing performance occurred equally in all rest conditions. It was found that the recall and retrials immediately after the original practice interfered with the decrease of errors during retrials. Results are discussed from the viewpoints of inhibition and consolidation theories. (19 ref.)—*English abstract.*

1727. **Jelenková, Alena.** (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Serial position effect in visual and auditory span of immediate memory.** *Studia Psychologica*, 1970, Vol. 12(1), 46-50.—Attempted to ascertain whether the lower span of immediate visual memory, with successively presented stimuli, becomes manifested uniformly in the recall of the whole series of stimuli. Results of the

experiment, involving messages consisting of 5, 7, and 9 digits presented both visually and acoustically to 30 20-25 yr. old high school and college graduates, confirmed the expected lower span for visual stimuli. The serial position effect with the worst recall in the middle of the message appeared only in the acoustic variant; in the visual variant, performance in recall systematically declined from beginning to end of the message, the greatest difference in performance in both variants being with stimuli from the end of the message. Results are due to the unequal resistance of the primary and secondary verbal (originally visual) trace to interference from the recall process. (Czech & Russian summaries)—*Journal abstract.*

1728. **Karten, Steven & Berenberg, Martin.** (City Coll., City U. New York) **The effect of distraction on the retention of task-related material.** *Graduate Research in Education & Related Disciplines*, 1968(Win), Vol. 4(1), 38-53.—Tested the hypotheses that: (a) "low-interference-prone Ss will recall more task-relevant material . . . , while high-interference-prone Ss will show the reverse trend"; (b) "under distracting . . . conditions, task performance will be poorer for" all Ss; and (c) "under distracting conditions, low-interference-prone Ss will retain more relevant task material than high-interference-prone Ss, while high-interference Ss will retain more irrelevant task material, while under non-distracting conditions the reverse will be true." Results from 40 male graduate students confirmed the 2nd hypothesis but did not confirm the 1st and 3rd hypotheses. (27 ref.)—*G. Steele.*

1729. **Klein, Michael.** (U. Texas) **Similarity and directionality in the short-term memory of paired associates.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5713.

1730. **Liu, In-Mao & Ma, Hsen-Hsing.** (National Taiwan U., Taipei) **On the nature of a training trial in verbal learning.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 126-127.—Factorially combined interval of stimulus availability (1, 2, or 4 sec.), number of exposures (1, 2, or 4), and retention interval (3, 9, or 27 sec.) in a short-term memory study where verbal items were consonant trigrams. 24 female undergraduates counted backward during the 6-sec inter-exposure interval as well as during the retention interval. Results show that as the number of exposures increased, the retention curve became flatter. The interexposure interval allowed forgetting to occur, but in addition appeared to facilitate retrieval. Hence, the role of the interexposure interval may have to be considered in the definition of a training trial in verbal learning.—*Journal abstract.*

1731. **McNicol, D.** (U. Adelaide, South Australia) **Progressive decay of the memory trace.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 196.—Studied effects of delay on recall of material in short-term memory by presenting a sequence of items and requiring ordered recall either immediately after presentation or after 1½ min. Ss were 20 undergraduates. Although the total number of errors made did not increase significantly as a result of delay, errors concerned with the ordering of the items were evident even when the material was recalled immediately, but these were replaced by errors concerned with the selection of items themselves when recall was delayed.—*Journal abstract.*

1732. **Ornstein, Peter A.** (Princeton U.) **Role of prior-list organization in a free recall transfer task.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 32-37.—Failure to find positive transfer in

part-whole free recall tasks has been attributed to the irrelevance of List 1 subjective memory units (S-units) for List 2 learning. If this is so, then positive transfer should occur when List 1 S-units are relevant for List 2 learning. In Exp. I with 84 undergraduates, blocked presentation of old and new items facilitated retention of List 1 S-units and positive transfer occurred. In Exp. II with 60 Ss, alternative categorizations of polysemous words were used to manipulate the relationship between S-units of List 1 and 2. Positive transfer occurred only when the critical words were organized identically on the 2 lists. Results are consistent with an organizational view of free recall transfer data.—*Journal abstract.*

1733. Robinson, James P. (U. Southern California) **Effects of verbal and imaginal learning on recognition, free recall, and aided recall tests.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 115-117.—In 2 experiments, 48 and 85 undergraduates, respectively, were instructed to learn line drawings either by naming each one or by encoding an image of it, and were then given 1 of 3 kinds of retention tests. Namers consistently performed better than imaginers. Postexperimental reports indicate that at the time of the retention tests, namers could remember names for more stimuli than imaginers, so the learning instructions appeared to have their intended effect. Both namers and imaginers performed better on stimuli whose names they remembered than on other stimuli. In 1 experiment, namers performed better than imaginers on stimuli whose names were not remembered, suggesting that even unsuccessful attempts to remember names for stimuli can facilitate retention of the stimuli.—*Journal abstract.*

1734. Starr, B. James; Harris, Gilbert J., & Aronoff, Robert. (Howard U.) **Variable length consonant stimuli in a "Peterson & Peterson" short-term memory paradigm.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 243-244.—Tested the effects of stimulus length, interpolated task interval, and rehearsal on recall in the L. R. Peterson and M. J. Peterson short-term memory paradigm. All 3 main effects, but none of the interactions attained significance. Ss were 36 undergraduates. The superiority of self-initiated as opposed to E-paced rehearsal was suggested as was the increased necessity for any type of rehearsal as stimulus length increased.—*Journal abstract.*

1735. Turnage, Thomas W. (U. Maryland) **Proactive inhibition of initial items in short-term recall.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 236-237.—Investigated short-term recall of serial lists as a function of item frequency and prior testing with 72 undergraduates. Results suggest that: (a) interference from prior testing was obtained for initial items in the list but not terminal items, and (b) frequency had no effect on recall because the experimental method equated item availability across that dimension.—*Journal abstract.*

1736. Weeks, Robert & Katz, Leonard. (U. Connecticut) **Similarity in short-term recall: A comparison of Type II operating characteristics and percent recalled.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 232-233.—Examined the effects of semantic and acoustic similarity in short-term memory employing a retroactive inhibition (RI) paradigm. Ss were 8 groups of 11-16 undergraduates. In assessing similarity effects, signal-detection measures, Type II operating characteristics, were utilized in addition to percent recalled; the former suggested that both semantic and acoustic similarity between original learning (OL) and inter-

polated learning were important in affecting recall, while the latter revealed no effects of similarity. Results suggest that memory traces for similar and dissimilar OL items are equal in strength but that noise (due to RI) was stronger for the similar conditions.—*Journal abstract.*

1737. Winograd, Eugene. (Emory U.) **Effect of knowledge of set size on search termination in long-term memory.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 225.—20 undergraduates listed all the states whose names began with the letter "M" or "N." 1 group was told how many state names belonged to each set, while the other group was not told. The informed group worked at the task twice as long as the uninformed group and retrieved significantly more state names. Results are related to the problem of specifying quitting rules in recall.—*Journal abstract.*

THINKING

1738. Goldstein, George S. (Denison U.) **Load variables in information processing.** *Psychological Record*, 1970(Spr), Vol. 20(2), 235-242.—Investigated the effects of presentation rate, number of stimulus channels, and length of stimulus runs on an operator's information processing accuracy. 30 male graduates and undergraduates responded to visual stimuli by depressing a pushbutton. Stimuli were combinations of 4 shapes and 3 colors presented at rates of 1, 1.25, and 1.50 sec/stimuli. The stimuli were presented on 2 or 4 channels and the runs consisted of 25, 50, and 100 successive stimuli. S is conceptualized as an information channel in which the central mediating processes of encoding and decoding are the principal operations in information processing.—*Journal abstract.*

1739. Legrenzi, Paolo. (U. Padua, Psychological Inst., Italy) **Aspetti psicologici della negazione, della disgiunzione e dell'implicazione.** [Psychological aspects of negation, disjunction and implication.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Mar), Vol. 31(2), 170-188.—Presents a logical analysis of "if p, then q as not being equivalent in natural thinking to the syntactic linkage" it is not possible for p = q.—L. L'Abate.

1740. McDill, James D. (U. Southern Mississippi) **Analysis of the errors, accuracy, and time required to recognize items within contextual language as a function of word class and position within the sentence.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5431.

1741. Parrott, George L. (Michigan State U.) **The effects of instructions, transfer, and content on reasoning time.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5720-5721.

1742. Piper, Richard M. (Michigan State U.) **The training of openness and its effects on inquiry.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5298.

Problem Solving

1743. Denney, Nancy W. (U. Washington) **Analysis of processing time for conjunctive and disjunctive problem solving.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 197-199.—Compared latencies and S-paced post-feedback intervals (PFIs) on positive- and negative-instance trials with 80 undergraduates. Neither PFI nor latency varied as a function of the type of instance.

However, a comparison of PFIs and latencies on correct and incorrect response trials indicated that both PFIs and latencies were longer on error trials than on correct response trials. It is concluded that more information processing occurred on error trials. Instructions to focus Ss on positive, negative, or positive and negative instances had negligible effects on performance.—*Journal abstract.*

1744. Maier, Norman R. & Casselman, Gertrude G. (U. Michigan) **Locating the difficulty in insight problems: Individual and sex differences.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 103-117.—Examined whether difficult problems can be made easier by manipulating a major obstacle. Standard and supposedly simplified versions of 6 insight problems were used. 311 male and 233 female undergraduates were given 3 of the standard versions and 3 of the simplified versions. Results show that the helpful manipulations had limited value. For males, the standard versions of only 3 of the problems were significantly more difficult than the simplified versions; for females, there were differences on 3 problems (2 in the same direction as the males) but none reached significance. The problems were analyzed individually for sources of failure of the manipulation. Results suggest that a single hint cannot provide significant improvement since a problem appears to be difficult for different people for a variety of reasons. Chance factors also play a part in successful problem solving. Results also confirm earlier findings showing that hints or suggestions which seem helpful when the solution is known may serve as distractors to an individual attempting to discover the solution. Implications of the results for upgrading problem solving through training are discussed.—*Journal abstract.*

1745. Schulman, David P. (U. Kansas) **Body posture and thinking.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5698.

Concepts

1746. de Zeeuw, G. (U. Amsterdam, Netherlands) **Extensive and intensive properties of concepts.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 33-34.—Described similarity between nouns (concepts) by a distance function. 10 concrete and 10 abstract words were selected and associations were collected in 3-min free-association intervals by 24 undergraduates. Distances were then related to measurements on the concrete-abstract scale and to associations. Results are interpreted in terms of 2 aspects of the semantic space of words, intensionality and extensionality, the latter appearing to be a dominant basis for behavioral comparison of concepts.—*Journal abstract.*

1747. Lee, Dean R. (U. New Mexico) **The effects of type of rule, instructions and practice upon focusing strategies in conceptual behavior.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5715.

1748. Nahinsky, Irwin D. & Slaymaker, Frank L. (U. Missouri) **Conjunctive hypothesis sampling: A reconsideration.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 224.—Presented 90 Ss with conjunctive concept learning problems in which blank-trial stimuli were used to assess hypothesis sampling patterns. Data were analyzed to show that Ss did not sample single values randomly and independently and respond on the basis of these single values. Evidence was also presented to show that Ss do

not sample hypotheses with replacement after an error.—*Journal abstract.*

1749. Pyle, Thomas W. (U. Texas) **Sequential aspects of concept identification.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5722.

DECISION & CHOICE BEHAVIOR

1750. Fleming, Robert A. (U.S. Naval Electronics Lab. Center, San Diego, Calif.) **The processing of conflicting information in a simulated tactical decision-making task.** *Human Factors*, 1970(Aug), Vol. 12(4), 375-385.—In a simulated tactical situation, 40 naval enlisted personnel decided which 1 of 3 alternative hypotheses relating to future enemy action was the most likely to occur. The decisions involved combining probabilities from 3 independent sources to arrive at the overall probability associated with each hypothesis. In addition to specifying the hypothesis which had the highest probability, Ss also estimated this probability. The independent variable was the type of feedback given after each problem. Although the proper strategy for selecting the correct hypothesis was to multiply the probabilities, most Ss used an adding strategy. This strategy was particularly ineffective on the more difficult problems. There was a general tendency to underestimate high probabilities and to overestimate low probabilities. The effect of feedback on error rate was contingent upon the particular problem type, and probability feedback improved probability estimation.—*Journal abstract.*

1751. Fujii, Minoru. (Kansai U., Osaka, Japan) [Experimental investigations on the instantaneous judging of the number of objects: III. Time values required for judging forced by various instructions.] *Japanese Journal of Psychology*, 1969(Dec), Vol. 40(5), 242-254.—Compared the time required for adult Ss to make correct instantaneous judgments of the number of vertical lines from 1-10. Instructions were to count by 1s, 2s, 3s, and by using one's own device, (usually by dividing into subgroups or using some arithmetical operation). Results show that maximum time was required for counting by 1s, less by 2s or 3s, and minimum time when using one's own device. However, when the number of lines did not exceed 3, there were no significant differences between time values.—*English abstract.*

1752. Harris, Richard J. (U. New Mexico) **Paradox regained.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 264-266.—No interpretation of N. Howard's theory of meta-games has been offered which lessens the paradox of the 1-trial Prisoner's Dilemma (PD) game, and the theory as stated is not relevant to the iterated PD.—*Journal abstract.*

1753. Rapoport, Anatol. (U. Michigan) **Comments on "Paradox regained."** *Psychological Reports*, 1970(Feb), Vol. 26(1), 272.—If Roulette is treated as a 2-person game, the wheel has a dominating strategy that always wins, namely 0. If 0 is eliminated, the meta-strategy formulation reveals nothing new. This formulation is of interest only in the context of non-zero-sum games, particularly those where the paradoxes induced by a clash between individual and collective interests are resolved in the meta-game.—*Author abstract.*

1754. Streufert, Siegfried & Streufert, Susan C. (Purdue U.) **Effects of increasing failure and success**

on military and economic risk taking. *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 393-400. —Investigated the effect of success, failure, and time spent in decision making on the degree of military and economic risk taking. A complex experimental simulation technique was employed as the research method to permit comparison of data obtained in a more "real world-like" setting with results reported by investigators using small-scale laboratory techniques. Results from 88 undergraduates show that risk taking increases with the length of time that decision-making groups spend in working on a task. After some time, risky decision making may become concentrated in 1 decision area at a time, even though risks could be taken in more areas. Comparisons to laboratory results suggest some commonalities and differences with regard to risk-taking results. (37 ref.)—*Journal abstract*.

PHYSIOLOGICAL PSYCHOLOGY

1755. Blinkov, S. M. (Burdenko Inst. of Neurosurgery, Moscow, USSR) **O vremennykh parametrah strukturno-funktsional'nykh sootnoshenii.** [On the temporal parameters of structuro-functional relationships.] *Vestnik Akademii Meditsinskih Nauk SSSR*, 1970, Vol. 25(3), 52-55.—Defends the proposition that, without taking into account the temporal parameters of the structuro-functional relationships encountered in biology and medicine, starting from the molecular and proceeding to the macroorganismic level, it is not possible to develop a suitable understanding of these relationships. A quantitative expression of structuro-functional relationships requires a determination of their spatial and temporal characteristics.—*I. D. London*.

1756. Deshcherevskii, V. I., et al. (Inst. of Biological Physics, Pushchino, USSR) **Kolebatel'nye biologicheskie protsessy na molekulyarnom urovne.** [Oscillatory biological processes at the molecular level.] *Biofizika*, 1970, Vol. 15(2), 225-234.—Study of these processes is seen as essential to an understanding of "(a) the mechanism of enzymatic catalysis, (b) the nature of the regulatory connections in polyezymatic systems, (c) the moleculokinetic bases of biological lability, and (d) the processes leading to the emergence of spatial (morphological) organization of initially homogeneous systems."—*I. D. London*.

1757. Fomin, S. V. (Moscow State U., USSR) **Nekotorye matematicheskie problemy biologii.** [Some mathematical problems in biology.] *Biofizika*, 1970, Vol. 15(2), 344-351.—Discusses some problems mainly concerned with the biophysics of complex systems and regulatory processes including those dealing with: (a) control of complex multiparametric systems, (b) organization of memory, (c) games of automata and models of collective behavior, (d) self-organizing classification, (e) models of the processes involved in the formation and propagation of excitation, (f) mechanical and informational aspects of motor activity, and (g) probability-orientation and priming. The solution of these problems requires the application of nonstandard mathematical methods, most of which are as yet insufficiently worked out.—*I. D. London*.

1758. Frank, G. M. (Inst. of Biological Physics, Pushchino, USSR) **Kletochnye struktury i funktsiya kletki.** [Cellular structures and cellular function.] *Biofizika*, 1970, Vol. 15(2), 298-307.—Examined the mutual

influence of structural and ultrastructural organization of the cell, on the 1 hand, and the level and direction of its metabolic processes, on the other. Of significance is the presence of a unified network of submicroscopic channels and spaces, limited by membranes and joining most of the subcellular structures. Major attention is directed to the dynamics of the various subcellular structures and their transformation in correspondence with change of functional state. The structural transformation of the cells of the "so-called adjoining gland" in the insect ganglion corresponds to transition from a quiescent to an active state. Microspectral analysis and electron microscopic observations show that in the granules of several molluscs change in chemical state corresponds to transformation of structure. It is shown that after 1 hr. of mechanical stimulation a surprising transformation of the protoplasmic picture takes place in the motoneurons of the earthworm. The active mobility of mitochondria into cellular regions, requiring rapid energy supply, is described. Data are presented on the continuous pulsation of the nucleus of the cell and shows that changes in the birefringence of the nerve-fiber membrane during propagation of the nerve impulse proceed in msec. "Structural mobility" is seen as a powerful regulator of the integrative function of the cell as a whole.—*I. D. London*.

1759. Frolov, V. M. **Urovni aktivnosti fiziologicheskikh sistem.** [Levels of activity of physiological systems.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 278-281.—Analyzes the functional levels of the physiological system as the result of interaction of the system with an adequate stimulus. A generalized table of intensities of stimulatory action and the corresponding levels of activity or state of the physiological system are presented.—*I. D. London*.

1760. Goldman, Stanford. (Syracuse U.) **Aging, noise and choice.** *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 12-30.—Attempts "to throw new light on the problem of aging by exploiting ideas in the fields of random noise, choice, and dynamic stability . . . The main thesis of the paper is that the noise levels in the signals which operate the control systems of an organism increase with the passage of time. The consequences of this increase in noise level represent the phenomenon of aging."—*J. Crabbe*.

1761. Goody, William. (12 Connaught Pl., London, England) **Outside time and inside time.** *Perspectives in Biology & Medicine*, 1969(Win), Vol. 12(2), 239-253.—Defines "outside time" (public), "inside time" (personal, private), and "clock." Various biological rhythmic processes and the CNS are offered as "clocks" appropriate for the measurement of "inside time." It is proposed that increasing emphasis upon chronological accuracy of "external time" clocks has alienated man from awareness of his natural, temporal internal milieu. (16 ref.)—*J. Crabbe*.

1762. Gray, Jeffrey A. (U. Oxford, Inst. of Experimental Psychology, England) **Sodium amobarbital, the hippocampal theta rhythm, and the partial reinforcement extinction effect.** *Psychological Review*, 1970(Sep), Vol. 77(5), 465-480.—The rat's hippocampal theta rhythm shows frequency-specific correlations with behavior and reinforcement contingencies. A frequency of approximately 7.7 Hz. is seen during exploration and in response to frustrative nonreward. Amobarbital, which attenuates the behavioral effects of nonreward,

selectively raises the threshold for septal driving of the hippocampal theta rhythm at this frequency. Septal driving of hippocampal theta at 7.7 Hz. applied during extinction enhances extinction; applied during acquisition it creates a "pseudo partial reinforcement extinction effect." Blocking the theta rhythm by high-frequency septal stimulation or medial septal lesions blocks the partial reinforcement extinction effect. It is proposed that there is a septohippocampal system which mediates the behavioral effects of frustrative nonreward and punishment and that amobarbital acts on behavior by antagonizing this system. (63 ref.)—*Journal abstract*.

1763. Gross, Charles G. & Zeigler, H. Philip. (Eds.) (Harvard U.) **Readings in physiological psychology: Motivation.** New York, N.Y.: Harper & Row, 1969. x, 323 p.—Contains papers by various authors on different aspects of motivation and motivated behavior. Topics covered include hunger and thirst, reinforcement, reproductive behavior, activation and sleep, and emotion.

1764. Gross, Charles G. & Zeigler, H. Philip. (Eds.) (Harvard U.) **Readings in physiological psychology: Neurophysiology—sensory processes.** New York, N.Y.: Harper & Row, 1969. viii, 286 p.—Contains papers by various authors on physiological properties of the neuron and the role of neurophysiology in understanding sensory mechanisms. Topics covered include neurophysiological foundations, receptor mechanisms, sensory coding, and central control of sensory input.

1765. Gumener, P. I., Dadashov, R. S., Samsonova, N. I., & Chebotarev, F. M. **Metodika issledovaniya regulirovaniya tochnykh dvizhenii pri razlichnykh sostoyaniyakh organizma cheloveka s pomoshch'yu mashiny.** [A method of studying the regulation of exact movements during different states of the human organism with the aid of instrumentation.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 226-232.—Examines the problem of "quality of work performance" during various states of the organism. The method is based on the simultaneous evaluation of the organism's state—"the area of regulation"—as gauged by a complex of physiological parameters. The magnitude of the "area of regulation," which is determined by the quality of the performance, is compared with variations of the physiological functions. Results of such measurements can be utilized in the physiology of work and athletics and in engineering psychology.—*I. D. London.*

1766. Gurfinkel, V. S., Fomin, S. V., & Shtil'kin, T. I. (Inst. for Problems of Information-Transmission, Moscow, USSR) **Opreделение sustavnykh momentov pri lokomotsii.** [Determination of articular moments in locomotion.] *Biofizika*, 1970, Vol. 15(2), 380-383.—Devised a method, utilizing Lagrange's equations, for calculating the "moments of internal forces [present] in the joints" in the process of walking.—*I. D. London.*

1767. Kleitman, Nathaniel. (U. Chicago) **Implications for organization of activities.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 13-14.

1768. Kok, A. (State U., Inst. for Clinical & Industrial Psychology, Utrecht, Netherlands) **The influence of speed and interval variation of serial stimuli on physiological change.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 22-38.—Studied changes in heart rate (HR), heart rate variability (HRV), blood volume pulse (BVP), respiration speed (RS), and alpha rhythm (AR) under conditions of the variation of the speed and intervals of auditory stimuli in a serial 2-choice response

task. The analysis of variance of the percentage scores revealed that the differences between the 3 speed levels, the 5 physiological variables, and also the 2nd-order interaction between the speed of presentation and the physiological variables were significant. The difference between the interval variation levels was not significant. The short-term effect of step-wise variation of the duration of intervals between successive stimuli on physiological change was also investigated and an explorative study was made of the periodic fluctuations of 3 physiological variables by applying the techniques of auto-correlation and power spectrum analysis. (17 ref.)—*Journal abstract.*

1769. Kováč, Damián & Horkovič, Gabriel. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **How to measure lateral preference: I.** *Studia Psychologica*, 1970, Vol. 12(1), 5-11.—Describes a complex method for measuring lateral preference in various systems. Well known methods of determining dominance in hands, eyes, feet, ears, etc., are outlined and substantiated. A detailed description is given of some of these methods including: measurement of the circumference and shape of the skull, ear protrusion, the toe abduction test, alternate blinking, standing and hopping on 1 leg, monoaural speech decoding in noise, and promptness in simultaneous pressing responses. (Czech & Russian summaries) (17 ref.)—*Journal abstract.*

1770. Liberman, E. A. (Inst. for Problems of Information-Transmission, Moscow, USSR) **Membrany: ionnaya pronitsaemost', vozбудimost', upravlenie.** [Membranes: Ionic permeability, excitability, regulation.] *Biofizika*, 1970, Vol. 15(2), 278-297.—Examined the mechanism underlying ionic permeability of bimolecular phospholipid membranes, and the mechanism for changing this permeability by means of an electric field. Described are: the "construction" of the penetrating ions, and a method for the reception of the carriers of different ions, including those carriers, in the presence of which the transport of ions can be directed by the electric field in the membrane. Also examined are the mechanism underlying the action of the uncouplers of oxidative phosphorylation, and a method of measuring electric potential in the membranes of the mitochondria and photophosphorylating particles. The construction of a system which can transport electrons in the mitochondrial membrane and through the phospholipid membranes is discussed. A hypothesis on the role of membranes in the cellular regulatory system is elaborated. Examined were: (a) the mechanism underlying the secretion of "quanta of acetylcholine" in synaptic transmission, and (b) a model, utilizing bimolecular phospholipid membranes, to account for the secretion and other interactions of cellular membranes.—*I. D. London.*

1771. Luria, A. R. & Artem'eva, E. Y. (Moscow State U., USSR) **O dvukh putyakh dostizheniya dostovernosti psikhologicheskogo issledovaniya.** [Two ways of achieving confidence in psychological research.] *Voprosy Psikhologii*, 1970(May), Vol. 16(3), 105-112.—In many areas of research, confidence in findings can be achieved by selecting a suitably large N. Physiological psychologists typically deal with small Ns, and the traditional method of achieving confidence does not work here. Confidence can be achieved with small Ns in cerebral lesion research by using syndrome analysis, i.e., qualitative analysis of highly correlated symptoms. A

formal analysis of this method is presented in terms of Bayesian statistics, which relates it to factor analysis. (English summary)—*L. Zusne*.

1772. Malinovskii, M. S., Simchenko, B. P., Khmelevskii, S. I., & Chërnykh, B. T. (USSR Academy of Medical Sciences, Moscow) **Strukturo-funktsional'nye zakonomernosti v organizme cheloveka v aspekto fiziko-matematicheskikh predstavlenii ob ikh anatomo-fiziologicheskom edinstve**. [Structuro-functional characteristics regularly appearing in the human organism viewed within the context of the physico-mathematical concepts of their anatomo-physiological unity.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 55-66.—Discusses several regularly appearing structuro-functional characteristics which may be disclosed in the human organism as a whole, if their anatomo-physiological unity is analyzed by means of physico-mathematical methods of research.—*I. D. London*.

1773. Manoilov, V. E. & Syromyatnikova, I. N. **O vozmozhnosti ispol'zovaniya nekotorykh vidov biologicheskoi energii dlya sozdaniya istochnikov pitaniya biotelemetricheskikh peredatchnikov fiziologicheskoi informatsii**. [On the possibility of utilizing certain forms of biological energy for the creation of power sources to service biotelemetric devices for presenting transformed biological information.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 67-69.—Examines the possibility of utilizing the heat energy of the human body and the mechanical energy of respiratory movements in order to create power sources for biotelemetry. Results of theoretical studies are presented on the determination of the power values which may be procured as a result of energy transformation. Designs are developed for the construction of such power sources. Results of several experimental studies are presented.—*I. D. London*.

1774. Molchanov, A. M. (Inst. of Biological Physics, Pushchino, USSR) **Relaksatsionnaya model' adaptatsii**. [A relaxation model of adaptation.] *Biofizika*, 1970, Vol. 15(2), 352-360.—Presents a mathematical analysis of the general properties of the adaptational process on the assumption that the latter has a biochemical basis. It is shown that there is considerable difference between the course of adaptation in an isolated system and that in a complex of systems where oscillatory kinetics may become useful. In the latter instance, a relaxation model is indicated.—*I. D. London*.

1775. Paterni, L. **Manifestazioni e basi biologiche della fatica**. [Biological manifestations and bases of fatigue.] *Difesa Sociale*, 1969(Apr.), Vol. 48(2), 9-24.—Presents a general survey of physiological conditions capable of causing fatigue, criticizing the tendency to apply the concept of pathological stress to work and fatigue.—*L. L'Abate*.

1776. Samis, H. V. (Masonic Medical Research Lab., Utica, N.Y.) **Aging: The loss of temporal organization**. *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 95-101.—Discusses the importance of biological rhythms to the health of an organism. It is suggested that the deleterious effects of age may result from increasing temporal incoordination of these rhythmic processes. "Some progressive loss of temporal organization in such a complex network of interdependent but loosely coupled oscillating processes may be a property of the system itself, and therefore occur

without 'cause' in the usual sense of the term . . ." (25 ref.)—*J. Crabbe*.

1777. Strukov, A. I. **Sovremennye predstavleniya o sootnoshenii struktury i funktsii**. [Current conceptions of the relationship between structure and function.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 3-6.—Discusses the 3 "mutually connected aspects" of the relationship between structure and function: "the technical, the scientific, and the methodological," particularly as encountered in study of the cell.—*I. D. London*.

NEUROLOGY

1778. ———. **Tsepnye neirogormonal'nye reaktsii i simpato-adrenalovaya sistema**. [Chain neurohormonal reactions and the sympatho-adrenal system.] Moscow, USSR: Nauka, 1968. 194 p.—Presents a collection of 31 articles by "physiologists, pharmacologists, and neurosurgeons," providing expositions of different aspects of neurohormonal interaction in the regulation of physiological functions, and the role of both the peripheral and the central link in the complex chain of neurohormonal reactions. The 55 years of research of A. V. Tonkikh, to whom the collection is dedicated, are reviewed.—*I. D. London*.

1779. Bassin, F. V. (Inst. of Neurology, Moscow, USSR) **O vzaimootnoshenii ucheniya o vysshei nervnoi deyatel'nosti cheloveka i psikhologii na sovremennom etape**. [On the interrelationship between the theory of human higher nervous activity and psychology at the current stage.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 9-15.—Presents a historically and currently based discussion which attempts to demonstrate that the "physiological and psychological study of the higher forms of brain activity irreversibly converge on each other."—*I. D. London*.

1780. Bishop, P. O. (U. Sydney, Australia) **Central nervous system: Afferent mechanisms and perception**. *Annual Review of Physiology*, 1967, Vol. 29, 427-484.—The dynamic properties of the various afferent systems as revealed by the technique of single-unit recording are emphasized. Dynamic properties are those which relate to the coding of information as single-unit discharge patterns in the 1st-order fibers of the various systems, the transformations of the discharge patterns at successive synaptic centers, and the details of the central responses underlying the identification of stimulus quality and its location in space, and the discrimination of stimulus pattern. Only the immediate recognition and discrimination of external stimuli are considered. No attempt was made to provide an exhaustive coverage of the literature but rather to provide a more detailed account of selected contributions from 1963-1966. The main topics considered are the somatic afferent pathway, input control and pain perception, the auditory pathway, functional organization of the auditory cortex, auditory pattern and space perception, color vision, the visual pathway and pattern perception, and binocular vision. (186 ref.)—*Author abstract*.

1781. Dixon, N. F. & Jeeves, M. A. (University Coll., London, England) **The interhemispheric transfer of movement aftereffects: A comparison between acallosal and normal subjects**. *Psychonomic Science*, 1970(Aug), Vol. 20(4), 201-203.—Measured movement aftereffects induced by the viewing of rotating random

patterns for 18 normal and 3 acallosal Ss. Whereas the 2 groups did not differ in the extent to which they showed monocular and binocular movement aftereffects, interocular transfer was significantly more pronounced for normal than acallosal Ss. (23 ref.)—*Journal abstract*.

1782. Dovedova, E. L. (Inst. of the Brain, Moscow, USSR) **Raspreделение fermentnoi aktivnosti v subkлетochnykh fraktsiyakh iz razlichnykh otdelov mozga krysy, vydelenykh pri pomoshchi gradi-entnogo tsentrifugirovaniya.** [Distribution of enzymatic activity in subcellular fractions from different parts of the rat brain, isolated by graded centrifuging.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 44-47.—Studied the enzymatic activity of the mitochondrial fraction and its 5 subfractions, derived from cerebral materials (cerebral cortex, brainstem, whole brain) from 5-6 Ss and separated through differential ultracentrifuging. Differences are demonstrated in protein distribution and in the level of specific activity of cytochrome oxidase, succinate-cytochrome C-oxidoreductase, and acetylcholinesterase, contained in the mitochondrial subfractions. The findings indicate a lack of equivalence in different types of mitochondria.—*I. D. London*.

1783. Dunin-Barkovskii, V. L. (Inst. for Problems of Information-Transmission, Moscow, USSR) **Kolebaniya urovnya aktivnosti v prostykh zamknutykh neironnykh tsepyakh.** [Fluctuations of activity level in simple closed neuronal chains.] *Biofizika*, 1970, Vol. 15(2), 374-378.—Examined oscillatory schedules of activity in chains, consisting of 2 and 3 neurons. It is shown that the periods of these oscillations can exceed by several times the time constant of the neurons. This property of the model distinguishes it from other familiar models of periodic activity, in which the oscillatory period is basically determined by the temporal parameters of the neurons and by the connection between them (delay value, time constant of fatigue, etc.). A case is also analyzed where the elements of the chain are not single neurons, but neuronal pools.—*I. D. London*.

1784. Durinyan, R. A. **Strukturno-funktsional'nye osobennosti mekhanizmov izbiratel'nykh reaktsii mozga.** [Structuro-functional features of the mechanisms involved in the selective reaction of the brain.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 40-46.—Presents an analysis of different approaches to the study of the structuro-functional features of selective cerebral action. Ultrastructural and microphysiological analysis of the nerve cell and the substratum, of which it is part, points the way to further progress.—*I. D. London*.

1785. Feigenberg, I. M. (Central Inst. for Advanced Medical Training, Moscow, USSR) **O nekotorykh chertakh sovremennoi fiziologii vysshei nervnoi deyatel'nosti** [On some features characterizing contemporary physiology of higher nervous activity.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 59-62.—Discusses the organization and strategy of physiological research that converges upon the psychological. Exploitation of the underlying "logic of a phenomenon" pays rich dividends even when knowledge of the "concrete physiological mechanisms behind the phenomenon" is insufficient or lacking, as demonstrated in probability models and in cybernetics.—*I. D. London*.

1786. Fuster, Joaquín M. (U. California, Medical School, Los Angeles) **Mecanismos cerebrales de la atención.** [Cerebral mechanisms of attention.] *Revista de*

Psiquiatria y Psicología Médica, 1969(Jan), Vol. 9(1), 3-15.—Discusses the history of research and the present state of knowledge concerning the cerebral mechanisms of attention. It is hypothesized that the exchange of neuronal messages between the thalamus and the cortex is essential to the formation of a focus of sensory attention. The motivational states of the organism, originating in the limbic system, modify it, while the aroused state of the brainstem reticular formation is essential to its existence. In contrast to sensory attention, the locus of ideational attention lies in the frontal lobes, specifically in the interactive nature of the exchange of neuronal messages between the cortex and the diffuse thalamic projection system. (20 ref.)—*L. Zusne*.

1787. Golikov, S. N. & Kuznetsov, S. G. (Inst. of Toxicology, Leningrad, USSR) **Sovremennye predstavleniya o prirode kholinoretseptora.** [Contemporary conceptions of the nature of the cholinoreceptors.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(2), 67-85.—Presents a survey of the literature, covering the following problem areas of cholinoreceptors: (a) a localization, (b) chemical nature, (c) isolation, (d) character of their reaction to sensitive agents, (e) structure of their active part, and (f) their distribution in the postsynaptic membrane.—*I. D. London*.

1788. Hobson, J. Allan. (Harvard Medical School, Boston, Mass.) **Sleep research and basic neurophysiology.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 1-12.

1789. Kamzolkina, N. B. & Kanchurin, A. Kh. (Research Inst. of Epidemiology & Microbiology, Moscow, USSR) **Nekotorye aspekty patogeneza eksperimental'nogo allergicheskogo entsefalomielita i nevrita v kul'turakh nervnoi tkani.** [Several aspects of the pathogenesis of experimental allergic encephalomyelitis and neuritis in nerve tissue cultures.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 289-294.—Presents a survey of the Soviet and non-Soviet literature. (46 ref.)—*I. D. London*.

1790. Klosovskii, B. N. & Kosmarskaya, E. N. (Inst. of Pediatrics, Moscow, USSR) **K voprosu o sootnoshenii struktury i funktsii v razvivayushchemsya i zreloom mozgu.** [On the interrelation of structure and function in the developing, and in the mature, brain.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 46-52.—Presents an analysis of the intimate relationships between morphological structure, biochemical composition, and functions obtaining in the nervous system as a whole or in any of its macro- or micro-components in embryo- and postembryogenesis.—*I. D. London*.

1791. Kostandov, Ė. A. (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) **Ob izuchenii subsensornykh reaktsii.** [On the study of subsensory reactions.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 53-59.—Based on a wide range of data, discusses subsensory reactions in order to demonstrate the potentialities of methods involving the physiological and psychological study of the subject. It is shown that subsensory reactions are a function of the interrelational state of the cerebral cortex and the subcortical non-specific structures. Thus, on changing the functional state of the cortex or reticular formation, either an increase or decrease in the number of subsensory reactions occurs. Similarly, perceived stimuli may be transformed into unperceived stimuli with a con-

comitantly recorded subthreshold effect. Conversely, unperceived subsensory stimuli may be transformed into perceived stimuli. "Emotional excitation" supplies 1 of the conditions for the detection of subsensory reactions. Thus, the subthreshold action of words, connected with the negative emotion of a subject, may be demonstrated. A hypothesis is proposed to account for this action by postulating a CR mechanism. Experimental confirmation is supplied for the view that the problems dealing with the determination of signal-detection threshold or word-recognition threshold, and subsensory reactions are 2 sides of 1 general problem. It is held that the problem of the unconscious can yield to experimental research and physiological analysis.—*I. D. London.*

1792. Lange, K. A. (USSR Academy of Sciences, Div. of Physiology, Leningrad, USSR) **Nekotorye aktual'nye voprosy planirovaniya nauchnykh issledovanii v oblasti fiziologii vyssheĭ nervnoi deyatel'nosti.** [Some high-priority problems in the planning of scientific research in the field of physiology of higher nervous activity.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 184-187.—Presents historical survey of the planning efforts by the USSR Academy of Sciences in the field of the physiology of higher nervous activity (1930-1975).—*I. D. London.*

1793. Laursen, A. Mosfeldt. (U. Copenhagen, Inst. of Neurophysiology, Denmark) **Higher functions of the central nervous system.** *Annual Review of Physiology*, 1967, Vol. 29, 543-572.—Reviews studies dealing with the brain in terms of coding, information transmission, and computation. Studies with special conceptual backgrounds are not included and neurophysiology at the cellular level is considered only when directly relevant to the problem of how the brain handles information. (177 ref.).—*G. Steele.*

1794. Lissak, K. (Ed.) **Results in neurophysiology, neuroendocrinology, neuropharmacology.** Budapest, Hungary: Akademiai Kiado, 1969.—Presents a collection of articles on the neurophysiological and neuroendocrine bases of motivated behavior. The collection constitutes Volume 2 in this series.—*I. D. London.*

1795. Magazanik, L. B. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Vliyaniye simpatomimeticheskikh aminov na desensitizatsiyu postsinapticheskoi myshechnoi membrany k deistviyu atsetilkholina.** [Influence of sympathomimetic amines on desensitization of the postsynaptic muscle membrane to the action of acetylcholine.] *Fiziologicheskii Zhurnal SSSR*, 1969(Sep), Vol. 55(9), 1147-1155.—Isolated frog muscle materials (m. sartorius and m. extensor longus dig. IV) were utilized in an extra- and intracellular microelectrode study of the influence of the sympathomimetic amines (SMAs) (noradrenaline, adrenaline, isopropylnoradrenaline) on endplate sensitivity to the depolarizing action of acetylcholine. The SMAs ($5 \cdot 10^{-7}$ - $1 \cdot 10^{-4}$ M) did not change the amplitude and form of the depolarized responses to microapplication of acetylcholine to the endplate. The SMA-evoked decrease in the velocity of desensitization could have been prevented by phentolamine (an alpha adrenolytic), but not by propranolol (a beta adrenolytic). This effect of the SMAs was evidently mediated through adrenoreceptors of the alpha type. The data suggest that neither desensitization of postsynaptic membrane to acetylcholine by the SMAs nor SMA action is connected directly with changes in the cholinoreceptors of the endplates. These effects are viewed as depending on the extrareceptor links of the postsynaptic

mechanism. (English summary) (25 ref.).—*I. D. London.*

1796. Narikashvili, S. P. (Inst. of Physiology, Tbilisi, USSR) **Assotsiativnaya oblast' kory bol'shikh polusharii golovnogo mozga i ee vzaimodeistvie s senzornymi zonami.** [The associative area of the cerebral cortex and its interaction with the sensory zones.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 110-123.—Presents a critical survey of the current level of knowledge.—*I. D. London.*

1797. Putsillo, M. V. (Burdenko Inst. of Neurosurgery, Moscow, USSR) **O funktsional'nom znachenii razlichnykh kletochnykh grupp glavnogo yadra glazodvigatel'nogo nerva u cheloveka.** [On the functional significance of different cellular groups in the main nucleus of the oculomotor nerve in man.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jan), Vol. 70(1), 82-86.—Presents a clinico-anatomical study of the distribution of the muscle centers in the main nucleus of the oculomotor nerve (based on materials from 3 cases involving dissociated pareses of the external muscles of the eye, and changes in the nucleus of the oculomotor nerve due to either pressure on the nerve, leading to retrograde degeneration of the cells, or disturbance of the blood supply with hemorrhages and ischemic disease of the nerve cells). The muscle, raising the upper eyelid, receives its innervation from the caudal part of the nucleus; the inferior rectal muscle from the border of the caudal and middle third of the nucleus; the internal rectal muscle from the oral third of the nucleus. The axons of the oral part of the main nucleus of the oculomotor nerve do not cross; whereas the axons of the caudal part cross partially (not exceeding 26% of the corresponding total).—*I. D. London.*

1798. Rubel, Edwin W. (Michigan State U.) **A comparison of somatotopic organization in sensory neocortex of newborn kittens and adult cats.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5722-5723.

1799. Sergienko, T. M. **Registratsiya vnutricherepnogo davleniya s pomoshch'yu gidrotenzodatchika.** [Registration of intracranial pressure with the aid of a hydrotensive device for presenting information.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 237-240.—Examines the method as applied in experimental research.—*I. D. London.*

1800. Shingarov, G. Kh. (USSR Academy of Medical Sciences, Dept. of Philosophy, Moscow) **Metodologicheskie voprosy edinstva fiziologii vyssheĭ nervnoi deyatel'nosti i sovremennoi neirofizilogii i psikhologii.** [Methodological problems dealing with the unity of the physiology of higher nervous activity and contemporary neurophysiology and psychology.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 3-8.—Presents a critical analysis of papers on the "mutual relationship of medical psychology and the theory of higher nervous activity," read at the 3rd Plenum of the Scientific Council on Physiology and Pathology of the Nervous System of the USSR Academy of Medical Sciences (held in 1968). An attempt is made to show that "at the basis of the unity of psychology, neurophysiology, psychophysiology, and physiology of higher nervous activity there lie, on the 1 hand, the 2-in-1 essence of the CR as both a physiological and psychic event and, on the other hand, the analogous role of emotions and reinforcement in the regulation of psychic activity in man and animals."—*I. D. London.*

1801. Simonov, P. V. (Inst. of Higher Nervous

Activity, Moscow, USSR) **O sostoyanii, perspektivakh i organizatsii issledovaniy vysshei nervnoi deyatel'nosti cheloveka.** [On the state, perspectives and organization of research on human higher nervous activity.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 16-22.—Presents views on the future of research on human higher nervous activity with many references to American discussions of the subject.—*I. D. London.*

1802. Smirnov, V. M. (Inst. of Experimental Medicine, Leningrad, USSR) **Neiropsikhologiya i voprosy izucheniya glubokikh struktur golovno mozga cheloveka.** [Neuropsychology and problems encountered in the study of the deep structures of the human brain.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 35-42.—Relates psychic functions to the deep structures of the brain and describes the methods for disclosing the connections between them.—*I. D. London.*

1803. Strehler, Bernard L. (U. Southern California) **Information handling in the nervous system: An analogy to the molecular-genetic coder-decoder mechanisms.** *Perspectives in Biology & Medicine*, 1969(Sum), Vol. 12(4), 584-612.—"In the present model, the concept is developed that the various patterns impinging from the environment through the sense organs are coded (either by the sensors themselves or at a more central station) in the form of unique time sequences of pulses; and, further, that 'selection' of appropriate responses is achieved through decoder systems that operate analogously to [transfer]RNA function and consist of single cells which are the individual decoder elements.... In direct contradiction to the classical model, the imprinting of memory and associations within the CNS as outlined in the present theory is viewed as a decrease in the number of effective neuronal connections required for transmission, rather than as the increase of such connections—as had earlier been expected."—*J. Crabbe.*

1804. Supin, A. Ya. (Moscow State U., USSR) **Vozmozhnye neiروفизиологические механизмы внутреннего торможения.** [Possible neurophysiological mechanisms of internal inhibition.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 100-109.—Attempted to develop some ideas concerning several possible mechanisms for the formation of the conditioned connection on the basis of strictly neurophysiological data. In this effort, a postulated system of recurrent inhibition in the cortex and thalamic nuclei receives major attention.—*I. D. London.*

1805. Traugott, N. N. (Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **K voprosu o vzaimootnoshenii kory bol'shikh polusharii i glubokikh strukture mozga v protsesse osushchestvleniya nekotorykh psikhicheskikh protsessov.** [On the interrelationship of the cerebral cortex and the deep structures of the brain in the process of effecting several psychic processes.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 43-49.—Based on a wide range of data, discusses the action of various medicinal preparations which elicit a marked effect on behavior, in order to promote the analysis of the interrelationships of psychology and neurophysiology.—*I. D. London.*

1806. Valenstein, Elliot S., Cox, Verne C., & Kakolevski, Jan W. (Fels Research Inst., Yellow Springs, O.) **Hypothalamic motivational systems: Fixed or plastic neural circuits?** *Science*, 1969(Mar), Vol. 163(3871),

1084.—Defends the hypothesis that "the relationship between the activation of hypothalamic neural circuits and stimulus-bound behavior is plastic." An alternative explanation presented by R. A. Wise, who holds that the neural circuits are fixed and functionally isolated from each other, is answered by noting key differences in methodology between the 2 approaches. Questions concerning current level, threshold values, and timing of stimulus presentation are reviewed. It is concluded that the hypothesis favoring plastic rather than fixed circuits remains the more valid explanation.—*P. McMillan.*

1807. Walter, R. D. (U. California, Medical School, Div. of Neurology, Los Angeles) **Historical note: Osler's brain.** *Bulletin of the Los Angeles Neurological Societies*, 1970(Jul), Vol. 35(3), 107-110.—Sir William Osler, who was interested in cerebral topography, bequeathed his brain to the Anthropological Society of Philadelphia for study by the newly founded Wistar Institute. Osler's brain was studied along with those of a number of other notables, including Joseph and Philip Leidy, William Pepper, James Tyson, Harrison Allen, E. S. Morse, W. W. Keen, G. Stanley Hall, and J. S. Haldane. Henry Donaldson prepared the report on Osler's specimen. Donaldson was interested primarily in comparing the brains of 3 scholars—Hall, Osler, and Morse—with the brains of 3 members of the Southard family—Elmer Southard, a Harvard Medical School professor, and his parents. Donaldson concluded "from the data on hand... the scholars (Hall and Morse) had brains that were somewhat better grown and therefore better nourished than those with which they are here compared (Osler and the Southards) and that this favorable nutritional adjustment constitutes a fundamental condition favoring superior performance. For further inference adequate data are lacking."—*I. N. Mensh.*

1808. Yurkov, N. N. **O kolichestvennoi otsenke tonusa ven mozga po dannym orbital'noi pletizmografii.** [On the quantitative evaluation of cerebrovenous tone according to the data of orbital plethysmography.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 191-195.—Pressure (20-30 mm. Hg) on the neck was used to bring on cerebrovascular dilatation, which is picked up in the orbital plethysmogram, in 40 20-40 yr. old Ss. A parallelism was established between the vascular reaction to the pressure and the reactions to other stimuli. Data suggest that a possible reflex reaction of the cerebral vessels to mechanical stimulation of the sinocarotid zone exists—a reaction which should be taken into consideration when applying the method used in this study for the evaluation of cerebrovenous tone. (English summary)—*I. D. London.*

Neuroanatomy

1809. Corballis, M.C. & Beale, I.L. (McGill U., Montreal, Quebec, Canada) **Bilateral symmetry and behavior.** *Psychological Review*, 1970(Sep), Vol. 77(5), 451-464.—Defined 2 tests of the ability to distinguish left from right: mirror-image stimulus discrimination and left-right response differentiation. A perfectly bilaterally symmetrical machine could perform neither test. Evidence is reviewed that animals and men find both tests difficult, especially the 1st. It is suggested that interhemispheric fiber systems, i.e., the corpus callosum, act to "symmetrize" memory traces and thus preserve structural symmetry. This may partly explain findings of mirror-image reversal accompanying interhemispheric

transfer. Evidence is also described which suggests that animals may sometimes solve problems of mirror-image stimulus discrimination by adopting asymmetrical postures or by making asymmetrical responses in scanning the stimuli. (63 ref.)—*Journal abstract*.

1810. Hallag, Issa Y. (Kirksville Osteopathic Hosp., Mo.) **Neuroanatomic pathways associated with emotions.** *Journal of the American Osteopathic Association*, 1969(Mar), Vol. 68(7), 719-726.—Reviews the peripheral, thalamic, and central theories of emotion. J. W. Papez's proposed mechanism of emotion is presented and discussed in terms of more recent neuroanatomic and neurophysiologic investigation. The neuroanatomically related systems are reviewed in relationship to the rhinencephalon midbrain circuitry. The significant role of the subcortical and cortical connections must be considered with the reticular system in the mechanism of emotion, in addition to the rhinencephalon. These structures are essential for expression of both the subjective and objective components of emotion. It is concluded that action and interaction of the Papez circuit with the more recently recognized related neuroanatomic pathways are essential for the completion of the emotive process on a neural basis. (28 ref.)—*Journal summary*.

1811. Mel'man, E. P., Maslennikova, L. D., & Atamanchuk, E. I. (Medical Inst., Ivano-Frankov, USSR) **Opyt matematicheskogo analiza kapillyarno-neirokletochnykh otnoshenii v vegetativnykh uzlakh kishchechnika.** [An experiment in the mathematical analysis of the capillary-neurocellular relationships in intestinal autonomic ganglia.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(2), 56-62.—120 central duodenal preparations, derived from 52 cats, were used in a mathematical analysis of nerve cell-capillary characteristics in the autonomic ganglia of the intermuscular plexus of the duodenum. It was shown that the density of the capillary bed around the neuron is a function of the size and shape of its body, and the number of its outgoing processes. Given equality or near-equality of size of the neuron, the greater the number of these processes, the denser the capillary network and, hence, the richer the blood supply. This morphological relationship may be taken as an indicator of neuronal "performance-intensity" and functional significance.—*J. D. London*.

1812. Robiner, I. S. (Inst. of the Brain, Moscow, USSR) **Kortikal'naya proektsiya yader intralaminiarnoi gruppy zritel'nogo bugra koshki i ikh funktsional'noe znachenie.** [Cortical projection of the intralaminar nuclei of the cat thalamus and their functional significance.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 124-133.—19 Ss were used in an experimental-morphological study of the cortical connections of the thalamic intralaminar nuclei (electrolytic nuclear extirpation with subsequent staining of preparations) in combination with an electrophysiological study, using 13 Ss, with strychninization of these nuclei, their electrical stimulation, and observation of Ss behavior. The data provide evidence that the parafascicular nuclei are not projected onto the cortex, while other intralaminar nuclei (the central lateral and paracentral nuclei) have a definite zone of cortical representation. The cortical projection of the central lateral nucleus of the thalamus is located chiefly in the area of the suprasylvian gyrus (anterior and middle) and,

to a less marked degree, is found in the lateral orbital gyrus and in the medial hemispheric wall (geniculate gyrus and rostral limbic cortex), i.e., in those regions which are primarily the projection zone of the paracentral nuclei. The view is expressed that, owing to the specific nature of their anatomic connections and functional features, the intralaminar nuclei constitute a kind of pulsating system, serving to regulate the passage and distribution of impulses in the cerebrum.—*J. D. London*.

1813. Winkelmann, E. (Humboldt U., Berlin, E. Germany) **Moderne morphologische und funktionelle Ergebnisse auf dem Gebiet der Endausbreitung des vegetativen Nervensystems.** [Modern morphological and functional results in the field of terminal branching of the autonomic nervous system.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Apr), Vol. 22(4), 121-132.—Based on an extensive survey of the literature, it is reported that electron microscope research has decided in favor of the neuron theory rather than the terminal reticulum theory, and has also brought substantial progress in the clarification of the structure of the terminal branching of the autonomic nervous system. A separation is said to always exist between the nerve fiber of the peripheral autonomic nervous system and the organ responding to nerve stimulation. In the terminal branching it is further possible to distinguish between a uniformly structured preterminal section and a terminal section. The preterminal section is composed of axons incorporated in the cells of Schwann. In the terminal section the axons gradually come out from the Schwann cell covering to approach the effector organ. (167 ref.)—*K. J. Hartman*.

LESIONS

1814. Black, Stephen L. & Stricker, Edward M. (McMaster U., Hamilton, Ontario, Canada) **Drinking by anuric rats in excess of apparent need.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 867-871.—Found that nephrectomized and ureterally ligated male albino rats drink in excess of apparent body fluid requirements as measured by external water exchange and by depression of plasma sodium concentration. The nature of the stimulus initiating this behavior is obscure. A renal hormone is unlikely to be a primary cause of the drinking because fluid intakes of nephrectomized and ureterally ligated rats do not differ. While anuric Ss are hypovolemic, this stimulus may not entirely account for the observed drinking response. Instead, the increased plasma concentrations of urea and potassium observed may cause drinking through cerebral dehydration and consequent shrinkage of hypothalamic osmoreceptors, despite hydration elsewhere in the body, because these substances penetrate the blood-brain barrier with difficulty. Alternatively, the drinking may be in response to the accumulation of toxic substances during anuria and may function to dilute them. Whatever the cause of drinking, results suggest that anuric rats are inappropriate Ss for many experiments on thirst, unless the duration of anuria is brief. (31 ref.)—*Journal abstract*.

1815. Dafny, Nachum & Feldman, Shaul. (California Inst. of Technology) **Single cell activity in the hypothalamus in intact and adrenalectomized rats.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 873-878.—Studied the spontaneous activity of single cells and their responsiveness to sensory stimuli in the

anterior-tuberal and posterior hypothalamus in intact and adrenalectomized male Wistar rats, under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS, and particularly the hypothalamus, are discussed.—*Journal abstract.*

1816. Gannushkina, I. V. & Bakhitova, L. M. (Inst. of Neurology, Moscow, USSR) **Zavisimost' kharaktera i stepeni porazheniya nervnykh kletok v klinovidnom yadre retikulyarnoi formatsii srednego mozga ot osobennosti ikh krovosnabzheniya.** [The character and degree of nerve cell lesion in nucleus cuneatus of the mesencephalic reticular formation as a function of the features characterizing their blood supply.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 115-117.—560 somatochromes in nucleus cuneatus of the mesencephalic reticular formation, derived from 10 cats whose quadrigeminal artery had been ligatured to produce focal softening in the region of that nucleus, were studied. The severest changes occurred in the large nerve cells which are rich in chromatin; the least in the group of small and medium cells with normally less developed blood supply.—*I. D. London.*

1817. Hempel, Franklin G. (U. Texas) **Visually evoked potentials from the laser-irradiated rabbit retina.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5664.

1818. Leshner, Alan I. (Rutgers State U.) **The adrenals and activity.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5715.

1819. Vorob'eva, N. M. (Research Inst. of Physiology, Kiev, USSR) **Puti peredachi vliyaniya s retseptorov dvenadtsatipervstnoi kishki na motoriku tolstogo kishechnika.** [Pathways for transmission of duodenal receptor action on the motor activity of the large intestine.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 13-16.—Ss were 4 dogs with duodenal and large intestinal fistulae. The vagus, splanchnic, and pelvic nerves, along with the bowel, were sectioned at the level of the ileocecal sphincter, in order to disclose the significance of each of them. The data provide evidence that the influences from the duodenal mechano- and chemoreceptors on the motor activity of the large intestine are mediated through the external nerves of the gastrointestinal tract (splanchnic, vagus, pelvic) and through an intramural mechanism, located in the intestinal walls.—*I. D. London.*

Brain Lesions

1820. Budakova, N. N. & Shik, M. L. (Moscow State U., USSR) **Vliyanie razdrasheniya oblasti mozgovogo stvola, vyzvayushchego khod'bu, na voskhodyashchie refleksy u mezentsefalicheskoi koshki.** [Influence of stimulation of the brainstem region; evoking locomotion, on the ascending reflexes in the mesencephalic cat.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 7-11.—Ss were curarized mesencephalic cats. Recordings were made of the responses of the deep radial nerve to stimulation of afferent fibers in the hind extremity. Ascending reflexes exhibited a 10-17 msec. latent period. Stimulation of the indicated region of the brainstem led to enhancement of the ascending reflexes and diminution of their latent periods. These reflexes in a number of instances were not

accompanied by a segmental reflex. It is, accordingly, thought that stimulation of the "locomotor region" of the midbrain produces a coordinated change in the state of different interneuronal systems of the spinal cord and not merely a diffuse facilitation of the motoneurons. Enhancement of the ascending reflexes and diminution of their latent period were also observed when changing over from frequency of afferent stimulation of once in 2 sec. to twice in 1 sec.—*I. D. London.*

1821. Gambaryan, L. S. (Armenian Academy of Sciences, Lab. of Neurobionics, Erevan, USSR) **Dvigatel'nye uslovnye refleksy pri povrezhdenii piramidnogo trakta i medial'noi petli.** [Motor conditioned reflexes after lesion of the pyramidal tract and medial lemniscus.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 48-54.—5 dogs and 30 cats were Ss in a study of the influence of isolated and combined lesions of the pyramidal tracts and lemniscal pathways on local motor CRs (electrodefensive CRs to bell in dogs; motor-alimentary CRs to bell in cats; lesion of the pyramids in dogs in the region of medulla oblongata; electrolytic extirpation of the pyramids and medial lemniscus in cats). Neither unilateral nor bilateral lesion of the pyramids and medial lemniscus excluded the possibility of elaborating and executing motor CRs. With isolated lesion of the pyramids, no signs of spastic paralysis were disclosed. It is demonstrated electrophysiologically that, with bilateral lesion of the lemniscal pathways, proprioceptive impulsion continues to arrive in the cerebral cortex. It is concluded, on the basis of the data procured and the results of clinical and experimental research by others, that the "syndrome of pyramidal paralysis" is not connected with isolated lesion of the "corticospinal (pyramidal) tract."—*I. D. London.*

1822. Glass, Jay D. & Thomas, Garth J. (U. Rochester, Center for Brain Research) **Effects of cortical ablations upon recovery from the septal syndrome in hooded rats.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 879-882.—Produced hyperreactivity of the septal syndrome in 23 adult male hooded Long-Evans rats by electrolytic lesions in the septal region. Various groups of Ss with septal lesions were handled postoperatively for either 5 or 18 days or left unhandled for 18 days. 9 operated controls were also not handled. Following handling periods, the septal syndrome declined in both handled groups, and Ss were at normal reactivity levels. The unhandled group with septal lesions still displayed the syndrome. Neocortical ablations did not reinstate the syndrome in either handled group nor change the reactivity level of unhandled groups. The septal syndrome in another group of Ss was reduced to normal levels by handling for 21 postoperative days. Spreading depression, induced by application of 25% KCl to the neocortex, did not reinstate the septal syndrome. Results differ from and restrict the generality of previous findings.—*Journal abstract.*

1823. Hamilton, Leonard W. (Rutgers State U.) **Behavioral effects of unilateral and bilateral septal lesions in rats.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 855-859.—Unilateral and bilateral septal lesions in 42 male albino Sprague-Dawley and Holtzman rats produced: (a) impaired reversal of a T-maze position habit, (b) changes in water consummatory behavior following deprivation, and (c) enhanced shuttle-box avoidance responding. Ss with unilateral lesions were

superior to those with bilateral lesions in acquiring the avoidance response, but were intermediate to controls and Ss with bilateral lesions on the reversal task. Brain mechanisms which could account for these data are discussed.—*Journal abstract.*

1824. Iontov, A. S. & Granstrem, E. E. (Inst. of Physiology, Leningrad, USSR) **Korkovye slukhovye volokna v sostave zritel' nogo trakta.** [Cortical auditory fibers are part of the visual tract.] *Doklady Akademii Nauk SSSR*, 1970, 192(4), 930-933.—Auditory areas A1, A2, or Ep were extirpated in cats by Woolsey's method. 4-9 days later Ss were sacrificed, their brains fixed in formalin, and stained. Longitudinal sections were obtained through the ipsilateral visual tract between the optic chiasma and the geniculate body. While extirpation of A1 did not lead to degeneration in the visual tract, extirpation of Ep and especially of A2 did. Degenerated axons from neurons in these areas were found along the entire length of the visual tract examined, including the geniculate bodies.—*L. Zusne.*

1825. Ishihara, Shizuko & Hattori, Yuriko. [The effect of cortical lesions on behavioral variability as measured in the multiple choice situation.] *Japanese Journal of Psychology*, 1970(Apr), Vol. 41(1), 40-44.

1826. Jinnai, Densosuke, et al. (Osaka U., Medical School, Japan) **Effect of brain-stem lesions on metrazol-induced seizures in cats.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 404-411.—Studied the chronic effect of bilaterally paired lesions in the cat's brainstem on metrazol-induced seizures to clarify the intracerebral mechanism for the maintenance of epileptic excitability. Results indicate that there are 2 systems of facilitatory and inhibitory functions in the brain-stem rostral to the pons as far as metrazol-induced seizure activity is concerned. The facilitatory system consists of the caudal mesencephalon extending rostrally to the posterior hypothalamus through the ventral part of the rostral mesencephalon and posterior subthalamus, and of the mediodorsal nucleus of the thalamus. The inhibitory system consists of the dorsal part of the rostral mesencephalon extending rostrally to the thalamus and also of the anterior hypothalamus. It is suggested that this facilitatory system plays a significant role in the onset and generalization of the metrazol seizure. (French summary) (34 ref.)—*Journal summary.*

1827. Kesner, Raymond P. & Vredenburg, Edric W. (U. Utah) **Effects of midbrain reticular lesions upon the orienting response in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 170-174.—30 male hooded rats with bilateral lesions in the midbrain reticular formation (MRF) showed no differences in the acquisition and extinction of a runway response in comparison to sham-operated controls. However, Ss with MRF lesions showed a significant decrease in the duration of an orienting response (exploratory behavior) to a novel stimulus and showed no recovery of the orienting response the next day. No differences were found in rate of habituation to the novel stimulus.—*Journal abstract.*

1828. Koopowitz, Harold. (U. California, Irvine) **Feeding behaviour and the role of the brain in the polyclad flatworm, Planocera gilchristi.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 31-35.—The feeding behavior consists of a complex sequence of events. Flatworms feed by capturing snails and extracting the molluscs from their shells. Decerebration of the flat-

worms affects both the sequential timing of the patterns and the ability to capture prey but brainless animals are still capable of feeding.—*Journal summary.*

1829. Liles, Samuel L. & Davis, George D. (Louisiana State U., Medical Center, New Orleans) **Athetoid and choreiform hyperkinesias produced by caudate lesions in the cat.** *Science*, 1969(Apr), Vol. 164(3876), 195-197.—In an experiment with 12 adult cats, it was found that small, unilateral lesions, which damage exclusively the anteroventral region of the caudate nucleus, produce a stable and permanent behavioral change resembling human athetoid and choreiform hyperkinesias. These symptoms are not seen after generalized destruction of the caudate nucleus.—*Journal abstract.*

1830. Mancía, Mauro. (U. Milan, Lab. of Human Physiology, Italy) **Electrophysiological and behavioural changes owing to splitting of the brain-stem in cats.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 487-502.—A midline pontine split induced a persistent alteration of sleep-wakefulness rhythms in 30 cats. Wakefulness remained high (78.9%). These changes lasted 3-5 wk. after the splitting procedure. A midline bulbar split did not cause any consistent change in the sleep-wakefulness cycle. A mesencephalic split significantly reduced the amount of desynchronized sleep while synchronized sleep was not modified. Marked alterations in behavior, together with a marked loss of body weight, were observed in Ss with severe sleep deprivation induced by pontine splitting. The retrograde changes in the aspecific brainstem neurons brought about by midline and bilateral pontine splits suggest that the persistent increase in wakefulness and reduction of sleep, induced by these cuts, may be ascribed to suppression or reduction of the flow of physiological sleep impulses originating in regions at the level of the pontine section or caudally to them, and ascending contralaterally to diencephalic and cortical regions. (French summary) (38 ref.)—*Journal summary.*

1831. Morgan, John M. (Kansas State U.) **The effects of limbic lesions on a free operant avoidance schedule in rats.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5717-5718.

1832. Notermans, S. L. & Boonstra, S. (State U. Hosp., Groningen, Netherlands) **Electroencephalographic findings in experimentally induced intracranial hypertension.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 337-345.—Examines the relationship between the EEG and the changes in cerebro-spinal fluid (CSF) pressure in 26 cats with unilateral cerebral cortical lesions produced by extradural application of cold probe. There were no obvious correlations between alterations in the intraventricular pressure and the EEG. No clear relationship between the extent of the cerebral edema and EEG changes was found. Cooling caused EEG abnormalities. At the beginning of cerebral herniation the EEG showed gross abnormalities; about 5 min. before the respiratory arrest, general slowing of the EEG and reduction of voltage were observed. In most cases the EEG became isoelectric as soon as respiration stopped. After starting artificial respiration electrical activity reappeared after 5-150 sec. (French summary) (43 ref.)—*Journal summary.*

1833. Powers, Alice S. (Bryn Mawr Coll.) **The role of the avian hyperstriatum in habit reversal.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5721.

1834. Smith, Allan M. (Inst. of Neurophysiology & Psychophysiology, Marseille, France) **Deficits in conditioned movement and visual discrimination following rubral area lesions in the rat.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 893-898.—Bilateral electrolytic lesions in the region of the red nucleus impaired the ability of 15 Royal Victoria Hospital hooded rats to perform a conditioned avoidance response. The deficit implies a failure to initiate conditioned movement rather than direct impairment of motor organization or ability to learn. 8 Ss of the same group trained to perform simultaneous black-white and stripe discriminations showed deficits only in the acquisition of the stripe discrimination. Exp. II found that 10 Ss with rubral area lesions showed impaired learning and slower running speed in a food motivated successive brightness discrimination task. Exp. III found that 8 Ss with rubral area lesions were significantly slower to initiate movement on both pre- and postshock days in 1-trial passive avoidance training. (16 ref.)—*Journal abstract*.

1835. Strominger, Norman L. (Union U., Albany Medical School, N.Y.) **Localization of sound in space after unilateral and bilateral ablation of auditory cortex.** *Experimental Neurology*, 1969(Dec), Vol. 25(4), 521-533.—Trained 7 cats to localize sound in space in a 2-choice food-reward situation. Localizing ability was tested at angles from 90-5° and a threshold angle, where Ss scored 75% correct responses, was determined. 6 Ss were deprived of auditory cortex unilaterally. The smallest lesion involved auditory areas I and II, the posterior extosylvian gyrus, and the insular-temporal region, while the largest lesions included these plus somatic area II and the anterior and middle parts of the suprasylvian gyrus. 5 Ss had different degrees of deficit. 1 S with an ablation of all cortical areas listed above except the suprasylvian gyrus, was unimpaired. Most discrimination errors were committed when the sound was on the side contralateral to the lesion. Symmetrical ablations later were produced in the opposite cortex of 4 Ss. 1 S was deprived of auditory cortex bilaterally in a single operation. The only S with all the regions ablated bilaterally was completely unable to localize sounds; the others discriminated above chance at 90°. (52 ref.)—*Journal abstract*.

1836. Van Hoesen, Gary W. (Kansas State U.) **An analysis of two-bar ratio performance following septal lesions in rats.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5727.

Brain Hypothalamic & Hippocampal Lesions

1837. Glickman, Stephen E., Higgins, Thomas J., & Isaacson, Robert L. (U. California, Berkeley) **Some effects of hippocampal lesions on the behavior of Mongolian gerbils.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 931-938.—Subjected 28 adult male gerbils to 1 of 3 surgical procedures: aspiration of the hippocampus and overlying cortex, aspiration of the cortex overlying the hippocampus alone, or a sham operation. Hippocampal lesions increased the frequency of certain home cage behavior patterns (locomotion, rearing, sniffing, and drinking), decreased the frequency of other patterns (sleeping/lying and shredding of nest materials), and left unchanged a 3rd set of measures (alert inactivity, grooming and burrowing). In cases where increments in occurrence of a given behavior were observed, there were

lesion-induced shifts in frequency of initiation of certain behavior patterns (locomotion and sniffing) rather than in the duration of those patterns. This finding argues against a simple preservation view of the increment in frequency of these patterns. Lesion effects on reactivity to novel stimulation varied with the test procedure. Locomotor activity in an open field was enhanced, manipulatory and biting contacts with novel stimulus objects were reduced, and social reactions to 16 unfamiliar male and female visitor Ss were relatively unaffected. (27 ref.)—*Journal abstract*.

1838. Mikhailov, V. V., Astaf'eva, N. G., & Solov'eva, V. Ya. (Medical Inst., Saratov, USSR) **Ob uchastii zadnikh yader gipotalamusa v mekhanizme razvitiya eksperimental'nogo allergicheskogo entsefalomielita i postdifteriino polinevrita.** [On the participation of the posterior hypothalamic nuclei in the mechanism involved in the development of experimental allergic encephalomyelitis and postdiphtheritic polyneuritis.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 32-35.—Ss were 311 guinea pigs with and without electrolytic destruction of the posterior hypothalamic nuclei. For Ss subjected to sublethal doses of diphtheritic toxin or immunized by an encephalitogenic mixture, the development of paralysis of the skeletal muscles was preceded by changes in the functional activity of the hypothalamo-hypophyseal-adrenal system, manifested by disturbances in the osmoregulatory reflexes and by the accumulation of antinerve antibodies in the blood. With electrolytic destruction of the posterior hypothalamic nuclei or with pharmacological exclusion of the adrenergic structures there—by administering appropriate doses of the adrenergic agents aminazine (chlorpromazine) or reserpine—Ss preserved adequate osmoregulatory reflexes to hydration, while the synthesis of antinerve antibodies decreased markedly. When this happened, Ss developed paralysis of the skeletal muscles 4-5 days later and survived 6-7 days longer as compared to controls.—*I. D. London*.

1839. Sanwald, Judith C., Porzio, Nancy R., Deane, George E., & Donovick, Peter J. (State U. New York, Binghamton) **The effects of septal and dorsal hippocampal lesions on the cardiac component of the orienting response.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 883-888.—Examined the effects of septal and dorsal hippocampal lesions on the cardiac component of the rat's orienting response (OR) to auditory stimulation. 13 control, 18 septal and 8 hippocampal male albino Sprague-Dawley rats all showed deceleratory responses, maximal at 2 sec. following onset, to a 1000-Hz tone. With repeated presentations of the tone controls deceleratory ORs disappeared, and a longer latency acceleratory response followed stimulus onset. Septal and hippocampal Ss failed to show this evidence of habituation to the 1000-Hz tone. Subsequent presentations of a 1375-Hz tone resulted in deceleratory ORs in all groups. Controls' ORs again habituated with repeated presentations of the stimulus, being replaced by a longer latency acceleration; septal Ss continued to make ORs throughout the series. Hippocampal Ss' deceleratory ORs to the 2nd tone did habituate; but neither they nor septal Ss showed the longer latency acceleratory response characteristic of the later stages of habituation. Thus, resting cardiac rate differences between septal and control Ss were shown to be a function of the severity of imposed restraint. Thus, in Exp. II, the basal heart rates of 7 septal Ss did not differ from those of 8 controls, or

from the pretone Trial I rates for Exp. I controls.
—*Journal abstract.*

BRAIN STIMULATION

Chemical Stimulation

1840. Avery, D. D. (U. Texas, Southwestern Medical School, Dallas) **Hyperthermia induced by direct injection of carbachol in the anterior hypothalamus.** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 175-178. —Microinjections of carbachol in the anterior-preoptic hypothalamic area of 16 male albino rats induced hyperthermia. The magnitude of the effect was dose dependent and the results were related to theoretical issues which arose from previous studies in which hyperthermia was associated with intraventricular injections of acetylcholine.—*Journal abstract.*

1841. Bennett, Gudrun S. & Edelman, Gerald M. (Rockefeller U., New York, N.Y.) **Amino acid incorporation into rat brain proteins during spreading cortical depression.** *Science*, 1969, Vol. 163(3865), 393-395. —Elicited unilateral spreading cortical depression by applying potassium chloride solutions to the dura of conscious, freely moving male Sprague-Dawley rats. Incorporation of ^3H -leucine into soluble cortical proteins was decreased in the depressed hemisphere relative to the control side, while soluble brainstem proteins from both sides had the same specific activity. Various subfractions of soluble cortical proteins were affected to equal degrees. (16 ref.)—*Journal abstract.*

1842. Burešová, Olga & Nadel, Lynn. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **Interhemispheric transfer in the rat.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 849-853. —Explored the mechanisms of interhemispheric transfer of brightness or pattern discrimination in male hooded rats, using cortical spreading depression (CSD) to achieve a functional split-brain. After monocular acquisition of the task, retrieval was tested during unilateral CSD. The savings were 70 and 38% for the primary trace (hemisphere contralateral to the open eye during initial acquisition) and secondary trace (hemisphere ipsilateral to the open eye) respectively. The secondary trace could not be improved by initial monocular overtraining. In Exp. II, extensive monocular training was preceded by lateralized acquisition of the discrimination task (using CSD) in the primary hemisphere. Retention testing (under CSD) revealed a transferred trace similar to the secondary trace seen when monocular training was not preceded by lateralized training of the primary hemisphere. Thus, monocular training activates interhemispheric write-in processes yielding transferred traces which cannot be improved either by initial monocular overtraining or by prior lateralized training of the primary hemisphere. Results were compared to previous findings indicating that several monocular training trials given with input mainly directed to the untrained hemisphere (after prior lateralized acquisition under CSD) initiate a more powerful transfer. It is suggested that comparison of the transcommissurally transferred information with direct sensory input to the untrained hemisphere is a prerequisite of efficient interhemispheric transfer.—*Journal abstract.*

1843. Carr, Laurence A. & Moore, Kenneth E. (Michigan State U.) **Norepinephrine: Release from**

brain by d-amphetamine in vivo. *Science*, 1969(Apr), Vol. 164(3877), 322-323. —After injection of H^3 -norepinephrine into the left lateral cerebral ventricle of 8 cats, the lateral and 3rd cerebral ventricles were perfused with an artificial cerebrospinal fluid. Addition of d-amphetamine to the perfusion fluid caused a significant increase in the concentration of H^3 -norepinephrine in the effluent. (20 ref.)—*Journal abstract.*

1844. Grunden, Lee R. & Marley, E. (U. Arizona, Coll. of Pharmacy) **Effects of sympathomimetic amines injected into the third cerebral ventricle in adult chickens.** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 119-128. —32 unanesthetized adult Rhode Island red hens served as Ss. Catecholamines (.5 μM) produced behavioral and electrocortical sleep accompanied by hypothermia and a small decrease in EMG activity, although dopamine had minimal effects. The soporific and hypothermic effects observed were qualitatively similar to those resulting from small iv doses of catecholamines in young Ss. Equimolar doses of β -phenethylamine and dexamphetamine were ineffective while .5 μM of 5-hydroxytryptamine elicited biphasic behavioral and electrocortical effects. Saline (20 μl) did not alter behavior, electrocortical or EMG activity, but moderate elevation of core temperature was observed. Results provide additional evidence for a differential central action of sympathomimetic amines depending on their chemical structure and route of administration.—*Journal abstract.*

1845. Semiokhina, A. F. (Moscow State U., USSR) **O korkovo-podkorkovykh vzaimootnosheniyakh pri rasprostranyayushcheysya depressii neokorteksa.** [On cortico-subcortical interrelationships in spreading depression of the neocortex.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1970, Vol. 19(1), 143-148. —White rats reacted to sound in the form of myoclonic twitches (myoclonic hyperkinesia). Biopotentials were recorded from the sensorimotor and visual cortical areas, the internal geniculate body and hippocampus. Spreading depression was produced by the bilateral application of a 25% solution of KCl to the surface of the brain via extradurally implanted cannulae. Under the influence of spreading neocortical depression a sharp reduction of myoclonic twitches to the point of their complete disappearance occurred. KCl-induced spreading depression of the neocortex led to a considerable decrease in the bioelectrical activity of the subcortical structures—the result of a decrease in the tonic influence of the cortex. The degree of influence of spreading neocortical depression on the subcortical structures is a function not only of the general level of excitability of the CNS, but also of those complex morphophysiological relationships which obtain in the cerebral structures participating directly in the pathological reaction to sound.—*I. D. London.*

1846. Sepinwall, J. & Grodsky, F. S. (Hoffman-La Roche, Inc., Nutley, N.J.) **Effects of cholinergic stimulation or blockade of the rat hypothalamus on discrete-trial conflict behavior.** *Life Sciences*, 1969(Jan), Vol. 8(2, Pt. 2), 45-52. —Produced attenuation of a lever-press approach-avoidance conflict by placing either the cholinergic blocking agent atropine methyl nitrate into the ventromedial hypothalamus of 6 male hooded Long-Evans rats or the cholinergic drug carbachol into the lateral hypothalamus. Ip injection of atropine sulfate failed to attenuate the conflict responses; instead, suppression of approach responses

occurred. Ip injection of atropine methyl nitrate did not alter performance. Administration of carbachol in the ventromedial hypothalamus or peripheral injection of pilocarpine or physostigmine (eserine) produced suppression of approach and approach-avoidance responses. (17 ref.)—*Journal summary*.

Electrical Stimulation

1847. Goldstein, Robert; Hill, Shirley Y., & Templer, Donald I. (Malcolm Bliss Mental Health Center, Behavior Research Lab., St. Louis, Mo.) **Effect of food deprivation on hypothalamic self-stimulation in stimulus-bound eaters and non-eaters.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 915-918.—Previous studies concerned with the effects of food deprivation on hypothalamic self-stimulation were found inadequate for lack of discrimination between feeding and nonfeeding sites. In a study with 14 female Holtzman rats, this omission was rectified which allowed the conclusion that food deprivation selectively potentiates the rewarding properties of hypothalamic stimulation at sites from which feeding can be elicited. The existence of a postdeprivation facilitation in both eaters and noneaters reinforces the rationale for controlling this variable in studies designed to elucidate the neural substrates of consummatory behavior.—*Journal abstract*.

1848. Johnson, Roger N., Lobbell, Peter, & Levy, Ronald S. (Tufts U.) **Intracranial self-stimulation and the rapid decline of frustrative nonreward.** *Science*, 1969(May), Vol. 164(3882), 971-972.—Implanted 6 male albino Charles River rats with bipolar electrodes aimed at the lateral hypothalamus. Ss deprived of reward for a task previously rewarded behaved differently, depending on whether the reward was food or positive brain stimulation. Results indicate that unlike the relatively stable frustration effects obtained with conventional reward, frustration produced by withholding brain stimulation dissipates rapidly with time.—*Journal abstract*.

1849. Mendelson, Joseph. (Rutgers State U., Brain Research Lab.) **Self-induced drinking in rats: The qualitative identity of drive and reward systems in the lateral hypothalamus.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 925-930.—Of 9 adult naive male albino rats bearing electrodes in the drinking area of the lateral hypothalamus, 7 were found to self-stimulate at their drinking-threshold intensities only when water was available for drinking during the stimulation. The other 2 self-stimulated even in the absence of water, but at a lower rate than with water available. There was no gross anatomical difference between the locations of the electrodes in these 2 groups. Each S in the 1st group would self-stimulate in the absence of water only at current intensities which were above its drinking threshold. For these Ss the effect of drinking on reinforcement was equivalent to the effect of raising current intensity. It is suggested that this is true because drive and reward are qualitatively identical at the level of the lateral hypothalamus, representing different degrees of activation of the same neural system. (17 ref.)—*Journal abstract*.

1850. Stutz, Robert M., Butcher, Richard E., & Rossi, Ronald. (U. Cincinnati) **Stimulus properties of reinforcing brain shock.** *Science*, 1969(Mar), Vol. 163(3871), 1081-1082.—In an experiment with 12 male albino rats implanted with bipolar stimulating electrodes, it was found that Ss easily discriminated between 2 types

of subcortical brain shock which differed in reinforcing properties. However, when both stimuli were either neutral or positively reinforcing, Ss had difficulty in responding differentially. Possible implications for a theory concerning a generalized or diffuse reinforcement system are discussed.—*Journal abstract*.

1851. Swadlow, Harvey A. & Schneiderman, Neil. (U. Rochester, Center for Brain Research) **Stimulus generalization and transfer of training in rabbits conditioned to electrical stimulation of lateral geniculate nucleus.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 841-847.—Classically conditioned 21 rabbits by pairing electrical stimulation of the dorsal lateral geniculate nucleus (LGN) with peripheral electric shock as the UCS. In Exp. I, generalization and transfer of training between contralateral LGN were examined. In Exp. II, frequency generalization gradients were examined with total stimulus energy (TSE) either varied or kept constant. In Exp. I reliable eyeblink and heart rate conditioning were observed, and transfer of training, but not stimulus generalization, occurred between LGN. This transfer was specifically due to the previous conditioning. In Exp. II, response frequency of unconditioned eye openings to LGN stimulation varied as a function of stimulus frequency. In contrast, the highest response frequency for conditioned eyelid closings during generalization testing occurred at the stimulus frequency used during training, provided that TSE was kept constant; some generalization occurred to higher and lower stimulus frequencies. When frequency was varied without keeping TSE constant, the highest response rates occurred at stimulus frequencies higher than the training stimulus. (27 ref.)—*Journal abstract*.

1852. Wetzel, Mary C. (Veterans Administration Hosp., Psychology Service, Tucson, Ariz.) **The identification of self-stimulation elements for adjacent electrodes in the cat.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 899-905.—Implanted multiple adjacent metal electrodes into the region of the lateral hypothalamus in 6 adult cats. Self-stimulation rates for monophasic pulse trains were recorded for all arrangements of anode and cathode under bipolar and monopolar stimulation. Results show marked differences within tissue volumes of less than 1 mm. when rates for adjacent cathodes were compared. Over a row of electrodes, bipolar cathodal rate profiles were similar to monopolar cathodal profiles, and both tended to show higher rates for medial than for lateral loci. For the same wires, monopolar and bipolar absolute rates usually differed, and the direction of the difference was determined frequently by the position of the bipolar anode. Results are considered in terms of estimating the extent of self-stimulation input zones. (23 ref.)—*Journal abstract*.

ELECTRICAL ACTIVITY

1853. Al'tman, Ya. A. (Pavlov Inst. of Physiology, Leningrad, USSR) **Reaktsii neironov zadnego dvukholmiya koshki pri lateralizatsii ritmicheskikh zvukovykh razdrazhenii.** [Neuronal reactions in the posterior colliculi of the cat with lateralization of rhythmic acoustic stimulation.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 59-70.—Ss were narcotized in this extracellular microelectrode study. Noise signals employed were: (a) rhythmic stimulation with duration of burst of noise, 2 msec., frequency of

sequence, 20-30/sec, and duration of series, 600-700 msec.; (b) 600-700 msec. burst of noise; and (c) single short burst of noise (2 msec.). The following features of neuronal impulsion under the action of rhythmic stimulation were established: (a) a discharge sustained throughout the action of the series which, as a rule, was well synchronized with the rhythm of stimulation; (b) a decrease in detection threshold in comparison with that for a single burst of noise and continuous noise (600-700 msec.); and (c) a sharp growth in the magnitudes of the latent period of the reaction and its dispersion at threshold. These features were characteristic for neurons of both the phasic and tonic type. With lateralization of the series of clicks with the same frequency and duration of series (change in the temporal interval between binaurally presented series or change in the intensity of 1 of them), only $\frac{2}{3}$ of the neurons studied responded with changes in impulsion in response to both the 1st stimuli in the series and its subsequent part. In $\frac{1}{3}$ of the neurons, only the reaction to the subsequent part of the series underwent change, while the reaction to the 1st stimuli remained unchanged. The experimental material procured is compared with the data of psychophysical research. It is suggested that neuronal detectors of direction of displacement of the sound source exist.—*J. D. London.*

1854. Andreassi, J. L., Mayzner, M. S., Beyda, D. R., & Davidovics, S. (New York U.) **Effects of induced muscle tension upon the visual evoked potential and motor potential.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 245-247.—Recorded averaged evoked cortical potentials from over the visual and motor areas of 4 male graduate students in several experimental sessions which took place over a 4-wk period. The visual evoked potential (VEP) and motor potential (MP) were recorded under each of 4 conditions: (a) light flash alone, (b) squeezing dynamometer alone, (c) light plus squeezing, and (d) resting. VEP was of greater magnitude with muscle tension than with light alone. The MP was of greater magnitude under the squeezing plus light condition compared with squeezing alone. The enhancement effect in both types of potentials is attributed to the arousing influence of increased reticular activity.—*Journal abstract.*

1855. Beteleva, T. G. (Moscow State U., USSR) **Vliyaniye dlitel'nykh svetovykh i zvukovykh raz-drazhitel' na aktivnost' neironov lateral'nogo kolenchatogo tela krolika.** [Influence of prolonged photic and acoustic stimuli on neuronal activity in the rabbit lateral geniculate body.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 90-95.—Alert rabbits were used in a microelectrode study of neuronal activity in the lateral geniculate body in response to light flashes (80/sec) and acoustic strokes (15-95/sec): 11 neurons in intact rabbits, and 6 neurons in those with contralateral enucleation. Duration of rhythmic stimulation and of the intervals between such stimulation was 5 min. In 6 of the 11 neurons, such stimulation produced a stable change in spontaneous activity in the direction of both its increase and decrease—effects which are viewed as a tonic change in neuronal activity in the lateral geniculate body.—*J. D. London.*

1856. Czepakewski, Jan; Ekstedt, Jan, & Stålberg, Erik. (U. Uppsala, Sweden) **Oscilloscopic recording of muscle fiber action potentials: The window trigger and the delay unit.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 536-539.—Deals

with some technical problems in connection with the oscilloscopic recording of single muscle fiber action potentials. The action potentials trigger the sweep of the oscilloscope to permit a fast time base and comparison of the shapes of consecutive action potentials. By means of the delay unit it is possible to record on the oscilloscope the part of the action potential appearing up to 500 μ sec. before the triggering point. With this unit is also possible to trigger the oscilloscope sweep on the fast positive-negative deflection of the action potential, thereby obtaining a steadier display than when triggering on the initial positive phase. By means of the window trigger it is possible to record action potentials of any given size. Only action potentials having a positive peak lying within 2 selected fixed limits will trigger the oscilloscope. The counter gate, which allows automatic time interval measurements only of those action potentials that are displayed on the oscilloscope, is described. (French summary)—*Journal summary.*

1857. Dubrovinskaya, N. V. (Moscow State U., USSR) **O vovlechenii v reaktsiyu neironov perednego dvukholmiya krolika.** [On involvement in the reaction of neurons in the anterior colliculus of the rabbit.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 84-89.—Alert rabbits were Ss in an extracellular micro-electrode study of the activity of the anterior collicular neurons resulting from the application of single, paired, and rhythmic photic stimuli. An inhibitory process was involved in 69% of the reactive neurons in response to a single flash. Various labilities were disclosed in these neurons in response to the action of rhythmic stimuli. Prolonged rhythmic action appears to be the condition for lability of these units.—*J. D. London.*

1858. Ekstedt, Jan; Häggqvist, Per, & Stålberg, Erik. (U. Uppsala, Sweden) **The construction of needle multi-electrodes for single fiber electromyography.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 540-543.—Describes the construction of a needle multielectrode in which 14 25 μ platinum leading-off surfaces are mounted in epoxy resin in an opening in the side of an injection needle, 5-6 mm. in diameter. (French summary)—*Journal summary.*

1859. Epstein, A. & Schill, H. A. (Indiana U., Speech & Hearing Center) **Electrodermal responses and tolerance thresholds for pure tones.** *Acta Oto-Laryngologica*, 1968(Nov), Vol. 66(5), 417-432.—Presented tones varying in intensity from 70-130 db. SPL, at 4000, 1000, and 125 Hz., to 7 female 18-25 yr. old student nurses. Results indicate that amplitude of electrodermal responses increased with increased intensity and that responses at 1000 and 4000 Hz. were consistent with previously reported subjective levels of discomfort. Levels of discomfort were never reached at 125 Hz. Results suggest that amplitude of electrodermal responses may be utilized to indicate thresholds of tolerance. (German summary) (22 ref.)—*Journal abstract.*

1860. Grinyavichus, K., Gutman, A., Milyukas, V., & Milyauskas, R. (Medical Inst., Kaunas, USSR) **Dva podprotsessa v elektrokortikogramme zritel'noi kory krolika i aktivnost' neironov.** [Neuronal activity and two subprocesses in the electrocorticogram of the rabbit visual cortex.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 178-180.—Based on a study of 61 visual cortical neurons, it was shown that (a) the 2 alternating macroelectrographic subprocesses which constitute delta-activity reflect 2 momentary, short-lived cortical states, and (b) 1 of these subprocesses, distinguished by a

greater mean positive potential and a greater frequency of electrocorticogram extrema, is coincident with a greater level of neuronal excitation in the visual cortex—an excitation expressed in heightened discharge frequency and relative depolarization of the pyramidal cellular bodies.—*I. D. London.*

1861. Hartline, Peter H. & Campbell, Howard W. (U. California, San Diego) **Auditory and vibratory responses in the midbrains of snakes.** *Science*, 1969(Mar), Vol. 163(3872), 1221-1223.—Airborne sound and substrate vibration each elicit electrical responses below the surface of the tectum in species of 3 families of snakes. Tones of 50-1000 Hz. evoke responses independently of substrate vibration. Sensitivity to locally applied sound is present over much of the body surface. This sensitivity is attributed to the auditory nerve, because it is not altered by spinal section but is eliminated by destruction of the inner ear.—*Journal abstract.*

1862. Hori, Tadao; Miyashita, Akio, & Niimi, Yosuzumi. (Waseda U., Tokyo, Japan) [Influence of the sleep laboratory adaptation on the skin potential responses.] *Japanese Journal of Psychology*, 1969(Dec), Vol. 40(5), 231-241.—Investigated the psychophysiological significance of changes of spontaneous skin potential response (SPR) during sleep. 15 males were observed during 3 consecutive nights and EEGs were recorded throughout the nights. SPR frequency decreased with respect to the finger and dorsal hand, while slow wave sleep increased in duration, indicating laboratory adaptation. Decrease in SPR frequency was observed in Stages 1, 2, and parasleep, but no difference in Stage 4 was noted. The decreasing gradient of SPR frequency was more evident on the finger than on the dorsal hand. Results suggest that the spontaneous SPR during sleep, especially that on the finger, is due to cortical inhibitory and psychophysiological mechanisms. (34 ref.)—*English abstract.*

1863. Ivanov, I. S. & Simonov, P. V. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Model' povedeniya cheloveka v zamknoy sisteme upravleniya s kontrolem émo-tsional'nogo sostoyaniya.** [Model of human behavior in a closed regulatory system with control of the emotional state.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 169-171.—Discusses 2 experimental schemes, tested on 14 Ss, with induced emotional states, indexed by the GSR: a stipulated sequence of activity with a set time limit, and a game situation involving 6 geometric figures presented in random sequence. The disorganizing influence of negative emotions on task performance was demonstrated. "Positive feedback, which arises in this connection, promotes [however] the appearance of emotionally significant signals, while selectively intensifying the involuntary autonomic reactions to these signals." Feedback is useful in disclosing hidden defects in the training of an operator and in determining those elements of a control process which initiate feelings of uncertainty and anxiety in the operator.—*I. D. London.*

1864. Lehtinen, I. & Valleala, P. (U. Turku, Finland) **Thalamo-cortical recruiting responses during sleep characterized by a low voltage fast EEG.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 412-421.—During sleep characterized by a low voltage fast EEG, recruiting responses could be elicited in cats in the course of repetitive stimulation of "nonspecific" thalamus by using a stimulus strength

slightly supraliminal for recruiting responses during sleep characterized by EEG slow waves. The occurrence of recruiting responses and "sustained waves" depended on the stimulus strength and the actual state of the S. In the same S the thresholds for eliciting recruiting responses during slow-wave sleep and "sustained waves" during low voltage fast sleep and quiet wakefulness were the same. There was no remarkable difference between the latencies of the "sustained" and recruiting waves during low voltage fast sleep. During low voltage fast sleep, recruiting responses and REMs did not appear simultaneously. REMs did not start during recruiting responses. A similar relationship was found between recruiting responses and the electrical activity of the levator palpebre superioris muscles. The decrease of the tonic component of the levator EMG was often parallel with the waxing phase of the recruiting response. In the waking state also the searching eye movements and recruiting responses did not occur concurrently. It is assumed that during low voltage fast sleep in the course of continual repetitive stimulation, the temporal distribution of recruiting response groups corresponds to fluctuations of the low voltage fast sleep level. These fluctuations might indicate an occasional tendency to slow wave sleep. (French summary) (22 ref.)—*Journal summary.*

1865. Majeau, D. A. & Pleasonton, A. K. (Louisiana State U., Medical Center) **An electrode for the study of lingual sensitivity.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 440-441.—Describes simple electrodes which can be made inexpensively and with a minimal time expenditure after a short period of practice. They are used as disposable electrodes. (French summary)—*Journal summary.*

1866. Marco, L. A. & Brown, T. S. (State Psychiatric Inst., Chicago, Ill.) **Vzaimodeistvie parnykh neuronov v ventrolateral'nom talamuse koshki.** [Interaction of paired neurons in the ventrolateral thalamus of the cat.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 134-142.—For immobilized Ss under nembutal narcosis, simultaneous recordings of the activity of 2 closely located ventrolateral thalamic neurons were utilized, with the result that such neurons are functionally interconnected. Stimulation of the internal capsule and red nucleus was employed and carried out by means of bipolar tungsten electrodes. Glass micropipettes served to tap the potentials of single neurons in the ventrolateral thalamus, with spike activity recorded extracellularly and membrane potentials intracellularly. With intracellular recording of the potentials of thalamocortical relay units within the ventrolateral thalamus, as inhibitory postsynaptic potential developed, signs appeared of high-frequency activity in the other cell, whose properties were reminiscent of the reaction of Renshaw cells. Intracellular recording of the paired units showed that the sequence of events (discharge of the targeted cell, discharge of the interneuron, polarization of the targeted cell) formed a functional unit, which may be viewed as a model analogous to that described for Renshaw cells of the spinal cord. These thalamic interneurons may be viewed as nonspecific regulators of the spike activity of targeted cells, since they may elicit either their excitation or inhibition with the intervention of a mechanism involving an increase in membrane potential of the cell. The specific character of the axonal termini of the so-called inhibitory interneurons remains unclear.—*I. D. London.*

1867. Milstein, Victor. (U. Oregon, Medical School) **Implantation of sterile electrodes in chronic animals.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 442-443. —Describes a simple and rapid technique which obviates the need for soldering over a surgically exposed preparation. (French summary)—*Journal summary*.

1868. Nikhaenko, P. A., et al. **K primeneniyu kompensatsionnykh usilitelei postoyannogo toka tipov F-359, F-115/V-3 i samopistsev N-372, N-320-5 v issledovaniyakh v biologii i meditsine.** [On the application of compensatory amplifiers of direct current of the types: F-359, F-115/V-3 and the application of self-recorders N-372, N-320-5 in research in biology and medicine.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 270-272.—Examines the application of various amplifiers for recording low-frequency bio-potentials, changes in dermal resistance to direct current, the GSR, electrooculograms, polarized potentials of the brain and muscle, and other processes.—I. D. London.

1869. Shamrov, P. G. **Nekotorye zadachi avtomaticheskogo analiza otdel'nykh komponentov elektrentsefalogrammy i elektricheskogo potentsiala kozhli.** [Some goals of automatic analysis of separate components of the electroencephalogram and cutaneous electric potential.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 222-225.—Shows that automatic treatment of the EEG should consist of (a) finding the average integral values of analyzed frequencies for the time of the entire study, and (b) determining the deviations from the average of each frequency for microintervals of time: separately determined should be the sum of exalted and depressed oscillations for given intervals of automatic analysis of each frequency and within the limits of the separate rhythms of the EEG. Automatic analysis of the GSR should be based on procuring (a) the 1st derivative of wave step-up and down, and (b) the discrete measurement of oscillatory amplitude of electrical potential of manual skin with the limits of microintervals of time.—I. D. London.

1870. Tecce, Joseph J. & Scheff, Neil M. (Boston U., Medical Center, Div. of Psychiatry) **Attention reduction and suppressed direct-current potentials in the human brain.** *Science*, 1969(Apr), Vol. 164(3877), 331-333.—In an experiment with 18 Ss, it was found that distraction suppresses direct-current potentials (contingent negative variation) recorded from the human scalp. This reduction is accompanied by retarded RT. Contingent negative variation and RT appear to reflect a common process, attention. (20 ref.)—*Journal abstract*.

1871. Voronin, L. L. & Tanengol'ts, L. I. (Inst. of the Brain, Moscow, USSR) **Postsinapticheskie reaktsii neuronov dvigatel'noi kory bol'shogo mozga koshki na stimuly raznykh modal'nostei.** [Postsynaptic reactions of neurons in the cat cerebral cortex to stimuli of different modalities.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 71-82.—Ss were under chloralose narcosis in this microelectrode study. Recordings were made of 67 neurons (57 in the anterior sigmoid gyrus and 10 in the rostral part of the posterior sigmoid gyrus). Postsynaptic potentials (PSPs), with similar form and properties, were recorded in each of the neurons in response to all the tested stimuli. In most neurons the reaction consisted of primary excitatory PSP, followed by prolonged inhibitory PSP (100-500 msec.). In 3 cells

somesthetic stimulation produced spike-discharges, while photic and acoustic stimulation produced only sub-threshold EPSPs. IPSPs effectively inhibited "injury" discharges; with utilization of KCl-electrodes, they were converted into depolarization potentials. A significant correlation was disclosed between the values of latent periods for responses to different stimuli. On passage of current through the intracellular microelectrode, regular PSP changes were observed which were the same for reactions to all stimuli. With hyperpolarization of the membrane, EPSPs were enhanced with respect to amplitude, but with depolarization, they were diminished. The data are viewed as confirming the hypothesis that, for the motor cortex, primary convergence of signals of different modalities does not take place mainly in the cortical neurons. These signals probably arrive in the cortex along pathways which form powerful synaptic connections ending near the cellular bodies.—I. D. London.

1872. Winters, Ray W. (Michigan State U.) **Transient and steady state responses of cat optic tract fibers to changes in luminance and size of stimuli.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5728.

1873. Yamazaki, Katuo; Tajimi, Tetuo, & Niimi, Yosizumi. (Waseda U., Tokyo, Japan) [Spontaneous skin potential responses during para-sleep in the kitten and adult cat.] *Japanese Journal of Psychology*, 1970(Apr), Vol. 41(1), 30-35.

Electroencephalography & Evoked Potentials

1874. Batuev, A. S. (Ed.) **Mekhanizmy vyzvannykh potentsialov mozga.** [Mechanisms of cerebral evoked potentials.] Leningrad, USSR: Leningrad State U., 1968. 60 p.—Presents a collection of 27 contributions to a 1968 symposium held in Leningrad.—I. D. London.

1875. Berkhout, Jan; Walter, Donald O., & Adey, W. Ross. (U. California, Brain Research Inst., Los Angeles) **Alterations of the human electroencephalogram induced by stressful verbal activity.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 457-469.—Examines certain auto- and cross-spectral components of the EEG which are characteristic of responses to verbal stimuli. Employing a discriminant-analysis procedure applied to spectral parameters, it proved possible to separate subjectively stressful from nonstressful verbal stimuli, and to determine distinctive EEG responses to verbal stimuli of similar stress value differing only in semantic content. The EEG components characteristic of these response states were consistent over small populations, and the criteria developed for their identification proved valid over several different Ss without requiring individual calibration. Other, individual-specific characteristics of the EEG were observed consistently to parallel the cyclical occurrence of several constituent epochs in a 20-item question-answer sequence. (French summary) (19 ref.)—*Journal summary*.

1876. Chachava, K. V., Devdariani, M. G., & Loladze, A. S. (Research Inst. of Obstetrics & Gynecology, Tbilisi, USSR) **Nekotorye varianty normy i patologii EEG ploda.** [Several variants in the normal state and pathology of the fetal EEG.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(2), 62-66.—Presents results of research on parturitional EEGs from which considerable information can be extracted on the

functional state of the CNS of the baby being born. The EEGs during "physiological [normal] deliveries" differ from EEGs during "complicated [difficult] deliveries" and are characterized by low voltage and the absence of pathological output. In complicated deliveries the amplitude of pathological activity is higher than for normal deliveries. The pathological activity may be temporally extensive or may emerge periodically. The duration of paroxysmal discharges and the frequency of their emergence may indicate the degree of gravity of the state of the baby being born.—*I. D. London.*

1877. Doetsch, Gernot S. & Erickson, Robert P. (Duke U.) **Synaptic processing of taste-quality information in the nucleus tractus solitarius of the rat.** *Journal of Neurophysiology*, 1970(Jul), Vol. 33(4), 490-507.—Recordings from single cells in the nucleus tractus solitarius and from 1st-order fibers in the chorda tympani nerves in barbiturate-anesthetized rats were compared when a variety of chemical stimulation was presented to the anterior tongue. The responses closely resembled each other. In the nucleus tractus solitarius the average response rate was higher, the phasic response was attenuated relative to the steady state, and the neural representation of the stimulus dimension was more stable.—*G. Westheimer.*

1878. Elul, Rafael. (U. California, Brain Research Inst., Los Angeles) **Gaussian behavior of the electroencephalogram: Changes during performance of mental task.** *Science*, 1969(Apr), Vol. 164(3877), 328-331.—Investigated the probability distribution of the amplitude of scalp EEG in a normal adult in an idle state and during performance of a mental arithmetic task. Based on a large sample, the EEG of the S in the idle state follows a Gaussian (normal) probability function 66% of the time. During performance of the arithmetic task, the portion of Gaussian EEG decreases to 32%. The probability function characterizing gross EEG activity is determined by the degree of mutual interaction of individual cellular generators of wave activity in the tissue underneath the recording electrode. Data imply an increase in the cooperative activity of cortical neuronal elements during performance of a mental task. (15 ref.)—*Journal abstract.*

1879. Fairchild, M. D., Jenden, D. J., & Mickey, M. R. (Veterans Administration Hosp., Long Beach, Calif.) **Discrimination of behavioral state in the cat utilizing long-term EEG frequency analysis.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 503-513.—Describes a hybrid system which makes feasible a continuous, long-term analysis of the EEG. A broad-band frequency analyzer is interfaced with a digital voltmeter which in turn drives a typewriter and card-punch machine. Data are generated in a form directly compatible with the input devices of a large, electronic computer used to extract relevant information by multivariate statistical analysis. Spontaneous variations in the frequency spectrum of the EEG, as the result of changes in behavioral state, may be adequately represented as points on a 2-dimensional surface. The reliability and stability of this technique should provide a means of quantitative assessment of drug effects on the EEG over long periods of time. (French summary) (26 ref.)—*Journal summary.*

1880. Fox, Stephen S. & Rudell, Alan P. (U. Iowa) **Operant controlled neural event: Functional independence in behavioral coding by early and late components of visual cortical evoked response in**

cats. *Journal of Neurophysiology*, 1970(Jul), Vol. 33(4), 548-561.—"Adult cats were trained with milk reinforcement to modify a late (190-213 msec) component of the flash-evoked visual cortex response in order to identify behavior-relevant aspects of the wave. Both increased negativity and increased positivity 1.2 SD [standard deviation] from a pretraining mean could be trained, and such extreme values could be maintained in a steady operant conditioned state for an indefinite period. 2 styles of response were observed by which the animals generated responses that met the criterion for reinforcement: either a positive notch or negative peak was developed at the appropriate point in time on the evoked potential, or a positive or negative increase in duration of the preceding wave and a consequent shift in latency of the late component appeared. Changes in the late wave were localized to the critical segments of the wave, with no changes appearing in other portions including the primary wave complex. Variations in the late wave associated within steady state behaviors were not attributable to changes in the primary visual path to the extent that its activity is reflected by the early waves. Such independence of evoked potential components indicates that the time-locked wave is not a unitary message but encodes a number of separate behavioral states."—*G. Westheimer.*

1881. Fruhstorfer, H. & Bergström, R. M. (U. Helsinki, Finland) **Human vigilance and auditory evoked responses.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 346-355.—In 7 normal Ss vigilance fluctuations and related changes in the auditory evoked response were quantitatively analyzed during rest lasting 10 min. (eyes open) or 80 min. (eyes closed) in a soundproof room. During a session vigilance decreased noticeably in all Ss whether the eyes were kept open or closed. With closed eyes the vigilance decrease was rapid and in most cases reached real sleep. After this initial fall vigilance increased again and remained, with smaller oscillations, at a certain level of the intermediate stages. The click-evoked response was large and stable in the alert state. No progressive changes in latency or shifts in focus were noticed. There was, however, a decrease in latency and a posterior shift in the focus of N₂ at the transition to real sleep. The progressive loss in amplitude is interpreted as a decline in the activity of certain brain functions which are essential for the maintenance of an efficient S-environment relation. (French summary) (29 ref.)—*Journal summary.*

1882. Jones, Richard H., Crowell, David H., & Kapuni, Linda E. (U. Hawaii) **A method for detecting change in a time series applied to newborn EEG.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 436-440.—Developed an autoregression model using a step-wise procedure for estimating the parameters to test for change in the poststimulus onset EEG of a single S. A stationary process is assumed for the prestimulus data and if there is no significant change, for the poststimulus region. Change can be detected at any point in the time series giving a measure of response latency and duration. This analysis was performed utilizing the responses of a human newborn to sensory stimulation to demonstrate the applicability of the model for detecting changes in digitized EEG data and relating these to underlying neurophysiological activity. (French summary)—*Journal summary.*

1883. Kalyuzhnyi, L. V. & Zakharova, I. I. (Inst. of

Medicobiological Problems, Moscow, USSR) Izmeneniya elektroëntsefalogrammy pri mezhsig-nal'nykh reaktsiyakh. [Changes in electroencephalograms during intersignal reactions.] *Zhurnal Vyssheï Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 174-177.—5 rabbits were used to study several forms of EEG manifestation of intersignal reactions in an elaborated alimentary-motor CR involving pedal-pressing for food. The CS was light flashes (5/sec); EEG recordings were from the visual cortex, dorsal hippocampus, lateral hippocampus, and medial mesencephalic reticular formation. In Ss with such CRs there appeared, in response to the signal, a burst of synchronized biopotential waves (8-10 cps) in all EEG leads, and rhythmic assimilation (driving response) in only the visual cortex and lateral hypothalamus. Certain types of EEG changes were shown to be coincident with various forms of intersignal behavioral reactions. Thus, the driving response in the intervals between signals may appear only in EEG recordings from the visual cortex, but without the accompaniment of food-procurement behavior.—*I. D. London.*

1884. **Kasamatsu, Akira & Hirai, Tomio.** (U. Tokyo, Japan) **An electroencephalographic study on the Zen meditation (Zazen).** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 205-225.—The EEG has become a reliable way to assess the state of wakefulness or sleep. Studies on EEG changes during anoxia, epileptic seizures, and exogenous brain disorders were carried out. Zazen is a sitting meditation which is a kind of religious exercise in Zen-Buddhism. Ss were 48 priests and disciples in 2 sects, ranging in age from 24-72. 22 other persons served as controls. Training in Zen meditation produces changes in both mind and body. In such meditation, the EEG pattern is slowed and the alpha block is de-habituated. (32 ref.)—*R. D. Nance.*

1885. **Legewie, H. & Probst, W.** (Max Planck Inst. for Psychiatry, Munich, W. Germany) **On-line analysis of EEG with a small computer (period-amplitude analysis).** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 533-535.—Describes a simple method for automatic analysis of the EEG suitable for use with the smallest digital computers presently available. The computer program suggested supplies complete period and amplitude histograms for any analysis time chosen. Applications of this flexible and economical method for clinical and scientific purposes are discussed; an illustrative example is given. (German summary)—*Journal abstract.*

1886. **Legewie, H., Simonova, O., & Creutzfeldt, O. D.** (Max Planck Inst. for Psychiatry, Munich, W. Germany) **EEG changes during performance of various tasks under open- and closed-eyed conditions.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 470-479.—Obtained telemetric EEG recordings of 8 healthy persons during rest and during performance of 4 different tasks with eyes closed and of 5 tasks with eyes open. Automatic analysis of temporo-occipital and fronto-central EEG yielded the following results: (a) when the eyes were open, temporo-occipital and fronto-central alpha activity were less than when the eyes were closed; (b) fronto-central "alpha" activity was decreased during performance; (c) performance produced a significant trend toward intermediate degrees of temporo-occipital alpha activity; and (d) the increase in synchronization with eyes open was independent of

whether visual components were directly involved in the task. (German summary) (15 ref.)—*Journal summary.*

1887. **L'vov, V. A.** **Ustroïstvo dlya chteniya grafikov (elektroëntsefalogramm).** [Equipment for reading graphs (electroencephalogram).] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta.* (See PA, Vol. 45:Issue 2) 208-212.—Examines an apparatus which makes possible the simultaneous reading of the ordinates of up to 4 nonintersecting curves etched out on a strip of paper.—*I. D. London.*

1888. **Myshkin, I. Yu.** **Issledovanie svyazi mezhdru fazami dykhatel'nogo tsikla i kolebaniyami biopotentsialov kory mozga krolika.** [Investigation of the relationship between phases of the respiratory cycle and the fluctuations of cortical potentials in the rabbit.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 11-13.—15 unanesthetized Ss were used to study respiratory rhythms as a possible source of variability for evoked potentials in the visual cortex. Computer analysis revealed a relationship between the spontaneous and reactive fluctuations of biopotentials and the phases of the respiratory cycle. Observed correlations were distinguished by their inconstancy. In 90% of the observations the ratio of amplitude of biopotential fluctuations, connected with the respiratory phases, to the average summated EEG amplitude was not more than 3%. Any permanent and deeper association was normally an artifact; however, recurrent periods of brief amplification of such an association was a characteristic feature.—*I. D. London.*

1889. **Novokhatskii, A. S.** (Ukrainian Research Inst. of Eye Diseases, Kiev, USSR) **O vyzvannom svetovym razdrazheniem setchatki potentsiale gipotalamusa.** [On hypothalamic potential evoked by photic stimulation of the retina.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 96-101.—In 32 rabbits photically evoked potentials in various parts of the hypothalamus possessed a multicomponent structure and were observed most often in recordings from the supraoptic, periventricular, and mammillary nuclei. Amplitudinally the greatest evoked response was recorded from the mammillary nucleus. It arose with great rarity from the dorsomedial and ventromedial nuclei. On comparison of the latencies of the electroretinogram (ERG) and the evoked responses in the hypothalamus, it appears that, for the anterior nuclei of the latter, the latency frequently coincided with that of the ERG; in the mammillary nucleus it was greater by an average of 10 msec., while in the posterior part of the hypothalamus it was somewhat shorter. The presence of direct anatomical connections between the retina of the eye and the hypothalamus was also demonstrated with centripetal and centrifugal fibers.—*I. D. London.*

1890. **Ornitz, Edward M., Ritvo, Edward R., Tanguay, Peter E., & Walter, Richard D.** (U. California, Neuropsychiatric Inst., Los Angeles) **EEG spikes and the averaged evoked response to clicks and flashes.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 387-391.—Spontaneous bilaterally and synchronously occurring spike activity was activated by sleep in a 53-mo-old boy (with moderate mental retardation and a severe developmental delay in speech acquisition) and showed the unusual tendency to become time-locked to both clicks and flashes. Averaging of the auditory and visual evoked responses demonstrated that the summated spikes were equivalent to wave N₁ of the averaged evoked response. This finding is interpreted as

a type of recruiting response mediated by sensory modalities that utilize mechanisms common to this type of spike discharge. (French summary)—*Journal summary*.

1891. Poulos, Dennis A. & Lende, Richard A. (Albany Medical Coll., N.Y.) **Response of trigeminal ganglion neurons to thermal stimulation of oral-facial regions: I. Steady-state response.** *Journal of Neurophysiology*, 1970(Jul), Vol. 33(4), 508-517.—Squirrel monkeys were anesthetized with pentobarbital and units were recorded from the mandibular division of the 5th nerve in response to temperature changes of tongue. Most units responded only to thermal stimulation. Their impulse rates were studied in response to steady state temperature stimulation and also to adaptation to new temperatures. The rare units that responded to temperature and mechanical stimuli had somewhat different characteristics.—G. Westheimer.

1892. Poulos, Dennis A. & Lende, Richard A. (Albany Medical Coll., N.Y.) **Response of trigeminal ganglion neurons to thermal stimulation of oral-facial regions: II. Temperature change response.** *Journal of Neurophysiology*, 1970(Jul), Vol. 33(4), 518-526.—Thermal stimuli were applied to the tongue of the barbiturate-anesthetized squirrel monkey in a step-like sequence above and below a 35° C standard reference and the response of trigeminal ganglion neurons recorded. Cooling was responded to by increased phasic discharges; however, warming never produced dynamic increases, but rather transient decrease or cessation of ongoing activity.—G. Westheimer.

1893. Prior, Pamela F. & Deacon, Patricia A. (London Hosp., England) **Spontaneous sleep in healthy subjects in long-term serial electroencephalographic recordings.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 422-424.—Used visual rating scales to assess the depth and duration of drowsiness in sleep in the EEGs of 13 normal Ss taken at monthly intervals over 3 yr. There was no evidence that the EEGs or the Ss' physiological state was influenced by exposure to a placebo or to small doses of the insecticide, dieldrin, administered for 2 out of the 3 yr. However, Ss slept more frequently, more speedily and for more of the recording time as the 3 yr. period progressed. Certain characteristics of the EEG phenomena of the sleep that occurred are noted, and comparison of the basically similar wave forms of occipital "lambdoid" waves of sleep and waking lambda waves in the same individual is made. (French summary)—*Journal summary*.

1894. Ritter, Walter & Vaughan, Herbert G. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Averaged evoked responses in vigilance and discrimination: A reassessment.** *Science*, 1969(Apr), Vol. 164(3877), 326-328.—Describes a replication of an experiment by M. Haider, P. Spong, and D. B. Lindsay (see PA, Vol. 39:4136). With the use of monopolar recordings for averaged evoked responses, detected signals in a vigilance task are associated with a late positive component (LPC) which is absent for undetected signals and nonsignals. Bipolar recordings obscure the LPC associated with detected signals. Data suggest that the LPC represents cerebral processes associated with evaluation of unpredictable changes in stimulation.—*Journal abstract*.

1895. Romanovskaya, E. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **K mekhanizmu funktsional'noi perestroiki korkovogo**

kontsa dvigatel'nogo analizatora pri vyrabotke I pereklyuchenii tonicheskikh refleksov. [On the mechanism of functional adjustment of the cortical terminus of the motor analyzer during elaboration and switchover of tonic reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 212-218.—Studied, in 6 dogs, excitability of the motor cortex in response to direct electrical stimulation of the cortical representative of the motor UCR. Recordings were made of: (a) summated electrical activity of the sensorimotor cortex; (b) evoked potentials under 13-19 extradurally implanted silver electrodes, located in the region of projection of the extremity under stimulation; (c) reflex reactions of the extremity to electrodermal stimulation; (d) general motor activity; and (e) changes in respiratory amplitude and frequency. 3 series of experiments were conducted with CR switchover of tonic reflexes. Time of day (morning and evening) were the CR indicators of switchover in combination with a definite position of the S (direction of the head toward the feed trough or a 180° turn away from it). It was shown that, in the switchover process, a functional adjustment in the motor cortex occurred. Stabilization of switchover resulted in a decline in the thresholds of the motor reaction to direct stimulation of the cortical representative of the motor UCS, and electrodermal stimulation of the extremities, as well as a decline in the thresholds of evoked potential. These changes point to a functional reorganization at the site of the cortical representative of the motor UCR.—I. D. London.

1896. Shvyrkov, V. B. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Sravnitel'naya kharakteristika operezhayushchego i bezuslovnogo voz-buzhdenii v somatosenzornoj kore krolika pri vyrabotke uslovnogo oboronitel'nogo refleksa.** [Comparative characteristics of anticipatory and unconditioned excitation in the rabbit somatosensory cortex following elaboration of a defensive conditioned reflex.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 3-10.—In 15 alert Ss in this micro- and macroelectrode study, (a) a defensive CR had been elaborated, with light flashes (2-4/sec) as CS and electrostimulation of the hind paw as UCS, and (b) recordings had been made of the EEGs of different cortical areas, EMGs of the muscles of the extremities, and respiratory rate. For 10 controls, rhythmic light and electric current were presented in random order with unequal intervals of intervening time. It is concluded that in the somatosensory system of cortical neuronal reactions to the CS, an afferent model of future electrodermal reinforcement is reproduced earlier. Elaboration of the CR rendered most of the somatosensory cortical elements, which reacted to unconditioned stimulation, polysensory. The increase in the number of polysensory cortical cells after elaboration of the CR was connected with a rise in the level of their spontaneous activity.—I. D. London.

1897. Small, Joyce G. & Small, Iver F. (Larue D. Carter Memorial Hosp., Indianapolis, Ind.) **Interrelationships of evoked and slow potential responses.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 459-464.—Measured simultaneous evoked responses and DC potential changes to determine the extent to which these responses would vary with resting and response conditions and whether significant interactions could be found. Ss were 10-22-37 yr. old volunteer staff members of a neuropsychiatric hospital. Visual and auditory

stimuli were presented in a preplanned schedule to each S, who was seated in an electrically positioned chair in a sound controlled, darkened laboratory. Methodology for recording responses is detailed. Results reveal "no consistent differences between auditory and visual evoked potentials elicited with neutral as opposed to signal stimuli." However, alterations were found in slow potential activity, appearing with warning-imperative signal contingencies as compared with resting conditions. No significant relationships appeared between the "latency and amplitude measurements of the cerebral evoked responses and voltage levels of slow potential activity." (19 ref.)—P. McMillan.

1898. Sokolov, E. N., Chelidze, L. R., & Korzh, N. N. (Moscow State U., USSR) *Upravlenie s predskazaniem v dvigatel'nykh i elektroentsefalograficheskikh reaktsiyakh cheloveka*. [Control involving prediction in human motor and electroencephalographic reactions.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 83-89.—14 20-30 yr. old Ss participated in a comparative study of the occipital EEG and the EMG of the digital flexors on executing motor CRs to regularly (1-30 sec. intervals) and irregularly (randomly chosen 2-20 sec. intervals) presented flashes of light (100 microsec., 1 W.). For regularly intervalled signals, premature reactions developed in the EEG, in advance of the real action of the stimulus. With irregular light flashes (mean interval, 8 sec.), the premature reactions in the EEG and EMG, which predominated in the short intervals, were replaced by anticipatory reactions in the EEG, which emerged in the longer intervals. The latent period of the EMG reactions, which emerged directly in response to a light flash, increased with increase of the interval in both cases of signal presentation. With the irregular presentation, this feature was complicated by the prolongation of the latent periods of the EMG on sudden shortening of the interval. Participating in the shortening of the average value of the EMG latent periods were a mechanism involving prediction, and a mechanism involving sensitization. After exclusion of the predictive mechanism, the effect of sensitization remained.—I. D. London.

1899. Tagiev, Sh. K. (Inst. of Physiology, Baku, USSR) *Interotseptivnye vliyaniya na elektroentsefalogrammu zhivotnykh raznogo filogeneticheskogo urovnya*. [Interoceptive influences on the electroencephalogram of animals at different phylogenetic levels.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 149-155.—Studied the dynamics of changes in the electrical activity of the mesencephalic reticular formation (MRF), and various parts of the cerebrum, on interoceptive stimulation (intestinal mechanoreceptor stimulation via balloon expansion) in a number of vertebrates at different levels of cephalization (10 rabbits, 15 rats, 12 pigeons, 9 land turtles, 23 frogs). Electrodes were implanted in the: (a) motor and visual regions of the cerebrum and in the MRF for rabbits, rats, and pigeons; (b) surface of the middle and anterior cerebrum for turtles; and (c) region of the middle and anterior cerebrum for frogs. Interoceptive stimulation produced definite changes in the electrical activity of the cortical structures and the MRF. These changes were expressed in the form of synchronization or desynchronization of rhythms. The former appeared distinctly in rabbits; less distinctly in rats. Depression of rhythms in all leads from the brain was characteristic for pigeons, turtles, and frogs. In rabbits, rats, and pigeons (but not in

turtles and frogs) the interoceptive influence on the EEG was abolished by aminazine (chlorpromazine). The difference in aminazine action on interoceptive influence upon cerebral biocurrents is ascribed to special properties obtaining in the adrenergic substratum of the RF in the brainstem of these animals. The data provide evidence for the close functional connection of the brainstem RF with the afferent systems of the internal organs in animals at different levels of phylogenesis.—I. D. London.

1900. Teter, Darrel L. (U. Denver) **A comparison of summed cortical evoked responses and avoidance conditioned responses to pure tones in cats.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5737-5738.

1901. Thach, W. T. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Discharge of cerebellar neurons related to two maintained postures and two prompt movements: I. Nuclear cell output.** *Journal of Neurophysiology*, 1970(Jul), Vol. 33(4), 527-536.—The discharge of neurons in the dentate and the interposed nuclei of the cerebellum was recorded in alert rhesus monkeys as they maintained 2 postures and performed 2 quick movements in response to light signals. Changes in frequency—up or down—occurred before the movement in some units and after the beginning of the movement in others. During the 2 postures the discharge frequency of most cells was nearly the same but for a few cells it differed.—G. Westheimer.

1902. Thach, W. T. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Discharge of cerebellar neurons related to two maintained postures and two prompt movements: II. Purkinje cell output and input.** *Journal of Neurophysiology*, 1970(Jul), Vol. 33(4), 537-547.—Units identified as cerebellar Purkinje cells by their position and by the fact that they showed 2 kinds of spikes were recorded from alert rhesus monkeys who had been trained to maintain 2 postures and to perform 2 quick movements in response to light signals. For both kinds of spike potentials, a change in frequency could occur before or after the onset of movement and in better relation to movement in 1 direction than in the other. An increase in frequency of the complex spike could be associated with 1 of several different patterns of simple spike frequency.—G. Westheimer.

1903. Ulett, Judith A. & Itil, Turan M. (U. Missouri, Inst. of Psychiatry, St. Louis) **Quantitative electroencephalogram in smoking and smoking deprivation.** *Science*, 1969(May), Vol. 164(3882), 969-970.—Deprived 8 16-24 yr. old males who were heavy smokers of cigarettes for 24 hr. Ss showed significant changes in the EEG analyzed electronically and by digital computer. Compared to Ss' records before smoking deprivation, there was a significant increase in slow frequencies. Resumed smoking reversed these trends. Results support the contention that tobacco smoking is a complex psychosomatic problem, analogous to drug addiction.—*Journal abstract*.

1904. Val'tsev, V. B., Shevel'ev, I. A., & Lalayan, A. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Kharakteristika afferentnogo potoka, vznikayushchego v zritel'noi sisteme koshki pri vyklyucheniĭ sveta.** [Characteristics of the afferent flow arising in the cat visual system on switching off light.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 90-99.—20 wakeful and narcotized cats were

used in a study of the basic characteristics of the afferent flow, arising in various parts of the primary visual pathway upon cessation of photic stimuli (acting from 50-5000 msec.), as judged by the parameters of the primary summated evoked potentials. In wakeful cats the off-response appeared only after completion of the 1st phases of the evoked potential in response to the onset of the photic stimulus, and had a considerably higher threshold, but smaller latent period, than the on-response. The increase in amplitude of response with increase of duration of the photic stimulus was most pronounced in the lateral geniculate body and least pronounced in the retina. This relationship was revealed in the range of duration up to 5 sec. A feature of the off-response was the increase in developmental time observed in all phases of evoked potential in response to lengthening of the photic stimulus within a definite range of duration—a fact which points to the involvement of additional inhibitory mechanisms. The subsequent decrease in developmental time of all phases of evoked potential, observed in the retina, optic tract, lateral geniculate body, and visual cortex upon switching off the photic stimulus, as well as the decrease in delay of the afferent flow at each level, was taken as evidence for the synchronization of the signal, traveling the primary visual pathway.—*I. D. London.*

SENSORY PHYSIOLOGY

1905. **Blakemore, Colin & Pettigrew, John D.** (U. California, Neurosensory Lab., Berkeley) **Eye dominance in the visual cortex.** *Nature*, 1970(Jan), Vol. 225(5231), 426-429.—Presents results of neurophysiological investigations which studied the nature of the inputs from 2 eyes to the striate area of the cat. It was found that: (a) the projection from the contralateral eye dominates the cat's visual cortex, (b) binocular neurons in any small region have their receptive fields more widely scattered over the ipsilateral retina than over the contralateral, and (c) stereoscopic vision may depend on this difference in the 2 projections.—*Journal abstract.*

1906. **Frank, Robert N. & Dowling, John E.** (Johns Hopkins U., Medical School, Wilmer Inst.) **Rhodopsin photoproducts: Effects on electroretinogram sensitivity in isolated perfused rat retina.** *Science*, 1968(Aug), Vol. 161(3840), 487-489.—Exposed isolated perfused retinas of albino rats to brief saturating flashes of white light which bleached about 50% of the rhodopsin present. Transient photoproducts of the reaction could be detected for about 30 min. The b-wave threshold increased by 3 logarithmic units after the flash and remained stable at this level. Results suggest that the longer-lived intermediate products of rhodopsin photolysis do not influence scotopic visual sensitivity.—*Journal abstract.*

1907. **Fry, Glenn A.** (Ohio State U., Coll. of Optometry) **Mechanisms subserving bright and dark adaptation.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(May), Vol. 46(5), 319-338.—Presents a new way of relating W. A. Rushton's findings about the bleaching of the pigments in the rods and cones to psychophysical measurements of bright and dark adaptation. This involves a gain control mechanism for controlling the response of the rods, which is a modification of the gain control proposed by Rushton. Consideration is given to the need for postulating a separate mechanism of adaptation at a level

above the photoreceptors. The role played by the positive afterimage and inhibition in the aftereffects of stimulating the eye with light are also discussed. (31 ref.)—*Journal abstract.*

1908. **Glickstein, Mitchell.** (Brown U.) **Organization of the visual pathways.** *Science*, 1969(May), Vol. 164(3882), 917-926.—Discusses spatial organization and comparative anatomy of the visual system of mammals to provide a better understanding of structure and function in vision. Results of experimentation suggest that "the classical principle of spatial ordering of retinal projections to the striate cortex of the brain" has been upheld. In form vision, however, the accepted unique role of the visual cortex is questioned. "In some species a collicular circuit appears capable of mediating form vision, and, in some, the visual fields appear to be projected more than once onto the visual cortex." (49 ref.)—*P. McMillan.*

1909. **Hoffman, William C.** (Oakland U., Rochester, Mich.) **Higher visual perception as prolongation of the basic Lie transformation group.** *Mathematical Biosciences*, 1970, Vol. 6, 437-471.—Describes a basic Lie group, derived in an earlier study, that expressed the mathematical form of the visual constancies and primitive form memory. The group was extended via prolongation of its Lie derivatives to the complicated orbits characteristic of the contours recognizable in higher form vision. Arguments are given that the results of D. H. Hubel and T. N. Wiesel (see PA, Vol. 39:9556) on the so-called psychovisual cortex (Areas 18 and 19) constitute electrohistological correlates of these prolongations. It is further argued that perception consists of an exact sequence of prolonged Lie derivatives acting on the corresponding differential form. Physiological arguments are juxtaposed with mathematical results to demonstrate that form memory resides in the proliferation of the neuronal arborescence, to which RNA generation during protein synthesis is incidental. (32 ref.)—*Journal abstract.*

1910. **Humphiss, Deryck.** **The measurement of sensory ocular dominance and its relation to personality.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Aug), Vol. 46(8), 603-615.—Describes a method for measuring sensory retinal rivalry. By comparing the measurements of the right and left eye, a measure of dominance of 1 over the other was obtained. Dominance was then correlated with each of a battery of neuropsychological and psychological scores. Results indicate that children with normal vision have little or no sensory ocular dominance. Although dominance increases with age, in normal persons it remains small. In some a marked dominance exists, often for no ocular reason. Retinal rivalry scores relate to some form of psychological rigidity which increases with age. The nature of this remains unknown, although it would seem to be a type of perseveration.—*Journal abstract.*

1911. **Kolosova, T. E.** (Inst. of Experimental Medicine, Leningrad, USSR) **Osobennosti vzaimodeistviya odносторонnikh uslovnykh refleksov pri odnovremennom i posledovatel'nom ikh primeneni.** [Features of the interaction of unilateral conditioned reflexes with their simultaneous and successive application.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 11-17.—Unilateral CRs were elaborated in 4 dogs (with surgically exteriorized lingual regions). The sinistral CS was a bell, the UCS was a 30% solution of NaCl on left

part of tongue; the dextral CS was a metronome (120 strokes/min), and the UCS was the same solution on right part of tongue. It is shown that unilateral CSs, applied without appropriate unconditioned reinforcement for different durations of action (5 sec.-4min.), created foci of latent excitation of different intensities—foci which diverted in their direction excitation from the application of subsequent CSs acting in the other direction, both during direct substitution of the 1st signal and against the background of its action. However, discrimination of CSs under the experimental variants undertaken was possible, though masked, since excitation from the subsequent stimulus, in its diversion to the direction of the 1st, more intense focus of excitation, was subthreshold. To the degree that the action of the 2nd conditioned signal was prolonged, excitation increased and, on attaining threshold level, was manifested in the form of secretory reaction on its own side, but with a greater latent period, whose magnitude was 22-30 sec.—*I. D. London.*

1912. **Martin, Frederick N. & Blosser, Dennis.** (U. Texas) **Cross hearing: Air conduction or bone conduction.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 231.—Gave 6 unilaterally anacusic Ss pure-tone threshold tests in each ear, with and without the good ear plugged. The threshold shift produced by the plug was less for the bad than for the good ear. Since interaural attenuation was unaffected by the plug, it is concluded that cross-hearing occurs via bone conduction.—*Journal abstract.*

1913. **Ostrovskii, M. A.** (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Foto-reaktivnost' pigmentnogo epiteliya glaza.** [Photo-reactivity of the pigmented epithelium of the eye.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 110-113.—The method of "electronic paramagnetic resonance" was employed to demonstrate the appearance of free radicals in the pigmented epithelium and in the suspension of its melanoprotein granules under the action of physiological intensities of visible light. With the exclusion of light, the free radicals recombined and disappeared. The effect of reversibility was distinctly manifested—the appearance and disappearance of radicals with the repeated turning of light on and off. With illumination by visible light, photoconductivity of the pigmented epithelium was disclosed along with that of the melanoprotein granules, measured by a "noncontact method" employing a superhigh frequency (10^{10} cps)—a method that makes possible the study of the photo-semiconductive properties of a homogenic system under heterogenic conditions. With exclusion of light, the effect of conductivity disappeared. The demonstrated photo-reactivity of pigmented epithelium, together with certain features of the metabolism and structure of its cells and branchings, leads to the hypothesis that the pigmented epithelium may play a more important physiological role in the regulation and execution of the photoreceptor act in the visual cells (rod and cone) than has been supposed before.—*I. D. London.*

1914. **Wolbarsht, Myron L. & Yeandle, Stephen S.** (National Naval Medical Center, Naval Medical Research Inst., Bethesda, Md.) **Visual processes in the Limulus eye.** *Annual Review of Physiology*, 1967, Vol. 29, 513-542.—Critically reviews the current state of knowledge about the anatomy and physiology of the horseshoe crab eye, *Limulus polyphemus*. The following subjects were considered: Taxonomy and distribution, evolution, anatomy of the lateral, median, ventral, and rudimentary

eyes, and electrical responses and their origins. This latter includes the electroretinogram, the early receptor potential, the spontaneous potential fluctuations or bumps, the ommatidial potential, and the nerve impulses. The origin of each of these electrical potentials is discussed. A functional model of the eye is presented. Lateral inhibition, light and dark adaptation, polarized light sensitivity, quantum responses, visual pigments, and spectral sensitivity are also discussed. (90 ref.)—*Author abstract.*

BIOCHEMISTRY

1915. **Barratt, Ernest S., Russell, Glen; Creson, Daniel, & Tupin, Joe.** (U. Texas, Medical School, Galveston) **Neurophysiological and behavioral correlates of lithium.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 335-337.—Reports an exploratory investigation on the effects of lithium on selected areas of the brain and on behavior as part of a larger study on impulse control. Ss included cats and normal humans. Animal studies involved stimulation of 2 brain loci (basolateral amygdala and orbito-frontal cortex) often described as regulatory centers for impulse control. Human studies involved a double-blind study of medical students who were administered lithium carbonate and a placebo. EEGs in the human Ss and evoked potentials in the cats showed similar diffuse slowing in cortical leads. The area of the brain most effected by lithium remains uncertain, although the frontal and temporal lobes had the highest concentrations of lithium after a 7-day build-up in cats, and the brainstem and cerebellum had the lowest.—*P. McMillan.*

1916. **Cahill, George F. & Owen, Oliver E.** (Harvard Medical School, Boston, Mass.) **Body fuels and starvation.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 25-36.

1917. **Clark, Brian R., Rubin, Robert T., Kales, Anthony, & Poland, Russell.** (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Comparison of fluorometric method for urinary cortisol with modified Porter-Silber method for 17-OHCS.** *Clinica Chimica Acta*, 1970, Vol. 27., 364.—Analyzed 109 3-hr urine samples from 27 normal and stressed Naval aviators, and 44 consecutive 24-hr urine samples from a barbiturate addict undergoing withdrawal. Samples were analyzed by a modification of a new fluorometric method specific for serum cortisol and a modified Porter-Silber method for 17-hydroxycorticosteroid, following hydrolysis of steroid conjugates with β -glucuronidase-aryl sulfatase (calbiochem). Total cortisol values ranged between .5 and 50 $\mu\text{g}/100\text{ mL}$, and total Porter-Silber chromogens ranged between .1 and 3 $\text{mg}/100\text{ mL}$. The 28 individual correlations between these measures ranged between +.70 and +.99, and all reached the .05 level of significance. The average correlation coefficient was +.90, yielding a common variance of 81%. It appears that the fluorescence method, which eliminates interfering substances and is accurate for very low cortisol levels, may be used to reflect reliably adrenal cortical activity as ordinarily measured, by the urinary excretion of glucocorticoid metabolites.—*Journal abstract.*

1918. **DeHaven, J. C. & Shapiro, N. Z.** (RAND Corp., Santa Monica, Calif.) **Speculations on physiochemical fluid properties in physiological regulation.** *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 31-60.—The addition of relatively large amounts of

certain chemical substances to a physiological system can alter steady-state concentration gradients of other substances between various intra- and extracellular media. It is suggested that membrane properties alone may not suffice to explain these phenomena. Evidence relating to the effects of fluid properties on fluxes and concentration gradients is extensively reviewed. It is proposed that the "fundamental biochemical effect of hormones is realized through (a) their influence in altering the polar nature of specific proteins and (b) the resulting change in the bulk electrostatic characteristics of the various physiological fluids containing them." (73 ref.)—*J. Crabbe*.

1919. Faiszt, József & Adám, György. (Eötvös Lóránd U., Budapest, Hungary) **Role of different RNA fractions from the brain in transfer effect.** *Nature*, 1968(Oct), Vol. 220(5165), 367-368.—Investigated transfer phenomenon following destruction of brain RNA. The conditioning procedure entailed a defensive motor response conditioned by pairing an acoustic stimulus with an electric shock. 420 male Wistar rats were subjected to 10 experimental sessions, and 280 Ss which performed the trained response perfectly served as trained donors. Prior to receiving ip RNA injections, 420 recipient Ss were trained to perform the conditioned avoidance response without the CS. Ss were then tested in the same manner as the trained donors. Results show that Ss with pretreatment with ribosomal RNA performed significantly better in all trials than did controls. —*P. Shibelski*.

1920. Hartmann, Ernest. (Tufts U., Medical School) **The D-state and norepinephrine-dependent systems.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 308-328.

1921. Lenhoff, Howard M. (U. Miami) **Behavior, hormones, and hydra.** *Science*, 1968(Aug), Vol. 161(3840), 434-442.—Discusses the role of glutathione in activating the feeding response in *Hydra littoralis*. The mechanism of action of the glutathione receptor-effector system of hydra is also reviewed. The possible evolutionary relationships between the chemical receptors of primitive organisms and the hormone receptors of more complex organisms is discussed. And it is concluded that the "behavioral responses of a lower invertebrate to a peptide and some hormonal responses in man to peptides may have many fundamental features in common." (47 ref.)—*P. McMillan*.

1922. Zimmerman, Hyman J. (Veterans Administration Hosp., Boston, Mass.) **The spectrum of hepatotoxicity.** *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 135-161.—Attempts "to deal representatively with the enormous literature that relates to chemical hepatic injury and . . . to demonstrate that the phenomena of hepatotoxicity . . . can be arranged in a rational pattern by approaching the individual facets of mechanisms of injury, types of damage, and circumstances of exposure . . . There are 2 main mechanisms, intrinsic toxicity and host idiosyncrasy; there are 2 main forms of hepatic injury, and a mixture of the 2. These may be incurred as toxicologic, accidental phenomena, or through therapeutic misadventure . . . [It is] proposed that the phenomena can be understood as the result of the generalized membrane disruption induced by direct hepatotoxins and the pinpoint metabolic interruption of the indirect." (91 ref.)—*J. Crabbe*.

Hormones

1923. Ader, Robert. (U. Rochester, School of Medi-

cine & Dentistry) **Early experiences accelerate maturation of the 24-hour adrenocortical rhythm.** *Science*, 1969(Mar), Vol. 163(3872), 1225-1226.—Reared Charles River rats under 12-hr alternating periods of light and dark. Ss were killed at times corresponding to the times at which the maximum or minimum plasma corticosterone concentrations occur in mature Ss. The characteristic 24-hr adrenocortical rhythm was first observed in Ss 21-25 days old. In Ss handled or stimulated with electric shock, the rhythm developed as early as 16 days.—*Journal abstract*.

1924. Ader, Robert. (U. Rochester, Medical & Dental School) **The effects of early experience on the adrenocortical response to different magnitudes of stimulation.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 837-839.—Charles River rats remained unmanipulated or were handled once each day throughout the preweaning or immediate postweaning period, following which they were individually caged. At maturity plasma corticosterone levels were sampled 5, 15, 30 or 60 min. after a 60-sec exposure to a novel environment in which groups were subjected to 0, 1, 4 or 12 2-sec electric shocks. Steroid levels rose significantly in response to the novel environment but only in females was there an additional elevation in corticosterone in response to 4 and 12 shocks. Differences between handled and nonhandled Ss were unrelated to the magnitude of stimulation, but the adrenocortical reactivity of handled Ss was less than that of controls irrespective of the age at which handling had been experienced. (15 ref.)—*Journal abstract*.

1925. Beatty, Patricia A., Beatty, William W., Bowman, Robert E., & Gilchrist, Jack C. (North Dakota State U.) **The effects of ACTH, adrenalectomy and dexamethasone on the acquisition of an avoidance response in rats.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 939-944.—Describes 3 experiments with 165 male Holtzman albino rats. Exogenous elevation of circulating ACTH level facilitated the acquisition of a 2-way avoidance response at a high but not at a moderate UCS intensity. Injections of ACTH had no general effect on spontaneous shuttling activity, escape behavior to light-onset, or intertrial responding during avoidance conditioning. Adrenalectomy, which resulted in minimal plasma levels of adrenocortical hormones and, presumably, elevated levels of ACTH, also facilitated avoidance responding. Injection of dexamethasone, a synthetic glucocorticoid and ACTH inhibitor, produced severe weight loss and hypophagia, but did not influence avoidance performance. However, the failure of dexamethasone to affect acquisition of avoidance responding was not related to its effect on body weight and food intake. ACTH action on avoidance conditioning is clearly extraadrenal, but ACTH is not essential to normal performance, at least when high levels of glucocorticoids are present. (19 ref.)—*Journal abstract*.

1926. Brain, Paul F. & Nowell, Norman W. (U. Hull, England) **The effects of differential grouping on endocrine function of mature male albino mice.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 907-910.—Isolated or housed mature male albino mice of the Tuck TT strain and of proved fertility in groups of 2, 4, 8 or 16. After 21 days of such treatment, plasma samples were obtained both by rapid decapitation and via the jugular vein following 2 min. of ether stress. Body weights and weights of various endocrine glands were obtained from Ss of each category of housing. Results indicate that Ss maintained as pairs showed a more

pronounced increase in adrenocortical function and a greater decline in gonadal activity when compared with single Ss than some of the more densely crowded groups. Apart from paired Ss, there was a general increase in adrenocortical activity and a decline in gonadal function proportional to the increase in group size (as shown by J. J. Christian). Results are interpreted on the basis of the increased social stress to which the subordinate mouse is subjected. (16 ref.)—*Journal abstract*.

1927. Christenson, Carl M. (Kansas State U.) **Some factors relating to behavioral characteristics of *Microtus ochrogaster***. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5751-5752.

1928. Efremova, N. M. (USSR Academy of Sciences, Lab. of Experimental Physiology in Reanimation of the Organism, Moscow) **Funktsiya shchitovidnoi zhelezy v rannem postreanimatsionnom periode**. [Thyroid glandular function in the early period following reanimation.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 23-25.—Experiments on the reanimation of 33 dogs, subjected to either 5 min. of clinical death due to blood loss (20 Ss) or 10-12 min. electrotraumatic cessation of circulation (13 Ss), showed that, if the level of protein-bound iodine declined in the 6 hr. following reanimation, reestablishment of the functions of the CNS took place. Ss dying 12-24 hr. after reanimation displayed a considerable increase in the level of protein-bound iodine in the blood.—*I. D. London*.

1929. Levine, Murray D., Gordon, Thomas P., Peterson, Rolf H., & Rose, Robert M. (U.S. Army Aberdeen Research & Development Center, Human Engineering Lab., Aberdeen Proving Ground, Md.) **Urinary 17-OHCS response of high- and low-aggressive rhesus monkeys to shock avoidance**. *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 919-924.—Hypothesized that a rhesus monkey's aggressive behavior may be predictive of his adrenal cortical response to shock avoidance. In Exp. I, the relative aggressiveness of 12 sexually mature male rhesus monkeys was estimated and Ss were exposed to 4 wk. of free operant avoidance. Urinary 17 hydroxycorticosteroid (17-OHCS) output was used as a measure of stress. Results show that the high-aggressive Ss are chronically stressed and take longer to learn the task. Low-aggressive Ss show little stress response and learn the task quickly. In Exp. II, with 11 Ss, the avoidance paradigm was altered to study the possible confounding levels between the 2 groups is chronic and stable and is not necessarily a function of either variable. The stable differences in 17-OHCS output are interpreted as being a function of the interaction of a particular type of S and a particular type of task.—*Journal abstract*.

1930. McCollom, Richard E. (Virginia Polytechnic Inst.) **Androgen threshold responses in lines selected for mating ability**. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5377.

1931. Moltz, Howard; Levin, Robert, & Leon, Michael. (Brooklyn Coll., City U. New York) **Prolactin in the postpartum rat: Synthesis and release in the absence of suckling stimulation**. *Science*, 1969(Mar), Vol. 163(3871), 1083-1084.—Postpartum female Wistar rats, deprived of suckling stimulation while being kept continuously with pups, nonetheless suspended ovarian cyclicity for an average of 16 days and responded to uterine trauma by forming deciduomata. Results show that the extramammary stimulation afforded by young is alone capable of sustaining prolactin output from the

adenohypophysis of the postpartum rat.—*Journal abstract*.

1932. Powers, J. Bradley. (U. California, Berkeley) **Hormonal control of sexual receptivity during the estrous cycle of the rat**. *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 831-835.—Investigated the effects of ovarian hormones on the display of sexual receptivity in female Sprague-Dawley rats showing 4-day estrous cycles. Acute ovariectomies were performed on the day of expected behavioral estrus, timed so that the influence of ovarian estrogen alone, or of ovarian estrogen plus progesterone could be evaluated. High levels of receptivity can be elicited only following the combined action of estrogen and progesterone. Estrogen alone is not sufficient; supplementary estradiol benzoate fails to induce estrous behavior if the facilitative action of progesterone is prevented. Biphasic effects of progesterone were not detected under the physiological conditions employed and most likely are of minimal importance in regulating the duration of behavioral estrus. Estrus duration is controlled primarily by the levels of estrogen which condition the neural substrate for lordosis during the 24-36 hr. period preceding the onset of receptivity. Exogenous estradiol benzoate added to the estrogen already secreted by the ovaries prolongs the period during which lordosis behavior can be elicited by progesterone injection. Possible contributing effects of adrenal progesterone to the control of estrous behavior were examined. (33 ref.)—*Journal abstract*.

1933. Von Euler, U. S. (Karolinska Inst., Stockholm, Sweden) **Some aspects of the mechanisms involved in adrenergic neurotransmission**. *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 79-94.—Reviews much of the present knowledge of adrenergic neurotransmission, including: (a) a description of nor-adrenaline (NA) homeostasis; (b) adrenergic nerve ending morphology; (c) properties of storage granules; (d) NA synthesis, release, and reuptake; (e) free and bound NA pools; and (f) drug actions. A schematic system for the adrenergic neurotransmission process is offered, involving receptor concepts at both granules and postsynaptic membrane, and suggesting a dynamic equilibrium between extragranular and granular stores of NA. (68 ref.)—*J. Crabbe*.

Drug Effects—Human

1934. Brown, Barbara B. (Veterans Administration Hosp., Sepulveda, Calif.) **Effect of LSD on visually evoked responses to color in visualizer and non-visualizer subjects**. *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 356-363.—The visually evoked responses (VERs) to color of visualizer Ss evidenced a significant degree of color specific characteristics and selective alteration in color specificity after LSD. Changes were more pronounced in the amplitude domain. Configuration of the VER to white and red were consistently different from those to blue or green. Visualizers also reported enhanced visual perception after LSD. In nonvisualizers the VERs to all color conditions except to red were virtually identical. Following LSD, early components of all 3 color VERs were changed in configuration, all changes being in the latency domain. Maximal amplitudes occurred in the VERs to white while counting the flashes in all Ss. After LSD this was unchanged in visualizers but was attenuated in nonvisualizers. A technique for ranking components of a complexly organized set of responses was

used which permitted extraction of critical data from a complex of intercurrent intra- and inter-S variation. The technique isolated patterns of response by which changes over time could be conveniently compared within and between S groups, and as these were affected by the experimental condition. This proved useful in isolating significant differences in a multidimensional system. (French summary) (20 ref.)—*Journal summary*.

1935. Cassell, W. A. & Hemingway, P. (Dept. of Public Health, Regina, Saskatchewan, Canada) **Body consciousness in states of pharmacological depression and arousal.** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 169-173.—Administered Fisher's Body Focus Questionnaire to undergraduates. Altered levels of CNS excitation were produced by phenobarbital and caffeine citrate. Under the former conditions, it was observed that the more sedated an S felt, the more his body consciousness focused on the head. Fisher's high barrier Ss were found to be particularly sensitive to the depressant drug. With stimulation a positive relationship was found between the degree of arousal and the extent an S focused on outer and right aspects of the body. This was more prominent in the low barrier group. (21 ref.)—*Journal abstract*.

1936. Fischer, Roland. (Ohio State U., Coll. of Medicine) **Out on a (phantom) limb: Variations on a theme: Stability of body image and the golden section.** *Perspectives in Biology & Medicine*, 1969(Win), Vol. 12(2), 259-273.—In Exp. I, 24 college-age volunteers viewed a black line on a white background through a prism and reported the 1st deviation from "flatness" as the prism was counterrotated. Oral ingestion of 160-200 $\mu\text{g}/\text{kg}$ of psilocybin 110 min. prior to testing significantly reduced distortion threshold. In Exp. II, 15 similar Ss having pronounced taste sensitivity were measured by the MMPI and the Goldberg formula after ingestion of 160 $\mu\text{g}/\text{kg}$ of psilocybin; pupillary response indicated drug arousal level. All Ss were tested as in Exp. I before ingestion of drug. Autonomic arousal was unrelated to psychopathology measures while perceptual performance significantly correlated with psychopathology. Experience of a "phantom limb" is discussed as a readaptation phenomenon compensating for distortion of corporeal awareness. "Body image" was defined as a separate concept, disturbances of which are characterized by depersonalization phenomena. Psychodysleptic drugs interfere with readaptation phenomena as well as causing distortion in "body image"; the alleviation of phantom limb sensation is thus explained. Evidence is also discussed supporting esthetic preferability of the golden section as a function of the ease of readaptation to it. (65 ref.)—*J. Crabbe*.

1937. Goodwin, Donald W., et al. (Washington U., Medical School) **Alcohol and recall: State-dependent effects in man.** *Science*, 1969(Mar), Vol. 163(3873), 1358-1360.—48 male medical students performed 4 memory tasks either while sober or under effects of alcohol. 24 hr. later they were tested under the same or different conditions. In tasks measuring recall and interference, learning transfer was better when S was intoxicated during both sessions than when he was intoxicated only during the learning session. In a task measuring recognition, transfer was not significantly affected by changing state. Thus, alcohol appears to produce "dissociated" or state-dependent effects in man, but not all forms of memory are equally sensitive to the phenomenon.—*Journal abstract*.

1938. Kales, Anthony; Preston, Terry A., Tan, Tjiauw-Ling, & Allen, Clyde. (U. California, Medical School, Los Angeles) **Hypnotics and altered sleep-dream patterns: I. All-night EEG studies of glutethimide, methypyrulon, and pentobarbital.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 211-218.—Studied 3 hypnotics, glutethimide (500 and 1000 mg.), methypyrulon (300 mg.), and pentobarbital (100 mg.) to observe sleep stage, dream alterations, and drug effectiveness in an 8-night experiment with male 21-30 yr. old healthy Ss. REM sleep was decreased in varying degrees by all 3 drugs and dosages. On the 2nd drug night of pentobarbital and the 3rd night of methypyrulon administration the total REM time appeared to return to normal levels. A reduction in the number of REM periods occurred only with the administration of 1000 mg. of glutethimide. Administration of 500 mg. of glutethimide and 100 mg. of pentobarbital resulted in a decrease in Stage 4 sleep. Withdrawal of both drugs did not result in an increase in Stage 4 sleep above base-line levels as is the case for REM sleep following REM suppression. Withdrawal of all drugs and doses resulted in a stage REM rebound, and occasional nightmares were reported. REM rebound, increased dreaming, and nightmares during withdrawal of hypnotic drugs are maximal if long-acting REM-suppressant hypnotics have been taken regularly and in multiple doses for prolonged periods. In the treatment of hypnotic drug dependence, a protracted withdrawal of no more than 1 therapeutic dose every 5 days is recommended. Patients should be advised that increased dreaming and unpleasant dreams may accompany the withdrawal process and are reflections of physiologic rather than psychic changes. (18 ref.)—*Journal summary*.

1939. Sutton, Dwight & Kimm, Joseph. (Arizona State U.) **Alcohol effects on human motor unit reaction time.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 889-892.—Studied control of single motor unit activity in 5 25-39 yr. old human Ss (59-73 kg.) by requiring a single spike discharge to a flash of light and recording the resultant (RT). Experimental sessions without alcohol were followed by ingestion of 20 cm³ 95% ethyl alcohol and retesting the RT performance. Median latencies were slower following intake of alcohol; however, the capacity to respond as defined simply by the ability to produce a motor unit spike was not altered. EMG RT responding also slowed following alcohol, although to a lesser degree than single motor unit RT. (15 ref.)—*Journal abstract*.

1940. Sylvester, John. (Inner London Education Authority, England) **Apparent movement as a constancy phenomenon.** *Studia Psychologica*, 1970, Vol. 12(1), 51-59.—Administered stimulant and depressive drugs to 18 19-25 yr. old female student actresses in an experiment on the effect of such drugs on apparent movement phenomena. The depressant drug sodium amyltal lowered the simultaneity movement threshold and raised the succession movement threshold. Dexedrine had the reverse effect, with the placebo condition in between. Thus predictions from the learning theory of apparent movement were borne out while those from the satiation theory were not. (Czech & Russian summaries) (37 ref.)—*Journal abstract*.

1941. Têtreault, L. & Bordeleau, J. M. (U. Montreal, Quebec, Canada) **De l'utilité du placebo et de la technique à double insu dans l'évaluation des psychotropes.** [On the use of the placebo and the

double-blind technique in the evaluation of psychotropic drugs.] *Encéphale*, 1970(Jan), Vol. 59(1), 5-24.—Total rejection or acceptance of placebo effects without reserve can be damaging in either research or treatment. One has to decide in specific cases whether a placebo is necessary as a control and whether it is morally acceptable to use it. The placebo is merely an instrument of research and should be regarded as such. It may be superfluous and unjustifiable or it may be indispensable for obtaining objective conclusions.—W. W. Meissner.

1942. Wikler, Abraham. (U. Kentucky, Medical School) **Clinical and social aspects of marihuana intoxication.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 320-325.—Discusses the objective and observable aspects of the acute marihuana intoxication syndrome with reference to recent studies reported in the literature. A detailed description by W. Bromberg in 1934 of the progression of emotional and behavioral reactions during intoxication is quoted. Difficulties in identifying a uniform response pattern are attributed to 2 factors: (a) low concentrations of tetrahydrocannabinols in marihuana available in the United States, and (b) a number of predisposing conditions including personality make-up, expectations of the smoker, and the environmental setting. Failure to obtain cross-tolerance between tetrahydrocannabinol and LSD suggest that their site of action in the brain is not the same. Reports of chronic intoxication and unrestricted smoking of marihuana under experimental conditions are reported. Public health and ideological aspects are considered. (17 ref.)—P. McMillan.

1943. Wyatt, Richard J., et al. (National Inst. of Mental Health, Bethesda, Md.) **Effects of para-chlorophenylalanine on sleep in man.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 529-532.—Studied the effect of depleting brain serotonin with parachlorophenylalanine (PCP), a selective inhibitor of serotonin synthesis, on the sleep of man. PCP markedly decreased REM sleep. NREM sleep remained either unchanged or was slightly increased. This is in contrast to the reported effect of PCP in other mammals. In 1 S. at a time when PCP had maximally reduced REM sleep, psychological disturbances were produced similar to those previously described in patients taking PCP. Data suggest that the establishment of any general significance of serotonin in the neuropharmacology of sleep will require detailed investigation of the species in question. (French summary) (17 ref.)—*Journal summary*.

Drug Effects-Animal

1944. Abaskulieva, L. I. (Research Inst. of Clinical & Experimental Medicine, Baku, USSR) **Vliyanie katekholaminov na skorost' krovotoka v malom krugke krovobrazhcheniya na tоне narkoza.** [Influence of catecholamines on the velocity of blood flow in pulmonary circulation during anesthesia.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 25-27.—Ss were intact and narcotized dogs. After the injection of morphine into intact Ss, catecholamines decreased the velocity of blood flow in pulmonary circulation. This did not occur after prior administration of atropine and aminazine (chlorpromazine). The data show that among the factors, securing a vascular response in the pulmonary circulation to catecholamine administration, the initial state of the nervous system played a not inconsiderable role.—I. D. London.

1945. Angel, A. (U. Sheffield, England) **An analysis**

of the effect of 1,2-dihydroxybenzene on transmission through the dorsal column sensory pathway. *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 392-403.—Iv or ip injection of 1,2-dihydroxybenzene in deeply anesthetized animals produces a net increase in the excitability of the dorsal column sensory pathway. The effect lasts for 10 min. or more, depending upon the dose administered and the route of administration. Responses recorded from the primary somatic cortical receiving area and ventrobasal thalamus, to peripheral stimulation, increase in size and show a reduction in the scatter of both size and latency of the individual responses. Responses recorded from the cuneate nucleus show either no change in their size or temporal pattern or a size reduction. These changes are accompanied by generalized EEG "arousal," increased respiratory effort, and changes in the discharge frequencies of cells located in the thalamus outside the dorsal column sensory pathway. It is proposed that the initial increase in excitability is due to an increased responsiveness of the cerebral cortex to a thalamo-cortical volley consequent upon the hyperpnoea produced by the 1,2-dihydroxybenzene. The continuing increase is due to an increased responsiveness of the ventrobasal thalamus brought about by the modulatory influence of the thalamic reticular nuclei. During this latter period the cortical responsiveness to electrical stimulation of the thalamocortical fibers is unaltered or decreased. (French summary) (20 ref.)—*Journal summary*.

1946. Baryshnikov, I. I., Mil'shtein, G. I., Fufacheva, A. A., & Khasabov, G. A. (Inst. of Experimental Pathology & Therapy, Sukhumi, USSR) **Vliyanie psikhodomimetika na uslovnorefleksornuyu deyatel'nost' i elektroentsefalogrammu obez'yan.** [Influence of a psychotomimetic on simian conditioned reflex activity and electroencephalogram.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 35-41.—Ss were subjected to the action of the central cholinolytic, diatrane (.1, .2, and .5 mg/kg). 4-5 yr. old rhesus monkeys were used to study the influence of the drug on spontaneous motor activity and a simple motor-alimentary CR "of the motivational type" (pressing of a lever with subsequent alimentary reinforcement); 2 11-13 yr. old baboons were used to study the influence of the drug on varied (alimentary and electrodefensive) motor CRs. The lowest dosage did not exert any noticeable effect on behavior, but did disturb differentiation and briefly decreased the stability of the positive alimentary CR in baboons. .2 and .5 mg/kg diatrane doses which elicit human psychopathological symptomatology) had a depressing influence on the CNS and produced rapid and deep disturbances of alimentary and defensive CRs (more markedly for .5 mg/kg). Restoration of the former occurred later than that of the latter. These doses in rhesus monkeys led to inhibition of the simple motor-alimentary CR "of the motivational type." The duration of the changes occurring in the EEG coincided with the duration of the observed behavioral disturbances. These doses produced an increase in amplitude of evoked potential in (a) the frontal cortex in response to stimulation of the caudate nucleus and the striopallidum, and (b) the hippocampus in response to stimulation of contiguous regions. Responses in the frontal cortex did not change when the hippocampus was stimulated.—I. D. London.

1947. Bhattacharya, I. C. & Goldstein, L. (New Jersey Neuropsychiatric Inst., Princeton) **Influence of acute**

and chronic nicotine administration on intra- and inter-structural relationships of the electrical activity in the rabbit brain. *Neuropharmacology*, 1970(Mar), Vol. 9(2), 109-118.—Performed chronic nicotine administrations for 3 wk. on male albino rabbits equipped with electrodes in the cortex, the reticular formation, the hippocampus, the amygdala, and the hypothalamus. 200 μ g/kg were injected subcutaneously 5 times/day. Controls were run with chronic saline administration. Statistical analysis of the distribution of amplitude levels/successive epochs of 2 sec. revealed a change. The characteristic unimodal distributions were replaced at cortical and hippocampal levels by bimodal distributions. The extent of mutual involvement between structures was estimated by the ratio of the variances between structures. Chronic nicotine administration produced a gradual increase for the pairs cortex/hippocampus and cortex/amygdala. Results are discussed in terms of a recently introduced hypothesis of a 2-system arousal in the brain. (15 ref.)—*Journal abstract*.

1948. Bickel, M. H. & Weder, H. J. (U. Berne, Switzerland) **Demethylation of imipramine in the rat as influenced by SKF 525-A and by different routes of administration.** *Life Sciences*, 1968(Nov), Vol. 7(21, Pt. 1), 1223-1230.—Ip injection of imipramine (IP) to normal male Wistar and female Holtzman rats was followed by the appearance of desmethylimipramine (DMI) in brain and other tissues. In Ss pretreated with 2-diethylaminoethyl-2', 2'-diphenyl valerate HCL (SKF 525-A) the DMI concentrations were decreased but still detectable. The inhibition of IP metabolism by SKF 525-A can be demonstrated in vitro. After injection of IP by various other modes of administration, differences in the IP and DMI concentrations in brain or other tissues were observed, e.g., practically no DMI could be detected in brain after subcutaneous or im injection. It is concluded that the mode of administration highly influences both the rates of drug absorption and its metabolism, the latter according to systemic or portal absorption. Results are discussed in respect to the absence of brain DMI in rats treated with IP. (17 ref.)—*Journal summary*.

1949. Bocknik, S. E., Hingtgen, J. N., Hughes, F. W., & Forney, R. B. (Abbott Lab., Chicago, Ill.) **Harmaline effects on tetrabenazine depression of avoidance responding in rats.** *Life Sciences*, 1968(Nov), Vol. 7(21, Pt. 1), 1189-1201.—6 adult male Wistar rats on 40-sec response-shock interval and a 20-sec shock-shock interval avoidance schedule of reinforcement were administered tetrabenazine and harmaline both individually and combined in various time and dose sequences. The effects of harmaline on the tetrabenazine response were both antagonistic and synergistic. Tetrabenazine alone elicited behavioral depression of avoidance responding. Harmaline pretreatment had an antagonistic effect on the tetrabenazine response producing an increase in the latency of depression followed by a synergistic increase in the duration of depression. (19 ref.)—*Journal summary*.

1950. Buckholtz, Neil S. & Bowman, Robert E. (U. Wisconsin, Regional Primate Research Center) **Retrospective amnesia and brain RNA content after TCAP.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 911-914.—Reinvestigated previous findings that 1,1,3-tricyano-2-amino-1-propene (TCAP) increases the whole brain content of RNA and attenuates the retrograde amnesia produced by ECS in mice. This is consistent with theories that RNA synthesis represents an essential

step in the consolidation of memory. Using 766 CF1 and Swiss-Webster mice, it was found that TCAP had no effect at any point along the gradient of retrograde amnesia when ECS was given at 9-960 sec. after training in a 1-trial passive avoidance task. TCAP also did not alter the whole brain content of RNA nor the uptake of tritiated cytidine into RNA. It is concluded that under a variety of conditions TCAP does not affect retrograde amnesia produced by ECS, thus suggesting that it has no general effect on the rate of memory consolidation. (22 ref.)—*Journal abstract*.

1951. Chase, T. N., Katz, R. I., & Kopin, I. J. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Effect of diazepam on fate of intracisternally injected serotonin- C^{14} .** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 103-108.—Studied the influence of diazepam on the disposition of intracisternally injected serotonin- C^{14} (5-HT- C^{14}) in male Sprague-Dawley rats. Pretreatment with diazepam failed to affect the uptake of this monoamine into brain. Whole brain levels of 5-HT- C^{14} and 5-hydroxyindoleacetic acid- C^{14} (5-HIAA- C^{14}), substantially above control levels, were found in diazepam-treated Ss killed 3 hr. after 5-HT- C^{14} administration. The drug markedly retarded the efflux of intracisternally administered 5-HIAA- C^{14} but had no effect on metaraminol- H^3 , a monoamine which is not metabolized in brain. Findings suggest that diazepam acts on mechanisms subserving the transport of 5-HIAA from brain and on the cerebral metabolism of 5-HT. (35 ref.)—*Journal abstract*.

1952. Contreras, E., Tamayo, L., & Weitzman, P. (U. Concepción, Chile) **Reduction of the antinociceptive effect of 5-hydroxytryptophan in morphine tolerant rats.** *Psychopharmacologia*, 1970, Vol. 17(4), 314-319.—Studied the effect of 5-hydroxytryptophan on electric shock pain threshold in female albino rats, tolerant and nontolerant to the analgesic action of morphine. The drug elevated pain threshold and exhibited an additive effect with morphine analgesia in nontolerant Ss. A reduction of the antinociceptive action of the serotonin precursor and an absence of the additive effect with morphine was observed in Ss tolerant to the analgesic. (17 ref.)—*Journal abstract*.

1953. Coyle, Joseph T. & Snyder, Solomon H. (Johns Hopkins U., Medical School) **Antiparkinsonian drugs: Inhibition of dopamine uptake in the corpus striatum as a possible mechanism of action.** *Science*, 1969(Nov), Vol. 166(3907), 899-901.—Reports that a variety of antiparkinsonian drugs are potent, non-competitive inhibitors of dopamine uptake into synaptosomes in homogenates of male Sprague-Dawley rat corpus striatum. Inhibition of dopamine uptake may potentiate the synaptic actions of dopamine in the striatum and could explain the antiparkinsonian effects of these drugs. This hypothesis accounts for several clinical features of Parkinson's disease and predicts compounds which may be new therapeutic agents. (16 ref.)—*Journal abstract*.

1954. D'Encarnacao, Paul S. & Anderson, Kenneth. (Memphis State U.) **Effects of lithium pretreatment on amphetamine and DMI tetrabenazine produced psychomotor behavior.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 494-496.—Further examines the catecholamine hypothesis that "the increased availability of catecholamines at synaptic sites are associated with behavioral stimulation or excitation while a decreased availability or inactivation... relates to depression or sedation." Ss were rats injected with either amphetamine

or a combination of despiramine (DMI) + tetrabenazine following a pretreatment administration of amphetamine or DMI. Activity count data were obtained on all Ss during pretreatment and experimental sessions. Results suggest that (a) lithium in the pretreatment period had a calming effect; (b) "lithium pretreatment to amphetamine excitation produced a potentiation of the behavioral effects with almost double the initial psychoactive behavior which amphetamine would normally produce," suggesting a synergistic effect; and (c) lithium does not block the effects of DMI + tetrabenazine. The relation of these findings to other studies is examined.—*P. McMillan.*

1955. Denisova, G. A. (1st Leningrad Medical Inst., USSR) *Znachenie kholinergicheskoi mediatelli v tsentral'noi regulyatsii dykhaniya.* [Significance of cholinergic mediation in central regulation of respiration.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 9-12.—Cats were used in a study of the action of the central cholinolytic preparation, metamizyl, in order to determine more precisely the significance of cholinergic mediation in the formation of respiratory reactions in different zones of the bulbar respiratory center. Unequal sensitivity of different "respiratory zones" to metamizyl was in evidence when different structures of the medulla oblongata were subjected to local stimulation and recordings were made of the respiratory reactions. Under the effect of metamizyl, maximal ex- and inspiratory changes occurred without any substantial shifts in "background respiration." The data provide evidence for differences in (a) the neurochemical organization of the central mechanisms of respiratory regulation, and (b) the degree to which cholinergic mediation participates in the processes involved. An independence existed between mechanisms, associated with "background respiration," and those, associated with abrupt shifts in the direction of ex- and inspiration.—*I. D. London.*

1956. Elliott, R. C. (Medical Coll. of St. Bartholomew's Hosp., London, England) *The action of central depressant drugs on the spontaneous discharge of action potentials in the superior cervical sympathetic trunk of the cat.* *Neuropharmacology*, 1970(Mar), Vol. 9(2), 129-136.—Recorded spontaneous action potentials in strands dissected from the preganglionic superior cervical trunk of cats anesthetized with ether and nitrous oxide. The rate of discharge of spontaneous action potentials was reduced by 63.7% of a tranquilizer, after .5 mg/kg chlorpromazine iv. A local anesthetic action was insufficient to account for the reduction in rate which occurred, and the reduction is due to a centrally mediated action. The tranquilizer, perphenazine, in a dose of 1 mg/kg iv reduced the rate of discharge by 61.6%. Pentobarbitone reduced the rate of discharge by 66.4% in a dose of 10 mg/kg iv, but 2 mg/kg had little or no effect. Results with hydroxyzine and benactyzine were variable. Hydroxyzine had no action in some experiments, but in others 2 mg/kg iv, produced a reduction of from 25-70%. Benactyzine had little effect, the greatest reduction observed being only 28%. It is concluded that some tranquilizers reduce the rate of discharge in a preganglionic sympathetic nerve. This may be a contributory factor in producing their psychotropic effects in man. (16 ref.)—*Journal abstract.*

1957. Gauron, Eugene F. & Rowley, Vinton N. (U. Iowa) *The modifiability of infantile shock traumatization effects by contiguous drug administration.*

Journal of Genetic Psychology, 1970(Sep), Vol. 117(1), 51-56.—Explored the effectiveness of tranquilizing drugs in modifying learning deficits associated with shock traumatization in infancy, and tested the explanatory value of the state-dependent learning model by the addition of a more potent drug, haloperidol. 48 albino rats were subdivided by a split-litter technique into 4 drug groups. The drug dosage levels were 3 mg/kg chlorpromazine, .5 mg/kg diazepam, .1 mg/kg haloperidol and an equivalent volume of isotonic saline. Drugs and shock were administered from Days 10-25 of life with avoidance conditioning beginning at 75 days. Analyses of variance support the previous finding that tranquilizing drugs are useful in modifying trauma effects. While chlorpromazine was the most effective drug, haloperidol was not effective in modifying learning deficits. This latter finding was viewed as casting doubt on a state-dependent model.—*Journal summary.*

1958. Ginzel, K. H., Eldred, E., Watanabe, S., & Grover, F. (Riker Lab., Northridge, Calif.) *Drug-induced depression of gamma efferent activity: I. Peripheral reflexogenic effect of nicotine.* *Neuropharmacology*, 1970(Mar), Vol. 9(2), 151-167.—Found nicotine in doses of 40-80 µg/kg iv produced a generalized depression of spontaneous and reflexly-evoked γ efferent and attendant spindle afferent discharge in the cat under chloralose-urethane anesthesia. This depressant action was duplicated by sebacylcholine, a peripherally-acting nicotinic stimulant, and abolished by hexamethonium, a peripherally-acting nicotine antagonist. It was reduced or abolished by bilateral vagotomy. It is proposed that nicotine depresses γ activity by a reflex action arising from sensory receptors, a portion of which are within the vagal distribution. Small amounts of nicotine or sebacylcholine injected into the carotid sinus or into the lower aorta also affected γ discharge. The γ depression produced by nicotine does not appear to be secondary to the blood pressure effects of the drug. The γ depression was preceded by an inconstant brief acceleration probably also of reflex origin. After spinal transection at C₁, the γ depressant effect of nicotine was abolished while the acceleratory response was still elicitable. The initiation of both reflex effects is due to excitation by nicotine of cholinergic receptor sites at sensory terminals. (32 ref.)—*Journal abstract.*

1959. Guerrero-Figueroa, R., Rye, Merrill M., Gallant, D. M., & Bishop, M. P. (Tulane U., Medical School) *Electrographic and behavioral effects of diazepam during alcohol withdrawal stage in cats.* *Neuropharmacology*, 1970(Mar), Vol. 9(2), 143-150.—Evaluates CNS spontaneous and evoked cortical and subcortical activities in cats during chronic alcohol administration and following alcohol withdrawal. In the normal (N = 10), and epileptic (N = 12) Ss, alcohol was administered through a gastric cannula chronically inserted in each S in the upper quadrant of the greater curvature of the stomach. Chronic alcohol administration produced: an increase of EEG fast activity in cortical and subcortical structures associated with suppression of epileptiform discharges; and a decrease in the amplitude of the local evoked potentials recorded from cortical and subcortical structures. In contrast, withdrawal from alcohol produced: an increase in EEG slow wave background activity associated with activation of epileptiform discharges; and an increase in the amplitude of the local evoked potentials recorded from cortical and

subcortical structures. An evaluation of the effects of iv and ip administration of diazepam was presented. It is concluded that diazepam is an effective drug in the prevention and control of the withdrawal syndrome. Electrical and behavioral studies suggest that chronic alcohol administration has an inhibitory effect upon the integrative action of the CNS, and a reversal of this effect occurs during the withdrawal syndrome. Possible mechanisms for 2 such inverse neurophysiological actions are discussed. (19 ref.)—*Journal abstract.*

1960. Gushchin, I. S. (USSR Academy of Medical Sciences, Research Allergological Lab., Moscow) **Deistvie mikroelektroforeticheskoi in'ektsii mediatorov na odinochnye kletki izolirovannogo predserdiya morskikh svinek.** [Action of microelectrophoretic injection of mediators on single cells of the isolated atrium in guinea pigs.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 3-6.—Reports results of a microelectrode study of the action of adrenaline, histamine, and acetylcholine, microelectrophoretically injected, on single atrial cells (pacemakers and contractile fibers), derived from 15 Ss.—*I. D. London.*

1961. Halasz, Michael F., Formanek, Jaroslav, & Marrazzi, Amedeo S. (U. Minnesota) **Hallucinogen-tranquillizer interaction: Its nature.** *Science*, 1969(May), Vol. 164(3879), 569-571.—Study of the competition between hallucinogens and tranquilizers at cerebral synapses and on behavior in various species of animals indicates a continuum of effects from protection to dominance of tranquilizer toxicity as the dose increases. Data on the behavior of 3 cats and 5 spider monkeys, supplementing that on the rat, show that it is possible to arrive at a tranquilizer dose that can aggravate instead of protect, in accord with the competitive inhibitory nature of the interaction of hallucinogen and tranquilizer.—*Journal abstract.*

1962. Hingtgen, Joseph N. & Hamm, Harlyn D. (Indiana U., Medical School, Inst. of Psychiatric Research, Indianapolis) **Modification of tetrabenazine effects following pain-induced aggression in rats.** *Life Sciences*, 1969(Jan), Vol. 8(1, Pt. 1), 1-7.—Measured pain-elicited aggression in 4 groups of 5 pairs of Wistar rats each during 4 electric shock sessions. 2 groups received injections of tetrabenazine and saline, respectively, 90 min. before each session. In the other 2 groups tetrabenazine and saline injections were alternated before each session, 1 group starting with tetrabenazine and the other with saline. Tetrabenazine produced marked inhibition of the aggressive response, reducing its frequency to about 10% of saline levels. However, an initial experience of high aggression during a saline session significantly modified the tetrabenazine effects for subsequent injections, suppressing aggression to only about 40% of control values.—*Journal summary.*

1963. Jackson, D. A., Anderson, J. M., & Gardner, D. R. (Fisheries Research Board of Canada, Biological Station, St. Andrews, New Brunswick) **Further investigations of the effect of DDT on learning in fish.** *Canadian Journal of Zoology*, 1970(May), Vol. 48(3), 577-580.—Young Atlantic salmon (*Salmo salar*) and speckled trout (*Salvelinus fontinalis*) were trained in a conditioned avoidance apparatus to avoid an electric shock. The CS was a light change. When the learning criterion of 6 successive avoidances had been met, DDT in .3 ml. of acetone was injected into the 6 liters of water in the training tank. On retraining, the salmon were

found capable of learning a conditioned avoidance response after treatment with sublethal doses of DDT. The trout learned the "wrong" response but they did associate the CS with the UCS by swimming to the surface of the water following presentation of the CS alone.—*J. M. Roberts.*

1964. Klingman, Gerda I. & McKay, Genie. (State U. New York, School of Pharmacy, Buffalo) **The effect of isoproterenol on the catecholamine levels of peripheral tissues.** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 137-142.—The subcutaneous administration of 1 or 4 doses of 50 mg/kg of isoproterenol to Sprague-Dawley rats resulted in significant reductions in the norepinephrine levels of the heart, submaxillary glands, and parotid glands. The decreases noted in these tissues after a single dose of 7.5 mg/kg were statistically significant only for the parotid glands. The norepinephrine levels of the brainstem, sympathetic ganglia, and other peripheral tissues were not affected by the isoproterenol treatments. The wet weights of the hearts, submaxillary glands, and parotid glands were not significantly affected by the single 7.5 mg/kg dose, but show statistically significant increases after 1 and 4 doses of 50 mg/kg. The wet weights of other peripheral tissues were not altered by isoproterenol treatment. The reductions of the norepinephrine concentration and content of the heart, submaxillary and parotid glands, and the increases in the wet weight of these tissues were of similar magnitude in male and female Ss. (17 ref.)—*Journal abstract.*

1965. Kontsevoi, V. M. (Medical Inst., Vitebsk, USSR) **Vliyanie nekotorikh vegetotropnykh yadrov na mitoticheskuyu aktivnost' regeneriruyushchego epitel'ya slizistoi obolochki zheludka.** [Influence of some autonomic poisons on mitotic activity of the regenerating gastric mucosal epithelium.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 98-100.—92 rats with experimental lesion of the gastric mucosa were administered autonomic poisons, i.e., atropine sulfate, hexonium (hexamethonium), phentolamine hydrochloride, aceclidine, dimecoline, mesaton, every 12 hr. for 5 days. It was shown that repeated administration of hexonium—a preparation used for treating ulceration—produced the sharpest inhibition of repair to the damaged tissue.—*I. D. London.*

1966. Malyarenko, Yu. E. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Vozbuzhdayushchee vliyanie atsetilkholina na refleksogennuyu zonu epikarda i perikarda vagotomirovannykh zhivotnykh.** [Excitatory influence of acetylcholine on the reflexogenic zone of the epicardium and pericardium in vagotomized animals.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 3-6.—Ss were 24 urethanized cats under artificial respiration, with sectioned vagal, aortal, and occasionally diaphragmatic nerves. Any supraliminal concentration produced pressor reflexes exclusively, given the spinal afferent system of the epi- and pericardium under stimulation by acetylcholine in concentrations of .001-1000 microgm/ml. These reflexes may be divided into 2 groups: "the strictly interoceptive and the nociceptive." Through recordings of blood pressure, it was established that the interoceptive reflexes emerged with .001-.5 concentrations; the nociceptive reflexes emerged with 1-10 concentrations. The "acetylcholine concentration-reflex amplitude" graph consisted of 3 parts and exhibited a fundamental resemblance to the graphed function for the reflexogenic zone of the small intestine. Liminal con-

centrations of acetylcholine for the cardiac reflexogenic zone were lower than for the sensitive elements of the small intestine.—*J. D. London.*

1967. McKearney, James W. (Worcester Foundation for Experimental Biology, Shrewsbury, Mass.) **Rate-dependent effects of drugs: Modification by discriminative stimuli of the effects of amobarbital on schedule-controlled behavior.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 167-175.—Food-deprived adult male white Carneaux pigeons responded under a 10-min fixed-interval schedule of food presentation. During even-numbered min. of the schedule, the discriminative stimuli were the same as those present when food was delivered. During odd-numbered min. there was either a change in keylight color or in overhead illumination, either for the entire duration of the odd-numbered min. or for 3 sec. after each response. Responding during even-numbered min. showed the usual pattern of positive acceleration; responding during odd-numbered min. was similarly graded, but rates were much lower. The response-rate-increasing effects of amobarbital were inversely related to control rates of responding for both even- and odd-numbered min. However, when the stimulus change during odd-numbered min. was either keylight color or a change from a darkened to a brightly illuminated chamber, increases in responding were considerably less than predicted on the basis of the effects on responding during even-numbered min. When the stimulus change was from a darkened to a dimly illuminated chamber, control rates of responding changed little, but increases in responding during odd-numbered min. after amobarbital were considerably greater, and of the approximate order expected on the basis of control rate.—*Journal abstract.*

1968. McMillan, D. E. & Campbell, R. J. (U. North Carolina, Medical School) **Effects of d-amphetamine and chlorthalidone on spaced responding in pigeons.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 177-184.—Studied the effects of d-amphetamine and chlorthalidone in 6 male white Carneaux pigeons on performance (a) under a schedule that reinforced responses on a key (food key) if they were more than 20 sec. apart, (b) under the same schedule when responses also were required on a collateral key during the interresponse time (IRT) on the food key, and (c) under the same schedule when responses were required on a collateral key during the IRT on the food key and collateral-key responses could produce a stimulus correlated with the availability of food. Under all 3 space-responding schedules, d-amphetamine and chlorthalidone at low dose levels slightly increased the frequency of short IRTs on the food key for about $\frac{1}{2}$ the Ss, and either did not affect the IRT patterns of the other Ss or lengthened the durations slightly. At higher dose levels, d-amphetamine and chlorthalidone increased the frequency of long IRTs or abolished responding in all Ss. Changes in the pattern of IRTs on the food key did not seem to depend on changes in the rate or pattern of collateral-key responses.—*Journal abstract.*

1969. Melville, K. I. & Johnson, M. C. (McGill U., Montreal, Quebec, Canada) **Cerebrospinal fluid electrolyte changes during lateral ventricular perfusion with noradrenaline and associated cardiovascular responses.** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 79-95.—Studied changes of the concentration of elec-

trolytes (Na^+ , K^+ , Ca^{2+} , and Mg^{2+}) in cerebral spinal fluid (CSF), blood pressure, and heart rate elicited by 60-min perfusion of the lateral ventricle in vagotomized cats under chloralose anesthesia. Perfusion with artificial CSF neither changed the electrolytes of CSF nor the blood pressure and the heart rate. Perfusions with artificial CSF containing noradrenaline (.08–8 $\mu\text{g}/\text{ml}$) decreased Na^+ concentrations in the CSF and elicited hypotension, without changing the heart rate. Perfusions with high doses of noradrenaline (80–160 $\mu\text{g}/\text{ml}$) increased K^+ concentrations in the CSF and elicited hypertension and tachycardia. With prolonged perfusions tolerance or tachyphylaxis developed to these responses to noradrenaline. Intraventricular pretreatment with the tranquilizers or antidepressants—reserpine, tranlycypromine, chlorpromazine, and imipramine increased K^+ and Mg^{2+} concentrations in the CSF; Ca^{2+} concentrations were also increased by chlorpromazine and imipramine, but Na^+ concentrations were not affected. After reserpine or tranlycypromine pretreatment, the increase of K^+ concentrations, the hypertension and tachycardia induced by noradrenaline were antagonized to variable degrees. After chlorpromazine or imipramine pretreatment, noradrenaline still induced hypertension and tachycardia associated with no further change in K^+ , but decrease in Mg^{2+} concentration. It is postulated that: (a) centrally-mediated cardiovascular responses induced by intraventricular noradrenaline involve changes in CSF and possibly in brain Na^+ and/or K^+ , and (b) that reserpine, tranlycypromine, chlorpromazine, and imipramine appear to induce significant shifts in brain Mg^{2+} and Ca^{2+} concentrations which might explain some actions of these drugs on the CNS. (32 ref.)—*Journal abstract.*

1970. Merritt, James H. & Medina, Miguel A. (USAF School of Aerospace Medicine, Brooks Air Force Base, Tex.) **Altitude-induced alterations in drug action and metabolism.** *Life Sciences*, 1968(Nov), Vol. 7(21, Pt. 1), 1163-1169.—Found that male C57 strain mice maintained at 18,000 ft. for 5 days and then injected with 125 mg. hexobarbital/kg had decreased sleeping time, smaller concentrations of brain hexobarbital 50 min. after injection, and increased liver microsomal metabolism of the drug compared to ground level controls. Under the same conditions, brain levels of hexobarbital in awakening Ss was the same for both groups. The significance of these observations is discussed in relation to changes in drug action at altitude. (15 ref.)—*Journal summary.*

1971. Nachman, Marvin. (U. California, Riverside) **Learned taste and temperature aversions due to lithium chloride sickness after temporal delays.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 22-30.—78 Sprague-Dawley rats, reared on water, were given saccharin and then made sick with a single lithium chloride (LiCl) injection after various intervals. Similarly, Ss reared on saccharin were made sick with LiCl at various times after drinking water. In both conditions, Ss learned to avoid drinking the fluid which preceded sickness and the amount of aversion was a function of the sickness delay time. Similar tests with 43° C water as the CS also produced learned aversions, but the longest effective sickness delay time with the temperature cue was less than 1 hr. compared to several hr. with the taste cues. In Exp. III, Ss, experienced with water and saccharin, learned

specifically to avoid the fluid which they had drunk preceding their sickness, even with sickness delay times of several hr.—*Journal abstract.*

1972. Panov, P. A. (Kirov Military-Medical Academy, Leningrad, USSR) **Elektroéntsefalograficheski analiz éksperimental'nogo psikhoha, vyzvannogo ditranom.** [Electroencephalographic analysis of experimental psychosis brought on by ditran.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970, Vol. 70(2), 261-264.—10 cats with implanted electrodes were used to study (a) the action of a threshold dose of ditran on background EEGs of the various structures of the brain, taking into account their variability and character of adaptation to prolonged photostimulation, and, in connection with this, (b) amplitude of evoked potentials as a function of intensity of light flash, and (c) the influence of acoustic stimulation on the adapted cortical evoked responses. The decline of the rhythmic character of the potentials in the visual cortex, which is connected with the considerable fluctuations of the excitatory cycles, the enhanced variability of evoked potentials, the absence of adequate cortical reaction to photostimulation of various brightness, and also the disturbance of the interrelations of the visual and auditory analyzers may lie at the basis of the loss of goal-directed behavior, recognized here as experimental psychosis. (English summary)—*I. D. London.*

1973. Pavlova, I. I. & Khaikina, B. I. (All-Union Research Inst. of the Hygiene & Toxicology of Pesticides, Polymers, & Plastics, Kiev, USSR) **Osobennosti raspredeleniya nikotinamidnykh kofermontov (NAD i NADF) v kletochnykh strukturakh pecheni i mozga pri vvedenii DDT.** [Features characterizing the distribution of the nicotinamide coenzymes (NAD and NADP) in the hepatic and cerebral cellular structures following DDT administration.] *Byulleten' Éksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 47-50.—DDT administration over a period of time led to a uniform decline in the level of the nicotinamidadenine nucleotides (NAD and NADP) in the cellular structures of the rat brain.—*I. D. London.*

1974. Potts, Walter J. (Purdue U.) **An investigation of drug effects on learning and memory in rats.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5721.

1975. Powell, Barbara J. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **The role of d-amphetamine-amobarbital in suppressing freezing behavior during avoidance acquisition and extinction.** *Psychological Record*, 1970(Win), Vol. 20(1), 101-105.—Investigates the effects of a combined dosage of d-amphetamine sulfate and amobarbital sodium on the freezing behavior of 40 naive male Wistar rats during avoidance acquisition and suppressed freezing; however, withdrawal of 1 or both drugs during extinction resulted in differential performance, suggesting that drug effects were state-dependent. (16 ref.)—*Journal abstract.*

1976. Puzik, V. I., Berdyeva, A. T., & Dyukanova, M. Ya. (Central Research Inst. of Tuberculosis, Moscow, USSR) **Aktivnost' suksinatdehidrogenazy v organakh belykh kryss pri intoksikatsii yadom gyurzy.** [Activity of succinate dehydrogenase in the organs of white rats with intoxication by snake venom.] *Byulleten' Éksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 93-94.—In lethal doses of the venom, the activity of succinate dehydrogenase was at all times somewhat

higher in brain tissue than was true for controls.—*I. D. London.*

1977. Richter, Judith A. & Goldstein, Avram. (Stanford U., Medical School) **The effects of morphine-like compounds on the light response of the brine shrimp *artemia salina*.** *Psychopharmacologia*, 1970, Vol. 17(4), 327-337.—Describes methods for measuring light responses of *Artemia nauplii* and adults. Levorphanol inhibited and partially reversed the negative phototaxis of adults. Levorphanol was also effective in adults after removal of the compound eyes, indicating that it acts on the median eye or its central connections. Methadone and dextrorphan caused similar effects in adults, but morphine was inactive. Pentobarbital inhibited the negative movement but induced little positive phototaxis. Attempts to reverse the effect of levorphanol with nalorphine pretreatment were unsuccessful. Tolerance to levorphanol could not be developed; shrimp died of the increasing effect of the drug with time.—*Journal abstract.*

1978. Rogers, K. J. & Thornton, J. A. (U. Sheffield, England) **The interaction between monoamine oxidase inhibitors and narcotic analgesics in mice.** *British Journal of Pharmacology*, 1969(Jul), Vol. 36(3), 470-480.—Administration of either iproniazid or tranlylcypromine to male albino mice potentiated the acute toxicity of pethidine, morphine, pentazocine, and phenazocine. Blood levels of pentazocine in Ss pretreated with tranlylcypromine did not differ from levels in Ss not receiving the MAO inhibitor. There was no correlation between changes in brain and liver MAO activity and increased pethidine toxicity. A comparison was made between the change in pethidine toxicity and the changes in the concentration of cerebral noradrenaline, dopamine, and 5-hydroxytryptamine following tranlylcypromine injection. It is concluded that the increased toxicity of potent analgesics in combination with MAO inhibitors is not due to a decelerated metabolism of the analgesic drug, but is related to an increased concentration of cerebral 5-hydroxytryptamine. A critical level of this monoamine, in the brain, may be necessary before the drug interaction will take place. (32 ref.)—*Journal abstract.*

1979. Sanghvi, I., Bindler, E., & Gershon, S. (New York U., Medical School) **The evaluation of a new animal method for the prediction of clinical antidepressant activity.** *Life Sciences*, 1969(Jan), Vol. 8(1, Pt. 1), 99-106.—Evaluated a new animal method to predict clinically useful antidepressant agents. The test relies on the potentiating effects of antidepressants on the behavioral and physiological changes induced by yohimbine (YOH) in the conscious dog. 2 agents, N-acetylnyl-N, N-dimethyl benzoammonium chloride and 4-phenyl bicyclo (2,2,2) octan-1-amine hydrochloride monohydrate, which were predicted to be useful antidepressant agents from the animal tests, failed to potentiate YOH induced changes, unlike imipramine. Clinically they were found to lack any antidepressant activity. It is proposed that this test should be further evaluated employing established and potential antidepressant agents.—*Journal abstract.*

1980. Schneider, C. (Parke, Davis, & Co., Hounslow, England) **Behavioural effects of some morphine antagonists and hallucinogens in the rat.** *Nature*, 1968(Nov), Vol. 220(5167), 586-587.—Investigated the behavioral effects of 11 morphine antagonists and hallucinogens 20 min. after subcutaneous administration

in a dose volume of 10 ml/kg body weight to groups of Wistar rats. Bizarre behavior (i.e., walking backwards, turning head more than 20 times/min, etc.) resulted from cyclazocine, levallorphan, amphetamine, phencyclidine, and psilocybin. LSD (3-20 mg/kg) produced bizarre behavior in only 20% of the Ss, but it produced fighting behavior at doses of 5 mg/kg. It is concluded that behavioral effects caused by hallucinogenic drugs are consistent with those which have been reported in humans.—P. Shibelski.

1981. Sethy, Vimala H., Pradhan, Ratan J., Mandrekar, S. S., & Sheth, U. K. (Seth G. S. Medical Coll., Bombay, India) **Role of brain amines in the analgesic action of meperidine hydrochloride.** *Psychopharmacologia*, 1970, Vol. 17(4), 320-326.—The effective dose (ED) 50 of meperidine was significantly increased by all methods when male albino Haffkine mice were pretreated with reserpine. α -methyl-m-tyrosine significantly increased the ED 50 of meperidine by the clip method. P-chlorophenylamine pretreatment significantly increased the ED 50 of meperidine by the clip and shock methods. (23 ref.)—*Journal abstract.*

1982. Shtil'bins, V. I. (Kirov Military-Medical Academy, Leningrad, USSR) **Vliyaniye amizyla i ganglerona na embriogenez kur.** [Influence of amizyl and gangleron on chicken embryogenesis.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 106-109.—980 8-day-old chicken embryos were used to study the influence of the M-cholinolytic, amizyl (benactyzine), and the N-cholinolytic, gangleron, on the development of chicken embryos. The teratological effects are detailed.—I. D. London.

1983. Suchkov, V. V. (Inst. of Therapy, Moscow, USSR) **Vliyaniye angiotenzina II na mozgovo krovobrashchenie.** [Influence of angiotensin II on cerebral circulation.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 203-209.—19 dogs under urethane-chloralose narcosis and 4 rabbits under urethane narcosis (both groups with almost total humoral isolation of the brain) were used to study cerebral circulation, oxygen tension (pO_2), and redox potential in the reticular formation of the brainstem under the influence of iv administered .5 microgm/kg angiotensin II (hypertensin II). Despite a brief increase in systemic arterial pressure and cerebral blood flow, the resistance of the cerebral vessels increased significantly and redox dropped despite an increase in pO_2 . These effects were increased if the normal functions of the baroreceptors of the carotid sinus were disturbed. The application of atropine, aminazine (chlorpromazine), the perfusion of the brain under constant pressure modified the complex neurohumoral action of angiotensin II on the cerebral vessels. (English summary) (34 ref.)—I. D. London.

1984. Vaf'dman, A. V. & Kozlovskaya, M. M. (1st Leningrad Medical Inst., USSR) **Eksperimental'noe izucheniye trunkvillizuyushchego i antidepressivnogo deystviya tsentral'nykh kholinolitkov.** [Experimental study of the tranquilizing and antidepressant action of central cholinolytics.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 51-56.—32 rabbits, with electrodes implanted in the posterior parts of the hypothalamus, medial and lateral parts of the septal region, were used to study: (a) the tranquilizing and antidepressant action of a number of central cholinolytics (metamizyl, amizyl, scopalamine) in states of emotional excitation and depression, elicited through stimulation, respectively, of the hypothalamic periventricular nuclei and the medial parts of the septum; and (b) the

connection of the foregoing action with changes in intracental (septo-hypothalamic and intraseptal) regulatory interrelationships. In small doses the central cholinolytics: (a) displayed a tranquilizing action, in that the emotional state in aggressive-defensive behavior was suppressed; (b) disrupted intraseptal relationships, in that the effects of stimulation of the lateral parts of the septum are blocked; and (c) promoted the appearance of inhibitory influences from the medial parts of the septum. In large doses, the central cholinolytics suppressed the inhibitory influences of the septum, which fact may have something to do with their antidepressant action.—I. D. London.

1985. Varagić, V. M. & Kažić, T. (Medical Faculty, Belgrade, Yugoslavia) **The acute effect of 6-hydroxydopamine on the blood pressure responses to eserine and tyramine in the rat.** *Neuropharmacology*, 1970(Mar), Vol. 9(2), 97-102.—In low doses (1-10 mg/kg) 6-hydroxydopamine (6-OH-DA) produced a dose-dependent blood pressure rise. Higher doses (15 mg/kg) produced a blood pressure rise of smaller degree, but of longer duration and accompanied by a significant and long-lasting tachycardia. Responses were depressed in reserpine (tranquilizer) treated animals. Tachyphylaxis to 6-OH-DA developed very quickly after a dose level of 15-20 mg/kg was reached by repeated injections. Depending on the dose, 6-OH-DA produced either a slow developing block of the hypertensive effect of eserine, or an immediate abolition of the eserine response. The same doses also produced a complete block of the hypertensive responses both to tyramine and to small doses of 6-OH-DA. These effects of 6-OH-DA are due to either a rapid depletion of readily available noradrenaline stores in the adrenergic nerve endings, or to a rapid damage of the adrenergic nerve terminals. Results are compatible with the assumption that eserine produces a general sympathetic activation in the rat.—*Journal abstract.*

1986. Vedernikov, Y. P. (Inst. of Plant & Animal Ecology, Sverdlovsk, USSR) **The influence of single and chronic morphine administration on some central effects of amphetamine and apomorphine.** *Psychopharmacologia*, 1970, Vol. 17(4), 283-288.—Acute toxicity of morphine did not differ in aggregated and nonaggregated mice. Morphine in doses of 5, 10, 20, 40, 80 mg/kg did not influence amphetamine group toxicity. Injections of morphine increased the occurrence of amphetamine stereotypy and prolonged the duration of stereotypy caused by amphetamine and apomorphine in intact rats, but failed to prolong the duration of the stereotypy in rats tolerant to morphine.—*Journal abstract.*

1987. Villablanca, J. & Riobó, F. (U. Chile, Santiago) **Electroencephalographic and behavioral effects of harmaline in intact cats and in cats with chronic mesencephalic transection.** *Psychopharmacologia*, 1970, Vol. 17(4), 302-313.—Studied 4 chronically implanted freely moving intact cats, 5 chronic cats with complete mesencephalic transection, and 6 flaxedil immobilized cats for EEG and behavioral effects of threshold doses of harmaline (2-3 mg/kg). The drug induced motor activation, tonic postural and gait abnormalities, tumor, abnormal facial expression, crying, and neuro vegetative phenomena in intact and decerebrate cats. The drug induced intermittent or continuous hypersynchrony, most predominant over visual areas. (17 ref.)—P. Federman.

1988. Webster, W. R. (Monash U., Neuropsychology

Lab., Clayton, Victoria, Australia) **Auditory habituation and barbiturate-induced neural activity.** *Science*, 1969(May), Vol. 164(3882), 970-971.—The finding that barbiturates abolish habituation decrements in auditory evoked potentials has been interpreted as being caused by removal of the influence of the reticular formation. In 2 experiments with 5 cats, it was found that similar changes in the medial geniculate are produced by barbiturates without any intervening habituation, suggesting that refractory processes have been confused with habituation. (20 ref.)—*Journal abstract*.

1989. Whitney, Glayde D., Craig, Daniel J., Hanly, W. Carey, & Batson, Paul Y. (Holloman Air Force Base, 6571st Aeromedical Research Lab., Alamogordo, N.M.) **Effect of injected pargyline upon operant avoidance in the monkey.** *USAF ARL Technical Report*, 1969(Oct), No. 69-12, 14 p.—Examines the possible use of pargyline-HCl as a possible therapeutic agent in the treatment of decaborane intoxication. Each of 5 monkeys was given a single ip injection of buffered suspension of pargyline, the dosage being equivalent to 45 mg. pargyline-HCl/kg of body weight. Ss' behavior was evaluated for 4 days following injection on a concurrent free-operant avoidance schedule with 2 superimposed discriminated avoidance tasks. Pargyline exposure resulted in a significant ($p < .02$) reduction in response rate on the free-operant avoidance schedule, and a decrease in response latency ($p < .01$) on a discriminated avoidance task with a visual cue. On a discriminated avoidance task with an auditory cue, Ss displayed a reduction in response latency, but the effect did not reach the .05 level of significance. In no cases were pargyline-induced changes in behavior of sufficient magnitude to affect the efficiency of shock avoidance. It is concluded that the effect of pargyline on these behaviors is quantitatively slight in comparison to the effects of decaborane recorded in the literature, and that behavioral disruption from pargyline itself need not be the major consideration in decisions relevant to its therapeutic use for decaborane induced behavioral intoxication. (17 ref.)—*Journal abstract*.

1990. Wilson, W. S. (Yale U., Medical School) **The effects of phenobarbitone, leptazol, dexamphetamine, Iproniazid, Imipramine, LSD, chlorpromazine, reserpine and hydroxyzine on the in vivo levels of adenine nucleotides and phosphocreatine in the rat brain.** *British Journal of Pharmacology*, 1969(Jul), Vol. 36(3), 448-457.—Used enzymic and ion-exchange chromatographic analyses to measure adenosine triphosphate (ATP), diphosphate (ADP), and monophosphate (AMP) in brain extracts from male Wistar rats treated with a wide range of centrally acting drugs. Phosphocreatine (PC) was assayed by the acid molybdate method. An anesthetic dose of phenobarbitone caused an increase in brain levels of ATP and PC, and a reduction in ADP and AMP. A convulsant dose of leptazol gave rise to opposite effects. Subanesthetic (hypnotic) and subconvulsive doses of the 2 drugs, respectively, produced no alterations in brain nucleotide levels. Dexamphetamine, LSD, and hydroxyzine caused no changes in brain levels of the adenine nucleotides. Iproniazid and imipramine caused slight increases in the ATP level and ATP/ADP ratio, respectively. Chlorpromazine failed to give rise to any effect in the nucleotides 3 hr. after administration, but produced a rise in brain ATP after 6 hr. Reserpine caused a fall in the ATP/ADP ratio 6 hr. after injection. Results indicate that some psychotropic drugs cause small changes in the brain ATP/ADP ratio but do not

support claims that such changes correlate closely with the behavioral effects of these drugs. (38 ref.)—*Journal abstract*.

1991. Winters, Wallace D., et al. (U. California, Medical School, Los Angeles) **Reticular multiple unit activity during a progression of states induced by CNS excitants: III. Electroencephalography & Clinical Neurophysiology**, 1969(Nov), Vol. 27(5), 514-522.—Recorded the EEG, gross behavior, and multiple unit activity during the continuous progression of states induced by amphetamine (d-, and meth-), LSD-25, mescaline, gamma-hydroxybutyrate, pentylenetetrazol, or phencyclidine. The drugs appear to fall within a pattern of progressively increasing excitatory states. The least active agents induce only the initial phase. The more potent agents transcend these initial phases and induce generalized seizures. The reticular multiple unit activity increased slightly during the initial 2 phases; then following gamma-hydroxybutyrate the basal level fell progressively while the fluctuation rose markedly, whereas following pentylenetetrazol the multiple unit activity progressively increased. During the generalized seizures the unit activity was markedly elevated in both of these groups; then the unit activity fell during the brief period of postictal depression followed by a return of each drug group to the unit activity levels noted during the pre seizure state. (French summary) (19 ref.)—*Journal summary*.

CARDIOVASCULAR PROCESSES

1992. Bol'shov, V. M. & Smirnov, V. I. **Ustroistvo dlya beskontaktnoi registratsii vennogo pul'sa.** [Apparatus for registration of venous pulse without mechanical contact.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 65-66.—Describes the basic design and principle of action of the apparatus, which utilizes the volume principle for recording the oscillations of the venous walls.—I. D. London.

1993. Filatov, A. I., Pashkovskii, E. V., & Tsybul'yak, G. N. (Kirov Military-Medical Academy, Leningrad, USSR) **Ob izmeneniyakh mikrotsirkulyatsii v golovnom mozgu pri ostroi krovopote i dlitel'noi gipotenzii.** [On changes in cerebral microcirculation in acute blood loss and prolonged hypotension.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 20-23.—31 dogs were used in a morphological, physiological, and biochemical study. Under these conditions the pial arteries dilated, with relative degree of dilatation a function of arterial width. The dilatation of the pial arteries failed to compensate for the disorders of cerebral circulation, as seen in the marked disturbances of carbohydrate metabolism which ensued and in the slowing down of EEG rhythm—effects which did not disappear even after adequate repletion of blood loss and restoration of the morphological picture of microcirculation.—I. D. London.

1994. Gordienko, N. T., Zorin, A. B., Masterkova, N. A., & Verseneva, N. I. **Vnutriserdechnyi mikrofon v diagnostike zabolovaniy serdtsa i krupnykh sosudov.** [Intracardiac microphone in the diagnosis of diseases of the heart and major vessels.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 250-254.—Describes a device for intracardiac phonocardiography.—I. D. London.

1995. Il'inskiĭ, I. A. **Kombinirovannyĭ kateter dlya**

izmereniya pO_2 i odnovermennogo vzyatiya prob krovii. [Combined catheter for measurement of pO_2 and simultaneous taking of blood tests.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 254-256.—Describes a device that can be used for any major blood vessel and can supply continuous measurement of pO_2 by polarographic means.—I. D. London.

1996. Kazar'yan, L. A. **Pribor dlya avtomaticheskogo izmereniya arterial'nogo davleniya**. [Device for automatic measurement of arterial pressure.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 80-85.—Describes a device based on a new principle which makes it possible to function without the use of electric energy. Liquid CO_2 was used as compressive agent.—I. D. London.

1997. Krestovniko, A. A. & Ponomarev, V. A. **Portativnyi summator pul'sa dlya srochnoi informatsii o sostoyanii serdечно-sosudistoi sistemy pri sportivnoi trenirovke**. [Portable pulse summator for quick information on the state of the cardiovascular system in athletic training.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 73-75.—Presents a description of the apparatus.—I. D. London.

1998. Krynskiĭ, O. M. & Tisenko, N. G. **Portativnyi chuvstvitel'nyi datchik dlya registratsii kinetokardiogram peremeshcheniya**. [Portable sensitive device for recording kinetocardiographic displacement.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 39-42.—Presents a theory for the construction of the device, and confirmation of its utility.—I. D. London.

1999. Lomazova, Kh. D. (Research Inst. of Age-Specific Physiology & Physical Education, Moscow, USSR) **Reflektornaya afibrinogenemiya**. [Reflex afibrinogenemia.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 16-19.—Ss were 48 urethanized rabbits with hemodynamically isolated carotid sinus with intact innervation. Heparin perfusion of the prepared carotid sinus led to a delay in blood coagulation, a sharp fall in fibrinogen level, and a rise in that of blood heparin. The reflex character of the changes which occurred are demonstrated. The data provide evidence that changes in the properties of fibrinogen under the influence of endogenic heparin are behind the appearance of reflex hypo- and afibrinogenemia.—I. D. London.

2000. Lubĕ, V. M., Safonov, Yu. D., Provotorov, V. M., & Yakimenkov, L. I. **Magnitokardiografiya—novyi metod issledovaniya i diagnostiki zabolevaniĭ serdtsa**. [Magnetocardiography: A new method for the investigation and diagnosis of heart diseases.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 45-48.—Presents a historical survey of research on biomagnetic fields, in particular, the cardiac biomagnetic field, and describes the principle underlying the detection of the latter.—I. D. London.

2001. Seleznev, S. A. & Khrabrova, O. P. **O vozmozhnosti montazha nekotorykh datchikov na baze nestandartnykh poliĕtilenovykh kateterov, primenyaemykh dlya ostroi i khronicheskoi kateterizatsii sosudov**. [On the possibilities of installing several devices for presenting information by utilizing non-standard polyethylene catheters, applied for acute and

chronic vascular catheterization.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 256-258.—Shows that such catheters can serve as a basis for setting up a number of devices for presenting information.—I. D. London.

2002. Valtneris, A. D. & Ledus, V. A. **O vozmozhnostyakh primeneniya reografii v eksperimente i v klinike**. [On the possibilities of applying rheoencephalography in experimentation and in the clinic.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 247-249.—Examines the results of applying rheoencephalography in medical experimental situations.—I. D. London.

2003. Valuzhis, K. K., Sal'minis, A. M., & Shilinskaite, Z. I. **Differentsiator**. [Differentiator.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 75-77.—Describes the basic design of a device to procure the 1st derivative of cardiac biopotentials.—I. D. London.

2004. Valuzhis, K. K. & Zhemaite, D. I. **Periodometr**. [The periodometer.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 67-69.—Describes the design of a device for determining cardiac rhythm through measurement of the time intervals between major EKG deflections.—I. D. London.

2005. Yarullin, Kh. Kh. **Vozmozhnosti regionalnoi reoentsefalografii dlya vyyavleniya lokal'nykh izmenenii krovoobrashcheniya mozga**. [Possibilities of regional rheoencephalography for disclosure of local changes in cerebral circulation.] In V. V. Parin (Ed.), *Sovremennye pribory i tekhnika fiziologicheskogo eksperimenta*. (See PA, Vol. 45:Issue 2) 240-247.—Examines methods of recording rheoencephalograms (REGs), and the results of studies utilizing synchronous recording of REGs from 4 areas of the head. Data of REG and angiography are compared.—I. D. London.

ENVIRONMENT & STRESS

2006. Agadzhanian, N. A., Voronin, L. G., & Goroyan, G. P. (Moscow State U., USSR) **Vliyaniye rezkikh stepenei kislorodnogo golodaniya na skorost' vosstanovleniya tsepnnykh dvigatel'nykh uslovnykh reflektsov**. [Influence of sharp degrees of oxygen hunger on speed of restoration of chain motor conditioned reflexes.] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 42-47.—Investigated, using 24 white rats, (a) speed of restoration of chain motor CRs after the action of different degrees of hypoxia, and (b) relationship between rate of development of O_2 insufficiency and degree of disturbance of the "complex analytico-synthetic activity of the cerebral cortex"—after "raising" the S in a barochamber to the height of 12,000 m (2, 25, and 150 m/sec), keeping the S at this height ("reserve-time"), and "raising" it to a critical height ("altitude-ceiling"). After being raised at great speeds (25 and 150 m/sec), a more prolonged period of inhibition of both CR and UCR reactions was observed, and the period of complete restoration of the complex system of motor CRs extended for 1, 2, and more days. Subjecting the Ss in the barochamber to high degrees of rarefaction was accompanied by a considerable disturbance of reactions to the inhibitory CS employed (flashing light). The number of adequate disinhibiting reactions dropped

after acute hypoxia by 2-3 times with simultaneous increase in the number of negative inadequate reactions. With increase in speed of decompression, the altitude ceiling was raised, while reserve time was reduced. The greatest disturbances after hypoxia were observed in the links of the chain that were maximally remote from the UCR—a fact which is taken as evidence for the disturbances of, above all, "the analytico-synthetic activity of the cerebral cortex."—*I. D. London.*

2007. Aleksandrovskaya, M. M. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Morfologicheskie korrelyaty funktsional'nykh sdvigo v tsentral'noi nervnoi sisteme porezul'tatom obsledovaniya gl'io-neironal'nykh sootnoshenii.** [Morphological correlates of functional changes in the central nervous system according to the findings of research into glioneuronal relationships.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 156-161.—Employed mice both subjected and not subjected to the action of an ultra-high-frequency electromagnetic field to determine the reasons for the activation of neuroglial cells (the astrocytes) after exposure to "weak nonspecific altering agents," without the initiation of a pathological process in the brain, most neurons remaining intact. Following exposure to an ultra-high-frequency field, an intensification of the inhibitory processes was observed with depression of CRs and acceleration of their extinction. A few neurons were found to suffer reversible changes in the form of swelling and hyperchromatosis. Astrocytic reaction to such exposure, however, was pronounced and was indicative of functional changes in the CNS. "The reactions observed in the neuroglia and in the glioneuronal relationships in the brain are a manifestation of a single nonspecific reaction bearing an adaptive character." Activation of the astrocytes is an expression of nonspecific reactions in the brain in the presence of induced inhibitory states and may be viewed as a correlate of "protective-defensive inhibition."—*I. D. London.*

2008. Delini-Stula, Alexandra. (Research Lab. of J. R. Geigy S. A., Basel, Switzerland) **The development and the extinction of hyperthermia induced by conditioned avoidance behavior in rats.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 213-218.—Observed hyperthermia at the end of each conditioning session in 15 male albino Wistar rats trained to avoid electric shocks by jumping on a platform. The temperature rise was also observed after the conditioned behavioral response was well established and was elicited even in the absence of shocks. There was no tendency for the hyperthermia to diminish over the course of 9 extinction sessions. (15 ref.)—*Journal abstract.*

2009. Gagoshidze, N. Sh., et al. (State U., Tbilisi, USSR) **Vliyaniye peremennogo magnitnogo polya nizkoi chastoty na vyrabotku elektroboronitel'nykh uslovnykh refleksov u belykh kry.** [Influence of an alternating low-frequency magnetic field on elaboration of electrode defensive conditioned reflexes in white rats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 172-173.—10 Ss were exposed to the action of an alternating low-frequency magnetic field immediately before the CR experiment; 9 served as controls without such exposure. Under the influence of such a field, elaboration of an electrode defensive CR to light was accelerated.—*I. D. London.*

2010. Maidanova, N. V. (Medical Inst., Zaporozhsk,

USSR) **Aktivnost' transketolazy pecheni i eritrotsitov krysa pri vozdeistvii zvuka.** [Hepatic and erythrocytic transketolase activity in rats under the action of sound.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 47-49.—113 Ss were subjected for different periods of time (1/2, 1, 2, 5 hr.; 2, 5, 38, 90, and 130 days, 5 hr. daily) to the action of sound (94-96 db., 2000 cps). Hepatic transketolase activity declined progressively as the time of auditory stimulation lengthened from 1/2-2 hr. In the course of auditory stimulation over a 38-day period, the observed effect weakened. With more protracted stimulation (90, 130 days), the activity of the enzyme fell off by 2 and 4 times, respectively. Decline of erythrocytic transketolase activity was detected only after 130 days of auditory stimulation.—*I. D. London.*

2011. Maizelis, M. Ya., et al. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Vliyaniye trenirovki k vysotnoi gipoksii na intensivnost' sinteza belka v golovnom mozgu i rezistentnost' zhitovnykh k sudorozhnykh faktoram.** [Influence of training for inurement to high-altitudinal hypoxia on intensity of protein synthesis in the brain and on the resistance of animals to factors leading to convulsions.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(1), 28-30.—128 rats were used to study the influence of intermittent exposure to simulated high-altitudinal hypoxia (up to 40 days) on (a) protein synthesis (intensity of methionine-S³⁵ incorporation) and nucleic acid levels in the cerebral cortex, brainstem, and hypothalamus, and (b) the reaction of the Ss to the action of convulsive agents, e.g., 70 mg/kg corazol (pentylene tetrazol, audiogenic stimuli). During the process of inurement, protein synthesis was intensified, especially in the cerebral cortex, RNA level in the cortex rose, and the resistance of the Ss to the action of convulsive agents increased.—*I. D. London.*

2012. Mikhailova, L. V. & Byshevskii, A. Sh. (Medical Inst., Zaporozhsk, USSR) **Ugnetenie fiziologicheskoi protivovertyayushchei systemy pri dlitel'nom vozdeistvii zvuka.** [Inhibition of the physiological anticoagulatory system under the protracted action of sound.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(2), 28-32.—152 white rats were used to study the effect of sound (94-96 db., 2000 cps) for various periods of time (15 and 30 min.; 1, 2, and 5 hr.; 5 and 10 days, 5 hr. daily) on the coagulatory properties of the blood. It was shown that, 30 min. after the start of auditory stimulation, the coagulatory potential of the blood progressively increased. Subsequently, both after cessation of sound and with its continued application, a return to normality occurred, though an excessive activation of the fibrinolytic system was noted. Analogous phasic changes recurred after 2 days of application of sound. It is suggested that the observed inhibition of the anticoagulatory system, following long-term application of sound, results from its exhaustion due to its periodic activation in the course of the application of sound.—*I. D. London.*

2013. Ott, John. (Environmental Health & Light Research Inst., Sarasota, Fla.) **Responses of psychological and physiological functions to environmental radiation stress: II.** *Journal of Learning Disabilities*, 1968(Jun), Vol. 1(6), 348-354.—Examines the current research regarding the possibility of harmful radiation being emitted from TV sets, the tired child syndrome, and other aspects of man-made radiations.—*Journal abstract.*

GENETICS

2014. **Franck, Dierk.** (U. Hamburg, W. Germany) **Verhaltensgenetische Untersuchungen an Artbasarden der Gattung Xiphophorus (Pisces).** [Genetics of interspecific behavioral differences in Poeciliid fishes of the genus Xiphophorus.] *Zeitschrift für Tierpsychologie*, 1970(Feb), Vol. 27(1), 1-34.—The genus has 8 species. A complete record of the behavior potential of sexual and aggressive behavior pattern has been made; social isolation has been used with males. All F₁ hybrids displayed distinct behavior patterns of maternal and/or paternal origin. Sometimes an intermediate behavior manifestation occurred. A special analysis was made of *X. helleri* and *X. montezumae*. The behavior patterns "backing from behind" in *helleri* is inherited on a polygenic basis, the same is true for "sword-bending" in *montezumae* and most likely also for "frontal position" in *montezumae*. All 3 patterns are inherited independently. (46 ref.)—*K. E. Grossmann.*

2015. **Guthrie, R. D.** (U. Alaska) **Senescence as an adaptive trait.** *Perspectives in Biology & Medicine*, 1969(Win), Vol. 12(2), 313-324.—Proposes a model for the control of senescence by selection within a population. Opposing selection pressures acting to increase and to decrease its expression maintain a species-characteristic mode of expression of the trait. Disequilibrium of these pressures results in directional selection. Average longevity can be viewed as: (a) prereproductive life, (b) time between litters, and (c) number of litters. A balance of selection pressures within each category, as well as interactions among them, is postulated. (24 ref.)—*J. Crabbe.*

2016. **McKusick, Victor A.** (Johns Hopkins U., Medical School) **On lumpers and splitters, or the nosology of genetic disease.** *Perspectives in Biology & Medicine*, 1969(Win), Vol. 12(2), 298-312.—Presents a theoretical discussion of pleiotropism and genetic heterogeneity as the 2 principles underlying classification. Methods for distinguishing between the 2 are discussed; practical difficulty is emphasized. Numerical tabulation of known Mendelian traits by mode of inheritance is presented for man and mouse. (40 ref.)—*J. Crabbe.*

2017. **Record, R. G., McKeown, Thomas, & Edwards, J. H.** (U. Birmingham, England) **An investigation of the difference in measured intelligence between twins and single births.** *Annals of Human Genetics*, 1970(Jul), Vol. 34(1), 11-20.—Mean verbal reasoning scores recorded in the 11+ examination for Birmingham, England, multiple births between 1950-1957 were 95.7 for 2164 twins and 91.6 for 33 triplets. The mean for 48,913 single children born between 1950-1954 was 100.1. The low scores of twins are not explained by differences from single births in their distributions by maternal age and birth order or by birth weight and duration of gestation. They are also not accounted for by the increased risks associated with monozygosity (assessed by comparison of like- and unlike-sex twins) or with delivery of the 2nd twin. Taken together, these observations, like the previous ones on single births, suggest that variation in experience before and during birth has little influence on measured intelligence and that the explanation of the large difference between twins and single children must be sought in the postnatal environment. There were 148 twins whose co-twins were stillborn or died within 4 wk. after birth; their mean score was 98.8, only a little lower than that of single

births (99.5) standardized to the maternal age and birth rank distribution of twins. From this evidence it is concluded that the handicapping of twins, reflected in their low verbal reasoning scores, is due to postnatal rather than prenatal influences. Conclusions are based only on those children who took the 11+ examinations. (16 ref.)—*S. G. Vandenberg.*

2018. **Smith, Charles.** (U. Edinburgh, Scotland) **Heritability of liability and concordance in monozygous twins.** *Annals of Human Genetics*, 1970(Jul), Vol. 34(1), 85-91.—Results from Falconer's heritability of liability model were revised, eliminating 2 sources of bias. The results are graphed for convenient usage, and in the absence of environmental similarities among relatives can apply to all kinds of relatives. Confidence levels for the heritability (or correlation) estimates can also be read directly off the graph. The results also apply to concordance rates in monozygotic (MZ) twins. They show that, in the absence of environmental similarities, concordance rates for a disease in MZ twins will only be high if the heritability is very high. Thus, a low concordance rate in MZ twins cannot be taken to prove that genetic factors are not important in the predisposition to a disease.—*S. G. Vandenberg.*

2019. **Weyl, Nathaniel.** (4201 S. Ocean Blvd., Delray Beach, Fla.) **Some possible genetic implications of Carthaginian child sacrifice.** *Perspectives in Biology & Medicine*, 1968(Fal), Vol. 12(1), 69-78.—Sacrifices were largely of 1st-born children of the ruling classes. Hence, to the extent that 1st-born intellectual superiority is genetically determined, the Punic gene pool would have been impoverished. Briefly discussed is the literature relevant to 1st-born superiority and that regarding assessment of relative weights of genetic and environmental contributions to intelligence. (16 ref.)—*J. Crabbe.*

PERSONALITY CORRELATES

2020. **Balástiková, Blanka.** **Genetické aspekty aspiračních reakcí.** [Genetic aspects of aspiration responses.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(1), 15-20.—Studied the effect of constitutional factors on the level of aspiration of 62 pairs of twins (median age, 8.11) in an achievement experiment in which Ss built towers with blocks. Ss included 29 pairs of monozygotic twins and 11 pairs of dizygotic twins of different sexes. The measure of correspondence between the twins was determined by computing correlation coefficients. Findings show a greater similarity of goal discrepancy in identical twins than in fraternal twins, suggesting a certain influence of determiners in the level of aspiration. (Russian summary)—*English summary.*

2021. **Giannitrapani, Duilio.** (Michael Reese Hosp., Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **EEG average frequency and intelligence.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 480-486.—An investigation of the relationship between the average frequency of the EEG and WAIS scores indicated a strong relationship between IQ and average frequency asymmetries in left and right homologous areas. Ss were 18 volunteers, aged 21-45. The correlations were higher in the posterior areas and for Performance IQ. A composite score of all EEG areas tested showed for the thinking condition a Spearman rho with Verbal IQ of .59, with Performance IQ of .78, and with Full IQ of .72. Alpha

index correlations were also higher during the thinking conditions and Performance IQ. (French summary) (28 ref.)—*Journal summary*.

2022. Koelega, Henry S. (U. Utrecht, Psychological Lab., Netherlands) **Extraversion, sex, arousal and olfactory sensitivity.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 51-66.—In a group experiment on olfactory sensitivity a hypothesis derived from a theory by Eysenck, predicting that introverts manifest a higher sensitivity than extraverts, and a hypothesis offered by D. M. Broverman, E. L. Klaiber, Y. Kobayashi, and W. Vogel, predicting that females are more sensitive than males, were tested. Results did not support Eysenck's hypothesis; introvert males appeared to be less sensitive than the other 3 subgroups, whereas Broverman's hypothesis was only slightly supported. In Exp. II with individual testing both male and female extraverts were more sensitive than the introverts. It is suggested that differences between extraverts and introverts with respect to diurnal variations in arousal might have caused these unexpected findings. However, Exp. III did not corroborate this suggestion; introvert males again showed a poor olfactory capacity; females manifested a greater olfactory acuity than males, especially in the morning. (31 ref.)—*Journal abstract*.

2023. Vanderpool, John P. & Barrat, Ernest S. (505 Guinevere Dr., San Antonio, Tex.) **Empathy: Towards a psychophysiological definition.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 464-467.—14 psychiatric residents listened to taped patient interviews while their responses were recorded. Empathy scores were determined by comparing S's answers to the Emotions Profile Index and Allport-Vernon-Lindzey Scale of Values with the patient's answers to these tests. S's who showed low heart rate acceleration, greater initial skin response to the interview, and higher basal skin resistance did best on the empathy scores. Results strongly suggest that there are physiological correlations to desirable psychotherapist traits, i.e., empathy, genuineness, and warmth. (17 ref.)—*Journal summary*.

NUTRITION & GASTROINTESTINAL PROCESSES

2024. Mayer, Jean. (Harvard U., Center for Population Studies) **Some aspects of the problem of regulating food intake and obesity.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 255-334.

ANIMAL PSYCHOLOGY

2025. Iwao, S. & Wellington, W. G. (Kyoto U., Agricultural Coll., Japan) **The influence of behavioral differences among tent-caterpillar larvae on predation by a pentatomid bug.** *Canadian Journal of Zoology*, 1970(Jul), Vol. 48(4), 896-898.—Studied the larvae of western tent caterpillars, *Malacosoma californicum pluviale* (Dyar), during 2 instars. Their behavior was rated as most active (Type I), active but less well oriented (Type IIa), and sluggish and disoriented (Type IIb). The larvae were marked and 3 of each type exposed to predators during the 4th and 5th (ultimate) instars. Type I larvae (the most active larvae) were most successfully attacked in the 4th instar while Type IIb (the sluggish larvae) were most readily devoured during the 5th instar when the movements of these larger larvae were more conspicuous to the predator than those of the smaller 4th

instar larvae. "Hitherto, theories of predator-prey or parasite-host interactions have been mainly concerned with numerical relationships, but they obviously should consider the role of population quality as well."—J. M. Roberts.

2026. Karandeeva, O. G. **Osobennosti povedeniya v nevole i dressirovka del'finov.** [Features of dolphin behavior in captivity and their training.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 55-58.—Presents a survey of the non-Soviet literature (chiefly the American), from which it is concluded that the suitability of dolphins as experimental animals is of a high order.—I. D. London.

2027. McDonald, Dennis L. (Duke U.) **Bird orientation: A method of study.** *Science*, 1968(Aug), Vol. 161(3840), 486-487.—Describes a psychophysical technique enabling precise determinations of the accuracy with which a bird can orient itself using an artificial sun as the only reference point. Data indicate that a pigeon can detect angular displacement as little as 3.4°.—*Journal abstract*.

2028. Westlake, G. F. & Kleerekoper, H. (Texas A & M U., Inst. of Life Science) **Evidence for a memory process in the turning behavior of free swimming goldfish.** *Canadian Journal of Zoology*, 1970(Jul), Vol. 48(4), 813-815.—Spontaneous alternation in terms of the direction of the preceding turn was studied in 6 goldfish under free-field conditions. Behavior observed in the peripheral areas of the tank was analyzed separately and showed no consistent effect of the walls of the tank on turning behavior. The correlation between size of deflection from the forward line of progression (magnitude of the turn) decreased as the time between turns increased. It is concluded that "the results of the present study provide strong evidence for the presence of a memory process in turning behavior."—J. M. Roberts.

COMPARATIVE PSYCHOLOGY

2029. Devine, James V. (U. Texas, El Paso) **Stimulus attributes and training procedures in learning-set formation of rhesus and cebus monkeys.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 62-67.—Assessed the importance of visual capabilities and training procedures in learning-set (LS) comparisons of species with 8 rhesus and 8 cebus monkeys. 2 levels of stimulus attributes, chromatic and achromatic stimuli, and 2 procedural levels, 6 trials/problem and an adjustable trials/problem procedure, were combined. The ranking of the species on rate of approach to a criterion based on Trial 2 performance differed according to the condition of LS training. Asymptotic performance (percentage correct responses on Trial 2) did not differ. Stimulus attributes and training procedures were significant factors in establishing LS ($p < .005$). Results are considered to be incompatible with the notion that LS performance leads to a consistent ordering of rhesus and cebus monkeys according to their phylogenetic development. (22 ref.)—*Journal abstract*.

2030. Oliverio, Alberto. (U. Sassari, Italy) **Species and strain differences in relation to discriminative shuttlebox avoidance learning.** *Communications in Behavioral Biology*, 1969(Jul), Vol. 4-A(1-3), 7-12.—Performed 4 experiments with 16 male inbred DBA/2J mice, BALB/c, and A/J mice, and albino Wistar rats. Ss trained in a shuttlebox with pulsed tone as CS achieved a

large transfer of training when shifted to a pulsed light, while Ss trained with discriminative compartmental CSs (pulsed tone in the left compartment and pulsed light in the right) showed a sensible decrement of performance during reversal. Ss receiving light as CS in the right compartment and shock in absence of CS in the left performed very poorly, while high levels of responding were attained by albino rats. The importance of spatial location when discriminative compartmental CSs are used in 2-way tasks is discussed in relation to the role of genetic traits in avoidance learning. Evidence suggests that a 2-way task is learned as if formed by 2 different tasks. The use of stimuli in different sensory modalities, characterized by similar temporal patterns, should determine whether learning of a 2-way task responds to 2 different processes and if this difference is due to the importance of spatial locations rather than to a dissimilarity of the systems which represent at the central level different steady stimuli.—*Journal abstract.*

2031. Raphael, Dana. (666 Sturges Highway, Westport, Conn.) **Uncle rhesus, auntie pachyderm, and mom: All sorts and kinds of mothering.** *Perspectives in Biology & Medicine*, 1969(Win), Vol. 12(2), 290-297.—Discusses male and female "mothering" behavior for a variety of species including humans. To describe behavior of animals other than biological mother interacting with infant, replacement of term "aunt" by "doula" is suggested because of confusion regarding actual blood relationship. It is suggested that "doula" behavior may increase survival potential of both mother and infant. (18 ref.)—*J. Crabbe.*

NATURAL OBSERVATION

2032. Mountjoy, Paul T. & Sears, Gary W. (Western Michigan U.) **Historical note: An observation of territoriality in birds which predates scientific reports.** *Psychological Record*, 1970(Win), Vol. 20(1), 93-95.—Attention is called to a published observation of territorialism in the ostrich which preceded scientific development of the concept of territoriality by approximately 20 yr.—*Journal abstract.*

EARLY EXPERIENCE

2033. Ader, Robert & Grotz, Lee J. (U. Rochester, School of Medicine & Dentistry) **Rhythmicity in the maternal behaviour of Rattus norvegicus.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 144-150.—Under a 12-hr light-dark (LD) regimen there was a precise 24-hr rhythm in maternal behavior; the greatest amount of time with the litter occurring during the middle of the light period and the least amount of time occurring during the period of darkness. The cycle was independent of litter size and the time spent with the litter. Animals rearing litters under an LD:6 schedule also showed a 24-hr maternal behavior rhythm. Animals maintained under an LD:12 schedule but transferred to continuous light when pregnant and animals maintained for 2 generations under constant light showed a free-running maternal behavior rhythm with an approximate 24-hr period.—*Journal summary.*

2034. Dubos, René. (Rockefeller U.) **Lasting biological effects of early influences.** *Perspectives in Biology & Medicine*, 1969(Sum), Vol. 12(4), 479-491.—Specific-pathogen-free (SPF) mice, contaminated orally on the 2nd day of life with fecal matter from ordinary

mice, were lighter as infants than control (uncontaminated) SPF mice and grew to be smaller adults. Bacteria-free filtrates of such fecal matter altered tissue cultures of baby hamster kidney cells (BHK). Infected BHK cultures depressed infant and eventual adult weights of newborn SPF mice and that of their offspring. Lowered magnesium, lysine, or threonine content in dam's diet depressed growth of offspring, although the smaller offspring had a longer life expectancy. Newborn SPF mice were pooled on the 1st day of life and randomly reallocated to mothers. Marked differences in weight were recorded among litters while within-litter size differences were small.—*J. Crabbe.*

2035. Smith, F. V. & Nott, K. H. (U. Durham, England) **The "critical period" in relation to the strength of the stimulus.** *Zeitschrift für Tierpsychologie*, 1970(Feb), Vol. 27(1), 108-115.—Domestic chicks were attracted by particular combinations of auditory and visual stimuli from a distance, even when the 1st exposure took place only 10 days after hatching. Ss responded until 28 or 29 days of age. Ss were able to discriminate between familiar and novel stimulus combinations. They responded better if reared in isolation; this was not true for Ss exposed to the stimuli 1, 2, or 3 days after hatching. Isolated ducklings approached the stimulus combination better 1 or 2 days after hatching than socially reared ones. Isolated chicks and ducklings approached equally well, but socially reared chicks were better than socially reared ducks. On the discrimination test mallard ducklings were inferior to the chicks, which may be due to some innate restriction of preferences in the less domesticated species.—*K. E. Grossmann.*

2036. Suomi, Stephen J., Harlow, Harry F., & Domek, Carol J. (U. Wisconsin, Regional Primate Research Center) **Effect of repetitive infant-infant separation of young monkeys.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 161-172.—In view of several methodological difficulties inherent in mother-infant separation, an alternative procedure, that of repetitive, short-term, infant-infant separations, is proposed. Results from 3 studies employing this procedure with 4 young rhesus monkeys indicate that: (a) each short-term infant-infant separation produced behavior patterns similar to those exhibited by infants separated from their mothers; (b) Ss did not adapt to the separation procedure, but rather continued to show similar reactions to each successive separation; and (c) a cumulative effect of repetitive infant-infant separations was an arrest of maturation of social development in the monkey Ss. (21 ref.)—*Journal abstract.*

INSTINCTS

2037. Cole, J. E. & Ward, J. A. (Illinois State U.) **An analysis of parental recognition by the young of the cichlid fish, Etroplus maculatus (Bloch).** *Zeitschrift für Tierpsychologie*, 1970(Mar), Vol. 27(2), 156-176.—The young do not recognize their parents; they react to the flicker of the dark pelvic fins of their parents. No chemical attractants were found. The fry consistently selected 1 of 2 models in which pelvic fin flickering was mechanically controlled. Color and body movement did not appear to have been of any importance. There was no improvement of recognition of the parents by the fry within the 1st 12 days of free swimming. (26 ref.)—*K. E. Grossmann.*

2038. Wehner, Rudiger & Menzel, Randolph. (U.

Zurich, Switzerland) **Homing in the ant *Cataglyphis bicolor*.** *Science*, 1969(Apr), Vol. 164(3876), 192-194.—Studied *Cataglyphis bicolor*, a common ant of desert areas of northern Africa and southwest Asia. It was found that this species orients to the sun and to visual patterns of the environment and that these mechanisms can be separated. Foraging ants (hunters) orient to terrestrial cues as long as possible, and only after these have become ineffective, switch over to the menotactical sun orientation. In digging ants however, the visual knowledge of locality is significantly inferior to that of hunters. Diggers vary considerably in size, but hunters belong to the largest size group. The largest and smallest ants orient differently toward black and white areas and stripe patterns.—*Journal abstract*.

2039. Weintraub, Joel D. (California State Coll., Fullerton) **Homing in the lizard *Sceloporus orcutti*.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 132-137.—*Sceloporus orcutti* individuals will come back to their capture areas after displacement; adult males returned from distances up to 215 m. Males returned from greater distances than females, and older animals did better than younger ones. The homing response is present throughout the year and may occur in nonreturnees displaced again. Visual cues of the capture area seemed to be important in the homing response.—*Journal summary*.

MOTIVATION & EMOTION

2040. DeSisto, Michael J. & Huston, Joseph P. (Tufts U.) **Effect of territory on frog-killing by rats.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 179-184.—The latency of frog-killing by male hooded rats varied as a function of practice and familiarity of the environment. Rats killed frogs more quickly in their home cages than in strange cages, where exploration preceded killing. With practice, rats became more efficient killers. In established groups of 3 rats, only 1 rat did the killing, indicating that dominance relationships had developed. Rats taken from home individual cages and placed in strange group cages of 3 explored the environment and fought with other rats before killing the frog. Some rats killed up to 30 frogs in succession before satiation and resumed frog-killing the next day. It is concluded that because frog-killing does not satiate readily, it may be a useful response in studying the motivation of aggressive behavior.—*Journal summary*.

2041. Gallup, Gordon G., Creekmore, Harry S., & Hill, William E. (Tulane U.) **Shock-enhanced immobility reactions in chickens: Support for the fear hypothesis.** *Psychological Record*, 1970(Spr), Vol. 20(2), 243-245.—Gave 22 6-wk-old Rhode Island Red domestic chickens either electric shock or no shock prior to manual restraint. Ss receiving preinduction shock remained immobile appreciably longer than Ss given no shock. Results support the notion that fear is what underlies hypnotic or immobility reactions in animals.—*Journal abstract*.

2042. Gruenau, Steven & Kessler, Clemm C. (U. Oklahoma, Medical Center) **Differential activity in rats as a function of deprivation, stimulus change, and recording method.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 59-64.—Studied the effects of stimulus changes on activity in 20 food-deprived and 20 non-deprived adult male Long-Evans rats using a photo-relay method, direct observation, and bar-press rate. Differences in activity as measured by the photo-cells and

differences in bar-presses were significant ($p < .001$) for stimulation, deprivation, and the interactions. Ss in the stimulus change groups had the highest activity counts, their most frequent single behavior being exploration. Results confirm the utility of the photo-relay system of measurement, demonstrate that stimulus change differentially affected the activity of deprived and non-deprived Ss, and support the conclusion that stimulation sensitized Ss to its internal state to which it then reacted. (17 ref.)—*Journal abstract*.

LEARNING

2043. Butler, C. G., Fletcher, D. J., & Watler, D. **Hive entrance finding by honeybee (*Apis mellifera*) foragers.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 78-91.—Success in reorientation to a change in the position of the hive entrance seemed to be related to amount of confusion and number of bees making the change. When the new entrance was found bees started dispensing Nassanoff gland scent. The scent and visual landmarks both appeared to be used by the bees in learning the new way into the hive.—G. Greenberg.

2044. Chesler, Phyllis. (Richmond Coll., City U. New York) **Maternal influence in learning by observation in kittens.** *Science*, 1969(Nov), Vol. 166(3907), 901-903.—Reports that 6 kittens who observed their mothers perform a stimulus-controlled response (lever pressing to a visual stimulus for food) acquired and discriminated that response sooner than 6 Ss who observed a strange female cat's performance. 6 other Ss exposed to a trial and error condition never acquired the response. Initial differences in attentiveness to demonstrator performances disappeared by the 2nd day. "Altruism" (food sharing) and other forms of social behavior were exhibited by both mother and stranger demonstrators.—*Journal abstract*.

2045. Devine, James V. & Ivens, John R. (U. Texas, El Paso) **Acquisition of the oddity concept in the chimpanzee.** *USAF ARL Technical Report*, 1969(Oct), No. 69-16, 29 p.—Analyzed response regularities of 2 naive chimpanzees in the acquisition of 3-position, 1-trial oddity problems. Ss reached asymptotic levels of 85-90% correct responding after 2400 trials. 2 response regularities were discerned and recorded; the most reliable regularity was repeated responding to 1 position and the 2nd regularity was object discrimination responding. Both regularities were observed to shift over trial blocks to different positions and stimuli; in addition both regularities were observed to diminish over trial blocks. Evidence was also found for relational oddity responding early in the acquisition process. Analysis of errors for each of 66 stimulus combinations (configurations) suggest interaction between physical properties of stimuli used, and Ss' acquisition of the oddity concept. (22 ref.)—*Journal abstract*.

2046. Groves, Philip M. & Thompson, Richard F. (U. Colorado) **Habituation: A dual-process theory.** *Psychological Review*, 1970(Sep), Vol. 77(5), 419-450.—Presented a dual-process theory of response plasticity to repeated stimulation. 2 hypothetical processes, 1 decremental (habituation) and 1 incremental (sensitization), are assumed to develop independently in the CNS and interact to yield the final behavioral outcome. Behavioral experiments are presented, using both the hindlimb flexion reflex of acute spinal cat and the acoustic startle response of intact rat, which are consistent with this

theory. Neurophysiological experiments indicate that the 2 processes have separate and distinct neuronal substrates. The dual-process theory and other current theories of response habituation are evaluated in terms of these and other recent findings. (6 p. ref.)—*Journal abstract*.

2047. Holmes, Nan K. (Bryn Mawr Coll.) **Sensory preconditioning in the goldfish.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5712

2048. Myers, William A. (Macalester Coll.) **Observational learning in monkeys.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 225-235.—Housed observer monkeys (1 stump-tail and 1 rhesus male) next to demonstrator monkeys (1 stump-tail and 1 rhesus male) who were conditioned to respond on a multiple reinforcement schedule whose components were fixed-ratio (FR) 32, variable-interval (VI) 3 min., and extinction 5 min. followed by an additional 30 sec. of extinction during which every response started a new 30-sec interval. After observational periods from 113-210 hr. long, during which Os could not perform the response and were given no extrinsic reinforcers, their 1st-response latencies to FR and VI were as short as the demonstrators; and their rates of responding were above preobservational base-line levels. About 8 hr. later, a temporal pattern of responding appropriate to the multiple schedule emerged, including nonemission of responses during extinction. 3 controls lacking the chance to observe did not develop typically patterned responding after 60 hr. in 1 case and, in 2 other cases, after 80 hr. during which on 2 occasions all of 50 responses were reinforced. In Exp. II, using Exp. I Ss, the stimulus lights associated with FR and VI were presented simultaneously. Ss chose 1 of the schedules by responding to 1 of the levers beneath the lights. All Ss initially chose FR. Seeing the demonstrators switch to VI, due to increases in the FR requirement, had no effect upon Os, who continued to choose FR. (19 ref.)—*Journal abstract*.

2049. Peretti, Peter O. (North Park Coll.) **Complex cognitive behavior of the rat as a result of learning sign-significate relations.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 122-128.—Investigated complex sign learning in 2 female hooded rats. The signs the S had learned were randomly changed throughout runs over the total number of trials. Choice of the correct sign would direct the S to water. Results indicate that the rat is capable of establishing a cognitive relationship between a sign and a correct response.—*Journal abstract*.

2050. Richman, Charles L. (Wake Forest U.) **Effects of experimentally induced irrelevant stimuli on reversal shifts.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 69-83.—Gave 36 male hooded rats original and reversal training in a T maze. A 2 × 3 factorial design was employed with 2 levels of original training and 3 combinations of cues: Group A, odor trail, body turn, and direction relevant; Group B, body turn relevant and odor trail and direction irrelevant; and Group E, direction relevant and body turn and odor trail irrelevant. Groups' trials to original learning criterion were ordered in the following manner: Groups A, B, and E. Group A did not show the overlearning reversal effect (ORE) and Group B and E demonstrated a trend toward the ORE. It was determined that Group E did not show the ORE because 2 overtrained Ss responded at low level accuracy during overtraining. An extension of E. Lovejoy's reversal learning model was presented. (29 ref.)—*Journal summary*.

2051. Stern, Warren C. (Tufts U., Medical School) **The relationship between REM sleep and learning: Animal studies.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 249-257.

2052. Wike, Edward L. & Atwood, Michael E. (U. Kansas) **The effects of sequences of reward magnitude, delay, and delay-box confinement upon runway performance.** *Psychological Record*, 1970(Win), Vol. 20(1), 51-56.—Investigated the effects of increasing vs. decreasing amount and delay of reward in runway training and delay-box confinement in extinction using 54 male Sprague-Dawley rats. Ss with increasing amount and decreasing delay ran faster in both acquisition and extinction. Amount and delay produced patterned running in both acquisition and extinction; delay-box confinement led to patterned running in extinction. Results were related to those from previous investigations and interpreted in terms of E. J. Capaldi's aftereffects theory.—*Journal abstract*.

2053. Williams, Jon L. & Ellis, John A. (Kenyon Coll.) **The effects of delay on an established response.** *Psychological Record*, 1970(Spr), Vol. 20(2), 251-258.—Investigated the effect of varying length of delay on an established response as a function of similarity between the delay box and goal box. 32 hooded rats were reinforced with sucrose for running a V-shaped alley. During testing Ss were delayed in the maze for 5, 20, 45, and 90 sec. Each S served as its own control and received all of the delay conditions. Ss were divided into 2 groups, 1 which was delayed in a chamber similar to the goal box and 1 which was delayed in a dissimilar chamber. Contrary to the original hypothesis that Ss would start and run faster as a function of length of delay, they ran slower as a function of length of delay. Furthermore, the groups did not differ significantly. It is concluded that the delay situation was novel and elicited responses incompatible with running which therefore precluded the behavioral effects of frustration.—*Journal abstract*.

Conditioning

2054. Bastian, Chris W. & Hothersall, David. (Ohio State U., Research Center, Lab. of Comparative & Physiological Psychology) **Operant conditioning in redwinged blackbirds.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 241-246.—Describes an operant conditioning technique for use with passerine birds. 2 redwinged blackbirds were successfully conditioned to perch-hop for food reinforcement. Continuous reinforcement and fixed-ratio schedules involving substantial ratio requirements were used to maintain this response. The behavior of Ss was comparable to that of more conventional organisms working on similar schedules of reinforcement. (16 ref.)—*Journal abstract*.

2055. Farris, Howard E., Gideon, Bruce E., & Ulrich, Roger E. (Western Michigan U.) **Classical conditioning of aggression: A developmental study.** *Psychological Record*, 1970(Win), Vol. 20(1), 63-67.—2 groups of male Long-Evans hooded rats were classically conditioned to fight to previously neutral stimuli. A 2-ma shock served as the UCS. 6 Ss in 1 group were begun at age 34 days and 6 in the other were begun at age 90 days. All Ss showed development of consistent conditioned fighting. There were no significant differences in the

acquisition rate or asymptotic level of fighting of the 2 groups.—*Journal abstract.*

2056. Fukuda, Norichika. (Waseda U., Tokyo, Japan) [An experimental study of backward conditioning.] *Japanese Journal of Psychology*, 1969(Feb), Vol. 40(6), 319-329.—In 3 experiments, 313 rats were conditioned by inescapable procedure, 60 by procedure shifting from inescapable to escapable training, and 66 by instrumental procedure. Secondary properties were tested in a new learning situation in Exp. I and in an extinction situation in Exp. II and III. Results indicate that: (a) In secondary properties of backward CS in conditioning of a classical type carried out under certain trials, the hypothesis was tentatively supported. (b) In conditioning of a shifting and instrumental type, the hypothesis was supported. The stronger the instrumental conditioning, the quicker the acquisition of the properties and the higher the resistance to extinction. (22 ref.)—*English summary.*

2057. Manning, Alexander A. (U. Miami) **Discrimination and generalization as a function of caudate stimulation CS intensities in nictitating membrane Pavlovian conditioning of rabbits.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5716.

2058. Preobrazhenskaya, L. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **K voprosu o sootnositel'noi roli tonicheskogo i faznogo uslovnykh razdrzhitel'ei.** [On the relative role of tonic and phasic conditioned stimuli.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 219-226.—4 dogs were studied in order to determine (a) whether a CS elicits an effect, appropriate to it, in the presence of a state of heightened excitability in the "structures of an antagonistic reaction," or (b) whether the CS serves only as a trigger or occasion for producing a reflex, whose structure had been prepared for prospective activity, owing to the "stereotypic conditions" of the experiment. A heterogeneous stereotype was elaborated, intended to consist of defensive and alimentary halves of the experiment. On extraneous application of the alimentary CS in the defensive half of the experiment and of the defensive CS in the alimentary half, there arose in all Ss, in response to the applied stimuli, a reaction adequate to the signal-significance of the acting stimulus. The application of an alimentary instead of a defensive signal in experiments, utilizing stronger electrodermal reinforcement, was in no case accompanied by the appearance of a defensive-motor reaction. In 2 Ss, in response to the alimentary CS, applied in place of the defensive CS, secretory and alimentary-motor reactions arose, while in the others the alimentary reflex was suppressed. In no case was a defensive-motor reaction elicited in response to an alimentary signal.—*I. D. London.*

2059. Shvets, T. B. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Dinamika izmenenii znaka sdvigoĭ urovnya postoyannogo potentsiala pri zamykanii uslovnoi svyazi.** [Dynamics of changes in sign of shifts in constant potential level in closure of the conditioned connection.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 27-34.—Utilizing rabbits, the UCS was electrodermal stimulation of left forepaw; the CS was a 15-W light for 18 Ss, a 60-W light for 2 Ss, and a 100-W light for 2 Ss. There were implanted platinum electrodes in 9 Ss and nonpolarizing electrodes in 13. Surface recordings during elaboration of defensive CRs to light disclosed great variability of constant potential level with respect to sign and spatial

distribution. It is suggested that the noted changes have basically a neuronal origin, being the result of the "vector (algebraic) summation" of surface-positive and surface-negative electrical fields from different sources. The dynamics of changes in the course of elaborating a CR should reflect the vertical displacement and complex interaction of the foci of massive depolarization and hyperpolarization in the neuronal elements of the brain.—*I. D. London.*

2060. Sirotskii, V. V. (Bogomolets Inst. of Physiology, Kiev, USSR) **Proyavleniye uslovnogo refleksa na vremya u sobak v ontogeneze.** [Ontogenetic manifestation of the temporal conditioned reflex in dogs.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 166-169.—6 puppies from the same litter were Ss in an ontogenetic study (1-7 and 17-20 mo.) of the changes in rate of respiration and pulse, and level of maximal arterial pressure, in the process of elaborating a stereotype of temporal alimentary CRs in the same Ss at different postnatal ages. The CRs incorporated positive and inhibitory acoustic stimuli in sequence, with isolated action of conditioned signals for 20 sec. with 5-min intervals between them. Autonomic reactions, arising not earlier than 20 sec. before presentation of the CS, were considered as part of the reflex to time. It is suggested that the indistinctness of manifestation of the CR to time, observed in the system of alimentary CSs in puppies up to the age of 7 mo., is a characteristic aspect of their CR activity, "pointing to a not completely formed mechanism for the perception of conditioned (signal) extero stimuli acting even rhythmically on the organism."—*I. D. London.*

2061. Struchkov, M. I. (Inst. of Higher Nervous Activity, Moscow, USSR) **Pryamye i obratnye svyazi v pishchevykh uslovnykh refleksakh** [Direct and feedback connections in alimentary conditioned reflexes.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 18-26.—4 dogs were Ss, utilizing (a) usual alimentary conditioning, (b) a combination of the alimentary reflex with precedent passive raising of the hind-paw and its placement on a stand (15 cm. high) to the rear of the animal, and (c) a combination of the wink reflex with the alimentary in the order winking → food and food → winking. Both direct and feedback connections were formed in all Ss. Only those results are reported which deal with the indices of motor activity procured through EMG recordings of the extensors of the thigh and the foot of the forepaw. It is shown that the feedback connection bore a specific character and, consequently, possessed a CR nature. Direct and feedback connections were formed in combining the alimentary with the wink reflex in both orders of presentation. Feedback connections appeared regularly and were almost as resistant to extinction as were direct connections. It is concluded that the feedback connection is a quite necessary link in the elaboration and functioning of the conditioned connection which is based on the necessary assumption of the functional unity of conditioned and unconditioned stimulation.—*I. D. London.*

2062. Thor, Donald H. & Pierson, Ellery. (E. R. Johnstone Training & Research Center, Bordentown, N.J.) **Concurrent circadian periodicities: Gross activity and self stimulation with light.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 67-77.—Continuously measured gross activity and frequency of change in self-illumination in 2 male hooded Long-Evans rats for 36 and 45 days. Periodicities of light-

contingent bar pressing and gross activity were both circadian and in phase. The daily bar press rate decreased to 0 in continuous light with a nonfunctional lever. Operant responding recovered with reinstatement of the contingency. Results suggest a daily requirement for light-dark stimulation and a light contingent maintenance of a periodic operant response. (24 ref.)—*Journal abstract*.

2063. Varga, M. E. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **K klassifikatsii priobretennykh dvigatel'nykh reaktsii.** [On the classification of acquired motor reactions.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 227-232.—8 dogs were Ss in a study of the features characteristic of motor reactions (spontaneous and response), observed when the same stimuli (5 clicks/sec; electrodermal stimulation of forepaw causing a distinct local flexion of the extremity) are applied in temporally different ways. Variants of the experiment: (a) only acoustic stimulus, (b) uncombined acoustic stimulus and electrodermal stimulation (pseudo-conditioning), (c) acoustic stimulus after termination of electrical stimulation (backward conditioning), and (d) acoustic stimulus before electrodermal stimulation. It was shown that in the 1st 3 variants the appearance of motor activity in response to sound was of the nature of spontaneous activity and did not increase with increase of training. Only in the 4th variant, where the motor reaction to sound was an expression of the classic defensive CR, was this activity substantially greater than spontaneous activity and was characterized by a definite degree of independence from the spontaneous, generalized activity observed in the other variants. Only when the CS preceded painful reinforcement was a specialized connection of signal significance formed—1 which was really distinguished from overall generalized activity. The observed relationship between the motor reactions in response to the application of any stimulus and the spontaneous reactions were a fine criterion for separating classical defensive CRs from other related phenomena.—*I. D. London*.

2064. Voronin, L. G. & Kozarovitskii, L. B. (Moscow State U., USSR) **Nekotorye osobennosti vyssheĭ nervnoi deyatel'nosti chernomorskogo del'fina afalliny tursiops truncatus.** [Some features of higher nervous activity in the Black Sea dolphin of the aphaline species (*tursiops truncatus*).] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(1), 233-242.—For an adult female S features of higher nervous activity were disclosed by the application of conditioning methods, i.e., the elaboration of positive and negative food-procurement CRs, their reversal, and the extinction of CR reactions. Conditioned signals were 11 kcps, 8/sec (positive), and 1/sec (differential). It was shown that a sharply expressed inertness in the nervous processes (especially the process of inhibition) was combined with their concentration and irradiation (both considerable) in the motor analyzer, and the presence of "dis-equilibration" of the nervous processes in the direction of a predominance of excitation. These features promoted the quick formation of conditioned connections and their great stability under the action of various kinds of strong extrastimuli. When a situation was difficult to handle, wide irradiation of excitation arose every time. Judging by a number of other characteristics of higher nervous activity (imitation, orienting-investigatory and playful activity, tendency to the development of incomplete reactions, ritual behavior, etc.), the dolphin is

reminiscent of other higher animals, simians in particular.—*I. D. London*.

2065. Wike, Edward L. & Atwood, Michael E. (U. Kansas) **The effects of delayed reward and delay-box confinement upon instrumental performance: A within-type design.** *Psychological Record*, 1970(Win), Vol. 20(1), 57-62.—Investigated the effects of partial delay of reward in training and partial delay-box confinement in extinction using a within-type experimental design in both training and extinction with 26 Sprague-Dawley rats. 1 alley of a Grice discriminator led to immediate reward, while the other alley led to 30-sec delay on $\frac{2}{3}$ of the trials. $\frac{1}{2}$ of Ss were extinguished with 30-sec delay-box confinements on $\frac{2}{3}$ of the trials in the former delay alley and no delay in the other alley; $\frac{1}{2}$ had no delay in either alley. In contrast to the results from between-type experiments, partial delay produced less resistance to extinction and changes in delay from training to extinction had no effect.—*Journal abstract*.

Discrimination

2066. Gay, Robert A. (U. Texas) **Experimental methodology and the contrast effect: Frequency vs magnitude.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5710.

2067. Kamil, Alan C. & Hunter, Maxwell W. (U. Massachusetts) **Performance on object-discrimination learning set by the greater hill myna (*Gracula religiosa*).** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 68-73.—4 mynas received 1000 discrimination problems in a modified Wisconsin General Test Apparatus, using 100 multi-dimensional stimulus objects. Learning set was acquired, as indicated by an asymptotic Trial 2 performance, clearly above chance. Retention of this learning set over a 150-day interval, and transfer to new objects were also found. Further experimentation was designed to obtain hypothesis estimates based upon Ss' performance. (15 ref.)—*Journal abstract*.

2068. Pokrzywinski, John. (U. Mississippi) **Presence-absence discrimination training on a line-length dimension.** *Psychological Record*, 1970(Spring), Vol. 20(2), 211-217.—Trained 3 pigeons to discriminate the presence (S+) of a horizontal line with vertical lines on each end from its absence (S-). The only effect of discrimination training was to steepen postdiscrimination generalizations gradients. 3 other Ss were trained on the same discrimination except the S+ had no end lines. Postdiscrimination generalization gradients for these Ss become much flatter and indicate an area shift, if not a peak shift. It is concluded that the total area of the figure created by the S+ with end lines was the stimulus dimension that acquired stimulus control, and not simply the line-length dimension.—*Journal abstract*.

2069. Sansone, M., Oliverio, A., Renzi, P., & Bovet, D. (U. Sassari, Italy) **Water maze discrimination learning in mice.** *Communications in Behavioral Biology*, 1969(Jul), Vol. 4-A(1-3), 115-119.—Trained inbred BALB/c and C57BL/6 mice and a noninbred Swiss albino strain in an automated Y-shaped water maze for brightness discrimination learning. 8 Ss of each strain, trained to swim towards light ("L"-procedure) during the initial learning, showed higher levels of correct choices in comparison to Ss trained to swim towards darkness ("D"-procedure). No difference between the procedures was evident during reversal training.—*Journal abstract*.

2070. Ward, Jeannette P., Yehle, Arthur L., & Doerflin, R. Stephen. (Memphis State U.) **Cross-modal transfer of a specific discrimination in the bushbaby (*Galago senegalensis*).** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 74-77.—Trained 8 adult bushbabies to discriminate intermittent stimuli with a go, no-go response in a 2-way shock-avoidance apparatus. The stimuli were either light flashes of 3/sec and 18/sec or auditory clicks of the same rates. Ss were counterbalanced in acquisition with respect to stimulus modality and stimulus contingencies within a modality. After performance of the discrimination in the 1st modality had stabilized, Ss were tested in the 2nd modality with either the same (direct transfer) or reversed (reversal transfer) stimulus contingencies for 100 trials. Performance in the transfer test of the direct transfer Ss was facilitated as compared to that of reversal transfer Ss. (21 ref.)—*Journal abstract*.

Avoidance & Escape

2071. Crosby, Ray M. & Cahoon, D. D. (Auburn U.) **A comparison of two techniques for shaping escape behavior in the operant conditioning chamber.** *Psychological Record*, 1970(Win), Vol. 20(1), 97-99.—A recently devised apparatus which facilitates escape training in the operant conditioning chamber by restricting the area of the chamber within which Ss can move was compared with traditional shaping procedures with respect to speed of acquisition of the bar press. The experimental technique is found to be more effective with respect to average acquisition time and reduction of variability among Ss. Implications of the procedure for research with negative reinforcement are discussed.—*Journal abstract*.

2072. Halff, Henry M. (U. Texas) **An application of stimulus sampling theory to latency in a shock escape situation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5711.

2073. Scobie, Stanley R. (State U. New York, Binghamton) **The response-shock-shock-shock interval and unsignalled avoidance in goldfish.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 219-224.—Trained goldfish to swim back and forth in a shuttle tank to avoid unsignalled shocks. The response-shock interval and the shock-shock interval were always of equal duration, either 15, 30, 45, or 60 sec. Response rates varied inversely with response-shock-shock-shock interval duration, as has been found with rats. Percentage of shocks avoided was somewhat lower at the 15-sec response-shock-shock-shock interval, but otherwise did not vary systematically with changes in the interval. As the response-shock-shock-shock interval increased, Ss made increasingly more responses than necessary to avoid all shocks. Interresponse-time distributions showed that response probability rose to a maximum at about 15-25 sec. after a response, regardless of the response-shock-shock-shock interval. Thus, at the longer intervals Ss were responding too early in the response-shock-shock-shock interval to minimize response rates.—*Journal abstract*.

Reinforcement

2074. Carlisle, H. J. (U. California, Santa Barbara) **Intermittent heat as a reinforcer for rats in the cold.** *Physiology & Behavior*, 1970(Aug), Vol. 5(8), 861-

866.—Intermittent thermal reinforcement does not sustain stable schedule performance of rats in a cold environment when a single reinforcement follows the schedule run. The contribution of the response situation to this problem was examined in 2 experiments with 5 male Sprague-Dawley rats each. A 1-min access to radiant heat reinforcement was provided on a CRF schedule contingent upon responding on a fixed-ratio schedule on either the same or a different lever. Response output was considerably augmented when Ss were required to work on 1 lever to gain access to heat on a 2nd lever. Response output was further improved when Ss worked on a fixed-ratio schedule to gain access to heat on the same lever. Results indicate that a change in the response situation, per se, is not a necessary condition for the improvement of schedule performance with thermal reinforcement. The density of reinforcement appears to be a more important variable.—*Journal abstract*.

2075. Melvin, Kenneth B. & Anson, John E. (U. Alabama) **Image-induced aggressive display: Reinforcement in the paradise fish.** *Psychological Record*, 1970(Spr), Vol. 20(2), 225-228.—A mirror presentation and the ensuing species-specific aggressive display reinforced the response of swimming through an aperture in paradise fish. Learning and extinction curves were shown with this type of reinforcement; however, noncontingent mirror presentations did not maintain performance. A declining trend in operant swimming performance with repeated image/display reinforcements reflected some habituation of the display.—*Journal abstract*.

2076. Padilla, Amado M. (U. New Mexico) **An analysis of incentive and behavioral contrast.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5720.

Reinforcement Schedule

2077. Angle, Hugh V. (U. Missouri, Medical School, St. Louis) **The role of reinforcement in controlling sequential IRT dependencies.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 145-151.—Investigated sequential dependencies with 2 male albino rats in a mixed and a tandem DRL responding schedule. In each schedule, 5- and 15-sec components were presented in fixed alternation. In the mixed schedule, a 5-sec interresponse time (IRT) followed a 15-sec IRT and a 15-sec IRT followed a 5-sec IRT in predictable sequence. The correlation between prior and subsequent IRTs, however, existed only when the prior IRT resulted in reinforcement. In the tandem schedule, an IRT greater than 5 sec. in the DRL 5-sec component was not associated directly with reinforcement. 1 S demonstrated sequential response patterns similar to those noted in the mixed schedule, even though the prior 5-sec IRT was not reinforced in the tandem schedule. Results indicate that the prior IRT length alone is not sufficient to influence the subsequent IRT length. Implications are, however, that a temporal response pattern arises when an interresponse interacts with schedule contingencies to control the interreinforcement interval.—*Journal abstract*.

2078. Beale, I. L. & Winton, A. S. (U. Auckland, New Zealand) **Inhibitory stimulus control in concurrent schedules.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 133-137.—Exposed 6

experimentally naive homing pigeons to a main key and a changeover key. Pecking the main key was reinforced on a variable-interval 5-min schedule when the key was blue and never reinforced when the key displayed a vertical line on a blue background. Each peck on the changeover key changed the stimulus displayed on the main key. Eash S was given 2 generalization tests, consisting of presentations on the main key of 6 orientations of the line on the blue background, with no reinforcements being given. In 1 test change-over-key pecks changed the stimulus; in the other test the changeover key was covered and the E controlled stimulus changes. Both responses to the 6 stimuli and time spent in the presence of the stimuli gave U-shaped gradients when the changeover key was operative. With most Ss, absolute rates of responding to each stimulus produced unsystematic gradients, whether or not the changeover key was operative.—*Journal abstract.*

2079. Campbell, Patrick E. & Wells, James F. (Southern Methodist U.) **Sequential effects of magnitude of delayed reward and magnitude of immediate reward on pattern running and resistance to extinction.** *Psychological Record*, 1970(Spr), Vol. 20(2), 203-210.—Trained 44 rats in a runway under a single alternation, partially delayed, reward schedule. The duration of delay was 20 sec. on all odd numbered trials in a 6 trial/day schedule. Reward duration was varied factorially with either 5 or 20 sec. access to wet mash on delayed (D) trials and 20 or 40 sec. on immediate (I) trials. All 4 groups learned to pattern respond, but patterning was most pronounced when D reward was 5 sec. and I reward was 40 sec. Small I reward increased resistance to extinction in the run section but not in the goal section. The goal measure yielded several interactions of the reward durations with blocks of extinction trials. Results are discussed in terms of E. J. Capaldi's modified aftereffects hypothesis.—*Journal abstract.*

2080. Cone, A. L. & Cone, Donna M. (Lynchburg Coll.) **Operant conditioning of Virginia opossum.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 83-86.—Found 2 male and 2 female laboratory-raised Virginia opossum to readily acquire a lever-press response for water reinforcement. Fixed ratio behavior is comparable to that observed in other species. Fixed interval (FI) behavior, however, tends to move fairly rapidly toward an economical response style in which very few responses/reinforcement are emitted. Neither introduction of limited hold procedures nor lengthening of the deprivation schedule had any effect upon the FI responding.

2081. Gilbert, R. M. (Alcoholism & Drug Addiction Research Foundation, Toronto, Ontario, Canada) **Response unity and reinforcement distribution.** *Psychological Record*, 1970(Win), Vol. 20(1), 1-7.—9 adult male hooded rats emitted 2-component chains which were subjected to random or fixed ratio schedules of reinforcement. Both components of the chains were sensitive to the reinforcement contingencies. Latency measures of each component decreased as reinforcement approached under fixed ratio schedules and remained relatively constant under random ratio schedules. Results are discussed in relation to the assumed unity of response chains, the differential sensitivity of chain components to experimental manipulations, and the characteristics of performance under fixed ratio schedules.—*Journal abstract.*

2082. Killeen, Peter. (Arizona State U.) **Preference**

for fixed-interval schedules of reinforcement. *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 127-131.—Trained 4 male white Carneaux pigeons on a 2-link concurrent chain schedule in which responding on either of 2 keys in the initial link occasionally produced a terminal link, signaled by a change in the color of that key and a darkening of the other. Further responding on the lighted key was reinforced with food according to a fixed-interval schedule. For 1 key, this fixed interval was always 20 sec., while for the other it was held at values of 5, 14, 30, or 60 sec. for several wk. In the initial link, all Ss responded relatively more often on the key with the shorter fixed interval than was predicted by the matching hypothesis. Responding in the initial link showed a large negative recency effect: Ss responded less frequently on the key that provided their last reinforcement than predicted from overall response rates. (18 ref.)—*Journal abstract.*

2083. Kramer, Thomas J. & Rilling, Mark. (St. Louis U.) **Differential reinforcement of low rates: A selective critique.** *Psychological Bulletin*, 1970(Oct), Vol. 74(4), 225-254.—Reviews the literature relevant to the DRL with respect to measurement of the behavior, bursts of responding, sequential dependencies, extinction and reconditioning, comparative aspects, punishment, reinforcement of 2 interresponse times, amount of deprivation and reinforcement, behavioral contrast, stimulus generalization, and response generalization. Results suggest that: (a) bursts of responding could be due to a lack of stimulus feedback, (b) similar interresponse times tend to follow each other, (c) the development of mediating behavior is correlated with responding which is more appropriate to the schedule contingencies, and (d) Ss "preferred" short interresponse times. The shape of the stimulus generalization gradients after training on a DRL schedule is either peaked, flat, or inverted depending on the schedule value and prior training. Studies loosely concerned with response generalization suggest that responding under this schedule may be qualitatively different from responding under a variable-interval schedule. Experimental approaches for investigating the possible inhibitory and/or aversive properties of differential reinforcement are indicated. (3 p. ref.)—*Journal abstract.*

2084. Powell, Robert W. (U. South Florida) **Probability of reinforcement and fixed-ratio responding: A model.** *Psychological Record*, 1970(Win), Vol. 20(1), 73-80.—For 2 white Carneaux pigeons the fixed-ratio (FR) requirement was increased and decreased several times. 2 other pigeons were studied for a large number of sessions at selected FRs. Consistent direct relationships between postreinforcement pause duration and ratio size were found for all Ss. Response rates generally decreased as the ratio requirement increased. Significant negative correlations existed between pause duration and response rate for 3 Ss. A probability of reinforcement model of FR responding is proposed which hypothesizes 2 distinct response rates: (a) a 0 rate (pausing) which occurs when the probability of reinforcement is lowest; and (b) a terminal rate which is relatively invariant within S. It is suggested that the occurrence of within-ratio pauses is the basis for decreases in response rate which have been observed when the ratio requirement was increased, and that variables which increase post-reinforcement pausing will increase the amount of within-ratio pausing.—*Journal abstract.*

2085. Rosenblith, Joan Z. (Harvard Medical School,

Boston, Mass.) **Polydipsia induced in the rat by a second-order schedule.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 139-144.—Studied drinking in 3 male albino Charles River rats pressing a bar on a 2nd-order schedule in which every 3rd completion of a 1-min fixed interval was followed by food presentation. A brief flash of light signaled the completion of each fixed-interval component. Ss drank not only after the food presentations but also after presentations of the light flash alone. A high rate of steady drinking followed intervals terminated by a food presentation. Drinking that followed intervals terminated by a light flash alone was of comparable rate, but characteristically interrupted by bar pressing. When 250-mg food pellets were used instead of 45-mg pellets, both drinking and bar-pressing rates increased substantially.—*Journal abstract*.

Punishment & Extinction

2086. **Dardano, J. F.** (Johns Hopkins U., Medical School, Div. of Behavioral Biology) **Fractional punishment of fixed-ratio performance.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 185-198.—Punished key-peck responses of 17 adult white Carneaux pigeons under a fixed-ratio (FR) 60 (Exp. I) or FR 99 (Exp. II) schedule of positive reinforcement by response-dependent electric shock during a segment of the ratio. The punishing stimulus was scheduled in 1 of 3 locations: the 1st 3rd of the ratio, the middle 3rd, or the final 3rd. At high shock levels, the different loci of punishment differentially affected the typical FR performance pattern. Postreinforcement pauses were lengthened by all punishment conditions but to a greater degree when the responses in initial 3rd of the ratio were punished. Disruption of responses before the punished segment of the ratio was a conspicuous feature of the performances when the middle or final 3rd of the ratio was punished. 2 of the punishment conditions produced similar effects on both FR base lines but punishing the final 3rd of the ratio suppressed the punished responses of the ratio only with the FR 99 schedule. General effects of all punishment conditions included consistent intrasession recoveries of partially suppressed performances, the rapid recovery of the FR performances after the punishment dependency was removed after complete suppression, and the facilitation of overall and/or local response rates of most Ss by low-intensity shock.—*Journal abstract*.

2087. **Gudenko, L. P.** (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Ugashenie uslovykh refleksov pri pereklyuchenii.** [Extinction of conditioned reflexes in switching over.] *Zhurnal Vyssheĭ Nervnoĭ Deyatel'nosti*, 1969, Vol. 19(1), 162-165.—Dogs were subjected to extinction of a CR to a signal stimulus (bell) in an alimentary situation and subsequent application of the extinguished stimulus in an electrodeceptive situation. The findings confirm the view that "inhibition initially is localized not at the [cerebral] point of the signal stimulus, but in elements of the conditioned connection." Inhibition developed in the system of alimentary connections and did not transfer to the system of defensive connections. These 2 systems remained independent of each other and under certain conditions manifested antagonism to each other, so that complete inhibition of the alimentary reaction brought about the reciprocal manifestation of the defensive reaction.—*I. D. London*.

2088. **Henton, Wendon W. & Jordan, John J.** (Universitets Neurofysiologiske Inst., Copenhagen, Denmark) **Differential conditioned suppression during pre-shock stimuli as a function of shock intensity.** *Psychological Record*, 1970(Win), Vol. 20(1), 9-16.—5 different 20-sec visual stimuli were consistently terminated by an unavoidable 100-msec shock of .0, .1, .3, 1, and 3 ma. during sessions in which lever pressing by 3 adolescent male rhesus monkeys was reinforced on a random ratio 1% schedule. The magnitude of response suppression during Trial N was initially dependent upon the shock intensity terminating Trial N-1, and, subsequently, dependent only upon the shock intensity terminating Trial N. The terminal pattern of stimulus controlled differential suppression was stable and a monotonic function of shock intensity.—*Journal abstract*.

2089. **Orme-Johnson, David W.** (U. Maryland) **The effects of the response-shock contingency on conditioned punishment.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5719-5720.

2090. **Powell, Robert W.** (U. South Florida) **The effect of punishment shock intensity upon responding under multiple schedules.** *Journal of the Experimental Analysis of Behavior*, 1970(Sep), Vol. 14(2), 201-211.—Maintained responses of 2 white Carneaux pigeons in Exp. I, by multiple variable-interval, variable-ratio (VR) schedules of food reinforcement. Concurrent punishment was introduced, which consisted of a brief electric shock after each 10th response. The initial punishment intensities had no lasting effect upon responding. Then, as shock intensity increased, VR response rates were suppressed more quickly than variable-interval response rates. When shock intensity decreased, variable-interval responding recovered more quickly, but the rates under both schedules eventually returned to their prepunishment levels. In Exp. II, the following conditions were studied in 3 additional Ss: (a) with each shock intensity in effect for a number of sessions, punishment shock intensity was gradually increased and decreased and responding was maintained by multiple VR fixed-ratio (FR) schedules of food reinforcement; (b) changes in punishment shock intensity as previously described with responding maintained by either a VR or FR schedule, which were presented on alternate days; and (c) session-to-session changes in shock intensity with responding maintained by multiple VR, FR schedules. Responding under the 2 schedules was suppressed to approximately the same extent by a particular shock intensity. Postreinforcement pauses under the FR schedule increased as response suppression increased. (17 ref.)—*Journal abstract*.

SOCIAL & SEXUAL BEHAVIOR

2091. **Apfelbach, R. & Leong, Daisy.** (Max Planck Inst. für Verhaltensphysiologie, Seewiesen, W. Germany) **Zum Kampfverhalten in der Gattung Tilapia (Pisces, Cichlidae).** [Fighting behavior in the genus Tilapia (Pisces, Cichlidae).] *Zeitschrift für Tierpsychologie*, 1970(Feb), Vol. 27(1), 98-107.—Substrate- and mouth-brooders display tail beat, ramming thrust, and mouth fight. The specific patterns of 3 species were investigated. There was a clear relationship between territorial and fighting behavior.—*K. E. Grossmann*.

2092. **Grant, E. C., Mackintosh, J. H., & Lerwill, C. J.**

(Medical School, Birmingham, England) **The effect of a visual stimulus on the agonistic behavior of the golden hamster.** *Zeitschrift für Tierpsychologie*, 1970(Feb), Vol. 27(1), 73-77.—The display of the black mark on the chest indicates aggression in the golden hamster. Normal males showed an increase in flight behavior when paired with males in which the black mark had been intensified by dyeing.—*Journal abstract*.

2093. Hinde, R. A. & Atkinson, Sue. (Sub-Dept. of Animal Behaviour, Madingley, England) **Assessing the roles of social partners in maintaining mutual proximity, as exemplified by mother-infant relations in rhesus monkeys.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 169-176.—Examined the properties of various functions which have been used for assessing roles of mother and infant in maintaining mutual proximity, and in particular their dependence on absolute activity levels.—*Journal summary*.

2094. Koenig, Lilli. **Zur Fortpflanzung und Jugendentwicklung des Wüstenfuchses (Fennecus zerda Zimm. 1780).** [Reproduction and juvenile development of the fennec (Fennecus zerda Zimm. 1780).] *Zeitschrift für Tierpsychologie*, 1970(Mar), Vol. 27(2), 205-246.—K. E. Grossmann.

2095. Lamprecht, Jürg. (Max Planck Inst. für Verhaltensphysiologie, Seewiesen, W. Germany) **Duettsang beim Siamang, Symphalangus syndactylus (Hominidae, Hylobatidae).** [Duetting in the siamang, Symphalangus syndactylus (Hominidae, Hylobatidae).] *Zeitschrift für Tierpsychologie*, 1970(Mar), Vol. 27(2), 186-204.—The species is living monogamously. They utter far-carrying calls in pairs or families in the morning and in the evening. The concerts last up to 20 min. Pairs sing 20-50 sec. duets. The female emits 2 accelerated series of barking calls and the male interlaces with typical sounds at specific points. At 4 points the partners take notice of one another. Differences between individuals and pairs are represented in 5 distinguished individual calls and in the duet structure. Duets are probably related to partner bonds. There may also be relationships between certain duet components and territorial defense. Between families, calling may serve to inform (a) about the locality of the calling group, (b) of the group composition, and (c) of the identity of individuals or pairs. (31 ref.)—K. E. Grossmann.

2096. Levengood, W. C. (U. Michigan) **The sexual responses of male moths (Lepidoptera: Noctuidae).** *Michigan Academician*, 1969(Win), Vol. 1(1-2), 31-41.—Examined the role of infrared radiation in the sensing mechanisms of 2 species of nocturnal moths, *Spodoptera frugiperda* and *Heliothis zea*. Unmated male moths were housed in the center section of a 10.5 ft. test cage containing 7 compartments. Various stimuli were placed at 1 end of the test cage while control stimuli were placed at the opposite end. As measured by visitation rate, test Ss were found not to be significantly more attracted by virgin females than by confined males, nor were they attracted by a noncoherent polychromatic infrared source or a monochromatic pulsed infrared laser. However, attraction was observed when females were placed in an atmosphere of moist, moving air, and this attraction was suppressed by a white light placed in the center section. Test moths were found to be significantly more attracted to a combination of females, a black light, and a moist air flow than to either females alone or in combination with the black light. It is concluded that "attraction is a multiple variable phenomenon."—R. Wiltz.

2097. Mackintosh, J. H. (Medical School, Birmingham, England) **Territory formation by laboratory mice.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 177-183.—Groups of CFW/LAC mice were placed on each side of a central barrier in a 180 cm. sq. enclosure. When this barrier was subsequently lifted a male from each side defended a part of the enclosure. The boundaries of these territories were precise and were stable for up to 2 mo. Nonterritorial adult males were extremely restricted in their movements. Females and juveniles were not limited by the territory boundaries. Territory formation was related to the establishment of a social order: dominant mice became territory holders.—*Journal summary*.

2098. Peeke, Harman V. (U. California, San Francisco) **Habituation of conspecific aggression in the three-spined stickleback (*Gasterosteus aculeatus* L.).** *Behaviour*, 1969, Vol. 35(1-2), 137-156.—3 groups of fish (A, B, and C) were presented with a live male, a model of a male, and no special stimulation, for 15 min. each day for 10 days. Also, a live gravid female was presented to all 3 groups each day. Groups A and B both showed a decrement in response to their male stimuli, with the greater decrement in the case of Group A. Group A only showed an increase in sexual responses directed toward the female.—N. M. Ginsburg.

2099. Sadleir, R. M. (Simon Fraser U., Burnaby, British Columbia, Canada) **The establishment of a dominance rank order in male *Peromyscus maniculatus* and its stability with time.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 55-59.—Demonstrated that a sample of 8 wild male deer mice, when repeatedly matched in an arena situation against each other, showed a virtually constant single line ranking of aggressiveness which remained stable for 1 mo.—*Journal summary*.

2100. Signoret, J. P. (Lab. de Physiologie de la Reproduction, INRA, Nouzilly, France) **Sexual behaviour patterns in female domestic pigs (*Sus scrofa* L.) reared in isolation from males.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 165-168.—8 isolated gilts were ovariectomized and given estrogen therapy and then tested for attraction to males and the motor sexual response. No differences were observed in any tests between the isolated and normally reared gilts suggesting an innate basis for the patterns of female sexual behavior in pigs.—G. Greenberg.

2101. Terry, Roger L. (Hanover Coll.) **Primate grooming as a tension reduction mechanism.** *Journal of Psychology*(Sep), Vol. 76(1), 129-136.—Correlative events of primate grooming, e.g., injury, sexual activity, birth, and dominance position, indicate that grooming is a response to tension generated by a threat to the social integration of the emitter and/or target. Cross-species comparisons of general level of grooming, degree of group solidarity, presence of a dominance hierarchy, and general level of aggression suggest further that grooming results in a reduction in tension and a restoration of integration and that several acts of grooming involving many group members increase total group solidarity. (21 ref.)—*Journal summary*.

2102. Tschanz, B., Meyer-Holzappel, M., & Bachmann, S. (U. Bern, Switzerland) **Das Informationssystem bei Braunbären.** [The information system of the brown bear.] *Zeitschrift für Tierpsychologie*, 1970(Feb), Vol. 27(1), 47-72.—4 adult pairs were observed in a zoo. Places of body-rubbing were recorded: bears rubbed with the shoulder area, neck, and back of the head in an upright position, or with the

breast and throat. A sitting position and lying position occurred only in 1%; on all fours in 25%. Males and females have common as well as different rubbing patterns. There are seasonal variations in frequency. There are special male places at special areas, whereas females habitually rub only against specific parts of the tree (female places). Mixed spots were used by both sexes. Young bears hesitated when approaching a marked tree. Males can tell the sex from sniffing the rubbing places. Males pay more attention to female feces and urine than to excretions of other males. (15 ref.)—K. E. Grossmann.

2103. Walter, Roger O. & Hamilton, James B. (State U. New York, Downstate Medical Center, Brooklyn) **Head-up movements as an indicator of sexual unreceptivity in female medaka, *Oryzias latipes*** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 125-127. —Elevation of the forepart of the body, referred to as head-up movements, was more frequent in females during tests without spawning than in tests with spawning. The number of these movements/min increased immediately after spawning when females became unreceptive. The number of movements/min provided a quantitative index of the degree of unreceptivity of females.—*Journal summary*.

2104. Wilson, Wendell L. & Wilson, Carolyn C. (U. Washington) **Colony management and proposed alterations in light of existing conditions at the chimpanzee Consortium.** *USAF ARL Technical Report*, 1969(Mar), No. 69-8, 23 p.—Describes the behavioral and environmental conditions at the Consortium, a facility at the 6571st Aeromedical Research Laboratory, Holloman Air Force Base, New Mexico, with respect to the maintenance of healthy, reproducing animals at the lowest possible cost. Reproduction rates and frequency of aggression are compared with those reported for chimpanzees in their natural habitat. Reproduction is slightly lower and aggression more common in the Consortium. The role of laboratory colonies in insuring a future supply of chimpanzees for research without decimating wild populations is discussed. Suggestions for structural and procedural improvements predicted to increase reproduction, reduce aggression, increase the housing capacity, and reduce maintenance costs are made. It is stressed that the manipulative abilities and strength of chimpanzees should be taken into account whenever physical structures are planned. A method of introducing new animals is proposed. It is concluded that the Consortium has a tremendous potential with respect to both housing and social behavior research. Proposed modifications are included. (19 ref.)—*Journal abstract*.

SENSORY PROCESSES

2105. Askew, Henry R. (Michigan State U.) **Effects of stimulus intensity and intertrial interval on habituation of the head-shake response in the rat.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5706.

2106. Bosiĭ, M. K. & Davidenko, I. M. (Pedagogical Inst., Cherkask, USSR) **Izmenenie tonal'noi chuvstvitel'nosti slukhovogo analizatora pod vliyaniem uprochnennogo differentsirovannogo tormozheniya.** [Alteration of tonal sensitivity of the auditory analyzer under the influence of stable differential inhibition.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969,

Vol. 19(1), 243-249.—Utilized motor-electrodefensive conditioning to study the influence of differential inhibition on the threshold tonal sensitivity of the auditory analyzer in 5 dogs. Differential inhibition, elaborated in response to tones of low (300 cps) and middle (5000 cps) frequencies, raised threshold tonal sensitivity for a long period of time (up to 24 hr. and more) after exclusion of inhibitory stimuli, while differential inhibition in response to high tones (16,000 cps), on the contrary, lowered it. Differential inhibition resulting from 3 differentiations, elaborated in response to tones of low (500 cps), middle (5000 cps), and high (15,000 cps) frequencies, produced greater changes in tonal sensitivity than that resulting from 1 differentiation. Tonal sensitivity was enhanced to a lesser degree in gross differentiations than in moderate differentiations. In fine and very fine differentiations, the excitability of the auditory analyzer declined sharply.—I. D. London.

2107. Saslow, Carol A. (U. Washington) **Control of reaction time in monkeys by pay-off bands: Relation to electromyographic and evoked potentials recordings.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5723-5724.

DEVELOPMENTAL PSYCHOLOGY

2108. Eichenwald, Heinz F. & Fry, Peggy C. (U. Texas, Southwestern Medical School, Dallas) **Nutrition and learning.** *Science*, 1969(Feb), Vol. 163(3868), 644-648.—Reviews studies suggesting that inadequate nutrition in infancy may result in permanent stunting of mental, physical, and neural growth. It is not clear in humans whether these impairments are caused by malnutrition alone or whether they are complexly combined with other factors, i.e., infection and a poor social and emotional environment. It is suggested that careful field studies are needed to clarify these questions. Political and social considerations are discussed.—P. McMillan.

2109. Feldmann, Erich. **Die Bedeutung der Kommunikationswissenschaft für die experimentelle Pädagogik** [The meaning of the science of communication for experimental pedagogy.] *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 42-67.—Discusses informatory, regulatory, and stimulatory effects of communication on child and adolescent development. The importance of analyzing mass media, especially TV and movies, as a means to a better understanding of changes in communication patterns is stressed. While some forms of communication can be investigated using sociological methods, it is suggested that further research possibilities can be offered through the use of cybernetic techniques. (French summary)—B. A. Stanton.

2110. Heise, David R. & Roberts, Essie P. (U. Wisconsin) **The development of role knowledge.** *Genetic Psychology Monographs*, 1970(Aug), Vol. (1), 83-115.—A test was administered to 93 children and 60 adults to measure knowledge of familiar roles. Analyses suggested that sex and class are not crucial determinants of overall role learning, but that distortions in role conceptions corresponding to sex or class do occur and are acquired at an early age. Analyses also suggested that early childhood is an important period for learning all

but the sibling roles, late childhood is important for learning sibling and other youth roles, and adolescence is important for learning male family roles and occupational roles. In another analysis it was found that roles are not learned along "paths of role similarity" as a generalization-discrimination hypothesis would suggest, but that perhaps roles are learned by developing special sets or orientations with respect to mother, father, peers, and "jobs and work." Intelligence (IQ) was found to have a negligible relation with overall role learning but showed some relation with knowledge of roles learned by focusing on the mother. Of the variables considered, the one (besides age) which had most power in explaining variations in role knowledge was family size: a greater number of siblings, and especially brothers, seems to interfere with gaining mature role knowledge. (22 ref.)—*Author abstract.*

2111. Hess, Anne L. & Bradshaw, H. L. (Ohio U.) **Positiveness of self-concept and ideal self as a function of age.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 57-67.—Through comparisons of 4 age groups on self-concept and ideal self, using the Gough Adjective Check List it was found that self and ideal were significantly different for 175 Ss at all age levels (high school-age 65), and that the oldest group had the most positive self-concept and ideal self. It was also found that life satisfaction and achieving life's goals were significantly related to the positiveness of the self-concept. Results are discussed in terms of C. R. Roger's theory and research, and L. Festinger's cognitive dissonance theory, with neither receiving strong support. (25 ref.)—*Journal summary.*

2112. Hooper, Peggy P. & Powell, Evan R. (U. Georgia) **Influences of musical variables on pictorial connotations.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 125-128.—Conducted 3 experiments to compare amounts of figural elaboration and scores on originality stimulated through music in child and adult Ss by: absolute vs. program music; participation vs. motivated vs. passive listening; and live vs. recorded performance. Taken separately, absolute music, participation, and live performance were shown to stimulate higher scores on the Torrance-type picture-drawing criterion for all S ages. Thus musical variables have differential warm-up effects on elaboration and originality in picture-drawing tasks.—*Journal summary.*

2113. Lavrinenko, A. I. (Inst. of Psychology, Moscow, USSR) **K voprosu ob ustoychivosti moral'nykh suzhenii u shkol'nikov.** [The question of stability of moral judgments in school children.] *Voprosy Psikhologii*, 1970(May), Vol. 16(3), 94-104.—576 4th, 6th, and 9th graders predicted their own behavior in 11 hypothetical cases of moral conflict. Predictions were made anonymously or with the information given that either classmates or parents would know each S's answers. It was found that while a given moral judgment may be relatively stable within an age level, judgments change with age. They are influenced more by the opinion of adults at an earlier age and more by that of peers at a later age. Similarities and differences of these and Bronfenbrenner's results are discussed. (English summary)—*L. Zusne.*

2114. Matsuda, Fumiko. (Hiroshima U., Japan) [Developmental study of time, space and velocity estimations: III. Velocity estimation.] *Japanese Journal of Psychology*, 1970(Feb), Vol. 40(6), 297-303.—Examines velocity estimation in motion perception by the method

of reproduction. Ss were 16 1st and 16 4th graders and 16 undergraduates. Results reveal that (a) in all groups constant standard velocities, 1.8, 3.2, 5.8, and 10.5 cm/sec., are significantly overestimated as exposure time and spatial distance become smaller. This tendency was stronger in females than in males. (b) 4 lines by ratios of reproduced velocities to standard velocities, for the 4 standard velocities, yielded nearly 1 curved line, when exposure times of standard stimuli are placed in the abscissa. (18 ref.)—*English summary.*

2115. McCammon, Robert W. (Ed.) (U. Colorado, Medical School, Denver) **Human growth and development.** Springfield, Ill.: Charles C Thomas, 1970. xi, 295 p. \$9.

2116. Resnick, Lauren B. (U. Pittsburgh, Learning Research & Development Center) **Relations between perceptual and syntactic control in oral reading.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 382-385.—Conducted a study of the relations between perceptual and syntactic factors in reading using the eye-voice span technique. Each S read aloud 54 passages projected on a screen. At a fixed point in the text the screen was blacked out, but S continued to read as far as he could. Measures of average number of words read after light-out (eye-voice span) and number of times S stopped at a phrase boundary (stops) were used. There were 4 groups of Ss: 3rd and 5th graders, undergraduates under standard conditions, and undergraduates under a perceptual strain condition created by projecting the slide upside down. Both eye-voice span and stops increased from 3rd grade-college under standard conditions, but college Ss under perceptual strain performed like 3rd graders. For college strain Ss there was a high correlation between eye-voice span and stops; for the other groups there was no significant correlation. Results are consonant with the theory that perceptual control is necessary for syntactic control to develop, but that the latter is learned independently and does not develop automatically as perceptual skill increases.—*Journal abstract.*

2117. Zigler, Edward. (Yale U.) **Social class and the socialization process.** *Review of Educational Research*, 1970(Feb), Vol. 40(1), 87-110.—The research in the area has been confined to specific child training practices in intrasocietal variations relating to social-ecological-economic, genetic, and developmental aspects. None of these seem to be capable of solely explaining all of the behavioral correlates of social class membership. With the rather limited research to date, the most promising seems to be in terms of a developmental approach. (5 p. ref.)—*P. D. Leedy.*

INFANCY

2118. Friedman, Steven; Nagy, Alice N., & Carpenter, Genevieve C. (Boston U.) **Newborn attention: Differential response decrement to visual stimuli.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 44-51.—Exposed 40 newborn human Ss to 1 of 2 visual stimuli: a 2 × 2 or a 12 × 12 black and white checkerboard target, in an experiment employing a 2 × 2 × 8 factorial design (Sex × Target × Trials) with repeated measures on 1 factor (Trials). Using visual fixation as the dependent variable, results indicate an overall response decrement effect with repeated presentation of the visual stimuli ($p < .005$) and an interaction between number of elements (or redundancy) in the visual stimulus, sex of

the infant, and trials ($p < .005$). The triple interaction was based on a tendency for the males to show more decrement to the less-redundant (2×2) target, and for females to show more decrement to the more-redundant (12×12) target. (23 ref.)—*Journal abstract*.

2119. Greenberg, David; Uzgirlis, Ina C., & Hunt, J. M. (U. Nebraska) **Attentional preference and experience: III. Visual familiarity and looking time.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 123-135.—With 4 wk. of perceptual exposure to a pattern beginning at age 4 wk., 24 infants showed attentional preference for their familiar pattern by looking more at it in tests where it was presented simultaneously with an unfamiliar one. After 2 additional wk. of exposure to their familiar pattern, such tests showed a shift of preference toward the unfamiliar pattern which increased with a 2nd additional 2 wk. of exposure. Skipping the 1st test had no influence on the degree of preference following 6 wk. of exposure with the 1st test included. Once an infant came to prefer the unfamiliar pattern, this preference persisted regularly in subsequent tests. (18 ref.)—*Journal summary*.

2120. Hunt, J. M. (U. Illinois) **Attentional preference and experience: I. Introduction** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 99-107.—Studies of imprinting in animals, Piaget's observations of the development of intention and imitation in his children, and the commonly observed tendency of infants to leave their preoccupations for TV with the sound of familiar commercials have suggested that repeated perceptual encounters with objects or patterns lead to attentional preference for what is familiar before they lead to attentional preference for what is unfamiliar or novel. A series of studies were made to test this hypothesis which is consistent with D. O. Hebb's theory of pleasure. Findings of preference for the unfamiliar in very young infants with repeated exposures during a single session are explained in terms of perceptual satiation, based on short-term memory, and are differentiated from habituation which is presumed to be dependent upon long-term memory. (37 ref.)—*Journal summary*.

2121. Hutt, C., et al. (University Hosp., Groningen, Netherlands) **Habituation in relation to state in the human neonate.** *Nature*, 1968(Nov.), Vol. 220(5167), 618-620.—Investigated a hypothesized differential rate of habituation in relation to selective responsiveness to potentially meaningful auditory stimuli. EMGs were recorded from right and left biceps brachii, triceps, and quadriceps using surface electrodes on 10 full-term 4-8 day old neonates. Stimuli consisted of a 125-Hz square-wave tone, a female voice saying "baby," and a 125-Hz sine-wave tone. Each stimulus was presented on 60 trials, 30 min. after each S was fed. There was a 30-sec pause between instigation of a new stimulus trial series. Results fail to demonstrate any degree of habituation to auditory stimulation. In addition, decrement of response did not appear to be related to any change in state. (23 ref.)—*P. Shibelski*.

2122. Korner, Anneliese F. & Thoman, Evelyn B. (Stanford U., Medical School) **Visual alertness in neonates as evoked by maternal care.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 67-78.—Explored, within the context of common maternal ministrations, the relative efficacy of contact and of vestibular stimulation, with and without the upright position, in producing visual alertness in neonates. Ss

were 40 crying and 24 sleeping 2- to 3-day-old healthy full-term newborns, equally divided into males and females, breast and bottle-fed infants. Each S was given, in random order, 6 interventions which entailed singly, or in combination, contact and vestibular stimulation with or without the upright position. A 6-point scale assessing levels of alertness with high interobserver reliability was devised. There were highly significant individual differences in alerting response between the Ss, but no differences due to sex or mode of feeding. In the context of soothing the S, vestibular stimulation had a highly significant effect on alerting. Contact had little effect on evoking alertness except when combined with vestibular stimulation and the upright. Ss responded minimally when stimulated in the context of rousing. Findings imply that, at least during the neonatal period, the vestibular stimulation which attends most caretaking activities may be more crucial than contact for certain aspects of early human development. (20 ref.)—*Journal abstract*.

2123. Lewis, Michael & Wilson, Lloyd. (Educational Testing Service, Princeton, N.J.) **An infant stabilimeter.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 52-56.—Describes an inexpensive, accurate stabilimeter and briefly discusses various measurement problems.—*Journal abstract*.

2124. Sameroff, Arnold J. (U. Rochester) **Changes in the nonnutritive sucking response to stimulation during infancy.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 112-119.—Studied non-nutritive sucking response change to auditory stimulation in 22 1-, 2-, and 3-mo-old infants. Each S was stimulated with 5 stimuli, presented 4 times during 3 sessions at 24-hr intervals. The 1- and 2-mo-old Ss were tested again 1 mo. later for another 3 sessions. The response of younger Ss was ambiguous. The response of older Ss showed reliable shortening of sucking burst and lengthening of sucking interval. Neither differential effects of the stimuli nor habituation of response were found.—*Journal abstract*.

2125. Tennea, K. H. & Lampl, E. E. **Defensive reactions to infantile separation anxiety.** *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1142-1162.—Anxiety reactions to experimentally induced minor separations from mother were observed in a group of normal 7 mo.-3 yr. old infants. Behaviors resulted that reduced manifest anxiety. Such behaviors are possible responses to anxiety in the transitional period between early sensorimotor behaviors and later defense mechanisms. (28 ref.)—*D. Prager*.

2126. Uzgirlis, Ina C. & Hunt, J. M. (Clark U.) **Attentional preference and experience: II. An exploratory longitudinal study of the effect of visual familiarity and responsiveness.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 109-121.—15 infants exposed to both a stable and a mobile pattern over their cribs, beginning at ages of 4-5 wk., looked longer at their familiar patterns than at an unfamiliar pattern in tests of attentional preference presenting simultaneously both an unfamiliar and a familiar pattern conducted at ages of 8-9 wk. After a 2nd 4 wk. of exposure to their familiar patterns, however, Ss looked more at the unfamiliar pattern in such tests at 12-13 wk. of age. This shift of attentional preference from the familiar patterns to the unfamiliar with additional perceptual exposure (and age) supports the hypothesis of a process in which perceptual encounters lead 1st to attentional preference for what is

familiar before leading to interest in the unfamiliar or novel.—*Journal summary.*

CHILDHOOD

2127. ———. **Cognitive development in children: Five monographs of the society for research in child development.** Chicago, Ill.: U. Chicago Press, 1970. xii, 698 p.—Presents monographs derived from reports and papers of several authors presented at 5 conferences of the Society for Research in Child Development dealing with: (a) thought in the young child, (b) basic cognitive processes in children, (c) acquisition of language, (d) mathematical learning, and (e) European research in cognitive development.

2128. Alvik, Trond. (Royal Danish School of Educational Studies, Copenhagen) **The problem of anxiety in connection with investigations concerning children's conception of war and peace.** *Scandinavian Journal of Educational Research*, 1968, No. 3-4, 215-233.—Discusses views on whether or not questioning children about war and peace provokes anxiety. The literature is surveyed and an exploratory study employing a 4-group pretest/posttest design to register variations in level of anxiety is presented. Results from 24 2nd, 4th, and 6th grade children show that no anxiety is provoked.

2129. Brůšek, Ján. **Aparatúra na sledovanie pozornosti a vytrvalosti.** [An apparatus for observing attention and perseverance.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(1), 61-70.—Describes an apparatus constructed to study the course of attention and perseverance in children. S's task is to press 1 of 48 keys on a response panel according to the position of 2 luminous stimuli. Either a spontaneous rhythm of response to the stimulus can be used, or a directed rhythm that can be increased after a stress situation. The apparatus is fully automated, has 3 step-by-step selectors for switching light stimuli and differentiating the correct response, and registers the total number of correct responses and stimuli involved. Time is measured by a stop watch. (Russian summary)—*English summary.*

2130. Cravioto, J., et al. **The ecology of growth and development in a Mexican pre-industrial community: I.** *Monographs of the Society for Research in Child Development*, 1969, Vol. 34(5), 76 p.—Ss were all children born during 1 yr. in a rural preindustrial community situated in the hot semihumid zone of Mexico. "This 1st report is concerned with the condition of the children at birth and with their physical and behavioral progress during the 1st mo. of postnatal life." This report introduces a series of reports deriving from the longitudinal study of the children in this birth cohort, and includes "the general design of the study and with the methods used for the collection of data on the community, the children, and the families from which they derive."—*A. Barclay.*

2131. Davidson, Nancy H. & Fitzgerald, Hiram E. (Michigan State U.) **Recency and summation effects of nonreward in children.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 16-27.—Investigated the effects of recency and summation of frustrative nonreward on children's performance. 30 kindergarten children performed a lever-pulling task on a 3-lever apparatus. Session I consisted of 100% reinforcement; Sessions II and III consisted of 3 partial reinforcement patterns presented in random order. Analysis of latency

at the 3rd lever confirmed the recency hypothesis, i.e., when a single nonreward was administered in 2 different patterns a greater frustration effect (FE) occurred after the more immediate nonreward than after a nonreward that was separated from the time of measurement by a rewarded response. The analyses for latency also support the notion of the summation properties of nonreward since 2 successive nonrewards yielded a greater FE than a single nonreward. Analysis of movement time shows no evidence of recency and suggestive support for summation effect. The concept of reward expectancy in studies of the FE in children is discussed.—*Journal abstract.*

2132. Fialkina, G. (Prosveshchenie Publishing House, Moscow, USSR) **Izdatel'stvo "Prosveshchenie"—doshkol'nym rabotnikam.** [Prosveshchenie Publishing House—for preschool professionals.] *Doshkol'noe Vospitanie*, 1970, Vol. 43(3), 123-124.—Notes professional publications for the end of 1969 and for 1970, including those planned.—*J. D. London.*

2133. Goyeche, John R. (U. Waterloo, Ontario, Canada) **Cardiac activity during anticipatory attention in the young child.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 179-185.—Ss were 50 boys in Grades 1 and 2. Each was studied in a mobile laboratory. 30 visual recognition trials were presented by means of a carousel slide projector. Relationship between performance and cardiac activity seems to be a function of age. It is suggested that in order to perform correctly, younger children have to be more attentive.—*R. D. Nance.*

2134. Holliman, Neil B. (Midwestern U.) **The scaling of incentives for children by pair comparison.** *Psychological Record*, 1970(Spring), Vol. 20(2), 197-202.—Investigated the use of children's preferences as a basis for identifying and scaling incentives. A modification of the pair comparison procedure increased the type and number of incentives which could be scaled. 72 school children of both sexes and a mean age of 7 and 11 yr. scaled 12 different incentives. 4 different scales were derived in accordance with age and sex differences. Results support the reliability of the procedure and the obtained scales. The presence of age and sex differences in incentive preferences of children was confirmed.—*Journal abstract.*

2135. Huff, Joan. (State University Coll. New York, Oswego) **Games that children play.** *New York State Education*, 1967(Feb), Vol. 54(4), 32-33.—Discusses the historical context and evolution of some of the better known children's games.—*L. D. Summers.*

2136. Kline, Hayes K. (Smith Coll., School for Social Work) **An exploration of racism in ego ideal formation.** *Smith College Studies in Social Work*, 1970(Jun), Vol. 40(3), 211-235.—15 Negro and 15 white children, ages 5-7, whose parents consented to their participation in a study, were interviewed concerning components believed to comprise the ego ideal. Ss were presented first with a doll of their own race and then with a doll of the opposite race and asked to judge whether each doll would achieve the child's standards or which would exceed in attainment. Findings showed both groups expressed positive views about prospects for dolls of both races, suggesting that idealizing operations of children may be uncontaminated by racial influences.—*M. W. Linn.*

2137. McWhinnie, Harold J. (Ohio State U.) **Some relationships between creativity and perception in**

sixth grade children. *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 84-90.—Reviewed studies by J. Getzels and P. Jackson (see PA, Vol. 36:5HD93G), H. A. Witkin (see PA, Vol. 37:819), and F. Barron (see PA, Vol. 38:6077). Results of a battery of perception and creativity tests given to 136 6th graders indicate that: (a) behaviors studied are more discrete and separate than previous research has assumed, and (b) there are significant sex differences on several creativity variables with males being stronger than females. (French summary)—G. Steele.

2138. Mischel, Walter & Ebbsen, Ebbe B. (Stanford U.) **Attention in delay of gratification.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 329-337.—Explored the role of attentional processes in voluntary delay of reward by manipulating children's attention to the rewards for which they were waiting in a delay-of-gratification paradigm. 32 preschool children waited for a preferred but delayed reward while facing either the delayed reward, a less preferred but immediately available reward, both rewards, or no rewards. The dependent measure was the amount of time they waited for the preferred outcome before forfeiting it for the sake of the less desired but immediately available one. Results contradict predictions from psychodynamic theory and from speculations concerning self-instructions during time binding. Unexpectedly, but in accord with frustrative nonreward theory, voluntary waiting time was substantially increased when Ss could not attend to rewards during the waiting period. Implications are discussed for a theory of the development of delay of gratification. (22 ref.)—*Journal abstract*.

2139. Nadel, J. & Pardo, A. M. **Degré d'extensibilité et réglage de l'activité musculaire en travail statique chez les garçons de 7 à 12 ans.** [Degree of extensibility and regulation of motor activity in static work among boys 7 to 12 years of age.] *Enfance*, 1970(Jan), No. 1, 55-66.—Fostered by Wallon's contention that motricity and personality are related, this preliminary study sought to establish the influence of the degree of extensibility of groups of muscles on regulation of muscular activity of the arms during static work. Results show that the obtained relationships vary with the groups of muscles considered and with age. The findings can be interpreted as an expression of the classic law of proximo-distal evolution.—S. S. Marzolf.

2140. Norton, Dolores G. (Bryn Mawr Coll.) **Environment and cognitive development: A comparative study of socio-economic status and race.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5526-5527.

2141. Pardo, Ana M. **Sur certains indices de l'extensibilité musculaire chez l'enfant normal entre 7 et 12 ans.** [Concerning certain indices of muscular extensibility among 7 to 12 year old children.] *Enfance*, 1970(Jan), No. 1, 67-90.—Analysis of genetic and sex differences shows that, for the 8 indices used, there is a genetic evolution within the age range studied; sex difference tends to become inverse at age 12, and is presumed a consequence of the onset of puberty; there is no global extensibility, as in infancy, and among boys 3 regional structures are established. Evidence for a relationship between extensibility and psychosocial conduct is presented.—S. S. Marzolf.

2142. Rhodes, L. E., Dustman, R. E., & Beck, E. C. (Veterans Administration Hosp., Phoenix, Ariz.) **The visual evoked response: A comparison of bright and**

dull children. *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 364-372.—Recorded visual evoked responses (VER) from central and occipital scalp of 20 bright children (Full Scale WISC scores, 120-140, $X = 130$) and 20 dull children (Full Scale WISC scores, 70-90, $X = 79$). Ss were 10-11 yr. old and each group was composed of 10 boys and 10 girls. Results were: (a) the late components of responses recorded from both occipital and central scalp were reliably larger for the bright Ss, and (b) dull Ss demonstrated essentially no hemispheric differences between the amplitudes of the right and left central responses. Bright Ss had right central responses which were consistently larger than responses from the late components of the left scalp. Differences between the bright and dull Ss was not simply a function of the maturational process. The bright Ss' VER amplitudes were similar to normal 13- and 14-yr-old children's; however, the dull Ss' VER amplitudes were smaller than those of either younger children or normal children their own age. (French summary) (38 ref.)—*Journal summary*.

2143. Steinman, Warren M. (U. Illinois) **Generalized imitation and the discrimination hypothesis.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 79-99.—Generalized imitation is characterized by the continued imitation of nonreinforced responses even after many sessions of differential reinforcement. It has been suggested that this generalized imitation effect is due to the child's inability to discriminate reinforced from nonreinforced occasions. Results of 3 experiments with 2 4-yr-old girls and 4 6-7 yr. old boys indicate that the "discrimination explanation" may be only partially correct. Although Ss imitated a nonreinforced response when no reinforced alternative was available, they reliably imitated the reinforced response when it was presented in a choice procedure. Similarly, Ss immediately stopped imitating nonreinforced responses when simply instructed to stop. It is suggested that the generalized imitation effect is largely a function of instructional and other social variables operating within typical generalized imitation procedures. (16 ref.)—*Journal abstract*.

Learning

2144. Beller, E. Kuno. (Temple U.) **The concept readiness and several applications.** *Reading Teacher*, 1970(May), Vol. 23(8), 727-737, 747, 765.—Reviews the concept of readiness as discussed in the writings of Rousseau, Gesel, Piaget, Watson, and Bruner, and proposes that statements concerning the concept can become more meaningful if: (a) "the criteria of readiness are pinned down to specific activities or operations in such a way that their relationship" to learning variables can be ascertained and predicted; and (b) the operations, etc., defining readiness relate to either new operations which must be learned or the methods by which the new operations are taught. Research in which such a formula has been applied to the study of cognitive, emotional, and motivational factors in children is discussed. Such research indicates an interrelationship between readiness and method of teaching such that individualized instruction produces positive effects. (19 ref.)—R. Wiltz.

2145. Boyce, Florentia. (Fordham U.) **The effect of sequence of information presentation and availability of past information on children's concept learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5707.

2146. Breyer, Norman L. (Florida State U.) **Effects of selected teacher and pupil characteristics on social learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5672-5673.

2147. Ching-Yi Wu Yeh, Joyce. (684 Jefferson Dr., Cleveland, O.) **Transposition and transfer of absolute responding as functions of learning-set training and stimulus similarity.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 57-66.—Studied transposition and transfer of responding in the intermediate size problem in 108 4th and 5th grade children, with training and stimulus similarity as independent variables. Some Ss were pretrained to respond either to the relational stimulus (the middle-sized stimulus) or to the absolute (always the same) stimulus, while others served as nontrained controls. Pretraining was given under learning-set procedures. The type of pretraining interacted with stimulus similarity to determine ease of learning the transfer task. Transfer performance was significantly affected by the training conditions, with the differential effect being more pronounced under the distinctive-stimulus pretraining condition.—*Journal abstract*.

2148. Dickerson, Donald J. (U. Connecticut) **Effects of naming relevant and irrelevant stimuli on the discrimination learning of children.** *Child Development*, 1970(Sep), Vol. 41(3), 639-650.—Studied the simultaneous discrimination learning of 80 2nd graders under 4 transfer conditions. Prior to discrimination learning, training was given during which groups of 20 Ss learned distinctive names for (a) the relevant cues of the discrimination problem, (b) 2 different cues along the relevant dimension, (c) the variable-irrelevant cues of the problem, and (d) 2 different cues along the variable-irrelevant dimension. The 4 groups were ordered, from best to poorest in subsequent discrimination performance, a-b-d-c. This ranking is consistent with a chaining theory interpretation of results. Backward learning curves showed performance differences among the groups to be in the length of the initial chance portions of the curves, suggesting that the 4 training conditions had differential effects upon the probability of attending to the relevant dimension at the start of the discrimination problem.—*Journal abstract*.

2149. Gagné, Robert M. & Wiegand, Virginia K. (Florida State U., Coll. of Education) **Effects of a superordinate context on learning and retention of facts.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 406-409.—Gave 44 4th graders 5 facts to learn and remember about howling monkeys, each being presented in a context with 4 other facts. $\frac{1}{2}$ the Ss learned the facts in a context containing a superordinate statement (topic sentence), the other $\frac{1}{2}$ with a coordinate (related) statement. Retention was measured in $\frac{1}{2}$ of each group by presenting the topic sentence immediately before the retention test, and in $\frac{1}{2}$ without. Significantly greater remembering, measured by recall and recognition scores, was found in groups having the topic sentence presented just prior to the retention test. Results indicate the major effect of the superordinate context cue to occur in retrieval.—*Journal abstract*.

2150. Hemry, Frances M. (U. Texas) **Verbal and nonverbal reinforcement combinations as related to impulsive-reflective style of responding in primary grade children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5675.

2151. King, William L. & Holt, Julia R. (City Coll.,

City U. New York) **Conjunctive and disjunctive rule learning as a function of age and forced verbalization.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 100-111.—Presented 24 6-, 24 9-, and 24 12-yr-old girls with either 2 conjunctive or 2 disjunctive rule-learning problems. Older Ss made fewer errors than younger ones. On the 1st problem, disjunctive rules were more difficult than conjunctive ones, and forced verbalization facilitated performance. On the 2nd problem, neither rules nor verbalization significantly affected performance. Data were interpreted as reflecting hypothesis-testing processes at all ages, although there was some evidence suggesting that 6 yr. olds differed from the older Ss.—*Journal abstract*.

2152. Klein, Judith F. (Rutgers State U.) **Effect of sex, grade level, and alternative conditions of reinforcement on performance in a discrimination task.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5713.

2153. Miller, Adam W. & Clark, Norma. (St. Cloud State Coll.) **Self-reinforcement established for a discrimination task.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 1-6.—Investigated the effects of different conditions on developing a conditioned verbal reinforcer and studied its use as a self-reinforcer. In a 2×4 factorial design 80 2nd grade Ss were pretrained on a discrimination task. After correct choices Ss said "pib" and received 1 of 3 reinforcers: candy, verbal reinforcement from E, combination, or no response (controls). On a 2nd discrimination task, $\frac{1}{2}$ of the Ss used "pib" for a self-reinforcement; $\frac{1}{2}$ did not. Results indicate that a combination of primary and conditioned reinforcers was most effective in developing a verbal conditioned reinforcer, which effectively functioned as a self-reinforcer to facilitate new learning.—*Journal summary*.

2154. Rivas-Vazquez, Ana A. (U. Miami) **Conflict behavior in normal and maladjusted children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5696-5697.

2155. Schaeffer, Benson & Ellis, Stephen. (U. Oregon) **The effects of overlearning on children's non-reversal and reversal learning using unrelated stimuli.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 1-7.—Attempted to show that the response to explicit dimensions is not crucial to the difference in relative difficulty between nonreversal and reversal shifts in children. To eliminate the possibility of the response to explicit dimensions, the shift problems were defined using unrelated stimuli, and a successive discrimination procedure was employed. 164 7-, 8-, and 9-yr-old children served as Ss. In Exp. I no overlearning was given, and nonreversal shifts were easier than reversal shifts. In Exp. II overlearning was given, and reversal shifts were easier than nonreversal shifts. The studies demonstrate that the response to explicit dimensions was not crucial to the change from easier nonreversal to easier reversal shifts during overlearning. Interpretations are offered in terms of learning mechanisms which rely on an increase in shift discriminability during overlearning and/or the creation of stimulus clusters.—*Journal abstract*.

2156. Shiebler, Mary C. (Fordham U.) **The effect of age and mode of representation on organizing variables in verbal learning and retention.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5679.

2157. Vajanasontorn, Chalermwong. (Utah State U.) **Superordinate words and subordinate words in mediate association.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5680-5681.

2158. Zimmerman, Peggy. (City Coll., City U. New York) **Retention in threatening and non-threatening stories by kindergarten children.** *Graduate Research in Education & Related Disciplines*, 1968(Win), Vol. 4(1), 81-91.—Investigated whether 20 white middle class kindergarten children retained more facts about a story without threatening material than about a story containing threatening material. Results show that Ss remembered more content aspects of the nonthreatening story than of the threatening story regardless of the sequence in which they heard the stories. Consequences of results for the context in which many school subjects are taught are examined.—*Journal summary*.

Concepts & Language

2159. Bickley, Albert C. (U. Georgia) **An analysis of frequency, learning rate, and semantic congruence as categorization constraints on beginning readers.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5278.

2160. Bormuth, John R., Manning, John; Carr, Julian, & Pearson, David. (U. Chicago) **Children's comprehension of between- and within-sentence syntactic structures.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 349-357.—Conceptualized and operationally defined 3 classes of the skills by which knowledge is acquired from written language and made a preliminary determination of whether the skills defined represent homogeneous classes of behaviors and are hierarchically related. The test was administered to 240 4th graders. Question transformations which derive questions and their correct responses from the various types of syntactic-structures studies were used to operationally define each skill. It seemed from the analyses of the Ss' responses that the skills defined represented homogeneous response classes which may be hierarchically related. However, the Ss showed an unexpectedly low level of performance on these seemingly simple and basic skills.—*Journal abstract*.

2161. Carmona Gutiérrez, Arsinio & Solís, Mercedes. **Formación Intuitiva del concepto de la palabra.** [Intuitive formation of the concept of word.] *Psicología y Educación*, 1968(Jul), Vol. 5(11), 3-10.—In order to study the development of intuitive grammatical functioning, an oral test of 15 simple sentences was given to 40 4- and 5-yr-old preschoolers, 40 5- and 6-yr-old preschoolers, 50 6- and 7-yr-old 1st graders, and 40 7- and 8-yr-old 2nd graders. Criteria tested were conception of a sentence as (a) 1 word, (b) units of meaning, (c) units of sound, and (d) correct identification. It was found that the youngest Ss considered a sentence to be a single thought and equivalent to 1 word. Each progressive age level showed improved grammatical functioning, with the highest rate of correct answers from the oldest Ss. Based on these results, it is speculated how to best meet the educational needs of young children at different developmental levels of learning. (English & French summaries)—*P. Hertzberg*.

2162. Denner, Bruce. (Indiana U.) **Representational and syntactic competence of problem readers.** *Child Development*, 1970(Sep), Vol. 41(3), 881-887.—Admin-

istered a test (previously given to normal and brain-damaged 4-12 yr. olds) to 1st grade problem readers, 1st grade average readers, 3rd-5th grade problem readers, and Head Start preschoolers. Problem readers and Head Start Ss were as competent as average readers in associating nonrepresentational linear forms with words. But they were significantly less competent in synthesizing whole sentences from individual linear forms. Findings are interpreted in view of the distinction between oral and written language.—*Journal abstract*.

2163. Guthrie, John T. & Baldwin, Thelma L. (Johns Hopkins U., Center for Study of Social Organization of Schools) **Effects of discrimination, grammatical rules, and application of rules on the acquisition of grammatical concepts.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 358-364.—Shows the occurrence of the indefinite article to be a concept similar to those studied in the general concept-formation paradigm. The acquisition of this grammatical concept was examined using 80 inner-city, Negro 5th graders. Learning an auditory discrimination of instances and noninstances of the concept did not affect the acquisition of the ability to produce instances of the concept orally. Likewise, learning to verbalize the grammatical rule which governs the concept did not facilitate concept formation. However, training on the application of the verbalized rule strongly facilitated concept formation ($p < .001$). The application training was superior to rule learning for low- but not high-IQ Ss. Performance on a concept-transfer task was not facilitated by the acquisition of the concept. (17 ref.)—*Journal abstract*.

2164. Johnson, N. B., Middleton, Margaret R., & Tajfel, Henri. (U. Bristol, England) **The relationship between children's preferences for and knowledge about other nations.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 232-240.—A test of factual knowledge of about 10 nations was developed and applied to 96 7-11 yr. old middle- and working-class children, whose preferences for these nations had already been determined. The relationship between preference for and knowledge about other nations was found to be curvilinear in form and did not seem to be accountable for in terms of a similar relationship in environmentally available cues. Working-class Ss displayed considerably less knowledge than middle-class Ss. Causal implications of the findings are discussed. (20 ref.)—*Journal abstract*.

2165. Kuniya, Yoriko. (Kwansei Gakuin U., Nishinomiya-Shi, Japan) **Development of language in early childhood.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 166-174.—Reports the case of a girl born in late 1961. Her speech record was started at age 7 mo. If this child is typical, language development today is more "premature" than before. However, the difference is greater in words susceptible to external incentive than in those more related to inner development.—*R. D. Nance*.

2166. Nasi, Pierre & Nasi, Claude. **Etude des modes de pensée du stade préopératoire à travers le langage.** [A study of modes of thought at the pre-operative level with respect to language.] *Enfance*, 1970(Jan), No. 1, 31-45.—60 3½-4½ yr. old Ss were shown 5 series of pictures. Each series of 3 or 4 pictures told a story. Ss were asked to tell the stories and their recorded responses constituted the data. Among the major findings are: (a) frequent confusion of part and whole; (b) prevalence of Stern's phenomenon of transduction, i.e., a pseudological connection between ideas;

(c) complete lack of statements of comparison; (d) the meaning of number is limited to 2; (e) existence and the action of that which exists are expressed separately; and (f) egocentrism is revealed in subjective reference, spatial representations, notions of time, and in the expression of causality.—S. S. Marzolf.

2167. Olsen, Audun J. (Indiana U.) **The effect of stimulus complexity, reversal and nonreversal shifts, and amount of information feedback on concept attainment at two levels of intelligence and three age levels in children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5297.

2168. Rankin, Earl F. & Overholser, Betsy M. (U. Kentucky, Coll. Education) **Reaction of intermediate grade children to contextual clues.** *Journal of Reading Behavior*, 1969(Sum), Vol. 1(3), 50-73.—To determine the use of 13 types of contextual cues in relation to reading ability, 208 intermediate grade students were divided into 3 groups on the basis of raw scores on the California Achievement Test and given the Context Test, a cloze test constructed from passages in current 4th grade basals. Each of 13 clue categories involved 1 clue and 10 test items, with 130 items in the test. Results indicate: (a) there is a significant difference in difficulty among the 13 clues, with accuracy ranging from 26-69%; (b) rank order of clue difficulty is consistent among both grade and reading levels; (c) % accuracy for total clues range from 43% (4th grade) to 62% (6th grade); (d) reading level is significantly related to ability to use each of the clues; and (e) differences in responses to clues by grade level can be accounted for by differences in reading ability. (20 ref.)—R. Wiltz.

2169. Shanks, Susan J., Sharpe, Mary R., & Jackson, Bernard R. (Stephan F. Austin State Coll.) **Spontaneous responses of first grade children to diagnostic picture articulation tests.** *Journal of Communication Disorders*, 1970(Aug), Vol. 3(2), 106-117.—Presented pictures selected from 4 diagnostic articulation tests to 24 male and 24 female 1st graders from low and middle socioeconomic homes whether: (a) sex or socioeconomic background influenced the correct, spontaneous naming of the pictures; (b) the number of correct responses elicited by the pictures from each articulation test would be significantly different; and (c) the 4 tests could be considered equivalent forms. Results indicate that socioeconomic background affects children's responses during administration of diagnostic articulation tests. The Photo Articulation Test was the most effective in eliciting spontaneous responses, and a lack of equivalency between the 4 tests was shown.—*Journal abstract*.

Abilities

2170. Adler, Sol. (U. Tennessee, Memorial & Research Hosp., Speech & Hearing Clinic) **Auditory retention ability in five year old lower and middle class children: A pilot study.** *Journal of Communication Disorders*, 1970(Aug), Vol. 3(2), 133-139.—Administered a digit-span retention test and a sentence test incorporating high-value words to 24 5-yr-old children from the middle class and 24 from the lower socioeconomic class. The former test revealed distinct differences between the 2 groups of Ss, whereas on the latter test, both groups performed similarly. It is suggested that a digit-span test score may not truly reflect the language retentive ability of so-called disadvantaged and retarded children. (16 ref.)—*Journal abstract*.

2171. Allott, Nicholas C. (U. Georgia) **The effects of warm-up activities on the verbal creative thinking abilities of disadvantaged first grade children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5275.

2172. Arnett, Chappelle. (U. Missouri) **Perceptual-motor and motor performance test items for pre-school through grade six children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5266-5267.

2173. Kaplar, James E. (U. Massachusetts) **Creativity, sex-role preference, and preception of parents in fifth-grade boys.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5689-5690.

2174. Sekyra, Francis & Arnoult, Joseph F. (Mississippi State U.) **Negro intellectual assessment with three instruments contrasting Caucasian and Negro norms.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 564-569.—Compared the Stanford-Binet (S-B), 1969 Revision (Form L-M), the WISC, and the Columbia Mental Maturity Scale (CMMS) intelligence scores of 30 rural and 30 urban Negro Ss divided into 3 groups of 20 Ss each from the 2nd, 5th, and 8th grades. Both Caucasian and Negro norms of the S-B were used to study the need for further standardization of Negro Ss on the WISC and the CMMS. Results show significant correlations between the WISC and the S-B (Caucasian norms), with relatively lower correlation between the CMMS and the WISC. When the S-B (Negro norms) were compared to all other instrument scores, they yielded significantly higher MAs, indicating that neither the WISC nor the CMMS is giving an adequate indication of intellectual function for Negroes. It is concluded that "future studies should be made regarding the validity of the CMMS and the WISC scores when assessing members of the Negro population."—M. Maney.

2175. Wood, Rebecca H. (U. Alabama) **Three environmental press variables and their relationship to coping behavior and creativity in children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5306-5307.

Perception

2176. Berthoud, Myriam & Vurpillot, Eliane. **Influence du nombre de différences sur les réponses "pas pareil" chez l'enfant d'âge préscolaire.** [Influence of the number of differences on the "not alike" responses of school age children.] *Enfance*, 1970(Jan), No. 1 23-30.—Studied the evolution of the criteria for differentiation in perceptual tasks by presenting 4- and 5-yr-old children with pictures to be compared. 5 levels of differentiation (0-4 differences) were introduced into the comparisons. The majority of the youngest Ss responded "alike" no matter how many differences existed. However, many 5 yr. olds adopted adult criteria. Attention is called to the difference between information received and information used.—S. S. Marzolf.

2177. Greenberg, Gordon Z., Bray, Norman W., & Beasley, Daniel S. (U. Illinois) **Children's frequency-selective detection of signals in noise.** *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 173-175.—5 children, median age 7 yr., and 6 adults, median age 20 yr., served as Os in a task requiring the detection of auditory signals presented against a continuous background of noise. 2-alternative, temporal-forced-choice trials of

5-sec duration were presented periodically in blocks of 50 during 2 or 3 1-hr sessions. During a block, some 70% of the signals were of 1000 Hz. and approximately 30% were probe signals of a frequency other than 1000 Hz. After only rudimentary description of the task, Ss performed adequately. Results from children and adults were similar, showing differential detection as a function of signal frequency. The demonstrated frequency selection is consistent with a sensory-filter model of O's auditory behavior.—*Journal abstract.*

2178. Martin, Ruth G. (U. Georgia) **An analysis of three types of visual cues used in word perception under four types of presentation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5169-5170.

2179. McWhinnie, Harold J. (Ohio State U.) **A factor analytic study of perceptual behavior in 4th and 5th grade children.** *Acta Psychologica*, Amsterdam, 1970(Sep), Vol. 34(1), 89-97.—Used the pretest scores for 95 4th and 5th graders in factor analysis in which 4 and 6 factors were rotated. The tests were a variety of perception, creativity, and esthetic preference measures. The 6 factors to emerge from the pool of 14 variables were: a factor of creativity, a perceptual factor of deductive reasoning, a perceptual factor of inductive reasoning, a measure of perceptual field independence, and 2 esthetic preference factors. In the 4 factor analysis the creativity factor, the 2 perceptual factors, and the esthetic preference factor remained. Results are discussed with implications for art education.—*Journal abstract.*

2180. Museñbova, T. **Genezis otrazheniya prostranstva i prostranstvennoi orientatsii u detei doshkol'nogo vozrasta.** [Origin of the conceptual reflection of space and spatial orientation in children of preschool age.] *Doshkol'noe Vospitanie*, 1970, Vol. 43(3), 36-40.—Results are based on the author's own research.—*I. D. London.*

2181. Nash, Harvey & Harris, Dale B. (California State Coll., Dominguez Hills) **Body proportions in children's drawings of a man.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 85-90.—Found that 49 male and 39 female 1st grade Ss who drew a man on each of 10 successive school days clearly magnified head length and somewhat less clearly diminished leg length. Agreement and self-consistency among Ss were greater for head length than for leg length, possibly due to factors such as the greater attention paid to the head, the obscurement of the trunk-leg juncture by clothing, and the difficulties experienced by a young child in laying out a drawing on a sheet.—*Journal summary.*

2182. Powers, Richard B., Cheney, Carl D., & Agostino, Norman R. (Utah State U.) **Errorless training of a visual discrimination in preschool children.** *Psychological Record*, 1970(Win), Vol. 20(1), 45-50.—Determined the feasibility of H. S. Terrace's (see PA, Vol. 38:536) errorless discrimination technique in training children to make a fine color discrimination. Of 5 3½-5 yr. old children, 3 were trained with traditional discrimination techniques and 2 were trained utilizing Terrace's techniques. No S in the traditional group made the discrimination. Both Ss in the errorless condition were successful in making the discrimination and made the transition to the final performance with very few errors.—*Journal abstract.*

2183. Spearman, Cecile T. (City Coll., City U. New York) **Color-mood association with lighter and**

darker hues of non-racially related colors by young Negro and Caucasian children. *Graduate Research in Education & Related Disciplines*, 1968(Win), Vol. 4(1), 25-37.

2184. Super, Selwyn. **Spatial perception of language symbols and a description of a test designed to assess this function.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Jun), Vol. 46(6), 426-433.—Describes the spatial perception of language symbols against the background of developmental visual cognition. A rationale for the selection of a test of letter recognition as part of the assessment of a child's reading ability is suggested. A simple new test is described in this field, and a report is given and data provided on its administration to 100 children in a normal and a special school population.—*Journal abstract.*

2185. Zucker, Joseph S. & Stricker, George. (Adelphi U.) **Impulsivity-reflectivity in preschool Head Start and middle class children.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 578-584.—Determined differences between lower class Negro and middle class white children in perceptual tempo, and investigated the adequacy of J. Kagan's Matching Familiar Figures Test (MFF) for children 2 yr. younger than those used by Kagan. Based on previous findings that culturally deprived children fail more frequently in school and have more difficulty learning to read, it was hypothesized that 30 preschool lower class (LC) Negro Ss would have shorter latencies and more mean errors on the MFF test than 30 middle class (MC) white Ss. Results, based on t scores between the means of the 2 groups, show that: (a) for comparison of girls or boys, the only significant difference was between LC and MC girls on errors with all other differences in the predicted direction; (b) for overall comparisons, LC Ss made problem solving decisions significantly faster than MC Ss, and also made significantly more errors; and (c) boys of both groups are not significantly different from girls of both groups. Results suggest that the MFF technique is appropriate for preschool Ss, although perhaps it is too difficult in its present form (18 ref.).—*M. Maney.*

Personality

2186. Dermine, Ann M. (Cornell U.) **Relationship between values and behavior: An experiment.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5532.

2187. Muto, Michiyo & Murase, Takao. [A methodological study concerning types of children with school phobia.] *Japanese Journal of Clinical Psychology*, 1968(Jul), Vol. 7(2), 95-106.

2188. Schwendiman, Gary; Larsen, Knud S., & Parks, Chris. (Marshall U.) **Birth order, aggression training and authoritarianism.** *Psychological Record*, 1970(Win), Vol. 20(1), 69-71.—Since 1st-born children are thought to be serious, studious, adult-oriented, and more punitively treated than 2nd-born children who are generally considered receiving more nurturance from parents, it was hypothesized that 1st-born children would score higher on 3 personality scales measuring dogmatism, authoritarianism, and child aggression-training. In opposition to the prediction, 2nd-born children scored significantly higher on both dogmatism and child aggression-training.—*Journal abstract.*

Social Behavior

2189. Artemova, L. **Formirovanie obshchestvennykh chert kharaktera v protsesse vzaimootnoshenii starshikh doshkol'nikov.** [Formation of social traits of character in the process of interrelationships of older preschoolchildren.] *Doshkol'noe Vospitanie*, 1970, Vol. 43(3), 45-51.—Reports the results of research on the "organization of certain complexes of interrelationships" among older preschoolchildren which have a favorable influence on the development of positive social traits. The outcome of such efforts depends on initial attitudes to rules, and the way social attitudes and interrelationships develop for certain individual children in a group, since their behavior has a great influence on others.—*I. D. London.*

2190. Elliott, Rogers & Vasta, Ross. (Dartmouth Coll.) **The modeling of sharing: Effects associated with vicarious reinforcement, symbolization, age, and generalization.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 8-15.—4 groups of 5-, 6-, and 7-yr-old children each matched for age, sex, and the sharing of candy were shown either a model sharing, a model sharing and being rewarded, a model sharing, being rewarded, and told why he was rewarded, or no model. Posttests on similar and different kinds of sharing resulted in significant effects of modeling, with the reinforcement-with-instruction proving most powerful. Rewarded modeling was no more effective than modeling without reward. Sharing was significantly and directly associated with age. The sexes were the same in total amount shared but different with respect to which resource they preferred to share. Little generalization of modeling effects to other kinds of altruism occurred.—*Journal abstract.*

2191. Lepper, Mark R., Zanna, Mark P., & Abelson, Robert P. (Stanford U.) **Cognitive irreversibility in a dissonance-reduction situation.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 191-198.—Tested the proposition that successful dissonance reduction tends to be irreversible by presenting consonant information just before or just after a dissonance-arousing situation. 71 kindergarteners were forbidden from playing with an attractive toy, by a mild or severe threat. Orthogonally, they were given a social consensus justification for obedience, either before or after the temptation period or never. Without the consensual justification, mild-threat Ss derogated the forbidden toy more than severe-threat Ss (the standard dissonance result). If the justification came before the temptation, mild-threat Ss did not derogate the toy, but when justification followed temptation, derogation was as high as with no justification. Results support the irreversibility hypothesis. (25 ref.)—*Journal abstract.*

2192. Massey, Mary. (Florida State U.) **Kindergarten children's behavior in block building situations.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5574.

2193. Smith, James. (Rutgers State U.) **Effects of an adult model's dominance and honesty on children's identification and imitation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5701.

Parent-Child & Family Relations

2194. Austin, Alice. (Smith Coll., School for Social

Work) **Maternal attitudes and the development of learning disabilities in black children.** *Smith College Studies in Social Work*, 1970(Jun), Vol. 40(3), 198-210.—Studied the child-rearing goals and expectations of mothers of children with learning problems in a comprehensive health clinic for culturally and economically deprived black children. The sample consisted of 15 mothers and 10 boys in each of the groups. Results showed that mothers of boys with school problems expected their children to show earlier competence in areas such as self-feeding, toilet training, and dressing. Mothers of problem children discouraged energetic activities such as climbing, jumping, and sports. These mothers were also more demonstrative physically rather than verbally concerning affection. Mothers of non-problem children relied on verbal scolding for inappropriate behavior, while mothers of problem children relied primarily on spanking.—*M. W. Linn.*

2195. English, George E. (U. Wisconsin) **Children's perception of parents in normal families containing an aggressive, withdrawn, or nondeviant child.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5686.

2196. Heaps, Richard A. (Brigham Young U.) **Some relationships among children's perceptions of parental characteristics.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 7-11.—Tested the assumption that a child's perception of the mother could be used to infer the father's child-rearing practices as well. Using semantic differentials with 63 elementary school children, it was found that: (a) there is a positive relationship between girls' perceptions of their mothers' and fathers' characteristics, but there is no such relationship for boys; and (b) for girls, perceptions of the concept "parents" can be used to make inferences about the perceived characteristics of both parents, but for boys, such perceptions cannot be used to make inferences about either individual parent. It is concluded that findings point out the significance of analyzing developmental issues separately for both parent and child sex groups.—*Journal summary.*

2197. Heeren, Steven D. (U. Kansas) **Entrepreneurial vs. bureaucratic fathers as related to family structure, happiness, and two measures of independence.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5674-5675.

2198. Herzog, Elizabeth & Sudia, Cecelia E. **Fatherless homes: A review of research.** *Children*, 1968(Sep), Vol. 15(5), 177-182.

2199. Magaro, Peter A. (U. Maine) **The connotative meaning of parent-child relationships as related to perceived maternal warmth and control.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 25-35.—Perceived maternal control and warmth, as assessed by the Parent Attitude Research Instrument and Parent-Child Interaction Rating Scale, were related to the connotative meaning of parent-child scenes denoting affection, censure, and neutral conditions. Results from 60 male undergraduates support previous work in that connotative meaning on the semantic differential elicited more negative evaluations for low warmth groups than high warmth groups under censorious conditions. This effect was especially evident for the low warmth-low control group (ignored) on paternal censure. There were no group differences on the potency and activity factors. Differences in the present results and the results reported with schizophrenics support an alternative position to the

social censure hypothesis proposed by A. H. Buss and P. J. Lang. (16 ref.)—*Author abstract.*

2200. Wakefield, William M. (Richmond Coll., City U. New York) **Awareness, affection, and perceived similarity in the parent-child relationship.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 91-97.—Data from 60 adolescents and their parents failed to support hypothesized positive relationships between parental awareness, parent-cathexis, and perceived similarity to parents. Findings suggest that, although parents are able to predict their adolescents' responses to a problem checklist with accuracy greater than chance, and mothers appear more accurate than fathers, this form of "parental awareness" appears unrelated to the degree to which the adolescent likes the parent or sees himself as similar to that parent.—*Journal summary.*

ADOLESCENCE

2201. Greenfeld, Norman & Finkelstein, Elsie L. (State U. New York, Albany) **A comparison of the characteristics of junior high school students.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 37-50.—Compared some personal-social characteristics of a sample of 211 junior high school students with a somewhat similar sample (N = 250) examined 30 yr. ago. Inventories, controlled observations, objective test scores, ratings, and other data provided a general picture of Ss' familial relationships, home and community background, areas of interest, and emotional and imaginative life. Differences between the 2 samples seem to be reflections of technological and/or cultural changes in the structure of the immediate societal environments.—*Author abstract.*

2202. Hannon, John E. & Kicklighter, Richard. (Stockton State Hosp., California) **WAIS versus WISC in adolescents.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 179-182.—Administered the WAIS and the WISC to 120 16-yr-old students in counterbalanced order. About 1/2 of the Ss were of average intelligence (IQ = 80-119), 1/4 less than average (IQ below 80), and 1/4 above average (IQ above 120). Analyses of variance indicate significance for order of administration and intelligence level. Higher scores were produced by the WAIS in the less-than-average group, and by the WISC in the other groups. Intertest differences may be masked when groups of varying intelligence levels are combined in a reliability sample.—*Journal abstract.*

2203. Marshall, W. A. & Tanner, J. M. (U. London, England) **Variations in the pattern of pubertal changes in boys.** *Archives of Disease in Childhood*, 1970, Vol. 45(239), 13-23.—Presents longitudinal data on physical changes in 228 pubertal boys. Maximum growth rate was 14.1-14 yr. Genitalia reached maturity between 13-17 yr. Peak height velocity was reached, on the average, nearly 2 yr. later in boys than in girls.—A. B. Warren.

2204. Milner, Esther. (Brooklyn Coll., City U. New York) **Extreme cultural discontinuity and contemporary American adolescent behavior: A relational analysis.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 314-318.—Discusses the idea that the magnitude of cultural discontinuities in the individual American male and female life-careers has recently markedly increased for a number of contributory reasons, chief among them increasing population

and urbanization, and the "2nd industrial revolution." Because adolescence is the period of transition from childhood status and roles to adulthood status and roles, adolescents are most immediately affected by such discontinuities, chiefly by interiorization of them in the form of inner conflicts. Much of the current behavior of American boys and girls reflects reaction to their respective sex-groups' socially induced conflicts, and may serve as a harbinger for other technologically advanced and advancing countries.—*Journal abstract.*

2205. Phelan, Gladys K. (Florida State U.) **Comparative analysis of selected developmental tasks at the beginning of adolescence.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5566.

2206. Popović, Slobodan. **Contribution à l'étude du jugement moral chez la jeunesse scolaire.** [A contribution to the study of moral judgment of young students.] *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 91-100.—Collected information about the moral attitude of 144 13-16 yr. old pupils, towards the notion of property of a found object. After hearing a story about 2 boys who found eggs and sold them, Ss answered 2 questions: (a) What do you like in this tale? and (b) What would you do in these circumstances? The analysis of the answer reveals 2 types of attitude: 60.3% of the Ss were of the opinion that the appropriation of a found object is a theft; and 35.7% of the Ss thought that it is not. It is concluded that the latter attitude is due to a convention which involves the use of the verb, to take, and a need to justify the attitude they would adopt themselves in a similar situation.—*English summary.*

2207. Raphael, Aloysius. (Bishop Loughlin Memorial High School, Brooklyn, N.Y.) **The adult and the teenage: A time for revision.** *Catholic Educator*, 1969, Vol. 40(3), 40-43, 51-52.—The teen-age subculture is composed of 25 million youngsters of whom 1 1/2 million are unschooled, unskilled, and unemployed. It represents an \$11 billion market. It has its own magazines, movies, TV, and radio programs. Its values—happiness, through euphoric irresponsible noninvolvement, through objects, money, and status—have little place for religion or dedicated work. Some drinking and smoking serve as acts of rebellion against authority. Some needs of the teen-ager include physical action, sexual gratification, personal approval, and adults who practice what they counsel. The real guide to teen-age personality development knows that truth and virtue are shared rather than conferred, that obedience is earned, and that guidance is encouragement toward realization of potential. (17 ref.)—A. M. Cawley.

2208. Song, R. H. (Wisconsin State U., Whitewater) **Self-concept variables of delinquent boys from intact homes and broken homes.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 150-152.—Love and affection are indispensable in development of positive and accurate self-concept variables. Children from broken homes lack these essential ingredients. Deprivation and rejection may result from broken homes. It was hypothesized but not confirmed that boys from intact homes would show relatively higher self-concept, self-acceptance, and ideal-self scores. Ss were 100 Caucasians born in the United States. Ages were 13-17, and WISC IQs ranged from 80-125. (27 ref.)—R. D. Nance.

2209. Winter, Gerald D. & Nuss, Eugene M. (Eds.) **The young adult: Identity and awareness.** Glenview, Ill.: Scott, Foresman, 1969. 343 p.—"The primary

purpose of this book of selected readings is to explore the nature of adolescence in a psycho-social perspective.... The readings vary in point of view and in approach to the problems and steps to correct them.... The book is intended to be a supplement to the main text." Nearly 30 contributors delineate problems from fads and values to drugs and racism.—A. M. Cawley.

ADULTHOOD & OLD AGE

2210. Giffin, Kim. (U. Kansas, Communication Research Center) **Personal trust and the interpersonal problems of the aged person.** *Gerontologist*, 1969(Win), Vol. 9(4, Pt. 1), 286-292.—Discusses the idea that increased interaction on the part of those who are troubled, anxious, or disturbed can produce increased personal satisfaction and adjustment to reality. In the case of aged persons, an increase in interpersonal communication can produce a heightened sense of importance, increased awareness of the world, and a greater sense of responsibility for enjoyment and personal satisfaction of others. Research focused on interpersonal trust as a factor in human interaction is discussed. Findings suggest that increased trust is the key to increased interaction between aged persons and their immediate social environment. (38 ref.)—*Journal summary*.

SOCIAL PSYCHOLOGY

2211. Bennis, Warren G. (State U. New York, Buffalo) **A funny thing happened on the way to the future.** *American Psychologist*, 1970(Jul), Vol. 25(7), 595-608.—Identifies 7 types of responders to the present "spastic times": militants, apocalypics, regressors, retreaters, historians, technocrats, and liberal-democratic reformers. New dilemmas, perspectives, and forecasts for public bureaucracies are reviewed. It is concluded that "contradictory and confusing tendencies" can be expected in the future and will include more of the following: (a) self- and social consciousness concerning governance, (b) participation in governance by those served and serving, (c) formal processes of conflict resolution, (d) confrontations when bargaining fails, (e) "attention to moral-ethical issues relative to technical efficiency imperatives," and (f) "rapid turnover and varying relationships within institutions." (31 ref.)—P. McMillan.

2212. Ehrlich, Paul R. & Ehrlich, Anne H. (Stanford U.) **Population, resources, environment: Issues in human ecology.** San Francisco, Calif.: W. H. Freeman, 1970. 383 p. \$8.95.

2213. Krause, Merton S. (Inst. for Juvenile Research, Chicago, Ill.) **Use of social situations for research purposes.** *American Psychologist*, 1970(Aug), Vol. 25(8), 748-753.—Discusses the fact that most psychological research must be done in relatively few paradigmatic types of social situations. An investigator's prior commitment to a theory or social problem leads him to prefer situations which embody his variables at the proper levels. Insuring the reliability of experimental control over these variables requires that the situation be plausible to the Ss involved. Such plausibility dictates (a) which intrusions will be tolerable, and (b) what manipulations can be used, and (c) what variables can be validly measured. Only familiarity with Ss' perceptions

of situations can properly guide a researcher's intrusions on and selections of situations for research purposes. (33 ref.)—*Author abstract*.

2214. McGinnies, Elliot. (U. Maryland) **Social behavior: A functional analysis.** Boston, Mass.: Houghton Mifflin, 1970. xi, 459 p. \$8.50.—Presents a factual introduction to the field of social psychology, including a discussion of major problems and their scientific solutions. Contents include a cross-section of modern research results and chapters on behavior shaping and socialization, social factors in perception and judgment, group behavior and Group \times Individual interactions, language and communication, and games, strategies, and decisions.

2215. Plon, Michel. (Centre National de la Recherche Scientifique, Sorbonne, France) **Quelques aspects des processus d'identification dans une situation expérimentale.** [Several aspects of the identification process in experimental situations.] *Bulletin Centre d'Etudes et Recherches Psychotechniques*, 1969(Apr), Vol. 18(2), 99-116.—On the basis of a certain number of theoretical postulations, experimental social psychology sets aside important questions of identification by substituting the uncertainties of the interchangeability of roles. The theoretical concept proposed shows that the identification process necessarily invoked for securing certain demands of the experiments in this regard, cannot be considered a functioning mechanism. It is predicted that in certain types of social relations, the identification process which is impossible as such will be replaced by speech or behavioral transformations. The limited experimental illustration proposed tends to support certain theories, however, further development in improvement of experimentation is advised. (English summary)—P. R. Shibleski.

2216. Strackbein, Oscar R. **Permissiveness.** New York, N.Y.: Vantage, 1970. 185 p. \$4.95.

CULTURE & SOCIAL PROCESSES

2217. Barton, Allen H. (Columbia U.) **Bringing society back in: Survey research and macro-methology.** *American Behavioral Scientist*, 1968(Nov), Vol. 12(2), 1-9.—Examines survey design methods which include social structure and presents "examples of some of the social processes which they reveal." The methods are: (a) measurement of perceived interpersonal environment, (b) use of cluster samples, (c) use of sociometric samples, and (d) obtaining survey data on institutional settings and interinstitutional relationships. The contextual data obtained by the surveys permit an analysis of relationships at various levels, from the individual to the aggregate. It is suggested that the confrontation of traditional sociological concepts with data at appropriate levels will lead to the clarification of concepts necessary "for the development of useful segments of general theory."—G. Steele.

2218. Jahoda, Gustav. (U. Strathclyde, Glasgow, Scotland) **Supernatural beliefs and changing cognitive structures among Ghanaian university students.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 115-130.—280 male Ghanaian students were administered a number of instruments to assess correlates of their supernatural beliefs. Among all Ss extent of belief was related to scores on Rotter's Internal-External Control Scale, but unrelated to tribe, family literacy, or parental occupation. On other variables marked con-

trasts emerged according to age. The findings are interpreted in terms of a basic change in cognitive structure in the direction of a coexistence between African and Western ideas and beliefs. (34 ref.)—A. Krichev.

2219. Mathieu, M. **Le service militaire comme situation de passage.** [Military service as a rite of passage.] *Information Psychologique*, 1968(Apr), No. 30, 53-64.—Evidence is adduced for the theory that military service used to serve as an initiation ceremony for adolescents. It is suggested that this function will disappear in our time, perhaps to be replaced by universal secondary education. (15 ref.)—S. G. Vandenberg.

2220. Schwartz, David C. (U. Pennsylvania, Foreign Policy Research Inst.) **On the ecology of political violence: "The long hot summer" as a hypothesis.** *American Behavioral Scientist*, 1968(Jul), Vol. 11(6), 24-28.—Examined the relationship between violence and temperature within and between nations. Feierabend's Cross-National Data Bank of Political Instability Events provides a basis for dividing 340 violent events into 5 classifications of political violence. Results support the hypothesis that "political violence is disproportionately associated with periods of moderate temperature" and occurs primarily in nations "significantly more developed than other nations." It is concluded that: (a) types of political violence are "differentially distributed in space," and (b) "some climatic variables are significantly related to dimensions of violent behavior." Further research on the relevance and operation of natural ecological factors on the "social structure and psycho-political conditions associated with political violence" is suggested.—G. Steele.

Ethnology

2221. Daniel, Jack L. (U. Pittsburgh) **The facilitation of white-black communication.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 134-141.—Studied verbal cues emitted by white speakers leading to ineffective communication between white and black people. Interviews were conducted with black people, who were requested to list verbal indices they use in judging the sincerity of a given white speaker. It appeared that white speakers trying to show an affinity for black people and an understanding of black experiences often make the black auditor suspicious of their sincerity. Reasons offered are the use of the verbal index "you people," the use of stereotypes of blacks, and saying things to indicate they do not understand the black experience.—P. Federman.

2222. Meredith, Gerald M. (U. Hawaii) **Acculturation and personality among Japanese-American college students in Hawaii.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5677-5678.

Social Structure & Social Role

2223. Danzger, Herbert. (Lehman Coll., City U. New York) **A quantified description of community conflict.** *American Behavioral Scientist*, 1968(Nov), Vol. 12(2), 9-14.—Describes an instrument to examine community conflict and presents examples of its utility. Examination of civil rights conflict in 19 communities over a 10-yr period indicates that: (a) vertical ties play an important part in conflict; (b) when issues change,

groups of different breadth become involved; and (c) groups defending the status quo rely on organizations, while those attacking the status quo rely primarily on associations. Results demonstrate that H. Long and R. Warren's conceptions of community structure may be more carefully specified through use of this instrument. Some preliminary findings on the relationship of community power structure to community conflict where this instrument was utilized indicate some further uses. (21 ref.)—*Journal summary.*

2224. Singh, U. P. & Bhushan, L. I. (Bhagalpur U., India) **Stereotypes among Hindu subcastes: An interperceptual analysis.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 153-159.—In present-day Indian society 3000 castes exist, each serving as a separate social unit. Data for 1072 persons, gathered at the time of the 1967 general elections, are presented. Respondents belonged to the various rural and urban areas of 9 districts in Bihar. Anonymity was ensured. A tendency toward ethnocentrism was noted in Brahmins, Kayasthas, Rajputs, and Yadavas. Political and local leaders serve as 1 source of caste-stereotyping. (16 ref.)—R. D. Nance.

Religion

2225. Bier, William C. (Ed.) **Psychological testing for ministerial selection.** New York, N.Y.: Fordham U. Press, 1970. xiii, 271 p. \$8.50.—Presents proceedings from a symposium which brought together researchers and testers concerned with psychological evaluation, follow-up counseling, and mental health of candidates for the ministry.

2226. Bronson, Oswald P. (Interdenominational Theological Center, Atlanta, Ga.) **Religious learning through involvement in social conflict and service.** *Religious Education*, 1970(Mar), Vol. 65(2), 120-124.—Social conflict can be a context for learning that involves religion, a stimulus for social change, a basis for eliminating distortions and misinformation, the ground for teaching the place of power and the need to structure power systems, and a basis for integrative and unifying tendencies. Elements defining religious learning in a conflict situation include its confrontational, crisis, redemptive, participative, and ecumenical character. "The thrust of creative religious learning through and beyond the complexity of chaos and the confusion in circumstances of conflict authenticates the human side of greatness." In conflict the mediator aims to strip the situations of aggressive overtones so that contending parties can use "facts" rather than "emotions" as guidelines.—S. E. Gavin.

2227. Gilbert, Albin R. (West Virginia Wesleyan Coll.) **Identifying the mystic variable.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 139-146.—Identifying the mystic variable is a needed counterpart of identification of the religious variable. Characteristics of the mystic frame of mind and the ways toward mystic attainment are set forth. Major aspects of the topic discussed include phenomenology of mystical experience, drug revelations, quietism, psychology of the active way, and mysticism for the space age. As he explores space, man will become more mystical. (17 ref.)—R. D. Nance.

2228. Kelsey, Morton T. (Notre Dame U.) **God, education and the unconscious.** *Religious Education*, 1970(May), Vol. 65(3), 227-234—Actions reveal a per-

sonality theory more tellingly than do verbal expressions. Until implicit attitudes are stated, divergencies between them and a consciously held set of assumptions cannot be reconciled. The Aristotelian view of human nature, prevalent in today's society, can be contrasted with that of Jung, who emphasized psychic and biological inheritance and structure. Jung considers man to be caught between 2 worlds—a world of space and time and a world of nonphysical reality, the latter being the collective unconscious or the objective psyche. Acceptance of the basic epistemology of Plato, upon which Jung's formulation rests, can result in education adequate to the totality of the person and to the 2 kinds of phenomenal reality he experiences. Educators becoming aware of both realities in themselves is essential to adequate religious education.—S. E. Gavin.

2229. Malecki, John J. (U. Oregon) **Life history approach to the study of crises in religious life.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5693.

2230. Mitchell, Kenneth R. (Menninger Foundation, Div. of Religion & Psychiatry, Topeka, Kan.) *Journal of Pastoral Care*, 1968(Sep), Vol. 22(3), 129-138.—Discusses the role, development, and maintenance of defense mechanisms in the clergy. The need for self-examination, methods for dealing with defenses, follow-up, and psychological distance are discussed. Several examples from group training sessions are included.

2231. Uleyn, Arnold. (28 Wilhelmijnasingel, Nijmegen, Belgium) **Pastoralpsychologische Bemerkungen zur Schuld und Schuldabwehr.** [Pastoral psychological remarks concerning guilt and guilt defenses.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 216-220.—Discusses guilt and guilt-reducing defense mechanisms in relation to religion and theology.

Cross Cultural Comparison

2232. Barron, Frank & Young, Harben B. (U. California, Santa Cruz) **Rome and Boston: A tale of two cities and their differing impact on the creativity and personal philosophy of Southern Italian immigrants.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 91-114.—Various psychological tests and questionnaires were administered to 95 Boston adolescents whose grandparents had migrated from Southern Italy around 1900 and 125 similar adolescents in Rome. The Boston Ss were found to be more religiously orthodox and socially conservative. The Rome group was also higher in ideational fluency, originality, and flexibility, though not in intelligence. (21 ref.)—A. Krichew.

2233. Diab, Lutfy N. (American U., Beirut, Lebanon) **A study of intragroup and intergroup relations among experimentally produced small groups.** *Genetic Psychology Monographs*, 1970(Aug), Vol. 82(1), 49-82.—Tested the cross-cultural validity of a number of generalizations on group relations resulting from studies of homogeneous ingroups in the Western culture. In line with the experimental "camp" studies of Sherif, the present study was planned in successive stages but utilized nonhomogeneous non-Western ingroups (N = 18 9.6-11.11 yr. old Lebanese boys, 10 Christians and 8 Moslems). In general, present results corroborated previous findings on group relations. However, some cross-cultural differences in the kinds of group structure

and norms which developed, both before and after the stage of intergroup relations, were noted and are discussed.—Author abstract.

2234. Engle, Gerald. (Purdue U.) **Comparison between Americans living in Israel and those who returned to America: III. Predictions about America and Israel.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 117-123.—Americans who left Israel demonstrate inconsistent behavior may be maintained without dissonance causing either change of belief or behavior, by accepting an ancillary belief requiring immediate action. Returnees to American stress funds are the most important requisite for successful "aliya," enabling many who plan to relocate in Israel to work in America. Both groups stress reasons for staying in Israel. Yet, those who returned to America want their children to study in Israel, a temporary relationship, while permanent residents hope their children will live and marry in Israel, becoming permanently attached to the land.—Author abstract.

2235. Ginsburg, Gerald P., McGinn, Noel F., & Harburg, Ernest. (U. Nevada) **Recalled parent-child interaction of Mexican and United States males.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 139-152.—The Parent Image Differential data obtained from 91 American college males and 95 Mexican college preparatory males were factor analyzed. The factors of potency (treated, taught, and disciplined) and ambivalence vs. inclusion-understanding (taught) were very stable, appearing across both groups and in both mother and father versions of the concepts. A number of other dimensions emerged but were specific to 1 culture or the sex of the parent. Cross-cultural differences are discussed. (28 ref.)—A. Krichew.

2236. Kuczynska-Stoffels, M. J. (U. Lovanium, Kinshasa, Congo) **Responses figuratives congolaises au Lowenfeld mosaic test.** [Figurative responses of Congolese to the Lowenfeld Mosaic Test.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(1), 41-57.—Reports results of administering the Lowenfeld Mosaic Test to 662 Congolese 7-30 yr. old Ss (313 were between the ages of 8-10 inclusive). The proportion of figurative responses was low. Specific figures of 10-yr-old Congolese are found among 5-yr-old Europeans. The theme most common both in Europe and in the Congo is that of a "home." Distinctive themes preferred by Europeans—trees, plants, flowers, animals, and human beings—do not seem to inspire Congolese Ss.—K. J. Hartman.

2237. Mehryar, A. H. (Pahlavi U., Shiraz, Iran) **A cross-cultural investigation of Eysenck's hypothesis regarding the relationship between personality and attitudes.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 216-221.—Investigated Eysenck's hypothesis concerning a negative correlation between extraversion and tender-mindedness. Exp. I involved 106 18-29 yr. old British students, who were given Eysenck's Inventory of Social Attitudes, the MPI (short form), and Part I of Richardson's British version of the Study of Values. In Exp. II, 69 19-24 yr. old Iranian students were given the Eysenck Personality Inventory, Melvin's Inventory of Social Attitudes, and the Allport-Vernon-Lindzey Study of Values. Results failed to reveal any significant correlation between extraversion and tender-mindedness. There was, however, a significant positive relationship between tender-mindedness and religionism as measured by the Study of Values. Results are discussed in light of similar findings reported by A. W.

Siegmán and possible reasons for the failure of Eysenck's main hypothesis are suggested. (27 ref.)—*Journal abstract*.

2238. Porat, Avner M. (Edward N. Hay & Assoc., Chicago, Ill.) **Cross-cultural differences in resolving union-management conflict through negotiations.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 441-451.—Examined cross-cultural behavioral differences in a conflict resolution situation in Denmark, Spain, Sweden, Switzerland, and the United Kingdom. A union-management negotiation exercise was the basis for the data provided by 260 managers in the 5 countries. The effect of cultural differences on strategy development, negotiating behavior and outcomes, and role perception was examined. Findings point to a relationship between the countries' economic and social environment and behavior in conflict situations. With increase in economic level, an increase in emphasis on welfare benefits and in time needed to resolve the conflict is noticed. Differences between the countries advise against collapsing of samples of geographic proximity or assumed cultural similarities. (22 ref.)—*Journal abstract*.

2239. Schneider, John M. & Parsons, Oscar A. (U. Oklahoma, Medical Center, Oklahoma City) **Categories on the locus of control scale and cross-cultural comparisons in Denmark and the United States.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 131-138.—Nearly 500 American and Danish university students were administered a forced-choice locus of control scale and filled them out for other societies as they perceived them. Significant differences were found between the groups of students, particularly with regard to the ratings of other societies. The results support the notion that locus of control studies are valuable tools in cross-cultural research.—A. Krichew.

2240. Sundberg, Norman D. & Tyler, Leona E. (U. Oregon) **Awareness of action possibilities of Indian, Dutch, and American adolescents.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 153-157.—24 boys and 24 girls from each country answered a questionnaire which asked them to list as many occupations, free-time activities, and acquaintances as they could. The Dutch were found to be highest on awareness of occupations, the Americans more oriented toward free-time activities and peer culture. School and environmental influences on personal possibilities are discussed.—A. Krichew.

2241. Szalay, Lorand B. & Lysne, Dale A. (Center for Research in Social Systems, Washington, D.C.) **Attitude research for intercultural communication and interaction.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 180-200.—An analytic method focusing on the denotative, referential meaning was applied to universally approved value concepts, e.g., freedom, equality. United States and Korean groups were tested. The analysis indicated different culturally specific denotative components. The findings support Sapri's observation about the deceptive nature of universally approved labels to which people attach different interpretations. (28 ref.)—P. Federman.

2242. Varga, Károly. (Hungarian Academy of Science, Budapest) **The view of life of Hungarian students: An international comparison.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 169-176.—Morris' Ways to Live questionnaire was administered to 427 male Hungarian students. Results showed they

value creative-humanistic life styles, reject religion, and are indifferent to individualistic ways of life. Comparison with previously published data suggests they are closest to American students, but are more inflexible and collective-minded.—A. Krichew.

2243. Weisskopf-Joelson, Edith. (U. Georgia) **On surrender.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 57-66.—While modern alienated man longs to surrender to an entity which transcends his self, Western culture views such surrender as undesirable and, thus, blocks important avenues to mental health. Oriental acceptance of self-renunciation is compared with Occidental individualism. Suggestions made by a Chinese-American O are quoted, stressing the importance of turning down our excessive self-reliance in favor of mutual dependency.—*Journal summary*.

Family

2244. Bailyn, L. (Massachusetts Inst. of Technology, Educational Research Center) **Career and family orientations of husbands and wives in relation to marital happiness.** *Human Relations*, 1970(Apr), Vol. 23(2), 97-113.—Analyzed questionnaire data from 209 couples in terms of conventional (husband career, wife home) and coordinate (husband and wife career) patterns. Importance of husband's adjustment to wife's efforts for career are emphasized. More successful patterns are those in which wife's position is opposite to husband's mother when he was growing up—when wife has a career and mother did not and vice versa. Attitudes of a couple's circle of social contacts are also important. The husband's mode of integrating family and work is crucial for the success of any attempt of the wife to include a career in her own life. (19 ref.)—W. W. Meissner.

2245. Edwards, Kay P. (Cornell U.) **A theoretical framework for the study of goal-oriented family behavior: An economic approach.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5573.

2246. Leichter, Hope J. & Mitchell, William E. (Teachers Coll., Columbia U.) **Kinship and casework.** New York, N.Y.: Russell Sage Foundation, 1967. xxi, 343 p. \$7.50.

2247. Orden, Susan R. & Bradburn, Norman M. (U. Chicago) **Working wives and marriage happiness.** *American Journal of Sociology*, 1969(Jan), Vol. 74(4), 392-407.—Discusses "the effects of a woman's work status on her marriage and suggests that a woman's freedom to choose among alternative life styles is an important predictor of her own and her husband's happiness in marriage." 781 husbands and 957 wives were interviewed. Problems inherent in previous studies were overcome by the inclusion of: (a) husband's attitudes, (b) distinction between choice and necessity in entering the labor market, and (c) positive aspects of marriage. 3 alternatives are open to married women: work in the home, work in the labor market, and leisure activities. It is concluded that when there are no preschool children in the family, the "labor market choice is generally associated with a higher balance between satisfactions and tensions for both husbands and wives."—G. Steele.

Social Change & Social Programs

2248. Lipset, Seymour M. (Harvard U.) **American**

student activism in comparative perspective. *American Psychologist*, 1970(Aug), Vol. 25(8), 675-693.—Reports a seminar on student activism, focusing on its causes in the United States. Sources of political activism among students are discussed including the race issue and Vietnam. Among motivating factors of student unrest are: (a) frustration of the present-day student role, (b) idealism of students, (c) existence of youth as a separate social category, (d) increasing competition because of larger number of students, (e) the fact that students are considered "juveniles sociologically and are often treated as such legally," (f) political character of some universities, and (g) geographic mobility which is conducive to conversion to new beliefs. Although the majority of students are politically inactive, it is concluded that the effects of activism on the outlook of future generations must be evaluated. An abbreviated transcript of the discussion period is presented.—P. McMillan.

2249. **Menninger, W. Walter. Student demonstrations and confrontations.** *Menninger Quarterly*, 1969(Spr), Vol. 23(1), 1-14.—Discusses student demonstrations from the standpoint of communications with 3 component parts: the sender, the receiver, and the interactive process. 2 extreme responses, excessive restriction and permissiveness, are discouraged, and it is suggested that principles appropriate in responding to these conflicts include: (a) understanding the message, (b) recognizing the importance of expectations and mutual respect, (c) acknowledging the inevitability of change, and (d) realizing the struggle of the adolescent with his aspirations. Some specific suggestions for coping with potential violence are also made. It is concluded that the basic difficulty in dealing with confrontations stems from the fact that they produce an emotional reaction which must be recognized and dealt with to the extent that it interferes with rational resolutions.—M. Maney.

2250. **Spain, David H. (Northwestern U.) Achievement motivation and modernization in Bornu.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5340.

2251. **Special Committee on Campus Tensions. Campus tensions: Analysis and recommendations.** *American Psychologist*, 1970(Aug), Vol. 25(8), 694-726.—Presents the report of the Special Committee on Campus Tensions developed from commissioned papers, case studies, interviews, meetings, and campus visits. An analysis is made of how the campus community (students, faculty, administrators, and trustees) perceives the causes of campus tensions and problems facing colleges and universities. 40 recommendations for easing campus tensions, including suggestions about institutional goals, governance, and the roles and responsibilities of students, faculty, administrators, and trustees are discussed. (21 ref.)—R. Quick.

2252. **Trankell, Ingrid & Trankell, Arne. (U. Stockholm, Inst. of Education, Sweden) Problems of the Swedish gypsies.** *Scandinavian Journal of Educational Research*, 1968, No. 3-4, 141-214.—Presents the results of a 2-yr research project on Swedish gypsies which: (a) reviews their origin and history, (b) describes the reasons and effects of their disintegration in modern Sweden, (c) discusses the bringing up of children in the gypsy community, and (d) reports on a program to integrate them into modern society. (15 ref.)

SEXUAL BEHAVIOR

2253. ———. **Seminar on Hedonistic Sex, Mutual Affection Sex, and Bible Sex: Report from Religious Education Association Annual Convention.** *Religious Education*, 1970(Mar), Vol. 65(2), 170-176.—Meaning of and relationships in sexuality, needs and status of the adolescent, homosexuality, and celibacy served as major leitmotifs. Discussion revealed consensus of sexuality as the total personality identity of the individual, the sum of his learning experiences as a male or a female, what the person is, rather than that which he has. Attitudes toward homosexuality as a depraved and perverse state do not help individuals; the fact that little is known about genuine scales of masculinity and femininity should temper judgment. While a minority held that celibates could probably not live a fulfilled life, the majority accept the possibility of personality fulfillment in celibacy that is lived within a framework of giving service to others.—S. E. Gavin.

Birth Control & Abortion

2254. **Insko, Chester A., Blake, Robert R., Cialdini, Robert B., & Mulaik, Stanley A. (U. North Carolina) Attitude toward birth control and cognitive consistency: Theoretical and practical implications of survey data.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 228-237.—Interview assessment of 47 attitude-belief-attitude bands revealed significantly consistent family-planning attitude structures among lower socioeconomic black (N = 190) and white (N = 66) females. In addition, users of birth control techniques were found to have significantly more consistent attitude structures than nonusers. On the basis of the particular bands which revealed consistency differences, recommendations were made concerning the type of materials that should be included in persuasive appeals directed toward the potentially changeable nonusers.—*Journal abstract.*

ATTITUDES & OPINIONS

2255. **Alutto, Joseph A. (State U. New York, Buffalo) Some dynamics of questionnaire completion and return among professional and managerial personnel: The relative impacts of reception at work site or place of residence.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 430-432.—Survey results from 700 male Ss indicate that overall response and completion rates for closed-ended questions were independent of whether questionnaires were mailed to an S's place of residence or work site. However, receipt of the survey instrument at home or on the job did affect completion rates for open-ended questions. It is suggested that mailed surveys designed to include middle-class males employed in professional or managerial occupations might receive higher completion rates for open-ended questionnaire items when contact with Ss occurs at place of work rather than residence.—*Journal abstract.*

2256. **Berger, Philip K. & Sullivan, James E. (U. Kentucky) Instructional set, interview context, and the incidence of "don't know" responses.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 414-416.—Examined a hypothesis formulated by E. J. Webb, D. T. Campbell, R. D. Schwartz, and L. Sechrest (see PA, Vol. 40:6543) that instructions emphasizing a respond-

ent's importance to an attitude survey would result in a reduced number of "don't know" responses to the items. A 20-item questionnaire was administered to 180 undergraduates under 3 contexts: face-to-face interviews, telephone interviews, and group administration. Contrary to the hypothesis, in both the telephone and group administration contexts, there were significantly more "don't knows" under the instructions emphasizing the respondents' importance than with the control instructions. There was no difference between instructional sets in the face-to-face context. Results are discussed in terms of the social environments within which the questionnaires were administered.—*Journal abstract*.

2257. Cook, Thomas J. (Florida State U.) **The application of operant learning theory principles to the study of political socialization.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5493.

2258. Diamond, Paul L. (U. Texas) **Order effects in judgments of conflicting information as a function of cognitive complexity and relevance of information.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5673.

2259. Fürntratt, Ernst & Gutsche, Hans J. (U. Giessen, Psychologische Inst., W. Germany) **Untersuchungen zum Image der Psychologie in Deutschland: I. Die Stellung der wissenschaftlichen Psychologie zu anderen Fachgebieten in der Vorstellung von Oberschülern.** [Investigations concerning the image of psychology in Germany: I. The position of scientific psychology as compared with other scientific disciplines as conceptualized by high school students.] *Psychologische Beiträge*, 1969, Vol. 11(3), 368-389.—The views of high school students regarding psychology and 14 other scientific disciplines were analyzed by means of 1 and multidimensional scales. Results indicate that psychology is viewed as "the very" science of man as an individual, it is also viewed as being more related to nature than to culture, neither directly related to public opinion nor adverse to it, and more transcendently oriented than reality oriented. (French summary)—*English summary*.

2260. Hammer, Max. (U. Maine) **Preference for a male child: Cultural factor.** *Journal of Individual Psychology*, 1970(May), Vol. 26(1), 54-56.—504 childless adults of both sexes, married and unmarried, attending college and not in college, were asked their preference about the sex of a child if they could have only 1 offspring. College students heavily preferred boys. In the noncollege group, preference followed the sex of the respondent. Results are viewed as supporting Adlerian rather than Freudian views.—A. R. Howard.

2261. Heinerth, Klaus. (U. Tübingen, Psychologische Inst., W. Germany) **Verbales und nicht-verbales diskriminierendes Verhalten Deutscher gegenüber Ausländern.** [Verbal and non-verbal discriminating behavior of Germans toward foreigners.] *Psychologische Beiträge*, 1969, Vol. 11(3), 323-327.—Observable discriminating behavior correlates with certain formal indicators that can be derived from the individual stereotype: (a) the frequency of negative traits that are attributed to an ethnic group ($r = +.482$), and (b) the frequency of traits that are neither significantly ascribed to a nation nor denied a nation ($r = +.389$). To reach a precise prediction of prejudice both criteria can be combined. Ss that are prejudiced, judge by using negative traits that are unspecifically attributed to other

nations ($r = +.558$). (French summary)—*English summary*.

2262. Rabushka, Alvin. (U. Rochester) **Affective, cognitive, and behavioral consistency of Chinese-Malay interracial attitudes.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 35-41.—Analysis of a random sample of Chinese and Malay residents in George Town (Penang), Malaysia, provided an opportunity to estimate empirically the relationships between the major components of attitudes— affective, cognitive, and behavioral. Data reveal that affect and behavior are positively correlated, but that behavior and cognition along with affect and cognition do not appear in a consistent arrangement. These findings vary from the results of recent experimental inquiries which have shown that attitude components appear in a consistent arrangement. The difference in results may be explained by use of survey research techniques among a relatively uneducated mass of urban residents in an underdeveloped country, rather than relying on college students as experimental Ss.—*Author abstract*.

2263. Ramsay, J. O. & Case, B. (McGill U., Montreal, Quebec, Canada) **Attitude measurement and the linear model.** *Psychological Bulletin*, 1970(Sep), Vol. 74(3), 185-192.—A model proposed by M. Fishbein and L. R. Tucker for attitude is identical to the linear model in statistical inference. In this model, the evaluative reaction to a stimulus is a consequence of summing the product of the evaluative reaction to a relevant property and the stimulus scale value on that property across all relevant properties. If the scale values of the stimuli on the relevant properties are known, then a multiple regression of the stimulus evaluations on the property scale values will provide estimates of the evaluative reactions to the properties. An experiment is described in which 26 undergraduates' attitudes toward countries are analyzed using the model. It is concluded that the model fits the data well and allows several interesting statements to be made about the cognitive and evaluative components of these attitudes.—*Journal abstract*.

2264. Verinis, J. S. & Roll, S. (Mt. Sinai Hosp., Chicago, Ill.) **Primary and secondary male characteristics: The hairiness and large penis stereotypes.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 123-126.—Showed 36 male and 24 female undergraduates slides of a hairy arm, an arm without hair, a hairy chest, a chest without hair, a large penis and a small penis. Ss rated the slides on various adjective scales. The hairy arm and hairy chest were rated as more potent and more active than their hairless counterparts and the large penis was rated as more potent than the small penis. Results were replicated for a smaller group ($N = 37$).—*Journal abstract*.

Formation & Change

2265. Alms, Alan C. (Ed.) (U. California, Davis) **Role playing, reward, and attitude change: An enduring problem in psychology.** New York, N.Y.: Van Nostrand Reinhold, 1969. vi, 232 p. \$2.50(paper).—Presents summaries and reprints of the essential research papers of Leon Festinger, Milton J. Rosenberg, Daryl J. Bem, and others, dealing with the effects of role playing on attitude change. The selections include attitude topics and demonstrate the controversy between dissonance theory, incentive-conflict theory, and other views from the inception of role playing research to the present.

2266. **Brilhart, Barbara L.** (U. Nebraska) **Relationships of speaker-message perception to perceptual field-independence.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 153-166.—Studied speaker-message perception and attitude change occurring under varying conditions of speaker and message quality, as related to perceptual field-independence defined by performance on the Embedded Figures Test. Ss were male engineering students. Results indicate that perceptual orientation was significantly related to relative focus on speaker or message quality. The hypothesis on attitude change in relation to perceptual orientation was not supported.—*P. Federman.*

2267. **Cooper, Joel & Worchel, Stephen.** (Princeton U.) **Role of undesired consequences in arousing cognitive dissonance.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 199-206.—Tested the proposition that counterattitudinal advocacy does not lead to the arousal of cognitive dissonance unless that advocacy results in undesirable consequences. 56 male undergraduates performed an extremely dull task. They then were offered varying incentives to tell a waiting S that the dull task was interesting and enjoyable. $\frac{1}{2}$ of the Ss learned that they had succeeded in convincing their supposedly naive, unsuspecting colleague that the task would be interesting. The other $\frac{1}{2}$ learned that their colleague still believed that the task would be dull. All Ss then evaluated the task. Results support the prediction that only those Ss who thought they had brought about the undesirable consequence of convincing the waiting S that the task was interesting would demonstrate the dissonance-produced, inverse relationship between incentive magnitude and attitude change. Implications of findings for some of the recent revisions of dissonance theory are discussed. (18 ref.)—*Journal abstract.*

2268. **Greenwald, Anthony G.** (Ohio State U.) **When does role playing produce attitude change? Toward an answer.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 214-219.—Counterattitudinal role playing (writing an essay opposing one's attitudes) was not effective in producing attitude change when 209 undergraduates were provided an opportunity to consider and reject role-supporting arguments prior to their role assignment. In contrast, the role-playing effect was obtained when the same role-supporting information was not initially examined until after role assignment. Results are interpreted in terms of an associative model of persuasion, and it is concluded that attitude change through role playing may depend on the role player's having an opportunity to consider counterattitudinal information that he has not previously rejected.—*Journal abstract.*

2269. **Johnson, Homer H.** (Loyola U., Chicago, Ill.) **A methodological note on initial scale position and primacy-recency effects.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 113-134.—Ss responded to an attitude questionnaire, 1 item which assessed their attitudes on "Is the protective tariff a wise policy for the United States. Because of the methodology used, 202 undergraduates with extreme initial attitude positions tended toward recency effects in traditional primacy-recency attitude change research. Since the presence of extreme scoring Ss will tend to bias the results in a recency direction, it is suggested that the Ss' initial scale position be taken into account in the data analysis.—*Author abstract.*

2270. **Marcus, Alan M.** (U. Toronto, Ontario, Canada) **Audience variables in persuasion.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5525-5526.

2271. **Myers, Michele T. & Goldberg, Alvin A.** (Monticello Coll.) **Group credibility and opinion change.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 174-179.—Studied the effect of messages of varying ethos on opinion change. The results support the hypothesis that messages attributed to a high ethos group are more influential than those attributed to a collection of high ethos individuals, a collection of low ethos individuals, a high ethos individual, and low ethos group.—*P. Federman.*

2272. **Page, Monte M.** (U. Nebraska) **Role of demand awareness in the communicator credibility effect.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 57-66.—Ss participated in a laboratory opinion change experiment with credibility of the communicator manipulated. Then they were given an extended postexperimental questionnaire assessing awareness of demand characteristics. Ss judged aware of the experimenter's hypothesis behaved differently than those judged unaware. In the low credibility condition Ss who believed change was not expected did not change; while those who had not come to this conclusion changed. In the high credibility condition most Ss were aware that change was expected and they changed dramatically more than unawares. Results are interpreted as suggesting that, in general, demand characteristics and persuasion are confounded in laboratory opinion experiments, but the results of manipulations like communicator credibility may be entirely due to the demand characteristics of the situation.—*Author abstract.*

2273. **Rhine, Ramon J. & Severance, Laurence J.** (U. California, Riverside) **Ego-involvement, discrepancy, source credibility, and attitude change.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 175-190.—Gave persuasive messages to 144 undergraduates in a 3-factor design having 3 levels of discrepancy, 2 levels of source credibility, and 2 levels of ego-involvement. Dependent measures were attitude change, source credibility change, ego-involvement change, changes in latitudes of acceptance and rejection, and message evaluation. More attitude change occurred for low than for high ego-involvement. Attitude change was an increasing monotonic function of discrepancy for low ego-involvement, and a nonmonotonic function of discrepancy for high ego-involvement. After receipt of the persuasive message, low credible sources increased in authoritativeness and the importance of the low-ego-involvement issue increased. A number of findings, significant beyond the .01 or .001 levels, were opposed to dissonance theory predictions. Most of the data are consistent with social judgment theory. (22 ref.)—*Journal abstract.*

2274. **Winett, Richard A.** (State U. New York, Stony Brook) **Attribution of attitude and behavior change and its relevance to behavior therapy.** *Psychological Record*, 1970(Win), Vol. 20(1), 17-32.—Supports the position that greater attitude and behavior change results when an individual attributes changes in his behavior to himself rather than to external manipulations. Research derived from the S. Schacter and J. E. Singer emotionality model, L. Festinger's theory of cognitive dissonance, and role-playing studies supports this perspective. The implications of this research in terms of the practice

and scope of behavior therapy, are also discussed. (92 ref.)—*Journal abstract.*

2275. **Zimbardo, Philip G. & Ebbesen, Ebbe B.** (Stanford U.) **Experimental modification of the relationship between effort, attitude, and behavior.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 207-213.—Manipulated the effort of role playing a dissonant, persuasive speech through the use of delayed auditory feedback, and observed the effects on attitudes and compliance. In Exp. I with 63 male undergraduates, a within-S design was employed as each S read speeches under 3 different auditory feedback conditions: normal, white noise, and Ss own voice heard at a .2-sec delay. Self-report scales were used to assess attitude change, as well as learning the communication and effort in delivering it. Exp. II with 23 Ss also utilized delayed auditory feedback to manipulate role-playing effort, while assessing its effect on a more behavioral measure (amount of compliance to a dissonant request). Both self-report and "behavioroid" measures indicate the greater effectiveness of effortful role playing. The possibility that greater effort expended in role playing acts directly to influence effortful compliance—regardless of the relevance of the attitude positions involved—is entertained.—*Journal abstract.*

Influence & Behavior

2276. **Brigham, John C. & Cook, Stuart W.** (U. Colorado) **The influence of attitude on judgments of plausibility: A replication and extension.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 283-292.—3 groups of college students presumed to differ with respect to attitudes towards Negroes rated groups of items for plausibility. Items dealt with gradual vs. rapid integration, government intervention vs. local autonomy, private rights, and racial intermarriage. Ss rated the items on a 6-point scale from -3, very ineffective, to +3, very effective. The order of the mean plausibility ratings for the 3 groups were (a) civil rights group, (b) race relations class, and (c) exclusionist social groups. Differences between the groups were highly significant. Plausibility ratings were correlated with group extremeness, median eta being .57.—*N. M. Chansky.*

2277. **Eisenman, Russell.** (Temple U.) **Teaching about the authoritarian personality: Effects on moral judgment.** *Psychological Record*, 1970(Win), Vol. 20(1), 33-40.—To test the effectiveness of teaching in modifying moral judgments, 200 undergraduates were administered a test of moral judgments in mitigating circumstances. 2 of the 5 classes received instruction about the authoritarian personality, while 3 classes served as controls and received no such information. In a pretest-posttest design, with effects of pretesting statistically analyzed, it was found that Ss who were taught about the authoritarian personality made significantly less severe moral judgments ($p's < .001$). In addition, females were more moralistic than males, and 1st-born females were more moralistic than later-born women. Results suggest that moral judgments can be manipulated to be less severe. (25 ref.)—*Journal abstract.*

2278. **Erb, David L.** (Michigan State U.) **Racial attitudes and empathy: A Guttman facet theory examination of their relationships and determinants.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5234.

2279. **Evans, Richard L., et al.** (U. Houston) **Fear**

arousal, persuasion, and actual versus implied behavioral change: New perspective utilizing a real-life dental hygiene program. *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 220-227.—Exposed 394 12-15 yr. old Ss to high and moderate fear arousal, positive affect arousal, elaborated recommendations only, and brief recommendations only directed at improving toothbrushing behavior. Criterion measures of information, anxiety, intention to behave, self-report of behavior, and a new chemical indicator of actual toothbrushing behavior were administered precommunication, immediately postcommunication, 5-days postcommunication, and 6-wk postcommunication. Results suggest that elaborated recommendations and positive affect were most effective in changing actual behavior, but that high fear and recommendations only were the most effective in changing reported behavior. Effects of all conditions were attenuated over time.—*Journal abstract.*

2280. **Hendrick, Clyde & Shaffer, David R.** (Kent State U.) **Effects of arousal and credibility on learning and persuasion.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 241-243.—Explored the joint effects of extraneous arousal and communicator credibility on acceptance and learning of a persuasive communication. 80 undergraduates listened to a taped speech under either average volume (low arousal) or very high volume (high arousal). The speaker was either high or low in credibility. Males and females reacted very differently to the situation. Females were more persuaded under low arousal than under high arousal, but there were no differences for males. Credibility had no effect. An unusual learning effect emerged. There was a Credibility \times Arousal interaction that had the same form for both sexes. Attitude results are given a dissonance interpretation.—*Journal abstract.*

2281. **Hoffman, D. T., Schackner, R., & Goldblatt, R.** (U. Bridgeport) **"Friendliness" of the experimenter.** *Psychological Record*, 1970(Win), Vol. 20(1), 41-44.—26 male and 34 female undergraduates were treated either in a friendly or neutral manner by an E during an initial, instructional phase of the experimental session. Significant differences in the groups were found in (a) the proportion of photographs of facial expression assigned to the love-mirth-happiness category, and (b) affective reaction to the experimental situation as measured by a postsession questionnaire and adjective checklist. No significant sex differences in adjective checklist responses were observed.—*Journal abstract.*

2282. **Storms, Michael D. & Nisbett, Richard E.** (Yale U.) **Insomnia and the attribution process.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 319-328.—Gave 42 19-26 yr. old insomniac Ss placebo pills to take a few min. before going to bed. Some Ss were told that the pills would cause arousal (arousal condition), and others were told that the pills would reduce arousal (relaxation condition). As predicted, arousal Ss got to sleep more quickly than they had on nights without the pills, presumably because they attributed their arousal to the pills rather than to their emotions, and as a consequence were less emotional. Also as predicted, relaxation Ss got to sleep less quickly than usual, presumably because they assumed that their emotions were unusually intense since their arousal level was high even after taking an arousal-reducing agent. Results have relevance for S. Schachter's theory of emotions and H. Kelley's attribution theory. Prag-

matically, findings suggest the feasibility of a therapy based on reattribution of symptoms, and indicate that traditional suggestion effect practices should be modified.—*Journal abstract.*

GROUP & INTERPERSONAL PROCESSES

2283. Aronoff, J. (Michigan State U.) **Psychological needs as a determinant in the formation of economic structures: A confirmation.** *Human Relations*, 1970(Apr), Vol. 23(2), 123-138.—Studied the interaction of personality and social structure in cane gangs in St. Kitts in the British West Indies. Evolution of the gangs from a traditional configuration under a "head-cutter" through a broken-gang configuration to more democratic individually oriented structure in the course of several yr. is traced. Changes in structure are related to changes in the psychological configuration of the cutters. Earlier groups had experienced greater degrees of loss and less stable family situations. The level of functioning was also influenced by improved medical standards and changed emigration rates.—*W. W. Meissner.*

2284. Blakeney, Roger N. (U. Houston) **An experimental study of the effects of the temporal placement of unfavorable information during the selection interview.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5729-5730.

2285. Byrne, Donn; Ervin, Charles R., & Lamberth, John. (Purdue U.) **Continuity between the experimental study of attraction and real-life computer dating.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 157-165.—Conducted a computer dating field study as a test of the nonlaboratory generalizability of attraction research. A 50-item questionnaire of attitudes and personality was administered to 420 undergraduates, and 44 male-female pairs were selected on the basis of maximal or minimal similarity of responses. Each couple was introduced, given differential information about the basis for their matching, and asked to spend 30 min. together on a "coke date." Afterward, they returned to the E and were independently assessed on a series of measures. It was found that attraction was significantly related to similarity and to physical attractiveness. Physical attractiveness was also significantly related to ratings of desirability as a date, as a spouse, and to sexual attractiveness. Both similarity and attractiveness were related to the physical proximity of the 2 individuals while they were talking to the E after the date. In a follow-up investigation at the end of the semester, similarity and physical attractiveness were found to predict accurate memory of the date's name, incidence of talking to one another in the interim since the coke date, and desire to date the other person in the future. (26 ref.)—*Journal abstract.*

2286. Cannavale, F. J., Scarr, H. A., & Pepitone, A. (U. Pennsylvania) **Deindividuation in the small group: Further evidence.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 141-147.—Replicated and extended L. Festinger, A. Pepitone, and T. Newcomb's (see PA, Vol. 27:2609) study of deindividuation in small discussion groups, which showed that groups whose members were relatively unable to identify who had made certain statements in the discussion (deindividuation) were those in which a relatively large amount of hostile feelings and sentiments were expressed (reduction in restraint), and that those groups which overcame most restraint were found to be most attractive

to the members. A 3rd finding of relevance to the hoary concept of the group mind was that the correlation between deindividuation and the reduction in restraint held only when the group was used as the unit of analysis. A replication using 72 undergraduate and graduate students in groups of males, females, and both males and females, confirmed the positive correlation between deindividuation and restraint reduction, which is significant only when the group is used as the unit of analysis. The failure of reduction in restraint to be correlated with group attraction and the role of preexisting discussion apprehension in not-all-male groups are discussed, along with a general theoretical analysis of the deindividuation phenomenon.—*Journal abstract.*

2287. Carkhuff, Robert R. & Banks, George. (American International Coll., Center for Human Relations & Community Affairs) **Training as a preferred mode of facilitating relations between races and generations.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 413-418.—14 white teachers and 10 black parents, divided into 2 groups of 7 whites and 5 blacks each, received systematic training in interpersonal skills from a black trainer and a white trainer in counterbalanced order. Significant gains were demonstrated in communication and discrimination on standard helpee stimulus expressions and standard racial problems and in functioning in the helping role with both white and black adults and white and black children. Implications for systematic training in human relations problem areas are considered.—*Journal abstract.*

2288. Cvetkovich, George T. (Kansas State U.) **Judgment processes in small groups: A longitudinal study of learning, conflict and compromise.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5708.

2289. Des Jarlais, Don. (U. Michigan) **Shifts to risk and reward.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 119-122.—Investigated the expected payoffs for the risky alternatives in a standard shift-to-risk experiment with 65 undergraduates. As predicted, a significant shift to reward was found. The group expectations of the risky payoffs were higher than the means of the individual expectations. The shift to reward was significantly correlated with a contemporaneous shift to risk. Implications of the shift to reward are discussed.—*Journal abstract.*

2290. Desor, Jeannette A. (Cornell U.) **The psychology of crowding: An experimental investigation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5708-5709.

2291. Efran, Michael G. (U. Texas) **Visual interaction and interpersonal attraction.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5522.

2292. Fortune, Hilda O. (York Coll., City U. New York) **The pros and cons of sensitivity training.** *Nursing Outlook*, 1970(Jun), Vol. 18(6), 24-29.—Emphasizes consideration of all aspects of current problems concerning sensitivity training. The issue of who should participate in sensitivity sessions is analyzed with respect to the distinction between sensitivity sessions which focus on the learning process in normal individuals, and therapy sessions which focus upon the therapeutic process in patients. Various techniques used by trainers are discussed in terms of their purpose and effectiveness. It is suggested that such techniques be used for freedom-giving, rather than manipulative purposes. Beneficial and detrimental aspects of current attempts to

establish certification and licensing requirements are discussed in relation to trainer functions. The controversy over social consciousness and social action as appropriate objectives vs. the established objective of self-enhancement is also considered. It is concluded that an interdisciplinary approach might best contribute to the solution of current problems. (18 ref.)—*R. Wiltz.*

2293. Goodstadt, Michael S. (Stanford U.) **The influence of interpersonal attraction and threat-to-freedom on helping.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5523.

2294. Kershenbaum, Brenda R. & Komorita, S. S. (Wayne State U.) **Temptation to defect in the Prisoner's Dilemma game.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 110-113.—Cooperation in the Prisoner's Dilemma (PD) game has been shown to be inversely related to the magnitude of temptation to defect. In order to determine the relative effects of self-temptation (maximize personal gain) vs. suspicion that the other is tempted, temptation for self and other were each varied in 2 ways (high vs. low). Unlike a regular PD game, 96 undergraduates were given a cooperative orientation and presented 2 PD games simultaneously such that feedback regarding the other's choice was uncertain. None of the main effects was significant, but a significant interaction between self and other's temptation was obtained; when temptations were equal, trust and cooperation were maintained longer than when they were unequal. Results are interpreted in terms of inequity in the structure of the game.—*Journal abstract.*

2295. Lange, Silvia. (Community Mental Health Services Day Center, San Diego, Calif.) **Esalen—and afterward.** *Nursing Outlook*, 1970(Jun), Vol. 18(6), 33-35.—Describes an experience in and the resulting effects of a weekend seminar and subsequent week-long workshop at Esalen Institute in Big Sur, California. Sessions focused on W. C. Schutz' theory of interpersonal needs of inclusion, control, and affection, which were demonstrated through various encounter-group techniques. Other techniques and approaches designed to facilitate self-understanding are discussed. The effects of the experience are discussed in terms of T. A. Harris' transactional theory. It is concluded that the experience resulted in increased skill as a psychotherapist, increased effectiveness as a teacher, and greater productivity as a writer.—*R. Wiltz.*

2296. Lebra, Takie S. (U. Hawaii) **Reciprocity and the asymmetric principle: An analytical reappraisal of the Japanese concept of On.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 129-138.—Reciprocity as a frame of reference for explaining social phenomena has been well demonstrated in anthropology and sociology. It was hypothesized that 2 types of social transaction, reciprocal and asymmetric, tend to generate and constrain each other. The hypothesis was applied to the Japanese concept of On, a moral doctrine which stresses an asymmetric principle. Assumed is the existence of implicit mechanisms allowing reciprocity to operate also and 6 such mechanisms are identified. (33 ref.)—*R. D. Nance.*

2297. Merrick, Richard & Taylor, Stuart P. (Kent State U.) **Aggression as a function of vulnerability to attack.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 203-204.—30 high-need achieving and 30 low-need achieving male undergraduates competed in a task

involving RT with opponents who attempted to give them increasing shocks. Counteraggression varied as a function of the degree to which S was vulnerable to the opponent's attack. All conditions of vulnerability evidenced an increase in counteraggression. However, the equal-vulnerability condition evidenced the greatest increase in aggression. Achievement motivation had little effect on aggression.—*Journal abstract.*

2298. Merton, Robert K. (Columbia U.) **The social nature of leadership.** *American Journal of Nursing*, 1969(Dec), Vol. 69(12), 2614-2618.—Emphasizes the basic distinctions between leadership and authority. "Authority involves the legitimated rights of a position that requires others to obey; leadership is an interpersonal relation in which others comply because they want to, not because they have to." There is no evidence to support the theory that there are any specific traits linked with leadership. Instead, leadership involves transactions between the leader and the followers.—*B. A. Stanton.*

2299. Moss, Martin K. (Kansas State U.) **Social desirability, physical attractiveness, and social choice.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5678.

2300. Oskamp, Stuart & Kleinke, Chris. (Claremont Graduate School, Calif.) **Amount of reward as a variable in the Prisoner's Dilemma game.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 133-140.—Conducted 2 experiments to test the effect of reward level on cooperation in the Prisoner's Dilemma (PD) game. 136 high school students who produced the usual low levels of cooperation (30-40%) served as Ss. Exp. I found no differences in the effects of 5 different reward levels. Exp. II showed that no reward (working for points) produced slightly, but nonsignificantly, more cooperation than either a low- or a high-reward level. It is concluded that the PD game has a different motive structure inherent in its payoff matrix than the Maximizing Difference game or Deutsch's trucking game. These results plus a review of other PD studies show that cooperation in the PD game is little affected by the amount of reward, adding credence to the results of PD studies which have used low or imaginary rewards. (15 ref.)—*Journal abstract.*

2301. Pellegrini, Robert J. & Empey, John. (San Jose State Coll.) **Interpersonal spatial orientation in dyads.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 67-70.—30 male and 30 female undergraduates described themselves to a same-sex listener (L) in an interview-like situation. The distance and angle at which S placed his own chair relative to L's were measured. Although females sat significantly closer to the female L than did males to the male L, displacement away from a direct, face-to-face orientation with L was also significantly greater for females than for males. Significant negative correlations were obtained between the measures of proximity and angle of regard for both males ($r = -.45$, $p < .02$) and females ($r = -.39$, $p < .05$). Results are discussed in terms of M. Argyle and J. Dean's theory of interpersonal behavior.—*Journal summary.*

2302. Rubin, Zick. (Harvard U.) **Measurement of romantic love.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 265-273.—Reports initial results of an attempt to introduce and validate a social-psychological construct of romantic love. Starting with the assumption that love is an interpersonal attitude, an internally consistent paper-and-pencil love scale was developed. The conception of romantic love

included 3 components: affiliative and dependent need, a predisposition to help, and an orientation of exclusiveness and absorption. The 13-item love-scale scores were only moderately correlated with scores on a parallel 13-item scale of "liking," which reflected a more traditional conception of interpersonal attraction. The validity of the love scale was assessed in a questionnaire study with 158 undergraduate dating couples and a laboratory experiment with 79 undergraduate dating couples. On the basis of the emerging conception of love, it was predicted that college dating couples who loved each other a great deal (as categorized by their love-scale scores) would spend more time gazing into one another's eyes than would couples who loved each other to a lesser degree. The prediction was confirmed. (22 ref.)—*Journal abstract*.

2303. Schwartz, Shalom H. & Clausen, Geraldine T. (U. Wisconsin) **Responsibility, norms, and helping in an emergency.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 299-310.—Replicated the J. Darley and B. Latané (see PA, Vol. 42:8862) study of bystander aid to a seizure victim examining the effects of (a) number and competence of bystanders, (b) information appropriate for action, and (c) ascription of responsibility (AR) upon helping by males and females. From an analysis of norms relevant in an emergency and of the likelihood of their activation, main effects on speed of helping for the above 4 variables, interactions of the 1st 3 with AR, a Sex of Subject \times Number interaction, and differences in type of help offered in various conditions were predicted. 179 undergraduates participated in a factorial experiment. Speed of helping dropped significantly for females, but not for males, when other bystanders were present (reporting decreased, direct help was unaffected), and dropped significantly further when another bystander was medically competent (reporting increased, direct help decreased). Among females disposed to accept rationales for denying responsibility, both effects were particularly strong. Information-action and AR to the self were associated with faster and more direct help. Data on Ss' thoughts and feelings reinforced a normative interpretation of the results.—*Journal abstract*.

2304. Sermat, Vello. (York U., Toronto, Ontario, Canada) **Is game behavior related to behavior in other interpersonal situations?** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 92-109.—4 experiments with a total of 42 male and 48 female undergraduates and 48 female high school students, investigated the consistency of cooperative or competitive behavior of Ss in 2 different experimental situations. Ss who had behaved either extremely competitively or extremely cooperatively in a Game of Chicken or a Prisoner's Dilemma game were tested in 1 of 2 conditions: (a) a mixed-motive task where payoff was obtained through a series of steps which the other player could block (the Paddle Game), or (b) a picture-interpretation task involving story writing and discussion in dyads. In the Paddle Game, most Ss cooperated, but previous high competitors waited less often for their turn, were usually paid 1st, and in 1 experiment, earned more money. In the picture-interpretation task, few behavioral differences were found between cooperators and competitors, but pairs of competitors were in greater agreement in their story interpretations and portrayed more cynicism about interpersonal relationships than did others. Female cooperator pairs showed high agreement

and low cynicism. This suggests that competitors may share certain views, different from cooperators, about interpersonal relationships. However, the findings do not justify broad generalizations from behavior in experimental games to other interpersonal situations. (26 ref.)—*Journal abstract*.

2305. Seven, Sally A. (Claremont Graduate School, Calif.) **The effects of network pattern and network size on individual solutions of communication networks.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5724-5725.

2306. Smith, C. G. (U. Notre Dame) **Age of R and D groups: A reconsideration.** *Human Relations*, 1970(Apr), Vol. 23(2), 81-96.—Studies 52 scientific research groups and confirms a curvilinear relationship between group performance and group age. Group performance, as measured by staff evaluations of general technical contributions and general usefulness and self-reports of number of patents and published technical papers, tended to peak at about 3 yr. Performance in respect to actual scientific products—patents and technical papers—showed a gradual increment with age of the group. The group undergoes social changes which result in qualitatively different types of group performance at different stages of group development.—*W. W. Meissner*.

2307. Stultz, I. B. (University Coll., London, England) **The role of static pedestrian groups in crowded spaces.** *Ergonomics*, 1969(Nov), Vol. 12(6), 821-839.—Hypothesized that groups of static pedestrians would play an important role in determining patterns of movement in crowded spaces. This was investigated in 5 ticket halls. Queues, groups of people using automatic ticket machines, and other types of static groups were observed. The location of these groups was related to the layout of the space, and their general effects on movement through the space were assessed. It was found that under certain conditions static groups impede movement and diminish the effective width of key movement channels. Results suggest a number of ways in which the layout of certain types of space might be optimized in terms of the criteria considered. (German & French summaries)—*Journal abstract*.

2308. Swingle, Paul G. (McMaster U., Hamilton, Ontario, Canada) **Exploitative behavior in non-zero-sum games.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 121-132.—Conducted 5 experiments to test the hypothesis that nonuse, and under certain conditions, decreasing use, of power invites exploitation. 76 naval recruits and 60 male undergraduates served as Ss. In non-zero-sum games, virtually unconditionally cooperative opponents were exploited more when they were powerful than when they were weak. Such behavior was not affected by decreasing the payoff received for an exploitative response. Although Ss had a tendency to exploit weak opponents in ethnically heterogeneous dyads, further studies indicate that the principal factor affecting the tendency to exploit a powerful opponent was the latter's unconditional nonuse or decrease in the use of his punishing capability.—*Journal abstract*.

2309. Wichman, Harvey. (California State Coll., San Bernardino) **Effects of isolation and communication on cooperation in a two-person game.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 114-120.—Created 4 conditions of communication in a Prisoner's Dilemma (PD) game: (a) Ss were isolated so

that they could neither see nor hear each other, as in the typical PD experiment; (b) Ss could see but not hear each other; (c) Ss could hear but not see each other; and (d) Ss could both hear and see each other. Results from 48 female undergraduates show an increasing amount of cooperation through all 4 conditions, especially when Ss could see each other. It is concluded that the high degree of competitiveness typically found in PD game studies may be largely a function of the isolation imposed on the Ss by the E. (21 ref.)—*Journal abstract*.

2310. Wiener, Daniel J. (U. Texas) **Effectance arousal and interpersonal attraction relating to a perceptual task: Effects of certainty, consensual validation, and availability of verification.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5727.

2311. Wyatt, Wendy C. (Boston U.) **Responsible use of sensitivity training.** *Nursing Outlook*, 1970(Jun), Vol. 18(6), 39-40.—Suggests that the success of a human relations program can be facilitated if the following precautions regarding the sensitivity training experience are taken into consideration: (a) clarification of the new vocabulary related to sensitivity training; (b) clear and specific expression of goals and purposes; (c) translation of such goals into a workshop design in which the various exercises and techniques are carefully selected; (d) careful selection of the training staff on the basis of possession of a background and experience related to participant needs; and (e) screening of participants, informing them as fully as possible, and leaving them the choice to participate.—*R. Wiltz*.

2312. Yeaworth, Rosalee. (U. Cincinnati) **Learning through group experience.** *Nursing Outlook*, 1970(Jun), Vol. 18(6), 29-32.—Describes the functions and features of sensitivity training (T) groups, emphasizing the implications for nursing. It is suggested that T groups provide learning through the experience of involved participants on the basis of 2 main features: (a) the lack of structure which provides participants with the opportunity to observe firsthand the development of a group, and (b) feedback which facilitates increased self-understanding. An analogy is drawn between T-group processes and the sociological concept of collective behavior. Various features of the T-group experience, particularly the sense of isolation and loss of support for routines, are suggested to have significance for nurses in their relationship with patients. It is concluded that the unfortunate experiences often attributed to T groups by the popular press can be avoided by carefully selecting the group in accordance with specifications of the National Training Laboratories and the American Psychological Association. (21 ref.)—*R. Wiltz*.

2313. Zneimer, Edward J. (Washington U.) **Conformist, anticonformist and independent responses to reciprocity demands.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5705.

Influence & Communication

2314. Akutsu, Yoshihiro. (Michigan State U.) **Commitment, self-evaluation and communication activity in a dissonant situation: A study of foreign students with English language deficiency.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5520-5521.

2315. Argyle, Michael, et al. (Oxford U., Inst. of Experimental Psychology, England) **The communica-**

tion of inferior and superior attitudes by verbal and non-verbal signals. *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 222-231.—120 students rated 18 videotapes in which verbal and nonverbal cues for inferior, equal, and superior were varied and combined in a 3 x 3 design. The typed messages (verbal alone) were rated by further Ss, as were videotapes of a performer reading numbers (nonverbal alone); the 2 sets of cues alone had identical effects on ratings. In combination, both kinds of cue had a reduced effect, but nonverbal cues had 4.3 times the effect of verbal cues on shifts of ratings, and accounted for 10.3 times as most variance. Verbal cues were only able to act as multipliers of consistent nonverbal cues. There was little evidence of double-bind effects. Analysis of individual differences shows that females were relatively more responsive to nonverbal compared with verbal cues, and that more neurotic Ss found the combination of superior (nonverbal) with inferior (verbal) unpleasant, and responded more to verbal cues for inferior-superior. (18 ref.)—*Journal abstract*.

2316. Cull, John. (Virginia Commonwealth U., Richmond) **Age as a factor in achieving conformity.** *Industrial Gerontology*, 1970(Spr), Vol. 5, 28-34.—Tests the hypothesis that conformity behavior is not related to the age of confederates. 16 young male Ss individually participated in a group conformity experiment in which 4 young confederates of E were primed to verbalize 12 incorrect answers in a series of 18 simple matching-to-sample problems involving line length. Each S verbalized his answer after he had heard the answers of each of the confederates. A 2nd group of 16 similar Ss participated in a similar procedure, with the exception that the confederates were 60-yr-old or older. The 2 groups were not found to differ significantly in conformity behavior as measured by number of conforming responses or number of conforming responses plus error responses; however Ss with old confederates made significantly more error responses than Ss with young confederates. It is concluded that "elderly confederates fail to exert more conforming pressure than younger confederates."—*R. Wiltz*.

2317. Graham, William K. & Harris, Stephen G. (U. California, Berkeley) **Effects of group discussion on accepting risk and on advising others to be risky.** *Psychological Record*, 1970(Spr), Vol. 20(2), 219-224.—Examined risk following group discussion by administering the usual advisory decision-making form of the N. Kogan and M. A. Wallach (see PA, Vol. 39-6826) Choice Dilemmas Questionnaire and a Risk Acceptance form which asked that the S imagine himself as the central decision-maker in each decision situation. 16 groups discussed 5 problems; however, pre- and post-discussion risk levels were assessed for 10 problems. Analysis of covariance demonstrated a significantly greater increase in risk following discussion for groups in the risk acceptance condition ($p < .01$). Ss in the latter condition also showed greater variability in amount of shift than did Ss in the advisory condition ($p < .01$). Results support R. Brown's value of risk theory.—*Journal abstract*.

2318. Klipnis, David & Goodstadt, Barry. (Temple U.) **Character structure and friendship relations.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 201-211.—Studied friendship relations in terms of interpersonal influence, self-disclosure and extent of social activities among 30 impulsive and nonimpulsive

undergraduates. The procedure involved having Ss bring a friend into the laboratory. Questionnaire and autokinetic studies of mutual influence reveal that impulsive Ss were less influenced by friends' judgments, dominated their good friends more, socialized more, and disclosed more intimate information about themselves than non-impulsive Ss. In a 2nd study with 32 Ss, it was found that the judgments of a male stranger had no influence on impulsive Ss' judgments, while those of a female stranger did. Both male and female strangers influenced the judgments of nonimpulsive Ss. Other findings indicate that friends resembled Ss in terms of impulsivity test scores. Findings are discussed in terms of the functional value of friendship for persons varying in impulsivity. (19 ref.)—*Journal abstract.*

2319. London, H., Meldman, P. J., & Lanckton, A. V. (Brandeis U.) **The jury method: Some correlates of persuading.** *Human Relations*, 1970(Apr), Vol. 23(2), 115-121.—32 undergraduates were presented fact summaries, judge's instructions, and legal analyses of the case in a simulated 2-man jury situation. Change of certainty of persuaders was evaluated. Results show that persuaders changed their degree of certainty less than persuadees, and that persuaders were more certain of the final common opinion than were persuadees. The finding that persuaders dip in certainty at middiscussion and the persuadee's certainty about final opinion increases with time needs further documentation.—*W. W. Meissner.*

2320. Ofshe, R. (U. California, Berkeley) **Cognitive consistency and language behavior.** *Human Relations*, 1970(Apr), Vol. 23(2), 139-151.—Studied 45 S pairs using the semantic differential technique to determine the conditions under which actors will tend to tolerate strain not reduced through consensus or further reduce strain through distortion of perception. For highly relevant signs actors tend to reduce the degree of distortion of the other's connotative meaning. For low relevant signs actors tend to increase the degree of distortion over time. Consensus increases with length of time spent in interaction. (22 ref.)—*W. W. Meissner.*

2321. Singh, Y. P. & Pareek, Udai. (Punjab Agricultural U., Hissar, India) **Communication nets in the sequential adoption process.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 232-246.—The study was conducted in a medium-size, multicaste village near Delhi, India. Main criteria for the selection of practices were recency of introduction and wide adoption. Behavioral products were first studied and then attempts were made to trace all the influences that went into their making. Findings indicate that except for interest and trial stages, communicators increase with each advanced stage of adoption. (20 ref.)—*R. D. Nance.*

Social Perception & Motivation

2322. Carlson, Rae & Levy, Nissim. (National Inst. of Mental Health, Chevy Chase, Md.) **Self, values, and affects: Derivations from Tomkins' polarity theory.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 338-345.—S. S. Tomkins' polarity theory provided the basis for 3 empirical studies exploring the role of ideoaffective postures in personality. In Study I, the humanistic-normative polarity (assessed by taste or smell imagery) was significantly related to interpersonal vs. individualistic bases of self-conception and of value hierarchy in 202 Negro undergraduates. Study II

systematically sampled affective imagery and social-personal orientation, and found both variables significantly related to judgments of facial expressions of emotion in an initial study and in a replication with 40 Ss. Study III found humanistic-normative affective imagery related to students' (N = 20) affective responsiveness in a science education class. Results support Tomkins' formulation by demonstrating the role of ideoaffective postures in organizing personal judgments and choices, and encourage further inquiry on basic cognitive-affective dynamics in personality. (23 ref.)—*Journal abstract.*

2323. Fitch, Gordon. (U. Kansas, School of Business) **Effects of self-esteem, perceived performance, and choice on causal attributions.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 311-315.—135 undergraduates attributed causality for performance in a dot-estimation task to internal and external causal sources. Ss were found to attribute significantly more causality to internal sources for success outcomes than for failure outcomes, supporting a self-esteem enhancement prediction. Low-self-esteem Ss who received failure feedback attributed significantly more causality to internal causal sources than did high-self-esteem Ss, who received failure feedback, thus supporting a self-esteem consistency prediction for low-self-esteem Ss. The prediction of a positive relationship between degree of choice in engaging in the task and internal attribution of causality was not supported. A significant Self-Esteem \times Perceived Performance interaction is discussed, as is an unexpected relationship between internal-external control and self-esteem.—*Journal abstract.*

2324. Helmreich, Robert; Aronson, Elliot, & LeFan, James. (U. Texas) **To err is humanizing—sometimes: Effects of self-esteem, competence, and a pratfall on interpersonal attraction.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 259-264.—Studied the effects on liking for a stimulus person in a $3 \times 2 \times 2$ factorial design varying 120 male undergraduates' self-esteem stimulus-person competence, and the presence or absence of a pratfall by the stimulus person. The competent stimulus person with or without a pratfall was found to be significantly more attractive than his incompetent counterpart. However, Ss of average self-esteem found the attractiveness of a competent person enhanced significantly if he experienced a pratfall, while Ss of high and low self-esteem were significantly more attracted to the superior when he did not blunder. A pratfall did not significantly affect liking for the incompetent stimulus person by any of the self-esteem groups. Ss of low self-esteem volunteered at a higher rate for experimentation than those of high or average self-esteem.—*Journal abstract.*

2325. Kelley, Harold H. & Stahelski, Anthony J. (U. California, Los Angeles) **Social interaction basis of cooperators' and competitors' beliefs about others.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 66-91.—Based on results from previous experiments using the Prisoner's Dilemma game, it is inferred that cooperators will believe others are heterogeneous as to their cooperativeness vs. competitiveness, whereas competitors will believe other persons are uniformly competitive. Evidence relating to authoritarianism, and from a variety of experimental situations is found to confirm this inference. Low authoritarians tend to behave like cooperators in experimental game situations and to have beliefs about other persons similar to

the cooperators' beliefs, whereas high authoritarians exhibit behavior and beliefs consistent with those of competitors. Results illustrate what may be a common phenomenon in personality and social psychology, that a personality predisposition acts through its influence upon the person's social behavior to determine the information he gains from his social environment and, thereby, the beliefs he comes to hold about his world. This analysis provides an explanation in terms of social interaction processes for a "projection" phenomenon previously explained almost exclusively in terms of psychodynamic processes. (43 ref.)—*Journal abstract.*

2326. King, M. G. (Macquarie U., School of Behavioral Sciences, Sydney, New South Wales, Australia) **Sex differences in the perception of friendly and unfriendly interactions.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 212-215.—Studied judgments of social interactions along a friendly-unfriendly dimension, revealing marked cross-sex differences. Ss were 200 male and 200 female undergraduates. With same-sex judgments, males judging male interactions and females judging females, no difference was found. In their judgments of female interactions, however, male judgments were linearly related to female judgments, but the latter scale had a far wider range. In their judgment of male interactions, females had a comparatively restricted range for friendly interactions, but differentiated as well as males in the very unfriendly range. Implications of findings for systematic observation techniques are outlined and implications of sex differences in social perception are discussed.—*Journal abstract.*

2327. Lanzetta, John T. & Kleck, Robert E. (Dartmouth Coll.) **Encoding and decoding of nonverbal affect in humans.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 12-19.—12 male undergraduates viewed a sequence of equally spaced and randomly ordered red and green lights, in which the red light signaled the advent of shock. Continuous skin-resistance measures were taken. Ss nonverbal responses to the red and green stimuli were video taped without their knowledge and were later viewed by themselves and 5 of the other Ss, individually, under conditions which required them to discriminate between shock and nonshock trials. Ss accuracy scores were above chance levels, and significant differences in error rates for stimulus persons but not for judges were found. Ss who were proficient at the discrimination task were themselves poor stimuli for others and vice versa. The degree of physiological reactivity of the Ss was positively associated with the number of errors made to them as stimuli, but negatively related to their error scores as judges. Alternative explanations for this last result are discussed. (27 ref.)—*Journal abstract.*

2328. Lott, Albert J., Lott, Bernice E., Reed, Thomas, & Crow, Terry. (U. Rhode Island) **Personality-trait descriptions of differentially liked persons.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 284-290.—Interpersonal attitudes are inferred from a variety of behaviors, among which should be the words people use to describe each other. Each S in 2 independent samples of 50 and 60 undergraduates listed 3 persons with whom he was very well acquainted but 1 of whom was very well liked, 1 disliked very much, and 1 regarded neutrally. These stimulus persons were then described by adjectives from N. H. Anderson's list of 200 personality-trait words. Results from both samples were

consistent: the number of adjectives used to describe persons varied reliably with interpersonal attraction, in the direction of most to least, from liked to disliked to neutral, supporting theoretical assumptions regarding differences in salience among differentially liked persons. In addition, the particular words chosen to describe well-liked, neutral, and disliked actual persons differed significantly in Anderson's likableness values. Discriminating words were isolated, and a descriptive word measure of interpersonal attraction is suggested.—*Journal abstract.*

2329. Lott, Albert J., Lott, Bernice E., & Walsh, Michael L. (U. Rhode Island) **Learning of paired associates relevant to differentially liked persons.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 274-283.—Independent samples of undergraduates learned to associate the names of public figures (N = 60, Study I), or the names of persons with whom they were very well acquainted (N = 52, Study II), with CVC nonsense syllables (trigrams). In both cases, attitude toward the person whose name was paired with new information made a significant difference in the ease with which the learning took place. Ss made fewest errors in learning relevant to liked persons, most errors in learning relevant to neutrally regarded persons, and an intermediate number of errors in learning relevant to disliked persons. Some evidence was also obtained, in Study II, that the affect evoked by the names of differentially liked persons was conditioned to the trigrams paired with them. Results are discussed in terms of their relevance for the theoretical assumption that differentially liked persons differ systematically in cue and motivational properties. (17 ref.)—*Journal abstract.*

2330. Lowe, Charles A. & Goldstein, Joel W. (U. Connecticut) **Reciprocal liking and attributions of ability: Mediating effects of perceived intent and personal involvement.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 291-297.—24 involved female undergraduates received an evaluation in a live interaction setting, while 24 role players, who observed a videotape of the situation, were asked to imagine that they were the S. The evaluation (positive or negative) was given by an evaluator who had chosen either to be accurate or to gain approval. Ss' perceptions of the evaluator were obtained. Results indicate that: (a) liking was reciprocated, i.e., positive evaluators received positive ratings, negative evaluators received negative ratings; (b) the amount of liking or disliking for the evaluator was greater when she was trying to be accurate than when she was trying to gain approval; and (c) involved Ss liked positive evaluators and disliked negative evaluators more than did role players, and their attributions of ability were biased in the direction of the evaluation valence. Results are discussed in the framework of attribution theory.—*Journal abstract.*

2331. Lowry, Thomas W. (U. Texas) **The effect of training and selected cognitive and personality variables on accuracy of interpersonal judgment.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5692-5693.

2332. Manes, Audrey L. (Stanford U.) **Some determinants of the degree of polarization of first impressions.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5525.

2333. Sweeney, Donald R., Tinling, David C., & Schmale, Arthur H. (U. Rochester, Medical & Dental

School) **Differentiation of the "giving-up" affects: Helplessness and hopelessness.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 378-382.—Hypothesized that expressive excerpts (both graphic and verbal) "representing helplessness would be rated as higher than those representing hopelessness on the evaluation, activity-potency, and object-relatedness dimensions" of a semantic-differential test of affects, and as lower (i.e., less enduring) on the temporality dimension. Ss were 20 normal artists, teachers, and actors experienced in communication of affect, who expressed 13 affects (including helplessness and hopelessness) in verbal, graphic, and facial-postural modes. 20 units of drawing and verbal excerpts were selected for rating. Results support the hypothesis and are discussed in terms of their usefulness in the clinical situation to differentiate between helplessness and hopelessness.—P. McMillan.

2334. Warr, Peter B. & Smith, J. Stuart. (U. Sheffield, Social & Applied Psychology Unit, England) **Combining information about people: Comparisons between six models.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 55-65.—Examines 6 models of the way combined inferences between personal characteristics are predictable from single intertrait inferences including (a) simple descriptive statements of averaging or addition, (b) models to account for asymmetry in A:B and B:A inferences, and (c) models which account for this asymmetry and also incorporate assumptions about the interrelationship between member traits in a pair. A distinction is drawn between intrinsic and extrinsic criteria for evaluating models. On intrinsic criteria the preferred model of those in Class c was found to be most acceptable of the 6 which were examined. It is, however, pointed out that on extrinsic criteria another model might be preferred (23 ref.).—*Journal abstract*.

2335. Winters, Elaine P. (U. Houston) **Person perception in multiple-cue probability learning task as a function of cognitive complexity and inferential set.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5681.

COMMUNICATION

2336. Beisecker, Thomas. (U. Kansas) **"Game theory in communication research": A reaction and re-orientation.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 107-124.—Raises 3 issues concerning R. N. Bostrom's (see PA, Vol. 43-6857) assumptions underlying his application of game theory to communication research: individuals seek to maximize self-benefit or mutual group benefit, but one cannot do both simultaneously; the probability of consistency of preference, criterion valuation and interval units of identical size is small in real-life situations; and his game theory is based on the solution of an interaction rather than on the communication process through which the solution is derived. In a rejoinder, "Bostrom denies stating that individuals will interact to achieve their greatest mutual satisfaction—but that they ought to, and his purpose was to make possible an analysis of the degree to which particular communicative acts approached this 'ideal.' To restrict game theory to conflict situations (as Beisecker, and past game theorists, have done) is to ignore a potentially valuable tool for communication research. The fact that communicative measurement is complex is not new, nor a valid reason for no attempt being made to accomplish it."—P. Federman.

2337. Brownstone, Paul L. (Long Island U.) **International understanding through communication: One plan-one plea.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 142-152.—Describes an educational radio program established in the country of Colombia in 1947. Other descriptive methods used in other countries, their unique problems of language, and local customs are described. UNESCO's qualifications for involvement in international education are analyzed. A UNESCO university is proposed.—P. Federman.

2338. Dance, Frank E. (U. Wisconsin, Milwaukee) **The "concept" of communication.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 201-210.—Examines definitions of communication as related to the meaning of "concept" as reflected in the literature of the philosophy of science. 15 themes were produced. The definitions critically divide over 3 of the 15 concepts.—P. Federman.

2339. Engel, James F., Blackwell, Roger D., & Kegerreis, Robert J. (Ohio State U.) **How information is used to adopt an innovation.** *Journal of Advertising Research*, 1969(Dec), Vol. 9(4), 3-8.—"Compared with the general population, innovators (patrons of the new automotive diagnostic center in Columbus, Ohio)" are (a) more frequently subscribers to 5 or more magazines; (b) rate themselves as earlier learners of innovations and, correspondingly, hear of an innovation to a significantly greater extent before it becomes available locally; (c) less often act without planning; and (d) make an extensive systematic search for relevant information.—J. C. Franklin.

2340. Goldhaber, Gerald M. (Purdue U.) **Listener comprehension of compressed speech as a function of the academic grade level of the subjects.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 167-173.—Investigated the effects of 2 variables: rate of presentation and academic grade level of the Ss, and their interaction. Compression of speech was achieved electronically with a speech compressor to achieve rates of 165-330 words/min. Significant differences among rates and academic level of Ss were obtained; no significant difference was found in the interaction of the 2 variables.—*Journal abstract*.

2341. Larsson, Inger. (School of Education, Malmö, Sweden) **Increasing the rate of return in mail surveys: A methodological study.** *Didaktometry & Sociometry*, 1970, Vol. 2, 43-70.—Describes measures to increase the rate of return in mail questionnaires. A factorial experiment was made as part of a survey of the extent to which the German language occurs in Swedish business life. Factors used were signing authority and reminder. Signing authorities represented the National Board of Education and the Malmö School of Education, and the forms of reminder were telephone and letter.—*Journal abstract*.

2342. Perelló, Jorge. (Centro Municipal Fonodislogico "J. M. de Porcióles," Barcelona, Spain) **Digressions on the biological foundations of language.** *Journal of Communication Disorders*, 1970(Aug), Vol. 3(2), 140-149.—Applies the methods used to examine mute children to investigate the speech of men of the paleolithic age. An examination of paleolithic figures using the principles of the Goodenough Draw-a-Man Test and tests of handedness shows that: (a) these men possessed a superior language, like that of a 13-yr-old; and (b) prehistoric man was ambidextrous, or that there was a great proportion of left-handers. The cavities of

the speech organ of prehistoric man are also examined in a discussion of the production of sounds and the evolution of language.—*M. Maney.*

2343. Schoenfeldt, Lyle F. (U. Georgia) **Data archives as resources for research, instruction, and policy planning.** *American Psychologist*, 1970(Jul), Vol. 25(7), 609-616.—Discusses the storing and accessing of large resources of data with the dual aim of stimulating scientists to organize data for use in other research purposes, and encouraging potential users to perceive data archives as resources for their particular needs. Major archives are listed and described. Advantages of using existing data files are (a) economy of time and money, (b) the possibility of combining materials from several archives, (c) larger and more representative samples, and (d) reduced bias. The most serious problem is preserving the confidentiality of the information treated. Examples of applications of data banks in the area of research, instruction, and planning of social policy are described. (18 ref.)—*Author abstract*

2344. Sedláček, Karel & Sychra, Antonín. **The method of psychoacoustic transformation applied to the investigation of expression in speech and music.** *Kybernetika*, 1969, Vol. 5(1), 1-28.—Analyzes methods used for study of expression, i.e., the method of direct introspective analysis, behavioristic methods, and the method of the objective investigation of biological reactions, and suggests a combined method—psychoacoustic transformation as a useful complement to the other approaches. The new method compares sentences pronounced before and after listening to the vocal and dramatic music to discover the objective acoustic and physiologic carriers of the emotional expression in speech and music. (Czech summary) (30 ref.)—*G. Steele*

Language

2345. ———. **Comments and queries: Wanted: A better direction for linguistic psychology.** *Psychological Record*, 1970(Spr), Vol. 20(2), 263-265.—Proposes that the psychology of language should deal not with structures of letters or sounds, but study linguistic events as definite adjustments of organisms to 2 simultaneously operating stimulus objects.—*Journal abstract*

2346. Bernard, J. R. (Macquarie U., New South Wales, Australia) **On nucleus component durations.** *Language & Speech*, 1970(Apr), Vol. 13(2), 89-101.—Spectrographically derived measurements of the durations of the component sections of 19 different vocalic nuclei in the h-d frame allow an estimation of the roles of linguistic, individual, and physiological forces in the division of the nucleus into its on-glide, target, etc., and also a tentative ranking of these forces in the order given. Some observations on nucleus duration are included.—*Journal abstract*

2347. Bresson, F., Jodalet, F., & Mialaret, G. **Language, communication et décision.** [Language, communication and decision.] *Traité de Psychologie Expérimentale*, 1969, Vol. 8, 306 p.—A presentation and review in 4 chapters of the experimental literature of language and communication, verbal association, the experimental psychology of reading, writing, and drawing, and decision making. References to the international research literature are given at the end of each chapter.—*N. B. Gordon*

2348. Fishman, Joshua A. (Yeshiva U.) **Bilingualism in the barrio.** *Modern Language Journal*, 1969(Mar), Vol.

53(3), 151-185.—Presents excerpts from a report of bilingualism in a predominantly lower class urban Puerto Rican community in the United States, and aspects of the larger network of communication media and communication elites through which it is tied to the Puerto Rican community of a larger metropolitan area. Those sections of the report judged relevant to language teachers are presented, including papers by J. Fishman, A. Cooper, L. Greenfield, M. Feldman, and T. Berney, dealing with: (a) measurement and description of widespread, relatively stable bilingualism, (b) word frequency estimation as a measure of degree of bilingualism, (c) contextualized measures of degree of bilingualism, (d) contextualization of school children's bilingualism, and (e) semantic independence and degree of bilingualism in 2 communities.—*M. Maney.*

2349. Gay, Thomas. (Haskins Lab., New Haven, Conn.) **A perceptual study of American English diphthongs.** *Language & Speech*, 1970(Apr), Vol. 13(2), 65-88.—Utilized synthetic speech for describing the phonemic boundaries and the effects of formant course on the identification of a group of diphthongs. In Exp. I, synthesized formant transitions appropriate to classes of diphthongs were presented to 10 phonetically trained listeners for purposes of phonemic labeling. Exp. II attempted to determine whether the phonetic identity of the targets on the absolute course of the 2nd formant transition serves as the primary identifying cue. These features were separated along the time dimension by synthesizing diphthongs whose 2nd formant frequency course remained fixed but whose durations varied. Results of the listening tests show shifts in perception from simple vowel to diphthong occurring as a function of duration rather than frequency onset or offset positions. Results suggest that certain diphthong stimuli are characterized by an invariant 2nd formant rate of change, whose onset and offset values vary across changes in duration.—*Journal abstract*

2350. Ghiley, Hoyt M., & Summers, Collier B. (Appalachian State U.) **Sex differences in the use of hostile verbs.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 31-37.—50 male and 50 female undergraduates chose between using either a hostile verb (e.g., stabbed) or a neutral verb (e.g., began) in composing each of a series of 100 sentences. They were given either a personal-reference pronoun (I, we) or an other-reference pronoun (he, they) with which to begin each sentence. Variables were age of S, pronoun type, and block of trials. Male Ss used significantly more hostile verbs than did female Ss. Pronoun type was not a significant variable. Results are explained in terms of sex differences in hostile response tendencies.—*Journal summary*

2351. Kishin, Hirovuki. (Tokushima U., Japan) [Similarity dimensions and legibility of Kana-Kana letters.] *Japanese Journal of Psychology*, 1970(Jeb), Vol. 40(6), 337-340

2352. Krommer, William J. (Vassar Coll.) **Linguistic operations in the analysis of pairs of class-membership statements.** *Psychonomic Science*, 1970(Nov), Vol. 20(4), 219-220.—Successfully predicted the ordering of solution times and error rates in a task comprising the comparison of statements that were logically equivalent but linguistically different by a model involving 2 operations capable of transforming the linguistically differing forms into each other. Ss were 24 undergraduates.—*Journal abstract*

2353. Mackay, C. K., & Brown, W. P. (U. Aberdeen,

Scotland) **Metaphor preference vs. semantic ratings as measures of attitude toward time.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 207-212.—Attitude toward time was assessed by means of Knapp's Metaphor Scale and also by having Ss ($N = 31$ postgraduate students) rate time on 12 semantic rating scales. Correlations were used to assess the extent of agreement between the 2 types of measure. While high correlations were largely absent, the results did seem to form a meaningful pattern. Preference for "dynamic" images of time was more closely related to ratings of time as fast, active, and energetic than to ratings of it as emotional, concerned, or purposeful. Some factors which may have prevented the emergence of high correlations are suggested.—*Journal summary*.

2354. Taylor, Kent B. (1229 Forest Ave., Palo Alto, Calif.) **A Markovian investigation of English language redundancy.** *Psychonomic Sciences*, 1970(Aug), Vol. 20(4), 199-200.—Represented digram letter transition probabilities in the form of a Markov source to test the assumptions of ergodicity and regularity underlying the application of information-theory measures to language-redundancy studies. The source was determined to be ergodic and regular, and sequential letter dependencies were found to be relatively short run. Trigram probabilities predicted by the Markov model were consistently slightly higher than empirical probabilities, demonstrating limitation of such an approach to statistical language analysis.

2355. Weaver, Wendell W., Kingston, Albert J., Bickley, A. C., & White, William F. (U. Georgia, Coll. Education) **Information-flow difficulty in relation to reading comprehension.** *Journal of Reading Behavior*, 1969(Sum), Vol. 1(3), 41-49.—Administered the Modern Language Aptitude Test (MLAT) and Davis Reading Test (DRT) to 53 college sophomores who had previously taken the Cattell 16 PF, the Semantic Differential (SD), and 2 cloze tests. The cloze tests were constructed by deleting every n th word from 2 samples of a story; the SD included rating the protagonist of the story as well as self. Results from a regression analysis using the DRT as the criterion indicate the spelling clues subtest of the MLAT as the largest predictor, accounting for 24% of the variance. The SD protagonist-evaluation and the Words-in-Sentences subtest of the MLAT were also significant variables. Results are suggested to "provide further evidence for the interrelationships of rote learning processes and so-called higher level mental processes."—*R. Wiltz*.

Psycholinguistics

2356. Bodenheimer, A. R. (85 Möhrlistr., Zurich, Switzerland) **Die Sprache der Innigkeit und ihre Anwendung.** [The parlance of sincerity and its application.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 169-174.—Briefly discusses the ways in which sincerity is reflected in speech. Numerous samples are noted of dialogues in which sincerity is present.

2357. Brown, Roger, et al. (Eds.) **Psycholinguistics: Selected papers by Roger Brown.** New York, N.Y.: Free Press, 1970. xviii, 392 p. \$8.95.—Includes R. Brown's major papers on the development of language in childhood, as well as a selection of research and theoretical papers by various authors which provide a sampling of research from early studies dealing with

structural linguistics to later studies concerned with transformational linguistics.

2358. Markel, Norman N. (Ed.) (U. Florida, Communication Sciences Lab.) **Psycholinguistics: Introduction to the study of speech and personality.** Homewood, Ill.: Dorsey, 1969. x, 400 p. \$8.65(paper).—Presents basic background material and comprehensive bibliography of research findings in the field of speech and linguistics. Chapters by various authors include such topics as definition and analysis of language, vocal phenomena that accompany spoken language, linguametric procedures, and personality traits and emotional states.

2359. Martin, Edwin. (U. Michigan, Human Performance Center) **Toward an analysis of subjective phrase structure.** *Psychological Bulletin*, 1970(Sep), Vol. 74(3), 153-166.—A method for ascertaining the subjective organization of English sentences is presented, discussed, and experimentally applied. It is argued that the a priori phrase markers that psycholinguists have been using in theory and research are in need of empirical determination, and that subjective phrasing departs from prescriptive phrasing. It is also shown that relative constituent compactness can be determined empirically.—*Journal abstract*.

2360. Rokeach, Milton; Homant, Robert, & Penner, Louis. (Michigan State U.) **A value analysis of the disputed Federalist papers.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 245-250.—Investigated whether an analysis of the values contained in the 12 Federalist papers whose authorship has been disputed could contribute to determining authorship. 2 judges, who had not previously read the papers or had had previous experience with content analysis, recorded the number of times 24 values occurred in the disputed papers, as well as in 10 Federalist papers known to have been written by Hamilton and in 10 written by Madison. The values in the disputed papers correlated significantly more highly with the Madison papers than with the Hamilton papers. This finding was in accord with recent work assigning the disputed papers to Madison.—*Journal abstract*.

AESTHETICS

2361. Ando, Fukuda. (Keio U., Tokyo, Japan) [Multidimensional analysis of the preference structure for music performances.] *Japanese Journal of Psychology*, 1970(Feb), Vol. 40(6), 330-336.—Applied L. R. Tucker's method of multidimensional analysis to music preference. In Exp. I, 23 Ss evaluated 6 different piano interpretations of a Chopin waltz. Analysis of data shows a 2-dimensional preference structure. In Exp. II, 6 performances of a Schubert lied were used. Results indicate that Tucker's method shows applicability to the field of music preference. Individual preferences are described and reveal relationships among such preferences.—*English summary*.

2362. Gourevitch, M. **A propos d'une méconnue source "des faux-monnayeurs."** [On an unknown source of "The Counterfeiters."] *Encéphale*, 1970(Jan), Vol. 59(1), 67-80.—Presents evidence to suggest that one of the sources of Andre Gide's autobiographical novel, *The Counterfeiters* may have been his contact with a Polish psychoanalyst, Mme. Eugenia Sokolnicka. Evidence suggests that Gide may have been seen by her in treatment for about 6 sessions. Reflections of this in the book are noted.—*W. W. Meissner*.

2363. Hagen, Rochus A. (51 Alter Mühlenweg, Cologne, W. Germany) **Der tonologische Vergleich: Ein methodisches Problem.** [The tonological comparison: A methodic problem.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 133-141.—Briefly describes several problems encountered in attempts to establish comparative similarities between Negro and white spiritual music. Recent investigations concerning phonophotography and ethnomusicology are reviewed. (32 ref.)—B. A. Stanton.

2364. Kitahara, Michio. (Acadia U., Wolfville, Nova Scotia, Canada) **A formal model of syncretism in musical scale.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 175-178.—There are 5 important features in all cases of syncretism. The concept of syncretism in music is well accepted. A new form of music emerges as a result of fusion of 2 traditions. Little is known beyond this point. This paper examines the phenomenon by use of a model. The ideas of Ehrenfels regarding melody are developed. A study by the author supports his model.—R. D. Nance.

2365. Knobloch, Ferdinand; Juna, Jaromir; Junová, Hana, & Koutský, Zdeněk. (U. Karlova, Prague, Czechoslovakia) **On an interpersonal hypothesis in the semiotic of music.** *Kybernetika*, 1968, Vol. 4(4), 364-382.—Examines the concept that music is a sort of nonverbal language conveying meanings to listeners. Reasons are given for the hypothesis that the works of music signify interpersonal tendencies understood and reacted to by the listeners who participate in fantasy on the interpersonal transactions of the composer. Some links are shown which connect the present problem with semiotic, general systems theory, psychology both normal and pathological, psychoanalysis and ethology. (Czech summary)—*Journal abstract*.

2366. Sloane, Patricia. (New York U.) **Art and art token in tests involving art evaluation.** *Psychological Record*, 1970(Spring), Vol. 20(2), 191-196.—Examines the nature of the art token (reproduction), its function as a test variable, suggested controls, and the degree of generalization which can be correctly inferred from any test involving tokens.—*Journal abstract*.

SMOKING & DRUG & ALCOHOL USE

2367. DeFleur, Lois B. & Garrett, Gerald R. (Washington State U.) **Dimensions of marijuana usage in a land-grant university.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 468-476.—Reports an attempt to measure marihuana usage at a Western university. Users and nonusers of various types are compared, and their beliefs about the nature and effects of marihuana are summarized. Opinions concerning changes in laws related to the drug are explored. The major findings from a number of studies on the student use of the drug are summarized.—*Journal abstract*.

2368. Flynn, William R. (16542 Ventura Blvd., Encino, Calif.) **The pursuit of purity: A defensive use of drug abuse in adolescence.** *Adolescence*, 1970(Sum), Vol. 5(18), 141-150.—Describes 5 adolescent psychotherapy cases to illustrate the use of psychedelic drugs as an ascetic defense against psychosocial and psychosexual maturity.—A. B. Warren.

2369. King, Francis W. (Dartmouth Coll., Health Service) **Anonymous versus identifiable question-**

naires in drug usage surveys. *American Psychologist*, 1970(Oct), Vol. 25(10), 982-985.—Compared the advantages of different forms of questionnaires used in drug surveys: completely anonymous, consciously identifiable, short forms, and long forms. Despite predictions to the contrary, the anonymous questionnaire did not yield a significantly higher percentage of returns nor of admissions of use of 2 illegal drugs (marihuana and LSD).—*Author abstract*.

2370. Zerssen, D., Stephan, E., & Kaiser, I. (U. Heidelberg, Psychiatrische & Neurologische Klinik, W. Germany) **Der Schlafmittelmisbrauch und seine Verhütung.** [Misuse of sleeping pills and its prevention.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 459-464.—Cites numerous investigations to illustrate widespread misuse of sleeping medications. The need for internists and psychiatrists to keep prescription of hypnotics and sedatives to a minimum as an aid in the prevention of drug dependency and suicide is emphasized. (107 ref.)—B. A. Stanton.

PERSONALITY

2371. ———, Harrison G. Gough. *Revue de Psychologie Appliquée*, 1970, Vol. 20(1), 59-66.—Presents a resumé of H. G. Gough's work. (98 ref.)—K. J. Hartman.

2372. Felker, Donald W. & Hunter, Dede. (Purdue U.) **Sex and age differences in response to cartoons depicting subjects of different ages and sex.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 19-21.—Investigated differences in responses to humor between males and females, and between adolescents and adults. 6 boys and 6 girls 14-17 yr. old, and 6 men and 6 women over 21 yr. old served as Ss. The age and sex of the individual who was the subject of the cartoon humor was investigated also to determine if this aspect was also a factor in humor response. Sex and age differences in response were found. Females rated the cartoons as funnier than males and adults rated them as funnier than adolescents. The subject within the cartoon did not differentially influence the humor rating.—*Journal summary*.

2373. Geiwitz, P. James. (Stanford U.) **Non-Freudian personality theories.** Belmont, Calif.: Brooks/Cole, 1969. xi, 147 p.—Presents a brief description of the essential ideas of the more prominent personality theories of contemporary psychology, using an issue rather than a survey approach. Theories discussed include those of Gordon Allport, Gardner Murphy, Henry Murray, Carl Rogers, and Kurt Lewin.

2374. Soueif, M. I. & El-Sayed, A. M. (Max Planck Inst. of Psychiatry, Munich, W. Germany) **Curvilinear relationships between creative thinking abilities and personality trait variables.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 1-21.—Administered creative thinking tests and personality questionnaires to 216 Egyptian males whose mean age was 23.16 yr. (± 1.54). Product-moment correlations between all the test variables were run. Most of the correlations within each area, i.e., creativity and personality, were statistically significant, but those between the 2 sets of variables did not differ significantly from 0. Principal component analysis was carried out. 10 principal axes factors were extracted, but only 8 could be identified. Correlation ratios were computed between personality variables and creativity test scores. Most of the corre-

lations were highly significant. Moderator variable analysis was then carried out and was shown to reveal interaction effects among personality variates in determining creativity test scores.—*Journal abstract.*

PERSONALITY TRAITS & PROCESSES

2375. Ahrens, Hans J. (U. Heidelberg, Psychologische Inst., W. Germany) **Zur Systematik von Sitzplatzwahlen.** [The systematics of seat choices.] *Psychologische Beiträge*, 1969, Vol. 11(3), 349-367.—Investigated the behavior of student's choice of seats in lecture rooms. First, Ss simulated seat choices. Factor analysis showed that choice of seats could be described by 4 factors. In discussing Ss' reasons for choices, distinctions were made between individual and social motives. Then the behavior of the same Ss was observed in real lecture situations. Prediction on the basis of the results of the experiments could be corroborated for a certain group of the Ss. (French summary) (22 ref.)—*English summary.*

2376. Boshier, Roger. (Victoria U., Wellington, New Zealand) **Self-regarding attitudes: A bibliography.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 218.—Describes the background of the notions of self and self concept and presents a bibliography covering pre-1961 references.

2377. Fitch, Henry G. (Purdue U.) **The effects of self-esteem, I-E control, success-failure, and choice on causal attribution.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5522-5523.

2378. Jurovský, Anton & Vopálenký, Ján. **Integrácia osobnosti a sociálna začlenenosť mladistvých.** [Personality integration and social adjustment of youth.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(1), 3-14. Studied the relationship between personality traits and external determinants and hypothesized that it is possible to verify them on personality integration and some aspects of social adjustment. An apparatus, which tests the degree of behavior disorganization under conditions of stress, was used with 48 16-17 yr. olds. In addition, Ss were given the California Test of Personality, Jurovský's Social Proximity Scale and a sociometric test. Results suggest that: (a) the attempt at measuring integration and disintegration of personality under stress conditions was successful, and (b) correlations between the disintegration index and some personality traits were found, indicating a connection between personality traits directly contributing to the socialization of the individual and structural personality traits. (Russian summary)—*English summary.*

2379. Lish, Joan A. (New York U.) **The influence of oral dependency, failure, and social exposure upon self-esteem and depression.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5692.

2380. McArthur Leslie A. (Brandeis U.) **Luck is alive and well in New Haven: A serendipitous finding on perceived control of reinforcement after the draft lottery.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 316-318. A serendipitous finding supports J. B. Rotter's proposition that individual differences in generalized expectancy for internal vs. external control of reinforcement depend upon the individual's history of reinforcement. The Internal-External (I-E) Locus of Control scale was administered to 23 male undergraduates on the day following the draft lottery. Those who were 19 or older and were therefore affected by the lottery showed a greater expectancy for

external control of reinforcement than a control group of Ss to whom the I-E scale was administered prior to the lottery ($p < .10$). A breakdown of experimental Ss into 2 groups—those who were favorably affected by the lottery and those who were not favorably affected by it—revealed that the former group showed significantly more externality than the latter ($p < .05$) and largely accounted for the greater externality of experimental Ss as compared with controls.—*Journal abstract.*

2381. Mitchell, Terence R. (U. Illinois, Group Effectiveness Research Lab.) **Leader complexity and leadership style.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 166-174.—Using 60 undergraduates, it was found that F. E. Fiedler's estimate for one's Least Preferred Coworker (LPC) scale was positively correlated with an individual's cognitive complexity. This hypothesis was supported in several ways. The LPC score was correlated with a measure of cognitive complexity similar to the scale used by W. A. Scott. High-LPC Ss also showed more complex cognitions in making judgments about task settings than did low-LPC Ss. And finally, high-LPC Ss had more complex cognitions in their perceptions of actual behavior and of other coworkers. This information is integrated into Fiedler's theory of leadership effectiveness and a number of new approaches are suggested. (22 ref.)—*Journal abstract.*

2382. Montagu, Ashley. **Social interest and aggression as potentialities.** *Journal of Individual Psychology*, 1970(May), Vol. 26(1), 17-31.—Adler's conception of social interest and Montagu's view of the causes of aggression in man find a common basis in the development of potential. (36 ref.)—*A. R. Howard.*

2383. Morse, Stan & Gergen, Kenneth J. (U. Michigan) **Social comparison, self-consistency, and the concept of self.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 148-156.—78 undergraduate job applicants casually encountered a stimulus person whose characteristics were either socially desirable or undesirable. $1/2$ the Ss in each of these conditions found the other was competing with them for the same position, and $1/2$ did not. Preliminary assessments were also made of the Ss' level of self-consistency. The major dependent variable was self-esteem change. As predicted by comparison theory, the socially desirable stimulus person produced a significant decrease in self-esteem, while the undesirable other significantly enhanced Ss' self-estimates. Ss low in self-consistency were most affected by the presence of the other, while extent of competition had no effect. It was also found that similarity between Ss and stimulus person tended to enhance self-esteem, while dissimilarity tended to reduce it. (21 ref.)—*Journal abstract.*

2384. Shotland, R. Lance & Berger, Wallace G. (City Coll., City U. New York, Graduate Center) **Behavioral validation of several values from the Rokeach Value Scale as an index of honesty.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 433-435.—Of 131 female line workers responding to an attitude questionnaire, 39% returned the scoring pencil which was furnished with their questionnaire. It was hypothesized that the act of returning the pencils was related to the employee's feelings about being honest. As the great bulk of the employees were members of strict religious denominations, it was also hypothesized that the act of returning the pencils might be related to the hoped for attainment of a religious end state, i.e., salvation. Honest

and Salvation are 2 of 36 values of the Rokeach Value Scale. Results are consistent with the hypotheses. In addition 2 other values, A World At Peace and Helpful appeared to distinguish between pencil returners and nonreturners. The Rokeach Value Scale may prove to be a potentially useful predictor of honesty in a corporate setting.—*Journal abstract.*

2385. Van Heymebeck, R. (Royal Military School, Brussels, Belgium) *L'anxiété en situation de combat.* [Anxiety in combat situations.] *Information Psychologique*, 1968(Feb), No. 29, 47-57.—Presents a review.—S. G. Vandenberg.

Behavior Correlates

2386. Auvenshine, C. D., Smith, D. F., & Henaghan, M. B. (U. Kentucky) *Need for achievement: Relation to academic achievement and inventoried needs.* *SPATE Journal*, 1970, Vol. 8(4), 105-114.—4 groups of students were selected on the basis of need for achievement scores on the EPPS and their GPAs. Groups were (a) high need/high achievement, (b) high need/low achievement, (3) low need/high achievement, and (d) low need/low achievement. Significant differences were found that form patterns differentiating among the various groups. Differences were on scales of abasement, affiliation, autonomy, deference, intraception, and nurturance.—S. M. Amatora.

2387. Becker, Gilbert. (U. Manitoba, Winnipeg, Canada) *Situational discrimination in repressor-type and sensitizer-type approval seekers and the birth order by subject sex interaction.* *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 81-97.—5 experiments in which special instructions created the opportunity for situational discrimination. Repressor-type high need for approval Ss made the discrimination and permitted less favorable self-description, but sensitizer-type high need for approval Ss did not. Birth order and sex cross-classification analysis suggest the Gerard-Rabbie effect for both types of approval scales under neutral instructions and for the sensitizer-type scale alone under special instructions; i.e., 1st-born females scored highest, later-born males and females scored intermediately, and 1st-born males scored lowest. Overall score, instruction effect, and birth order by sex interaction varied considerably from population to population on the repressor-type approval scale, but were relatively stable on the sensitizer-type approval scale. (16 ref.)—*Journal summary.*

2388. Bettinghaus, Erwin; Miller, Gerald, & Steinfatt, Thomas. (Michigan State U.) *Source evaluation, syllogistic content, and judgments of logical validity by high- and low-dogmatic persons.* *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 238-244.—Investigated the conditions that facilitate judgment of an argument's validity. 120 high- and low-dogmatic Ss were matched by group for reasoning ability and randomized to positive- and negative-source conditions. Each S judged the logical validity of 16 syllogisms which were counterbalanced on the basis of a pretest. 2 hypotheses were tested: (a) when syllogisms are attributed to positive and negative sources, low dogmatics will make a significantly greater number of accurate judgments of validity than will high dogmatics; and (b) high dogmatics will make more accurate judgments of validity under conditions of positive sources and valid syllogisms and under conditions of

negative sources and invalid syllogisms. Conversely, low dogmatics will be more accurate under conditions of positive sources and invalid syllogisms and under conditions of negative sources and valid syllogisms. A 4-factor analysis of variance supported both hypotheses. Results are discussed as consistent with M. Rokeach's dogmatism theory, and the effect of certain syllogistic forms on the judgmental ability of high- and low-dogmatic Ss is considered. (20 ref.)—*Journal abstract.*

2389. Fields, Arlyne M. (Syracuse U.) *Repression as a function of failure, its implication, and social desirability level.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5687.

2390. Imber, Ruth R. (Ruigers State U.) *An experimental study of the oedipus complex.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5689.

2391. Lamphear, Steven C. (U. Georgia) *Personality and recreation: A study of participant behavior in selected outdoor recreation activities.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5314.

2392. Lasell, Warren L. (U. Rochester) *An examination of the interrelationships of stress, dogmatism, and the performance of a stressful task.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5198-5199.

2393. McCashia, Andrew W. (U. Georgia) *Repression-sensitization behavior in a verbal conditioning paradigm.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5694.

2394. McLaughlin, Barry. (U. California, Santa Cruz) *Incidental learning and Machiavellianism.* *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 109-116.—Compared 200 male undergraduates scoring high and low on the Mach IV Scale as to their willingness to engage in manipulatory behavior towards a fellow student (actually a confederate). High Mach Ss were found to be more manipulative, but to show poorer incidental verbal learning than low Mach Ss. Results are interpreted as indicating that high Mach Ss restrict their attention more to the manipulatory possibilities of the situation and ignore nonrelevant cues.—*Author abstract.*

2395. Mendelsohn, Gerald A., & Gail, Meredith D. (U. California, Berkeley) *Personality variables and the effectiveness of techniques to facilitate creative problem solving.* *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 346-351.—Related the effectiveness with which Ss used various techniques for facilitating creative problem solving to individual differences on the MMPI A and R scales, the Achievement Anxiety Test, and the Adjective Check List. 2 groups of Ss, designated high facilitation (N = 25 males and 25 females) and low facilitation (N = 29 males and 25 females), were formed on the basis of relative enhancement of performance following exposure to a facilitating technique. No reliable personality differences were found for males. For females, the effect of personality was contingent on the sex of the E. Low-facilitation female Ss matched with male Es appeared dissatisfied with themselves and others, preoccupied with personal problems, and ill at ease in social situations, however, no differences were found between low- and high-facilitation females matched with female Es. Results are discussed in terms of the interaction between personality traits and social contexts and their implications for the methodology of evaluating effectiveness of facilitating techniques. (16 ref.)—*Journal abstract.*

2396. Sadler, Timothy G. (U. Houston) *The role of*

extraversion and neuroticism in human operant conditioning. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5723.

2397. Sheridan, Kathleen & Shack, John R. (Loyola U.) **Personality correlates of the undergraduate volunteer subject.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 23-26.—10 male and 13 female undergraduate volunteers for 7 weekly sensitivity training sessions performed differently on 2 personality inventories than did 58 nonvolunteers. Volunteer students who were given the Personal Orientation Inventory and the Epistemic Orientation Inventory were significantly more accepting of themselves and significantly less dependent on their environment for motivation than nonvolunteers. Results are discussed in light of recent studies of the college volunteer for psychological experiments.—*Journal summary*.

2398. Stein, Richard S., Stein, Adele B., & Kagan, Jerome. (Harvard U.) **The effects of ordinal position and identification on the development of philosophical attitudes.** *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 13-24.—Conducted 2 studies to examine a number of hypotheses concerning the relation between ordinal position, identification, and the philosophical attitudes included in the dimension connectedness/disconnectedness. Aspects of connectedness include respecting tradition, seeing man as noble, thinking synthetically, and believing the world is rational; disconnectedness involves opposite attitudes. Ss were 54 male and 100 female undergraduates. Among males, 1st born identifiers tended toward connectedness and later born identifiers tended toward disconnectedness. Among females this relation was not found. It is suggested that 1st and 2nd borns learn different values in the process of identification with parents. The failure to replicate this with female Ss was attributed to the fact that items used were not relevant to female Ss.—*Journal summary*.

2399. Watson, David L. (U. Hawaii) **Anxiety and the structure of motivation.** *Gawain*, 1969(Mar), Vol. 17(2-3), 122-133.—Discusses the relationship between anxiety and the expectations and evaluations which a person has about his own behavior. Structure is defined as the temporal organization of behavior, with emphasis on the evaluative aspects which guide behavioral sequences. Much evaluative behavior is concerned with information seeking so that adequate tests may be performed, and the effects of uncertainty are discussed. It is hypothesized: (a) that the effects of uncertainty while performing avoidance responses should produce anxiety; (b) avoidance behavior would be contingent on a matrix of self-evaluational tests and would produce anxiety; and (c) general uncertainty produces emotionality, but that this has differential informational effects upon different individuals, depending upon their previous emotional state. The value of an outcome, and attendant uncertainty, are discussed.—*Journal abstract*.

INTELLIGENCE

2400. ———. **Innate Intelligence: Another genetic avatar.** *Psychological Record*, 1970(Win), Vol. 20(1), 123-130.—Considers the teachings of genetics and objective psychology which should expunge the dogmas of heredity vs. environment and nature vs. nurture, and the doctrine that behavior and its qualities can be generationally transmitted.—*Journal abstract*.

2401. Hersh, Jeffrey B. (Indiana U.) **The influence**

of biased referral reports in a clinical testing situation. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5688.

2402. Oleron, P., Piaget, J., Inhelder, Bärbel, & Greco, P. **L'intelligence.** [Intelligence.] *Traité de Psychologie Expérimentale*, 1969, Vol. 7, 220 p.—Presents a broadly conceived discussion of intelligence, including 4 chapters on: (a) types of activities involving intelligence, (b) mental imagery, (c) intellectual operations and development, and (d) learning in relation to the nature of intelligence. References to the international research literature are given at the end of each chapter.—N. B. Gordon.

2403. Rowland, George T. (U. Texas) **Convergent foundations of a psychological theory of intelligent behavior.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5301-5302.

2404. Tyler, Leona E. (Ed.) (U. Oregon) **Intelligence: Some recurring issues: An enduring problem in psychology.** New York, N.Y.: Van Nostrand Reinhold, 1969. ix, 277 p. \$2.95(paper).

2405. Udvardi, Josef. **Le diagnostic intellectuel.** [Diagnosis of intelligence.] *Information Psychologique*, 1968(Feb), No. 29, 37-46.—Presents a brief review of intelligence tests.—S. G. Vandenberg.

CREATIVITY

2406. Lake, A. E. & Tedford, W. H. (Oberlin Coll.) **Influence of creativity on formation of subjective units.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 227-237.—24 Ss viewed 2 series of slides and imitated them during free recall. The 2nd series was the same for all Ss, but $\frac{1}{2}$ of the items on it made up the 1st series for 12 Ss. Ss were also divided into 4 groups: creative in (a) the context of meaning (b) the context of novelty, (c) neither, or (d) both contexts. Results indicate: (a) less creative Ss did not organize the stimuli as effectively, (b) both forms of creativity involve subjective organization, and (c) part-whole learning interferes with motor recall. (27 ref.)—*Author abstract*.

PERSONALITY MEASUREMENT

2407. Bailey, Stephen T. (Veterans Administration Hosp., Waco, Tex.) **Independence and factor structure of self-concept metadimensions.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 425-430.—Examined 12 of D. Super's 13 self-concept metadimensions for independence and underlying factor structure. Ss were a heterogeneous group of 50 18-35 yr. old males. Self-descriptive data were obtained from interviews and self-ratings on personal constructs elicited by the Kelly Role Construct Repertory Test. A 14×14 matrix of 91 intercorrelations, which included 2 demographic variables, yielded 19 significant rs with none greater than .57 and only 4 which were .40 or higher. A principal components factor analysis yielded 5 orthogonal factors: (a) self-concept harmony, (b) self-concept change, (c) social integration and self-differentiation, (d) cognitive complexity, and (e) concrete self-realism. Results indicate that some metadimensions lack clear independence and that a simpler structure could be obtained which accounted for 65% of the variance. (19 ref.)—*Journal abstract*.

2408. Graff, Robert W., et al. (Southern Illinois U.) **The POI: A validity check.** *Educational & Psychological*

Measurement, 1970(Sum), Vol. 30(2), 429-432.—The Personal Orientation Inventory (POI) was administered to 71 dormitory assistants. Students on their floors rated them on order, quasi-counseling, model role, leadership, referral agent, and identification in a semantic differential procedure. Canonical correlations were found. The 1st and only significant canonical accounted for 52% of the variance. POI variables involved were inner-directed, self-actualizing, and spontaneity.—*N. M. Chansky.*

2409. Gross, Steven J. & Moore, Samuel F. (U. Cincinnati) **The portable Rod-and-Frame Test and the short-form embedded-figures test: A combined index of the field-dependence/independence dimension.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 213-214.—Explored the utilization of the portable Rod-and-Frame Test and the short-form embedded-figures test as a combination index of the field-dependence/independence dimension that takes no longer in administration time than a single standard test. Ss were 203 male undergraduates. Both normative data and the relationship between these instruments are presented. Marked scatter for the field-dependent Ss on these 2 measures was found. An alternative strategy for selecting Ss is discussed.—*Journal abstract.*

2410. Hogan, H. Wayne. (Tulane U.) **Reliability and convergent validity of a symbolic test for authoritarianism.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 39-43.—Employed the semantic differential and the verbal Adorno F-scale as criterion measures for checking the reliability and convergent validity of a symbolic, nonverbal test for authoritarianism. Data for 72 undergraduates indicate sufficient reliability and validity to warrant further experimentation with the symbolic measure, using larger and more heterogeneous samples of Ss and different kinds and greater numbers of symbols.—*Author abstract.*

2411. Mehrabian, Albert. (U. California, Los Angeles) **The development and validation of measures of affiliative tendency and sensitivity to rejection.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 417-428.—The affiliative tendency scale measures the expectation of a positive reinforcing quality in others; the rejection scale, a negative expectation. The results of the factor analyses of test scores from 4 samples revealed that some recurrent factors extracted were not always the same. Test-retest reliability over a 4-wk period was .89. Scores for affiliative tendency were uncorrelated with social desirability. Correlations with achievement were also low. In another study, dependency could be viewed as a sum of affiliative tendency and sensitivity to rejection. Finally, persons sensitive to rejection were less willing to associate with persons holding attitudes different from their own. (17 ref.)—*N. M. Chansky.*

2412. Rotter, George S. & Tinkleman, Vera. **Anchor effects in the development of behavior rating scales.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 311-318.—Judgments of personal adjustment suggested by items on a behavior rating scale were made by 56 male undergraduates. Ss also took the Marlowe-Crowne Social Desirability scale. The 1st 10 items on the behavior rating scale were anchored toward the maladjustment or adjustment side. Results indicate that neutral items are judged on contrast to the anchors. Adjustment anchors were associated with the rating of neutral items toward the maladjustment side. High approval Ss rated neutral items as more maladjustment than did low

approval Ss given the same adjustment anchor.—*N. M. Chansky.*

2413. Stewart, Roger G. (Central Washington State Coll.) **Some effects of reversing certain items in the Rokeach Dogmatism Scale.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 327-336.—The Rokeach Dogmatism Scale was administered to 58 college freshmen and sophomores. A revised version of the scale containing 20 reversed and 20 original statements was administered to 76 Ss from the same population. Responses were anonymous. The means of the 2 groups were the same for the 20 original items, but the means of the 2 groups differed on the items which were reversed for the 1 group but not for the other. A strong disagreement with the reversed items was noted. Measures of internal consistency indicated that sets of scores for the 1st group correlated about .5; for the 2nd, about -.15.—*N. M. Chansky.*

Inventories

2414. Mehryar, A. H. (Pahlavi U., Shiraz, Iran) **Some data on the Persian translation of the EPI.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 257-263.—Reports preliminary data regarding a Persian translation of the Eysenck Personality Inventory (Form A). The test is found to have a satisfactory degree of reliability and validity in its new context. Iranian Ss, both normal (150 18-23 yr. old students) and abnormal (50 18-57 yr. old mental patients), were found to score significantly higher than their British counterparts on both Neuroticism and Lie scales. The Extraversion scale is found to be virtually independent of the other 2 scales and, unlike them, is not affected by instructions to fake good or bad. Findings are interpreted in the light of other cross-cultural findings with the Inventory. (19 ref.)—*Journal abstract.*

Projective Techniques

2415. Hiltmann, Hildegard. (U. Freiburg, Psychologische Inst., W. Germany) **Persönlichkeitsdiagnostik.** [Personality diagnostics.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 34-40.—Chronologically traces the development of projective tests and discusses variations in rank order of frequency of use of tests from 1947-1964. Efficacy of projective development is reduced under stress producing conditions. Proposes that projective test results are influenced by the functional interdependence of 3 components: (a) the specific structure of test instruments, (b) the structure of attitudes toward reactions of the S, and (c) the characteristics and abilities of the S. (15 ref.)—*B. A. Stanton.*

2416. Verger, Don M. & Camp, William L. (Wisconsin State U.) **Early recollections: Reflections of the present.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 510-515.—In spite of the fact that knowledge about the projective technique of early recollections has been available for nearly 50 yr., few counselors or therapists currently use it in their practice. In common with most projective techniques, its use constitutes an art almost as much as it does a science. What makes the use of early recollections unique among the projectives is that in terms of time and cost it is probably the most economical technique presently available to the psychologist. Its use can provide the clinician with a quick glance at the individual's life-style. In addition, the use of

early recollections stands out among the projectives as being the only one which is completely unstructured. The theory of early recollections is summarized in a way that suggests its adaptation to current practice in counseling and psychotherapy. (23 ref.)—*Journal abstract*.

Rorschach Test

2417. Alkoff, Thomas D. (Syracuse U.) **An investigation of the affective meanings of the Rorschach inkblot plates.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5682.

2418. Philipp, Rudolph L. & Wilde, Gerald J. (Queen's U., Kingston, Ontario, Canada) **Stimulation seeking behaviour and extraversion.** *Acta Psychologica, Amsterdam*, 1970(Jun), Vol. 32(3), 269-280.—According to Eysenck, extraverts require more external stimulation than introverts in order to maintain optimal arousal levels. Ss were 287 undergraduates. Manipulation of stimulation was attempted, by markedly reducing sensory input without S's prior expectancy, thereby minimizing the possible occurrence of differential demand characteristics. 7 measures of extraversion were used to select the final S samples (N=66). A lever-pulling task was reinforced with light and music. Extraverts had significantly higher initial and overall response rates than introverts. Predicted performance decrements and reminiscence were not manifested. Findings concerning extraverts' higher need for stimulation are discussed in terms of Eysenck's theory, hedonic value of reinforcement, differential drives, and time-out from positive reinforcement. (41 ref.)—*Journal abstract*.

CLINICAL PSYCHOLOGY

2419. Adler, Alfred. **Fundamentals of individual psychology.** *Journal of Individual Psychology*, 1970(May), Vol. 26(1), 36-49.—1st English translation of a paper which appeared originally in a 1930 book by F. Giese. Included in this overview of individual psychology are comments on inferiority feeling and compensation, origins of mistaken goals, fear of failure, rational approach to education and psychotherapy, and masculine protest. The paper is assumed to have been written in 1926. (26 ref.)—A. R. Howard.

2420. Fijałkowski, W. (Medical Academy, Lodz, Poland) **Current trends in psychoprophylaxis of pregnancy and labor.** *Polish Medical Journal*, 1969, Vol. 8(3), 768-775.—Reviews changes in delivery methods in modern obstetrics. A survey of the methods for the psychophysical preparation of women for painless delivery revealed that 3 aspects must be dealt with: fear, pain, and physical conditions. It is concluded that psychoprophylaxis in its attempt to reintegrate the maternal attitude is a borderline area between obstetrics and psychology and is an important contribution to obstetrical methods. (29 ref.)—G. Steele.

2421. Hall, Bernard H. **Psychiatric consultations: When should a physician refer a patient to a psychiatrist?** *Menninger Quarterly*, 1968-1969(Win), Vol. 22(4), 1-7.—Identifies those groups of patients for whom it is recommended that physicians employ a policy of early referral to psychiatric counseling. These groups include: hospitalized children, patients with organic brain disease, and patients with medical and surgical

problems with psychiatric components. The function of psychiatric consultation in these cases is defined as estimating the nature and severity of the patient's emotional difficulties, advising on further treatment, and assisting the referring physician in helping the patient accept the need for counseling. It is stressed that referral is a "2-way street" and that the psychiatrist may often be the 1st to see patients who also require medical care.—M. Maney.

2422. Hawkins, David R. (U. Virginia, Medical School) **Implications of knowledge of sleep patterns in psychiatric conditions.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 85-92.

2423. Karacan, Ismet & Williams, Robert L. (U. Florida, Medical School) **The relationship of sleep disturbances to psychopathology.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 93-111.

2424. Košč, Ladislav. **Príspevok ku nomenklatúre a klasifikácii porúch matematických schopností.** [A contribution to the nomenclature and classification of disorders in mathematical abilities.] *Studia Psychologica*, 1970, Vol. 12(1), 12-28.—Proposes a uniform system of classification of disorders of mathematical abilities. Distinctions are made between acalculia (a type of aphasia characterized by inability to perform arithmetic operations, seen most commonly with parietal lobe lesions) and oligocalculia, dyscalculia, and paracalculia. Disorders of mathematical abilities occurring during psychiatric illnesses are designated as secondary acalculia. Symptoms of acalculia are classified as the inability to (a) designate mathematical terms (verbal), (b) mathematically manipulate concrete or graphically illustrated objects (practognostic), (c) read mathematical symbols (lexical), (d) write mathematical symbols (graphic), (e) understand mathematical terms and calculate mentally (ideognostic), and (f) carry out mathematical operations (operational). (Russian summary) (45 ref.)—English summary.

2425. Lebedinskii, M. S. **Meditsinskaya psikhologiya: sushchnost', zadachi.** [Medical psychology: Essence and goals.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 31-35.—Discusses major aspects of medical psychology in the Soviet Union.—I. D. London.

2426. Luria, A. R. **Psikhologicheskaya nauka i ee mesto v klinicheskoi meditsine.** [Psychological science and its place in clinical medicine.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 22-31.—Discusses the interdisciplinary aspects and contributions of contemporary psychology which views clinical medicine as concerned with an "ill person and not with only the illness." Neuropsychology is discussed at length.—I. D. London.

2427. McCulloch, Warren S. (Massachusetts Inst. of Technology) **Of I and it. Perspectives in Biology & Medicine**, 1969(Sum), Vol. 12(4), 547-560.—Discusses the experiential meaning of "I", "me", or "mine" to describe an event or object as opposed to "it" or "its." The central thesis is: "Those events that occur as intended may be experienced by the actor as 'I, me, mine'; all else, as 'it.'" The clinical implications of patients' choice of language is extensively analyzed in this framework.—J. Crabbe.

2428. Morkovkin, V. M. P. P. **Kashchenko.** *Zhurnal Nevropatologii i Psikhatrii*, 1970, Vol. 70(2), 278-279.—Recounts the life and work of P. P. Kashchenko (1858-1920), noted for his contributions to the organ-

ization and development of psychiatric care in Russia.—I. D. London.

2429. Ritvo, Edward R. (U. California, Medical School, Los Angeles) **Contributions of sleep research to the understanding and treatment of enuresis.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 117-122.

2430. Rogovin, M. S. **Problema ekspressii i ee mesto v psikhopatologii.** [The problem of expression and its place in psychopathology.] *Zhurnal Nevropatologii i Psikhatrii*, 1970, Vol. 70(2), 280-289.—Presents a continuation of the survey of non-Soviet research on expression in psychopathology (see M. S. Rogovin, PA, Vol. 45:Issue 1). Additional areas surveyed include: (a) the experimental investigation of expression and its findings, (b) main theories of expression, and (c) the perception and evaluation of expression in connection with certain personality characteristics. (88 ref.)—I. D. London.

2431. Rosenblum, Gershen. (Massachusetts Dept. of Mental Health, Dedham) **Social intervention: Consultation to organizations.** *Mental Hygiene*, 1970(Jul), Vol. 54(3), 393-396.—Defines and clarifies 7 different consultant models: medical, resource, intramural administrative, counselor, mental health, consultant trainer, and change agent. The 4 common phases are: preparatory, beginning, problem-solving, and termination. 2 case studies demonstrating these principles are submitted.—A. M. Cawley.

2432. Schrenk, Martin. (U. Freiburg, W. Germany) **Griesingers neuropsychiatrische Thesen und ihre sozialpsychiatrischen Konsequenzen.** [Griesinger's neuropsychiatric theses and their social psychiatric consequences.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 441-450.—Reviews G. W. Griesinger's contributions to neuropathology and psychopathology. The impact of the medico-scientific approach to mental illness is discussed as a retarding influence on the development of social psychiatry. (53 ref.)—B. A. Stanton.

2433. Shakman, Robert. **Indigenous healing of mental illness in the Philippines.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 279-287.—Considers the practice of Philippine indigenous healers, how their areas of success relate to Philippine culture, and the role of the healer in Philippine medicine and society. Philippine culture is discussed with consideration of lability of emotion, structure of the family, development of individual identity and responsibility, and the tendencies in psychopathology to somatization and projection. Interviews were conducted with indigenous healers and their patients in diverse areas of the Philippines and treatment of the patients observed. A degree of success in the treatment of psychosomatic conditions was noted. Some healers are aware of the psychological basis of many somatic complaints and of the need to refer organic disease to physicians. The indigenous healer is the primary provider of psychiatric therapy to the vast majority of Filipinos who are geographically or culturally remote from psychiatric treatment administered by physicians. (17 ref.)—*Journal summary*.

2434. Stewart, Mark A., Thach, Bradley T., & Freidlin, Miriam R. (Washington U., Medical School) **Accidental poisoning and the hyperactive child syndrome.** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 403-407.—Suggests a relationship between hyperactivity and the actions of a child who has accidentally taken poison, and that knowledge of such an association could

have "practical implications for preventing accidental poisoning." Using a random sample of 179 poisoning reports filed during 1961, parents and teachers of 87 accidentally poisoned children were interviewed in regard to the poisoning episode, behavior of the child since then, present behavior, and medical, family, and school history. The incidence of the hyperactive child syndrome in a control population was ascertained from an earlier study of 46 1st graders and their 93 siblings. Results suggest that 1 out of 4 accidental poisoning cases showed hyperactivity later in grade school in contrast to 1 out of 17 for the population as a whole. Evidence supported previous investigations which found that (a) poisoned children are more often described as behavior problems than control children, (b) "at least some hyperactive children behave abnormally at an early age," and (c) "hyperactivity is a variant of temperament which is relatively stable over a child's life." It is suggested that children who have accidentally poisoned themselves should be studied carefully for behavior suggesting the hyperactive child syndrome.—P. McMillan.

2435. Vitek, Pavel. **O preferenci léčebných metod.** [On preferences of treatment methods.] *Kybernetika*, 1968, Vol. 4(4), 383-390.—Discusses a mathematical pattern of several methods of treatment of 1 disease with similar results to determine preferential relations among these methods according to their secondary effects which are characterized by secondary parameters. The numerical evaluation of the transformation of the parameters before and after application of the treatment are presented on the bases of medical experience and knowledge. A function was constructed referred to as the function of gain. The criterion for classification of methods of treatment according to the effects of the set of secondary parameters considered will render the average gain values of each method.—*English summary*.

2436. Wittrig, John; Anthony, E. J., & Lucarno, H. E. (Veterans Administration Hosp., Murfreesboro, Tenn.) **An ashing technique for endogenous lithium in human brain and other biological tissues.** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 408-411.—Discusses problems in the recovery of endogenous lithium, various unsatisfactory methods previously used, and a new reliable method "using a combination of wet digestion in nitric and sulfuric acid, then dry-ashing." Conversion to the sulfate form, easily soluble in water, is accomplished with pure acid reagents (1 or more reagent blanks always included for control). Details are included of procedures used, with which good recovery values (70% ± 6%) were obtained. A study is described in which brain tissue from autopsies were analyzed. Data concerning 6 of 20 brain areas studied are included, with the midbrain and occipital cortex of particular interest since they have shown the highest lithium. In the study of the brain of a manic-depressive case, a very high lithium content was found in midbrain. Although generalizations cannot be made from 1 study, the possibility that the manic-depressive may concentrate lithium in this brain area is of the greatest interest. It is concluded that the quantities of lithium found in the human brain are measurable, although its distribution is difficult to relate to "meaningful mechanisms or events."—P. McMillan.

2437. Wucherer-Huldenfeld, Augustinus. (1 Kreuzherrensasse, Vienna, Austria) **Was versteht Freud unter Religion?** [What does Freud understand concerning religion?] *Jahrbuch für Psychologie, Psychotherapie und*

medizinische Anthropologie, 1967, Vol. 15(3-4), 209-216.—Presents a brief commentary on Freud's attitudes concerning religious precepts.

2438. Yeomans, Neville T., Clark, Alfred W., Cockett, Margaret, & Gee, Kerry M. **Measurement of conflicting communications in social networks.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 275-281.—Developed a brief self-report scale, on the basis of double-bind theory and related formulations, to measure the amount of conflicting communications in social networks. The scale was given to 114 psychiatric patients, of mixed diagnoses, and to 97 normals. It discriminated successfully between these groups, patients' networks being characterized by significantly greater perceived conflicting communications than normals' networks. Results support the hypothesis that there is an association between conflicting communications and psychopathology. (17 ref.)—*Journal summary*.

2439. Zharikov, N. M. **O klassifikatsii psikhicheskikh zabolevaniy v SShA.** [On the classification of mental diseases in the USA.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 295-297.—Along with occasional critical comment, describes the classification of mental diseases, prepared and published in 1968 by the American Psychiatric Association.—*I. D. London*.

2440. Zung, William W. (Duke U., Medical School) **The pharmacology of disordered sleep: A laboratory approach.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 123-146.

PERSONNEL

2441. Bergen, Bernard J., Weiss, Robert J., Sanborn, Charlotte J., & Solow, Charles. (Dartmouth Coll., Medical School) **Experts and clients: The problem of structural strain in psychiatric consultations.** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 396-402.—Discusses the dynamics of the tension often existing in the working relationship between community physician and psychiatrist. An experimental demonstration project is described in which 17 physicians in various specialties in a rural town had psychiatric consultation available on a 24 hr., 7 day/wk basis via a 2-way television circuit linking the local hospital and the department of psychiatry of the mental health center. From interviews with community physicians it became evident that a chief reason for tension was the problem of professional status. Physicians expressed dissatisfaction over the fact that psychiatrists seldom sent a written report to the referring physician after seeing the patient referred. This fact was perceived as indicating an attitude by the psychiatrist of "expert to client" instead of colleague to colleague. The problem then became one of how 1 member of a profession can "seek help from another about something of which he is ignorant without losing his professional demeanor." Tentative solutions are discussed in terms of research into the underlying reality of this relationship as being 1 between 2 people and not between 2 professionals. (19 ref.)—*P. McMillan*.

2442. Black, Kathleen M. (State U. New York, Binghamton) **Teaching family process and intervention.** *Nursing Outlook*, 1970(Jun), Vol. 18(6), 54-58.—Describes the design and effects of a graduate course in psychiatric mental health nursing. The course, a practicum with families, is designed to promote "understanding of the family as an interacting unit," and to develop the basic skills necessary for aiding families in

need of assistance. The theoretical groundwork of the course involves key concepts from the fields of family process therapy, crisis intervention, and the sociology and anthropology of the family. A variety of examples are provided to illustrate the problems encountered by students in family situations, and the subsequent change in their orientation. It is concluded that "as clinical specialists of the future, these nurses may be expected to approach the nursing process in a way that will be more supportive and therapeutic as a result of having had this experience."—*R. Wiltz*.

2443. Brown, Robert D. (U. Nebraska, Counseling Service) **Experienced and inexperienced counselors' first impressions of clients and case outcomes: Are first impressions lasting?** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 550-558.—Investigated whether or not counselors' 1st interview impressions were related to case outcomes among experienced and inexperienced counselors. 1st-impression variables included intensity of client concern, client physical attractiveness, ease with which the client expressed himself, assessment of the client's potential for change, and the counselor's personal liking for the client. Some variables were significantly related to the number of counseling sessions, the type of termination, counselor satisfaction with his techniques and client progress at termination, and counselor perception of client satisfaction. The pattern of relationships was somewhat different for experienced and inexperienced counselors. The latter were more favorable in their 1st interview impressions and were more satisfied with counseling outcomes. Results suggest that counselor 1st impressions, i.e., personal liking, are related to selected outcomes and should be considered in making counselor-client assignments. (15 ref.)—*Journal abstract*.

2444. Chournos, George R. (Utah State U.) **Pre-training reactions to a recorded interview as a means of screening counselor trainees.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5685.

2445. Dörken, Herbert. (Dept. of Mental Hygiene, Bureau of Research, Sacramento, Calif.) **Utilization of psychologists in positions of responsibility in public mental health programs: A national survey.** *American Psychologist*, 1970(Oct), Vol. 25(10), 953-958.—Describes a 1969 survey of mental health programs in all 50 states. To document current status and provide precedence data, the survey sought information concerning positions including these at a divisional level within state programs and as program director of community mental health centers. 1/2 the states had psychologists as divisional chiefs, while in 75% of the states, the principle of competence in the appointment of local community mental health program directors was formally recognized.—*Author abstract*.

2446. Edelweis, M. L. **Die schlechten Beziehung unter Analytikern: Ein therapeutisches Problem?** [Poor relationships between analysts: A therapeutic problem?] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 289-297.—Discusses problems in relationships between analysts in both social and therapeutic situations. The analyst who is undergoing analysis is seen to have a built-in professional facade which is resistant to transference and to reliving regressive experiences.—*B. A. Stanton*.

2447. Engelkes, James R. & Roberts, Ralph R. (Michigan State U.) **Rehabilitation counselor's level**

of training and job performance. *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 522-526.—Investigated the effect of different levels of academic training on the job performance of rehabilitation counselors. 2 criteria of job performance were used: supervisor's ($N = 53$) global ratings of the job performance of counselors ($N = 209$), and clients' ($N = 1502$) reports of satisfaction with their counselors. A separate simple randomized analysis of covariance was used for each criterion holding experience constant in each case. Results indicate insufficient evidence to show any training effect for 4 different levels of training (trained, somewhat trained, minimally trained, and untrained) of rehabilitation counselors working for state rehabilitation agencies when rated either by their supervisor or their successfully rehabilitated clients. (16 ref.)—*Journal abstract*.

2448. Grünewald, Eduard. (27 Museumstr., Innsbruck, Austria) **Zur Psychohygiene des Psychoanalytikers.** [The psychohygiene of psychoanalysts.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 193-199.—Briefly discusses some of the problems involved in the process of psychoanalysis of analysts. It is noted that success or failure of the analyst-patient dialogue frequently depends upon the psychohygiene of the analyst.—*B. A. Stanton*.

2449. Kausch, Donald F. (Bowling Green State U., Psychological Services Center) **Medical students' attitudes toward the mental health field: A longitudinal study.** *Journal of Medical Education*, 1969(Nov), Vol. 44(11), 1051-1055.—Assessed attitudes of 64 medical students toward concepts used in the field of mental health by means of a semantic differential scaling procedure administered at the beginning of medical school and during their 4th yr. while on clinical clerkships. At the time of reassessment, 33 Ss had already received psychiatric clerkship experience (postpsychiatry), while 24 had not (prepsychiatry). During the 4th yr., attitude scores related to treatment procedures and specialists were significantly lower than the initial scores. No major differences were found between the pre- and postpsychiatry groups with respect to mean scores, although the postpsychiatry group tended to be more homogeneous in their ratings. Results are interpreted as supporting L. D. Eron's findings that a factor of cynicism increases as students progress through the 4-yr medical curriculum. The possibility that present educational methods may help produce this cynicism is discussed.—*Journal summary*.

2450. Lennon, Peter F. (Duquesne U.) **The experience of role conflict in priest-therapists.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5524-5525.

2451. Matarazzo, Joseph D. (U. Oregon, Medical School) **A national mental health manpower showcase conference: NAMH leads the way.** *Mental Hygiene*, 1970(Jul), Vol. 54(3), 333-336.—Presents a condensed narrative of organizational effort over a 3-yr period to solve the manpower shortage. The primary purpose of the resulting 1970 conference held in Washington, D. C. was to: (a) demonstrate new uses of existing mental health manpower, new categories of mental health manpower, new mental health workers, and new sources of mental health manpower; (b) stimulate expansion of new uses of human resources; and (c) alert and demonstrate to mental health asso-

ciations their potential leadership role in these areas. A National Follow-up Task Force was appointed.—*A. M. Cawley*.

2452. O'Donnell, Edward J. (Catholic U. of America, National Catholic School of Social Services) **The professional volunteer versus the volunteer professional.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 236-245.—Reviews partial findings of an empirical study relating to the differential perceptions laymen and professionals have of each other. Differences are explained according to professional norms associated with clinical and/or community organizational practice. The impact of these differences on the voluntary organizations in which they are involved is discussed together with the position afforded professionals in different communities. The potential for professional power-wielding in community voluntary organizations is described.—*Journal abstract*.

2453. Perske, Robert. (Menninger Foundation, Topeka, Kan.) **The gap between the mentally retarded and the pastor: A case study of the gap between ministry and people.** *Journal of Pastoral Care*, 1968(Sep), Vol. 22(3), 160-167.—Investigated the relationship between clergy and mental retardates to elucidate the tendency of a minister to maintain psychological distance with people. Possible reasons for the exacerbation of this tendency in dealing with retardates are: (a) desire for stimulating relationships, (b) fear of failure or insignificance, (c) myths about human progress, (d) testing the feeling of omnipotence, (e) belief in retardation as a result of evil, (f) security, and (g) lack of patience. Ability to terminate, express negative feelings, set realistic limits, understand nonverbal communication, develop charisma, and deal with the pendulum effect, contribute to the effective handling of this tendency by clergymen. Several case studies are presented.—*G. Steele*.

2454. Rechenberger, Heinz G. (11 Hugo Preuss Str., Rheydt/Giesenkirchen, W. Germany) **Psychotherapeutische Fortbildung.** [Further education in psychotherapy.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 63-65.—Criticizes the lack of unity and guidelines in the educational preparation of psychotherapists. The need for purview of new literature pertaining to psychotherapy is emphasized. Recommends frequent rereading of Freud's works and attendance at seminars related to psychotherapy.—*B. A. Stanton*.

2455. Ruff, George E. (U. Pennsylvania, Medical School) **Psychophysiological responses in clinical practice.** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 415-421.—Discusses 3 phases in the development of psychophysiological knowledge in medical practice: (a) the link of emotional stress to the onset of physical illness, (b) psychoanalytic formulations in psychophysiology, and (c) experimental psychophysiology. Pertinent literature illustrating each phase is cited, with an emphasis on the formulations of F. Dunbar, F. Alexander, and T. Lidz for the psychoanalytic phase. The research of A. F. Ax, H. W. Magoun, H. Selye, and J. I. Lacey is emphasized as illustrative of the last phase. It is concluded that the findings of psychophysiology are of more long-range interest for understanding mechanisms of psychosomatic interactions than of practical immediate assistance to the physician in his work with patients. (27 ref.)—*P. McMillan*.

2456. Simon, John L. (Box 6102, Santurce, Puerto Rico) **The psychiatrist's role in personal injury**

adjudication. *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 329-332.—Reviews professional and ethical problems associated with the psychiatrist's difficult role as a "kind of universal arbiter" in personal injury cases referred to him by other medical specialists. Special problems associated with patients with suspected or actual mental disorder are discussed. Cases of possible malingering are also considered, including the question of how much detail to include in a consultation report.—P. McMillan.

2457. Wolcott, Oliver. (Denver Dept. of Health & Hosp., Colo.) **Function of mental health aides in a psychiatric clinic.** *International Journal of Social Psychiatry*, 1969(Fall), Vol. 15(4), 302-306.—Discusses the employment of sub- or nonprofessional workers in a Neighborhood Health Center in a very poor area of Denver. Aides were chosen from among the unemployed poor and were then given intensive practical training with continuous personal support whenever needed. Experience over 22 mo. shows that aides can work well on an outpatient psychiatric team.—M. B. Merk.

PSYCHOTHERAPY & ANALYSIS

2458. Bak, R. C. **Psychoanalysis today.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 3-23.—To rescue analytic time it is suggested that (a) a trial period be considered, (b) analysis be discontinued in the light of unfavorable evidence with as little loss of time as possible, (c) an adequate training program be established for auxiliary personnel for psychotherapy, (d) greater readiness be developed to recommend alternative forms of treatment, and (e) problems of analytic training and education be reconsidered with distinctions made between analysis as a therapy and analysis as a method of investigation. (26 ref.)—D. Prager.

2459. Beatty, Frank S. & Beatty, Jeanne M. (Mental Health Center of North Iowa, Mason City) **An evaluation of psychotherapy at a community mental health center.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 45-55.—An improvement rate of 63% was found among 148 patients undergoing psychotherapy from psychologists and psychiatric social workers at a non-urban community mental health center. The highest improvement rate (81%) occurred among patients staying in therapy 3-6 mo., although the majority of patients terminated before 3 mo. The attempt to provide a control group failed because applicants who did not enter therapy were found to be significantly different from applicants who entered therapy. It is suggested that "improvement without treatment" studies be attempted by comparing time elapsed between application and "improvement" for matched pairs of treated and untreated applicants.—*Journal summary.*

2460. Beck, Karl W. (Purdue U.) **The effects of psychotherapy on test responses.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5683.

2461. Blum, E. (Oberweg, Bern, Switzerland) **Anthropologie und Psychoanalyse.** [Anthropology and psychoanalysis.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 225-235.—Points out and discusses the common ontological basis of psychoanalysis and anthropology. The views of Binswanger and Szilasi are discussed in detail. (20 ref.)—B. A. Stanton.

2462. Boeke, P. E. (Rijksuniversiteit U., Groningen, Netherlands) **De praktijk van de psychotherapie door**

psychologen. [Psychotherapy as practiced by psychologists.] *Gawein*, 1968(Aug), Vol. 16(6), 315-324.—Since in all types of psychotherapy the therapist handles himself as an instrument, a training should precede the practice in every type of psychotherapy giving much attention to the technique and the conditions to use this technique, in addition to the theory.—*English summary.*

2463. Bruch, Hilde. (Baylor U., Medical School, Houston, Tex.) **Psychotherapy and eating disorders.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 335-351.

2464. Bruno, Nelson & Duque, Rosa T. (Círculo Colombiano de Psicología Profunda, Bogotá, Colombia) **Kann die Gruppentherapie die Einzeltherapie ersetzen?** [Can group therapy replace individual therapy?] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 256-262.—Discusses criteria for the use of psychoanalysis in a group setting. The analyst is seen to become a part of the behavior of the group as a whole, thereby providing what is described as "group countertransference." Deep regression occurs in the form of a communal experience, and individual communication is reduced. On the basis of various therapeutic considerations, it is concluded that group psychoanalysis can replace individual psychoanalysis. However, the length of time required to achieve analytic goals increases with the group method.—B. A. Stanton.

2465. Cerdeño, A., Brugmann, A., & Suarez, A. **Besonderheiten der psycholytischen Technik im Vergleich mit der psychoanalytischen.** [Peculiarities of psycholytic techniques in comparison with psychoanalytic techniques.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 274-279.—Peculiarities of psycholytic techniques include (a) the use of drugs to maintain patient contact with reality, (b) forced confrontation of the patient with his social environment, and (c) early integration of behavioral changes into the patients ego. Potential dangers and difficulties involved are noted.—B. A. Stanton.

2466. Condrau, Glon. (770 Strehlgasse, Henliberg, Switzerland) **Das Leib-Seele-Problem im Lichte der Psychoanalyse.** [The body-soul problem in the light of psychoanalysis.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 30-39.—Psychoanalysis, largely oriented towards natural science and an empirical science itself, depends mainly on obtaining information from philosophy on the nature of man. However, it may make a contribution to the understanding of the interrelations of body and soul to the extent that not only mental illness but also organic troubles fall within its province. Previous thinking, based on subject/object divergence and oriented causally and genetically, had to give way to a phenomenological approach. Body and soul no longer appear as 2 separate entities. Decisive for any physical and mental illness is the basic attitude of man in which the openness or inaccessibility of his extraneous relationship is revealed.—*English summary.*

2467. Dimitrov, Christo T. & Krestnikov, Angel N. (Psychiatrische Universitätsklinik, Sofia, Bulgaria) **Einige Möglichkeiten zur Erweiterung und Bereicherung der Reproduktionsmethode von N. Krestnikoff.** [Several possibilities for further development and enrichment of N. Krestnikoff's reproduction method.] *Jahrbuch für Psychologie, Psychotherapie und medizinische*

Anthropologie, 1967, Vol. 15(3-4), 279-285.—Describes in detail the techniques of the reproduction method, a modification of psychocatharsis. Illustrative case material is presented to demonstrate the manner in which recall of psychotraumatic events is elicited. The method is compared with Tscholakow's method of "psycho-physiological decapsulation" in which hypnosis and suggestion are used to achieve catharsis. Suggestions are made for further application of the reproduction method.—B. A. Stanton.

2468. Graber, Gustav H. **Zur Analyse der geburts-traumatisch und total regressive bedingten Urwiderstände.** [Analysis of birth trauma and total regressive conditioned primary resistances.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 243-247.—Discusses the means by which primary regression can be recognized in the analytic situation. Intrauterine regression and birth trauma are an inseparable complex. Total defensiveness or total ambivalent pretensiveness are seen to be signs of primary regression. Therapeutic management is discussed using illustrative analytic case material. (28 ref.)—B. A. Stanton.

2469. Harrison, S. I. **Is psychoanalysis "our science"? Reflections on the scientific status of psychoanalysis.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 125-149.—There is the view that nothing tests the validity of analytic theory as convincingly as the analytic method. There is also a view that the validity of analytic theory is born of faith rather than observation. Committees of psychoanalysts should assess hypotheses, methodology, findings, and conclusions of experimental studies in an effort to clarify the relevance of the evidence for analytic theory. In psychoanalytic training there should be increasing emphasis on critical evaluation of data and method. (48 ref.)—D. Prager.

2470. Kernberg, O. F. **Factors in the psychoanalytic treatment of narcissistic personalities.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 51-85.—Proposes a general hypothesis regarding the etiology of the narcissistic personality structure, involving the relationships between pathological narcissism and pathological object relationships. Technical problems in the psychoanalytic treatment of narcissistic personalities are examined—especially their typical transference resistances—and prognostic criteria are outlined (21 ref.)—*Journal summary*.

2471. Lickint, K. (2 Vossstrasse, Heidelberg, W. Germany) **Der Empfang des Patienten und das Erstinterview in der psychiatrischen Klinik.** [The reception of patients and the initial interview in the psychiatric clinic.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 451-456.—Reviews criteria for the doctor-patient relation in initial psychiatric interviews. Several samples of dialogue during initial interviews are presented to illustrate 2 main interviewing approaches: (the diagnostic and the psychotherapeutic). The advantages and disadvantages of both approaches are discussed. (15 ref.)—B. A. Stanton.

2472. Mentzel, Gerhard. (Kuranstalt Alpenblick, Neutrauburg, W. Germany) **Zur gezielten Kurztherapie bei funktionellen Erkrankungen.** [Goal-directed short-term therapy with functional disturbances.] *Zeitschrift für psychosomatische Medizin und Psychoanalyse*, 1969(Jan), Vol. 15(1), 37-44.—Describes successful experiences using a 6-wk short-term group

psychotherapy method in a mountain retreat clinic for patients having functional disturbances. Patients with psychosomatic conditions, vegetative syndrome, and vegetative dystonia responded well to treatment.—B. A. Stanton.

2473. Mizushima, Kellchi. [Image interview and its psychotherapeutic process.] *Japanese Journal of Clinical Psychology*, 1968(Jul), Vol. 7(2), 85-94.

2474. Neubauer, Vinzenz E. (1 Schubstr., Innsbruck, Austria) **Gedanken zur Identifikation und Übertragung.** [Thoughts concerning identification and transference.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 262-264.—Investigates the formation of the father and mother image and the mother image using an undefined sample of Ss from German factories and Tyrolean trade schools. Formation of and changes in identifications are compared with stages of psychosexual development. The influence of the father image on transference during psychotherapy is discussed.—B. A. Stanton.

2475. Noonan, J. Robert. (U. Georgia) **A note on an Eastern counterpart of Frankl's paradoxical intention.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 2(3-4), 147-149.—In the last 20 yr., Viktor Frankl's logotherapy has received much attention from mental health workers in the Western world. His procedures are considered particularly relevant to certain specified neurotic behaviors (e.g., insomnia). Morita therapy, an Eastern psychotherapy, is similar in many ways to Frankl's approach. 2 case study excerpts are presented comparing the 2 approaches. (15 ref.)—R. D. Nance.

2476. Papageorgiou, Michael G. (128 Solonos St., Athens, Greece) **Forms of psychotherapy in use in ancient Greece and among the population of modern Greece.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 114-118.—Reports a method resembling psychoanalysis in the treatment by Melampus of Iphiclus' sexual impotency and the treatment in the sanctuaries of Aesculapius in Ancient Greece. The case of the Ancient tragedies (Aristotle's catharsis) may be considered as a form of group psychotherapy. Methods similar to behavior therapy among the population of modern Greece are mentioned.—*Journal abstract*.

2477. Schindler, Sepp. (111 Schönbrunner Str., Vienna, Austria) **Psychoanalytische Grundregel und Kommunikationsprobleme.** [Psychoanalytical principles and communication problems.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 221-224.—Discusses problems involved in communication during psychoanalysis (i.e., syntax, RT during free association, mutism, resistance, and contact disturbances). The importance of the affective connotation of words in psychoanalysis is emphasized.—B. A. Stanton.

2478. Schuld, W. John & Truax, Charles B. (U. Arkansas) **Variability of outcome in psychotherapeutic research.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 405-408.—Studied the generality of a conclusion that psychotherapy leads to a significantly greater increase in variability of posttest outcome measures within treatment groups than within control groups. Data from 5 research studies were analyzed for variance change from pre- to posttesting. Results suggest that, most commonly, therapy and control situations have little effect on changing variability in outcome measures.—*Journal abstract*.

2479. Schur, M. & Ritvo, L. B. A principle of evolutionary biology for psychoanalysis: Schneirla's evolutionary and developmental theory of biphasic processes underlying approach and withdrawal and Freud's unpleasure and pleasure principle. *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 422-439.—Freud's psychological formulations of the development of the mental apparatus and the unpleasure principle were based on neo-Lamarckian evolutionary theories and Fechner's constancy principle. Schneirla's theory provides a more satisfactory principle than Fechner's constancy principle or Freud's death instinct theory as the biological substratum Freud was seeking for his formulations of the regulatory principles of mental functioning. (27 ref.)—D. Prager.

2480. Shaked, Josef. Bemerkung über die individuellen und die sozialen Dimensionen der Psychoanalyse. [Remarks concerning the individual and the social dimensions of psychoanalysis.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 207-208.—Social dimensions of psychoanalysis should be based on the consideration that man and society are both products of their conflicts. Individuals must not be considered as the products of a society or definite culture; they should be thought of as miniature models of a society and culture. They are models in which many elements have been arranged in new patterns.—B. A. Stanton.

2481. Siegman, A. J. A note on the complexity surrounding a temporary use of denial. *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 372-378.—Denial of object loss and absence of grief and mourning are found after childhood. In an analysis of a young teen-ager, this denial was obscured by a shift of the original conflict between the ego and reality to a conflict between ego and superego. The secondary conflict in turn evoked evidences of and defenses against shame and guilt, as manifested particularly by "as-if" emotions and self-punitive acts and attitudes.—D. Prager.

2482. Skarbek, Andrew. (Langham Clinic of Psychotherapy, London, England) A psychophysiological study of breathing behaviour. *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 637-641.—Measured resting breathing rate (RBR) in 101 acute psychiatric patients to discover correlations between RBR and type of treatment and diagnosis. Clinical improvement was significantly associated with a mean decrease in RBR, and treatment with phenothiazines appeared to decrease RBR. ECS and to a lesser extent antidepressants appeared to increase RBR. There were no significant differences between diagnostic groups in change of RBR.—R. L. Sulzer.

2483. Spain, John L., Attkisson, C. Clifford, & Fine, Harold J. (U. Tennessee) "Never scold a little tin soldier": Case conceptualization in school phobia. *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 95-98.—Presents "an argument that it is necessary to treat both the overt symptomatic behavior and the prebehavioral organizational structures." An illustrative case is given.—H. K. Moore.

2484. Staabs, Gerdhild. (13 Richard-Strauss-Str., Berlin, W. Germany) Der Szenentest in der Psychoanalyse. [The Scene Test in psychoanalysis.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 286-289.—Discusses the application of the Scene Test (originally developed for

use in child psychotherapy) to adult psychoanalysis. The Scene Test has been demonstrated to be of use for activating repressed desires and tendencies in the extremely inhibited patient. It is also seen to intensify analysis and shorten treatment duration requirements.—B. A. Stanton.

2485. Tietz, Walter & Woods, Sherwyn M. (U. Southern California, Medical School) Alienation: A clinical view from multidisciplinary vantage points. *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 296-307.—Presents the alienation theme from a therapeutic viewpoint utilizing 4 theoretical positions, and reports 4 cases from each standpoint, the sociological, existential, psychodynamic, and theological aspects. The "intrapsychic, interpersonal and sociocultural determinants present in the individual clinical circumstance" must be considered for the successful application of 1 of the theoretical positions in therapy. It is concluded that 2 distinct forms of alienation exist: (a) the sociocultural alienation (anomy), and (b) the personal alienation of oneself from one's deeper feeling and real self. (20 ref.)—P. R. Shibelski.

Therapeutic Process

2486. Boesky, D. The reversal of déjà raconté. *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1114-1141.—The reversal of déjà raconté occurs when a patient erroneously asserts that he has not already divulged something to the analyst. Clinical material is presented to demonstrate that this reversal is a transference resistance rooted in castration anxiety which is designed to repudiate degraded self-representations. (24 ref.)—Journal summary.

2487. Bondy, Stephen B. (Michigan State U.) Completed psychotherapies: An investigation of the communication of values, therapeutic outcome, and selected therapist variables. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5227.

2488. Close, Henry T. (Georgia Mental Health Inst., Atlanta) A meditation on dying. *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 66-69.—A therapist, knowing he is dying of leukemia, reveals his condition to a patient and the 2 are brought closer together.—H. K. Moore.

2489. Daniels, R. S. Some early manifestations of transference: Their implications for the first phase of psychoanalysis. *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 995-1014.—The analytic situation encourages the development of transferences and a repetition of the infantile neurosis in current form, the transference neurosis. The working or therapeutic alliance is fostered by comments offering preliminary demonstrations of the analytic method and its value. The case material presented is not helpful in answering technical questions about the effect of early deep transference interpretations. Defense against the transference and the defense transference are helpful concepts in ordering and understanding the phenomena of the first phase of analysis. (20 ref.)—D. Prager.

2490. Enke, Helmut. (U. Ulm, W. Germany) Soziale Bezüge: Über Relativität psychotherapeutischer Diagnostik durch soziale Rollen des Therapeuten. [Social relations: Relativity of psychotherapeutic diagnostics through social roles of therapists.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 18-27.—Discusses

the subjectivity on the part of therapists which influences the diagnosis and mode of treatment that the patient will receive. Forms of social relations between therapist are very briefly considered. Attention is focused on the role of the psychotherapist as a member of an elite minority group which projects universal pretensions, roles, and images.—*B. A. Stanton.*

2491. **Friedman, Lawrence.** *The therapeutic alliance.* *International Journal of Psycho-Analysis*, 1969(Apr), Vol. 50(2), 139-153.—Freud noted the therapeutic alliance paradox where the patient feels both helpful and unhelpful toward the analyst. This alliance signals that analytic objectives have been reached, i.e., the patient gives up living by the pleasure principle and develops sublimation. The alliance endows the patient with the analyst's needs. In the midst of discord the analyst must find agreement. As the discord between patient and analyst narrows, the patient starts to recover. This is the therapeutic alliance. If the analyst seeks this point as a fulcrum of treatment he will find only frustration. (26 ref.)—*J. Chyatte.*

2492. **Grayson, Henry.** (Brooklyn Coll., City U. New York) *Grief reactions to the relinquishing of unfulfilled wishes.* *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 287-295.—Inability to fulfill infantile and other hopes and dreams is seen to be related to the loss of an object or person, thus it is postulated that the grief which follows (necessary in the loss of an object for the decathexis of that object) is similarly important in this case. Most important in the grief process is the abreaction and catharsis of the lost hopes and dreams in order to facilitate this mourning process. Case studies are presented to demonstrate the process involved in this type of mourning.—*P. R. Shibelski.*

2493. **Hollender, Marc H. & Hersh, Stephen P.** (Vanderbilt U.) *Impossible consultation made possible.* *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 343-345.—Describes problems encountered when a psychiatrist is called upon as a consultant to see a patient suspected of "creating his own illness" (e.g., surreptitious ingestion of drugs). A case is reported of a 41-yr-old female patient in which the psychiatrist encouraged the referring physician to confront his patient with the facts before referring her for consultation. In this way the psychiatrist will not be perceived by the patient as a prosecutor or detective but as an ally. Possible objections to this approach are that the referring physician might be vindictive in the confrontation, and overlook a possible psychotic reaction in the patient.—*P. McMillan.*

2494. **Hurn, Hal T.** *Adolescent transference: A problem of the terminal phase of analysis.* *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 342-357.—Some incongruities in the literature pertaining to the terminal phase of analysis together with the author's experiences with his own case load and seminars on the terminal phase indicate that some relatively unappreciated complications of the terminal phase may be transferences from adolescence. Several brief vignettes and an extended case report are offered to support this contention together with a brief discussion. (15 ref.)—*Journal summary.*

2495. **Khan, M. Masud.** *On the clinical provision of frustrations, recognitions, and failures in the analytic situation.* *International Journal of Psycho-Analysis*, 1969(Apr), Vol. 50(2), 237-248.—This is an exposition of

Michael Balint's theories. He theorized that to understand the analytic situation one must analyze the analyst's behavior in that situation. The most important drug the doctor uses is himself. Classical theory is based on a biologic and pathologic framework. Balint wants to interpret the patient's transference in terms of object relations independent of the biological development theory of instincts. The analyst should avoid pushing the patient into a dependency state, avoid becoming a sharply contoured separate object, and avoid becoming omnipotent to the patient. (21 ref.)—*J. Chyatte.*

2496. **Klepac, Robert K.** (Kent State U.) *An experimental analogue of psychotherapy involving "client" behavior as a function of confirmation and disconfirmation of expectations of "therapist" directiveness.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5690-5691.

2497. **Kroth, Jerome A.** (Florida State U.) *An experimental investigation of free associative effectiveness as a function of posture: Implications for counseling.* *Dissertation Abstract International*, 1970(Jun), Vol. 30(12-A), 5239.

2498. **Páramo-Ortega, Raúl.** *Elnige Bemerkungen über das Schweigen des Analytikers.* [Several observations concerning the silence of analysts.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 247-252.—The silence of the analyst is the most important catalyst for free association by patients. Various patient reactions to the analyst's silence are discussed. Techniques involved and the therapeutic value of silence in relation to countertransference are described. (28 ref.)—*B. A. Stanton.*

2499. **Robertson, Mary & Barford, Frances.** (U. Florida) *Story-making in psychotherapy with a chronically ill child.* *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 104-107.—Stories written specifically for the hospitalized child reflect a release of the child's feelings and reinforce the therapeutic goal of getting well. A psychologist wrote stories which were read by the occupational therapist to chronically ill children to enable them to act out in fantasy those feelings they could not physically express.—*H. K. Moore.*

2500. **Rose, G. J.** *Transference birth fantasies and narcissism.* *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1015-1029.—Over a 5-yr period, 9 cases were found to show patterns of unconscious birth fantasies centering around the end of the 9th mo. of treatment. Case examples are given of the various meanings of the birth fantasies. "Unconscious birth fantasies at the end of the 9th mo. of treatment might be viewed as accompaniments of thrusts toward individuation as well as defenses against regressive narcissistic fusion."—*D. Prager.*

2501. **Sandler, J., Dare, C., & Holder, A.** (Inst. of Psychiatry, London, England) *Basic psychoanalytic concepts: III. Transference.* *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 667-672.—Transference, a concept regarded by psychoanalysts as at the very center of their therapeutic technique, has rather different aspects emphasized by different schools, and has meanings than can only be appreciated in terms of historical development. Widening of the concept has occurred in attempts to understand human relationships in general. (26 ref.)—*R. L. Sulzer.*

2502. **Sandler, J., Holder, A., & Dare, C.** (Inst. of Psychiatry, London, England) *Basic psychoanalytic concepts: IV. Counter-transference.* *British Journal of*

Psychiatry, 1970(Jul), Vol. 117(536), 83-88.—Describes counter-transference as a concept that has generalized from Freud's original awareness of the patient's influence on the analyst's unconscious feelings to the present usage to describe the whole of the therapist's feelings and attitudes towards his patient. Counter-transference in the psychoanalytic literature is reviewed. Excluding general features of the analyst's personality, the most useful view of counter-transference may be to take it as referring to the specific emotional responses aroused in the analyst by the specific qualities of his patient. Monitoring and observation of counter-transference reactions may aid the doctor in a variety of clinical situations. (37 ref.)—R. L. Sulzer.

2503. Scher, Maryonda. (U. Washington, Medical School) **The process of changing therapists.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 278-286.—The change in therapists is regarded as a triangular situation between the patient, the departing therapist, and the new therapist. Rarely does this transitional period go without any noticeable problems, therefore the relationships between these 3 were examined in order to facilitate this change. Careful advanced preparation of patient and new therapist, enforcing old object losses in the patient, and observation on the part of the new therapist to subsequently fill the gap left by the previous therapist are some of the suggestions for the management of transfers. 2 case histories are presented to illustrate some "common therapeutic triangles found in hospitals, clinics, and related training programs."—P. R. Shibleski.

2504. Simon, J., et al. **Studies in audio-recorded psychoanalysis: II. The effect of recording upon the analyst.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 86-101.—Relates some problems of psychoanalytic research to the effect upon the analyst of audio-recording psychoanalytic sessions. Through a comparison with the supervised analytic situation and a consideration of the analyst's essential tasks, some of the authors' own and others' experiences in recorded analysis are reviewed. (46 ref.)—*Journal summary*.

2505. Spoerri, Theodor. (Psychiatrische U. Poliklinik, Bern, Switzerland) **Das Ausdrucksverhalten in der Arzt-Patient-Situation.** [Expression behavior in the doctor-patient relationship.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 41-47.—Discusses the importance of both verbal and nonverbal communication, in the form of facial expressions, respiratory rate, eye movements, laughter, etc. The need for acute perception of this behavior in the doctor-patient relationship is emphasized.—B. A. Stanton.

2506. Trenkel, Arthur. (47 Kramgasse, Bern, Switzerland) **Über "das Offene" der psychoanalytischen Situation.** [The "open-ended" psychoanalytic situation.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 252-255.—In the therapeutic domain, free associations represent the "unresisted whole" and are described by Heidegger as being "open-ended." The open-ended psychoanalytic situation is characterized by its lack of fixed analytic techniques. Its use is advocated for increasing verbalization on the part of the patient and increasing meaningful self-experience and insight.—B. A. Stanton.

2507. Wolman, Richard N. (U. Wisconsin, Medical School) **"Through the one-way mirror": An analysis of the dynamics in the observation of psychother-**

apy. *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 108-110.—There are several phases of the therapist-patient, therapist-Os-through-the-one-way-screen process, viz, Os' identification with the patient, Os' identification with the therapist, and Os' disengagement from selective identification.—H. K. Moore.

Group Therapy

2508. Bartoletti, Mario D. (York U., Toronto, Ontario, Canada) **Conjoint family therapy with clinic team in a shopping plaza.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 250-257.—Presents a plan offering brief service to families and designed to reduce the waiting period between time of referral and the onset of treatment in order that effective psychotherapy can be provided at the time when the family is most ready to accept help and most likely to accept the structure within which help is to be provided.—M. B. Merk.

2509. Braen, Bernard B. (Syracuse U.) **The evolution of a therapeutic group approach to school-age pregnant girls.** *Adolescence*, 1970(Sum), Vol. 5(18), 171-186.—Describes 3 kinds of group therapy for teen-age pregnant girls.—A. B. Warren.

2510. Didato, Salvatore V. (Morton Prince Clinic, New York, N.Y.) **Delinquents in group therapy: Some new techniques.** *Adolescence*, 1970(Sum), Vol. 5(18), 207-222.—28 delinquents were seen in short-term group psychotherapy aimed at helping the boys make a successful transition from school, where they were having difficulty, to jobs in the community. (25 ref.)—A. B. Warren.

2511. Ferschtut, Guillermo. **Notas acerca de la mentalidad y el acting out grupales y de su Interpretación transferencial.** [On group mentality and acting out and their transferential interpretation.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 324-333.—Relates concepts derived from individual psychoanalysis to group analysis, noting similarities and differences and considering the group as a "Gestalt." Particular attention is given to (a) polarity in group functioning (thought vs. acting-out, working-through vs. projective identification), (b) group identity, and (c) the value and character of transferential interpretation. (English summary) (21 ref.)—P. Hertzberg.

2512. Flomenhaft, Kalman; Kaplan, David M., & Langsley, Donald G. (U. Denver, School of Social Work) **Avoiding psychiatric hospitalization.** *Social Work*, 1969(Oct), Vol. 14(4), 38-45.—To compare results of outpatient family crisis therapy with hospitalization, a clinical team from a psychiatric hospital treated on an outpatient basis 186 patients considered acutely in need of admission to a psychiatric hospital. The control group consisted of 150 patients from the same population who were routinely hospitalized. In all except 3 of the initial 36 pilot cases, it was possible to avoid hospitalization. Tentative findings at 6-mo follow-up suggest that family crisis therapy has proved to be a more economical and less stigmatizing form of psychiatric treatment than hospitalization. Its principles are outlined, and the specific participation of the clinical social worker and his role on the crisis therapy team are described.—*Journal abstract*.

2513. Geller, Joseph J. **Die Verwendung der Grup-**

penpsychotherapie für analytische Langzeitbehandlung. [The use of group psychotherapy for long-term analytic treatment.] *Zeitschrift für psychosomatische Medizin und Psychoanalyse*, 1969(Jan), Vol. 15(1), 44-51.—Discusses the benefits derived from the use of analytically-oriented group psychotherapy, especially in conjunction with individual analysis. Patients having character neuroses, schizoid personalities, or schizoid defense mechanisms are seen to be particularly amenable to this form of treatment. Illustrative case material is presented. (15 ref.)—*B. A. Stanton.*

2514. **Illing, Hans A. & Miles, James E.** (Hacker Clinic, Beverly Hills, Calif.) **Outpatient group psychotherapy with sex offenders.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 258-263.—Demonstrates that the major goal in dealing effectively with sex offenders on parole is "to assist them in bringing about changes in their antisocial behavior thus preventing further breaks with the law, and thus further prolonged incarceration." Group psychotherapy in an outpatient setting is discussed as 1 method of accomplishing this aim. Dialogue excerpts from 2 group meetings 1 yr. apart are presented to illustrate the characteristics of sex offenders, how they interact, and the degree of insight they can gain regarding each other's problems. It is stressed that, although patients increasingly look to the group for stability, there is much resistance and resentment, interpreted as negative transference feelings, which must repeatedly be dealt with. It is concluded that long-term group psychotherapy for sex offenders offers a promising approach which both continues surveillance at the community level and promotes modification of their antisocial behavior.—*M. Maney.*

2515. **Lievano, Jaime.** (221 Dawson Dr., Cockeysville, Md.) **Group psychotherapy with adolescents in an industrial school for delinquent boys.** *Adolescence*, 1970(Sum), Vol. 5(18), 231-252.—Presents an account of 42 sessions of group psychotherapy in which the dynamics, resistances, and insights gained are described.—*A. B. Warren.*

2516. **O'Connell, Walter E. & Hanson, Philip G.** (Veterans Administration Hosp., Houston, Tex.) **Patients' cognitive changes in human relations training.** *Journal of Individual Psychology*, 1970(May), Vol. 26(1), 57-63.—Pre- and posttraining data (N = 143 male patients) as reflected on Hartman's Personal Belief Inventory, revealed a significant reduction in negative beliefs about oneself and others. "Getting a patient to examine his life style by acting out his attitudes toward others and the world would seem to be an effective therapeutic approach."—*A. R. Howard.*

2517. **Reid, F. Theodore.** (Michael Reese Hosp., Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **Impact of leader style on the functioning of a decision-making group.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 268-276.—Describes a study examining the functioning of 17 patient leaders in a task-oriented group in a mental hospital setting. Tape recorders equipped with numerical counters were used to record and rate group meetings. Data suggest that: (a) "in a task-oriented group, information gathering will exceed opinion sharing," which in turn will exceed decision making; (b) if the leader is inactive, the group will compensate by increased activity; (c) that a leader who becomes engrossed in his own ideas "will tend to impair the total leader-

group functioning;" and (d) that optimal functioning of task-oriented groups is related to the free expression of feelings by both leader and group members. Implications for leaders of nonpatient task-oriented groups are discussed.—*P. McMillan.*

2518. **Robinson, Margaret.** (Tavistock Clinic, London, England) **Family based therapy: Some thoughts on the family approach.** *British Journal of Psychiatric Social Work*, 1968(Fal), Vol. 9(4), 188-192.—Defining a family as "2 generations customarily living together," and therapy as "the process of being professionally involved in a helping relationship," some contemporary problems of family referral and diagnosis, criteria and definitions of family based therapy, and common problems encountered are considered. It is concluded that while the choice of treatment models is still imprecise and often guided more by tradition than family needs, progress in delineating various options can be reported.—*P. McMillan.*

2519. **Salas, E., Forti, L., Saimovici, E., & Sirota, A.** (U. Buenos Aires, Argentina) **Psicoterapia de grupo para niños y madres en situación de emergencia frente al tratamiento odontológico de los niños.** [Group therapy for children and mothers in emergency situations arising from dental treatment of the children.] *Revista de Psiquiatría y Psicología Médica*, 1969(Jan), Vol. 9(1), 16-38.—Describes an attempt at psychoanalytic treatment of children who refuse to submit to dental treatment. Therapy was done in groups, separately for mothers and their children. Transcripts and descriptions of the 1st 4 therapy sessions are presented. It is concluded that anxiety over dental treatment results from a confusion of the oral and genital areas. The confusion was observed in both play and verbal behavior. Clarifications made by the therapist led to the acceptance of dental treatment. The mothers began to realize their role in the conflicts of their children and were relieved of anxiety and guilt feelings. (English summary) (24 ref.)—*L. Zusne.*

2520. **Skytner, A. C.** (Queen Elizabeth Hosp. for Children, London, England) **Indications and contra-indications for conjoint family therapy.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 245-249.—Discusses the advantages and disadvantages of conjoint family therapy with a group-analytic approach. Of the former, problem solving is kept within the family; there is economy of time and effort and also a widely variable degree of intervention. The main limitation of family therapy is that change is naturally restricted to what is acceptable to the family as a whole. Experience suggests that families who have reached the depressive position are not suitable.—*M. B. Merk.*

2521. **Snider, Richard T.** (U. Houston) **An exploratory factorial study of behavior interactions in autonomous patient groups.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5701-5702.

Behavior & Conditioning Therapy

2522. **Aikin, Paul A.** (Michigan State U.) **The effectiveness of a behavior oriented therapy and an insight oriented therapy on the academic achievement of "educationally-disadvantaged" students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5681-5682.

2523. **Ardila, Rubén.** (National U., Bogotá, Colombia) **Psicología experimental e ingeniería del com-**

portamiento. [Experimental psychology and behavioral engineering.] *Revista Mexicana de Psicología*, 1970(May), Vol. 4(1), 8-15.—Behavioral engineering is defined as the application of operant conditioning to solving human clinical or educational problems; of major concern is the management of contingencies and the control of the stimulus situation. It is important to specify exactly the behavior one is looking for in order to shape behavior appropriately.—D. H. Schuster.

2524. Davison, Gerald C., Goldfried, Marvin R., & Krasner, Leonard. (State U. New York, Stony Brook) **A postdoctoral program in behavior modification: Theory and practice.** *American Psychologist*, 1970(Aug), Vol. 25(8), 767-772.—Describes a postdoctoral program in behavior modification which suggests that behavior therapy as an approach to clinical problems has more in common with experimental psychology than with other areas. A corollary of this position is a view of behavior modification as an applied general psychology, not limited by narrow views of conditioning therapy or by radical behavioristic constraints. A principal theme is that an academic setting provides the best opportunity for learning and thinking critically about this field. Specific features of the program as it now functions are detailed.—*Author abstract.*

2525. DiCaprio, Nicholas S. (John Carroll U.) **Essentials of verbal satiation therapy: A learning-theory-based behavior therapy.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 419-424.—Describes the rationale, methodology, and scope of a new form of psychotherapy, verbal satiation therapy. This therapy is based on the assumption that language symbols stand for real objects and events; in the absence of these stimuli, the verbal symbols may produce emotional responses normally associated with the objects themselves. The emotionally charged ideational content, having an advantage over more neutral content, obtrudes frequently into consciousness. Verbal satiation therapy attempts to reduce the emotional component of language symbols. Therapy consists of the use of satiation procedures, that is, verbal repetition, visual fixation, auditory exposure. With this form of treatment, critical language symbols are brought to a neutral level. Both unwanted negative and positive emotions may be dealt with by this form of psychotherapy.—*Journal abstract.*

2526. Foreyt, John P. (Florida State U.) **Control of overeating by aversion therapy.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5688.

2527. Franks, Cyril M. (Ed.) (New Jersey Neuropsychiatric Inst., Psychology Service & Research Center, Princeton) **Behavior therapy: Appraisal and status.** New York, N.Y.: McGraw-Hill, 1969. xxv, 730 p. \$15.—Presents a comprehensive overview of the field of behavioral therapy, including contributions by the foremost authorities covering techniques, philosophy, social aspects, experimental bases, and current issues.

2528. Kamil, Leonard J. (U. Texas) **Psychodynamic changes through systematic desensitization.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5689.

2529. Kanfer, Frederick H. (U. Cincinnati) **Self-monitoring: Methodological limitations and clinical applications.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 148-152.—Discusses some methodological, clinical, and theoretical issues in the use of self-observation raised in an experiment by R. M. McFall (see PA, Vol. 45: Issue 3). The difficulties in

ascertaining reliability of self-reports for events which have no external referents and the reactivity of self-monitoring limit the utility of self-observation as a control procedure in evaluating behavior therapy techniques. In clinical application, self-monitoring has been noted to modify behavior, but its controlling variables have not yet been explored. Self-observation is an initial step in self-directed behavior change. Therefore, its consideration is also required for conceptualization of self-regulatory processes, viewed as integration of response feedback utilization, self-control, and self-reinforcement, to attain self or externally prescribed performance standards. (42 ref.)—*Journal abstract.*

2530. Kuroda, Jitsuo. (Seiwa Women's Coll., Nishinomiya City, Japan) **Elimination of children's fears of animals by the method of experimental desensitization: An application of learning theory to child psychology.** *Psychologia: An International Journal of Psychology in the Orient.*, 1969(Dec), Vol. 12(3-4), 161-165.—3 experiments were performed. In Exp. I, elimination of fear of a frog combined desensitization and positive conditioning. Control and experimental groups differed at the .01 level. In Exp. II, elimination of fear of earthworms was obtained using gradual size increase. In Exp. III, elimination of fear of a cat was attempted by gradual approach. Control and experimental groups differed at the .05 level.—R. D. Nance.

2531. Lang, Peter J., Melamed, Barbara G., & Hart, James. (U. Wisconsin) **A psychophysiological analysis of fear modification using an automated desensitization procedure.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 220-234.—In Exp. I with 29 female undergraduates, an apparatus designed to administer systematic desensitization automatically was as effective as a live therapist in reducing phobic behavior, suggesting that effective desensitization is not dependent on a concurrent interpersonal interaction. An extensive psychophysiological analysis of the desensitization process showed that Ss' fear signals are associated with an increment in autonomic arousal, and that repeated presentation of fear items is accompanied by reduction in autonomic activity. Heart rate levels, responses, and degree of habituation to fear stimuli appeared related to success of desensitization. In Exp. II with 5 male and 15 female Ss, the anxiety hierarchies developed for desensitization yielded autonomic gradients, when the items were presented as visualized scenes, that varied with fear content and reported clarity of visualization. Results support the view that desensitization modifies autonomic, as well as gross motor and verbal responses, through learning.—*Journal abstract.*

2532. Lawson, David M. & May, Richard B. (McGill U., Montreal, Quebec, Canada) **Three procedures for the extinction of smoking behavior.** *Psychological Record*, 1970(Spr), Vol. 20(2), 151-157.—Employed 3 strategies of behavior modification, and a nondirective form of psychotherapy individually to determine each of their separate effects on the smoking behavior of 12 undergraduates. Although a significant ($p < .001$) overall reduction in Ss' cigarette consumption was observed, both the treatment effect and the interaction effect between treatments and trial wk. were statistically nonsignificant.—*Journal abstract.*

2533. Laxer, R. M. & Walker, Keith. **Counterconditioning versus relaxation in the desensitization of test anxiety.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 431-436.—Tested the

hypotheses that the efficacy of systematic desensitization could be attributed to a general reduction in anxiety as a result of relaxation training, to simple extinction of nonreinforced fear responses, or to the operation of placebo factors as alternatives to the counterconditioning hypothesis. 119 high-test-anxious high school students were divided randomly into 6 different conditions: systematic desensitization, relaxation alone, simulation alone, relaxation simulation, attention control, and no treatment control. Reduction in test anxiety was found only for Ss placed in conditions employing relaxation training. At least part of the effectiveness of systematic desensitization must be attributed to the effects of relaxation training.—*Journal abstract.*

2534. McConaghy, N. (U. New South Wales, Sydney, Australia) **Results of systematic desensitization with phobias re-examined.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 89-92.—Past studies indicate a trend for $\frac{1}{2}$ the desensitized patients to show marked improvement vs. $\frac{1}{4}$ those treated with other therapies. The small samples used prevent statistically reliable differences although this trend favoring desensitization may be real and a valuable finding. It is suggested that patients with agoraphobia show a better response to behavior therapy than do those with more specific phobias. (15 ref.)—R. L. Sulzer.

2535. McLean, G. Donald & Graff, Robert W. (Southern Illinois U.) **Behavioral bibliotherapy: A simple home remedy for fears.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 118-119.—Describes an anxiety reduction technique in the form of a handout entitled "A Simple Home Remedy for Fears" which was based on a paper by N. Malleon and found effective with a college population. "The home remedy for fear is simply to experience the fear, deliberately and as fully as possible."—H. K. Moore.

2536. McReynolds, William T. (U. Texas) **Systematic desensitization, insight-oriented psychotherapy and relaxation therapy in a psychiatric population.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5694.

2537. Nerenberg, Arnold P. (U. Texas) **A comparison of systematic desensitization and another distraction method to increase tolerance for interpersonal silences.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5718.

2538. Nolan, J. Dennis & Pence, Connie. (Ohio State U.) **Operant conditioning principles in the treatment of a selectively mute child.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 265-268.—Reports the treatment of a 10-yr-old selectively mute girl. Over the course of 8 mo. of almost continuous contact, relatively normal speaking patterns were generated. At a 1-yr follow-up, her speech was indistinguishable from that of her classmates. She had improved even further in the "natural" environment and no new problems had developed.—*Journal abstract.*

2539. Prescott, James C. (U. Georgia) **The reduction of anxiety responses by relaxation and scene visualization until response onset or termination.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5696.

2540. Ramsay, R. W. & Barendregt, J. T. (U. Amsterdam, Lab. of Psychology, Netherlands) **Behaviour therapy: A brief introduction.** *Psychiatria, Neurologia, Neurochirurgia*, 1968(Sep), Vol. 71(5), 447-457.—Presents a brief introduction to behavior therapy

and describes the main techniques covered by the term behavior therapy. Some of the main criticisms of this approach are discussed, and some case histories are given to illustrate systematic desensitization and aversion therapy. (28 ref.)—*Journal summary.*

2541. Shank, Rowland W. (U. Georgia) **Anxiety reduction as preventive technique for experimentally induced stress.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5699.

2542. Smith, Ronald E. & Sharpe, Theodore M. (U. Washington) **Treatment of school phobia with implosive therapy.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 239-243.—Employed implosive therapy in the treatment of a 13-yr-old boy having a severe school phobia of some 60 days duration. Following the 1st session of implosive therapy, the S was able to return to school and attend his most anxiety-arousing class, and after 4 sessions, he returned to school on a full-time basis with no reported anxiety. Follow-up data revealed that the S not only had maintained his gains, but that he had also shown substantial improvement in school grades and peer relationships.—*Journal abstract.*

2543. Wolff, Richard & Perkins, Dan. (Peoria State Hosp., Ill.) **Contingency control and shaping procedures to institute bedmaking behaviors in a state mental hospital.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 320-321.—By making cigarette smoking for the day contingent on bed making, the number of unmade beds on a locked psychiatric ward of a state mental hospital was reduced from 50%-10%. Of Ss who did not make their beds, only 1 found cigarette smoking to be enjoyable. Successive approximations were used to institute bedmaking in that S.—*Journal abstract.*

Special & Adjunctive Therapy

2544. Fazio, Anthony F. (U. Wisconsin, Milwaukee) **Treatment components in implosive therapy.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 211-219.—In an effort to evaluate reality-testing and supportive aspects of implosive therapy (IT) independent of the anxiety-eliciting scenes, 73 and 93 female undergraduates with a fear of a specific insect were administered 3 sessions of 1 of 3 tape-recorded treatments. In 2 double-blind experiments, Ss treated with IT were not found to improve significantly as measured by repeated overt behavioral tests. In both studies, the reality-supportive discussions were associated with significantly greater reductions in phobic behaviors than IT. Findings are related to the theoretical formulations of IT and to treatment applications. (34 ref.)—*Journal abstract.*

2545. More, Joseph. (Rambam Hosp., Haifa, Israel) **Hypnoanalysis and analytic psychotherapy: A comparative study.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 75-82.—Compared the process of analysis with and without hypnosis as an adjunct to reveal many shared qualities and no proof that hypnoanalysis offers any distinct advantage. It is possible that a working therapeutic contract, which is seen as the most important element determining the subsequent behavior of patient and therapist, may be better established using hypnosis, at least for some patient-therapist combinations. It is concluded that the goals of hypnosis in therapy can be achieved by alternate techniques in psychoanalysis and analytic psychotherapy, which is reasonable considering

the common evolution of these procedures from hypnotic therapy. (16 ref.)—R. L. Sulzer.

2546. Rhinard, Larry D. (Florida State U.) **A comparison of the effectiveness of nondirective play therapy and behavior modification approaches.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5696.

2547. Singer, Myron M. (Louisiana State U. & A & M Coll.) **The relationship of trait- and state-anxiety, overall fearfulness and suggestibility to the implosion of fear of rats.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5700-5701.

2548. Stoudenmire, John A. (U. Southern Mississippi) **Methodological variables in the reduction of state and trait anxiety using relaxation training.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5703.

Drug Therapy

2549. Abuzzahab, Faruk S. (U. Minnesota, Medical School) **Some uses of haloperidol in the treatment of psychiatric conditions.** *Psychosomatics*, 1970(May), Vol. 11(3), 188-193.—Conducted a 4-wk open investigation of haloperidol on 41 variously diagnosed 7-57 yr. old psychiatric patients, most of whom were schizophrenic, although 3 Ss with Huntington's chorea and 4 with Gilles de la Tourette syndrome were also included. Of the 31 Ss who completed the study, 3 showed marked improvement, 19 moderate improvement, 5 slight improvement, and 4 no change. Extrapyramidal side effects appeared in 24 patients and, with the exception of 4 cases, were adequately controlled by the concurrent administration of antiparkinsonian medication. It is concluded that haloperidol, found to be a rapid acting and nontoxic agent, is valuable in the treatment of a wide variety of psychiatric problems.—*Journal summary.*

2550. Angst, J., et al. (Psychiatrische Universitätsklinik, Zurich, Switzerland) **Lithium prophylaxis in recurrent affective disorders.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 604-614.—Presents data from clinics in Glostrup, Prague, and Zurich for 244 patients. Lithium treatment led to pronounced and statistically reliable reductions in the number of episodes of affective disorder and hospital admissions. All 3 clinics and each disorder, manic-depressive psychosis, recurrent depressive psychosis, and schizo-affective psychosis, showed the positive effect of lithium with the effect independent of age, sex, and previous frequency of episodes. Additional results showing the effects of lithium on prolongation of cycles and shortening of episodes provide strong evidence that lithium is an active prophylactic agent in recurrent affective disorders. (39 ref.)—*Journal summary.*

2551. Bordeleau, J. M., Charland, P., & Tetreault, L. (St. Jean-de-Dieu Hosp., Montreal, Quebec, Canada) **Hypnotic properties of nitrazepam (mogadon): A comparative study of chlordiazepoxide, diazepam, nitrazepam, secobarbital and placebo in psychiatric patients.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 318-323.—Studied the relative hypnotic properties of 3 benzodiazepines, standard hypnotic, and a placebo in a double-blind study involving 64 18-60 yr. old patients. Behavioral effects of the drug were evaluated by a questionnaire completed daily after interviews with each S. Nitrazepam, like secobarbital, reduced the duration of sleep-induction and increased

the duration of sleep. Chlordiazepoxide and diazepam did not differ significantly from placebo by their action on these 2 parameters of sleep. Side effects were mild in all cases and medications were well tolerated, although at 50 mg., chlordiazepoxide had more side effects than placebo.—*Journal summary.*

2552. Brandsma, Maynard. (Leisure World Medical Center, Laguna Hills, Calif.) **Preliminary experience with medazepam (nobrium) in the management of psychophysiological reactions.** *Psychosomatics*, 1970(May), Vol. 11(3), 197-200.—Administered medazepam (nobrium) to 57 patients with psychiatric or functional somatic disorders in which anxiety-tension was a characteristic symptom. The daily dosage ranged from 10-60 mg. in divided doses, the usual dose being 15-40 mg. daily. Duration of treatment ranged from 3 days-17 wk., most Ss being treated for 6-8 wk. Results were favorable in 49 Ss, in 14 of whom symptoms completely disappeared. Side effects, mainly drowsiness, occurred in 10 Ss (transient in 5 who responded to adjustment of dosage, and necessitating discontinuation of medication in the others). Laboratory data for 17 Ss showed no abnormalities attributable to medazepam. Statistical analysis showed highly significant improvement ($p < .001$) due to medazepam in the major anxiety symptoms, average improvement score, and overall clinical status.—*Journal summary.*

2553. Canger, R. & Wahl, L. (U. Heidelberg, Nerven-klinik, W. Germany) **Die Behandlung der Epilepsie mit Maliasin.** [Treatment of epilepsy with maliasin.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 476-478.—Describes results of clinical trials using maliasin in anticonvulsant treatment of 298 8-64 yr. old epileptic patients. 110 Ss who had previously had frequent grand mal seizures, remained asymptomatic on minimal oral doses of 300 mg/day. 30 additional Ss received subminimal doses, therefore making assessment invalid. Ss having psychomotor epilepsy exhibited no anticonvulsant response to the drug. No irreversible side effects were observed. 35 Ss developed mild side effects including anorexia, fatigue, weight gain, constipation, and irritability. Further trials are advocated.—B. A. Stanton.

2554. Chechel, A. P. (Medical Inst., L'vov, USSR) **Vliyaniye difenina na slizistuyu obolochku dësen.** [Influence of diphenine on the gingival mucosa.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 275-277.—Discusses complications in the gums and teeth resulting from the treatment of epilepsy with the anticonvulsant preparation, diphenine, based on observations of 74 6-59 yr. old patients. (English summary)—I. D. London.

2555. Diebold, K. & Ronge, J. (U. Heidelberg, Psychiatrische & Neurologische Klinik, W. Germany) **Ergebnisse, Kasuistik und Diskussionen über Polythymolepsie (kombinierte Anwendung von Thymoleptika) bei endogener Depression.** [Results, case histories, and discussions concerning polythymolepsy (combined use of thymoleptics) in endogenous depression.]—Discusses the combined use of novril (dibenzepin), tofranil (imipramine), melleril (thioridazine), and saroten (amitriptyline) in 10 31-62 yr. old patients who failed to respond to other forms of therapy for endogenous depressions. Full remission was effected in 5 cases, partial in 4 cases, and no remission in 1 case. No adverse reactions were observed, however, the drug combination is contraindicated for patients with circulatory or cardiac disorders and for the elderly. Specific

responses for each case are discussed. (40 ref.)—*B. A. Stanton.*

2556. **Gershon, Samuel.** (New York U., Medical School) **Psychopharmacology of the lithium ion: Twenty years after.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 333-335.—Traces the course of development of the lithium ion following its introduction into psychiatry by J. F. Cade in 1949 to review its current clinical indications, treatment of manic episodes, and research possibilities. Occurrence of toxicity and death in the early use of lithium slowed its utilization in the treatment of affective disorders. It is felt that the lithium ion can be a prime research tool in psychopharmacology because it can be readily studied in fluids and tissues in humans and animals, and because of its long-term effectiveness in influencing the manic-depressive disorders. (15 ref.)—*P. McMillan.*

2557. **Grishilov, A. E.** (Provincial Psychiatric Hosp., Kursk, USSR) **K voprosu o diagnosticheskoy znachenii élektrokardiograficheskikh izmenenii u psikhicheskikh bol'nykh v period lecheniya insulinom.** [On the diagnostic significance of electrocardiographic changes in mental patients during insulin treatment.] *Zhurnal Nevropatologii i Psikhatrii*, 1970, Vol. 70(2), 267-270.—Presents an analysis of the EKGs of 1254 mental patients undergoing insulin treatment. The observed changes were not specific to insulin hypoglycemia because similar changes may be observed in other conditions as well, such as in organ lesions of the myocardium. In insulin treatment there were no clinical or biological indications of organic destruction of the myocardium. (English summary)—*J. D. London.*

2558. **Grof, P., et al.** (Psychiatrische Universitätsklinik, Zurich, Switzerland) **Methodological problems of prophylactic trials in recurrent affective disorders.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 599-603.—Presents 2 ways in which controlled prophylactic trials may be performed: concurrent comparison of the course of disease in an experimental patient group and a control group, and studies on a single group of patients during successive control and drug periods. Each procedure has advantages and disadvantages, and ethical problems are of importance. Definition of patient samples and the criteria chosen for recording a relapse are worthy of special attention. Consideration is due to nonpharmacological factors, i.e., spontaneous variation of the disease course, the psychological effects of the treatment, and O bias. (41 ref.)—*Journal summary.*

2559. **Gromov, S. A. & Sarykh, N. T.** (Bekhterev Psychoneurological Inst., Leningrad, USSR) **K izucheniyu mekhanizma deistviya i terapevticheskoi éffektivnosti éleniuma i duksen pri diéntséfal'noi épilepsii.** [On the mechanism of action and therapeutic effectiveness of elenium and duxen in diencephalic epilepsy.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Jan), Vol. 70(1), 122-125.—Mice, rats, guinea pigs, cats, and rabbits were used in a study of the pharmacological activity of elenium (librium), followed by a study of the therapeutic effectiveness of elenium and that of a preparation with analogous pharmacological properties, duxen (seduxen), in 117 18-55 yr. old patients with diencephalic epilepsy. Elenium had no clear adreno- or cholinolytic effects and could not prevent a diencephalic attack through action on the mediators of the autonomic nervous system (adrenaline, noradrenaline, acetylcholine). Elenium and duxen demonstrated high therapeutic

effectiveness with stable improvement attained in 83-85% of the Ss. Suspension of the use of these preparations brought about a renewal of the attacks. It is suggested that the therapeutic effect of these drugs derives from a possible interruption of pathological impulses in the deep regions of the brain (thalamus, limbic system, amygdaloid complex) without affecting the cortex and without acting on the source of pathological excitation. Details of the investigations into the pharmacological properties of elenium are presented, leading to the suggestion that the derivatives of 1,4-benzodiazepine be more widely used in treating diencephalic attacks and crises.—*J. D. London.*

2560. **Houck, John.** (Niagara County Mental Health Services, Niagara Falls, N.Y.) **Combined therapy in anxiety-depressive syndromes: II. Comparative effects of amitriptyline and Limbitrol (chlorthalidoxime-amitriptyline).** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 421-426.—Evaluated the comparative effectiveness of limbitrol (chlorthalidoxime, a minor tranquilizer, 5 mg. + amitriptyline, an antidepressant, 12.5 mg.) and amitriptyline (12.5 mg.) alone in a double-blind study with 49 neurotic outpatients with mixed anxiety-depressive reactions. Highly significant symptomatic improvement ($p < .001$) was demonstrated with both drug regimens at 1, 2, 3, and 5 wk. Analysis of data, however, showed the chlorthalidoxime-amitriptyline combination to be slightly but consistently more effective than amitriptyline alone even in the early phases of the study. As treatment continued, the superiority of the combined medication became more evident reaching statistical significance ($p < .01$) after 5 wk. particularly in regard to mood, somatic manifestations, total symptomatology, and drug efficacy ratings by Ss. Side effects were comparable on the 2 drug regimens and consisted most frequently of dry mouth, drowsiness, restlessness and excitement, and in a few cases, of constipation and gastrointestinal symptoms. They were generally mild and tended to disappear as treatment continued. Results indicate that neurotic patients with mixed anxiety-depressive reactions respond best to combined anti-anxiety-antidepressant medication. (15 ref.)—*Journal abstract.*

2561. **Kunca, David F.** (George Peabody Coll. for Teachers) **The effect of pharmacologically-induced arousal on novelty and complexity preferences of mentally retarded persons.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5691-5692.

2562. **Lichko, A. E. & Braverman, L. B.** (Psychiatric Hosp. No. 3, Leningrad, USSR) **Zatyazhnye (nekupiruemye glyukozoi) insulinovye komi, ikh prichina, klinika i lechenie.** [Protracted (not terminated by glucose) insulin comas, their cause, clinical picture and treatment.] *Zhurnal Nevropatologii i Psikhatrii*, 1970, Vol. 70(2), 270-274.—Presents an analysis of 23 cases of protracted insulin comas developing in the process of insulin therapy of psychoses. Indications and contraindications for the treatment of such comas at various stages are presented. The clinical picture of protracted comas can be differentiated from the usual hypoglycemic comas by the absence of excessive perspiration, the development of hyperthermia, and by signs of noncellular dehydration. The reason for lethal outcomes may be cerebral and subarachnoid hemorrhages during severe tonic convulsions. (English summary) (25 ref.)—*J. D. London.*

2563. **Matlina, E. Sh. & Osipova, M. S.** (Inst. of Child

& Adolescent Hygiene, Moscow, USSR) **Vliyanie aminazina na ékskretsiyu adrenalina, noradrenalina, dofamina i dofa u zdorovykh lyudei i pri maniakal'noi faze maniakal'no-depressivnogo psikhhoza.** [Influence of aminazine on excretion of adrenaline, noradrenaline, dopamine and DOPA in healthy people and in the manic phase of manic-depressive psychosis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jan), Vol. 70(1), 128-131.—Presents data on the daily urinary excretion of catecholamines and DOPA (dihydroxyphenylalanine) under the influence of 50-mg aminazine (chlorpromazine) in 15 normal Ss and 11 manic-depressives in the manic phase of their psychosis. In normal Ss, 3 hr. after the administration of aminazine an increase in the excretion of adrenaline, dopamine, and DOPA appeared along with a decrease in that of noradrenaline; Ss in the manic phase of manic-depressive psychosis exhibited an increase in the excretion of adrenaline, noradrenaline, and DOPA 9 hr. after the administration of aminazine.—*I. D. London.*

2564. **Murphy, H. B.** (McGill U., Montreal, Quebec, Canada) **Ethnic variations in drug response: Results of an international survey.** *Transcultural Psychiatric Research*, 1969(Apr), Vol. 6, 5-23.—Reviews literature on neuroleptics in schizophrenia, personality traits and drug response, and ethnic differences between paradoxical and orthodox reactors as a basis for an international survey. Responses of an international group of psychiatrists who were asked to report any "possible ethnic differences in psychotropic drug response" support the hypothesis of cultural influence on reactions to psychotropic drugs. Evidence supports 2 types of influence: facilitatory and inhibitory. It is suggested that "the action of neuroleptics in Malaysians deserves further study." (22 ref.)—*G. Steele.*

2565. **Rastopchin, I. P.** (Provincial Psychiatric Hosp., Orenburg, USSR) **Opyt primeneniya pangamovoi kisloty (vitamin B₁₅) pri ateroskleroze sosudov golovnogo mozga s psikhicheskimi narusheniyami.** [An experiment in applying pangamic acid (vitamin B₁₅) in cerebrovascular atherosclerosis with mental disturbances.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 264-267.—Presents a clinical evaluation based on observations of 76 patients: 14 with atherosclerotic dementia, and 24 with asthenic, 20 with asthenodepressive, and 18 with hallucinatory-paranoid syndromes. Pangamic acid is a rather active preparation and may not only improve mental states, but also in some cases bring on an exacerbation of symptoms. Pangamic acid had a positive influence on asthenic and asthenodepressive states irrespective of the psychopathological syndrome within which they may be seen. Pangamic acid exerted a primary influence on mental manifestations due to cerebral hypoxia, but had no effect on symptoms reflecting destructive processes in brain tissue. (English summary)—*I. D. London.*

2566. **Rickels, Karl; Heschacher, Peter, & Downing, Robert W.** (U. Pennsylvania) **Differential drug effects in neurotic depression.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 468-475.—Divided 176 patients, treated for a 4-wk period with amitriptyline, chlordiazepoxide, placebo, or the drug combination of both active agents, into 4 subgroups according to their initial levels of depression and anxiety. Results indicate the drug combination to be most effective in the high depressed/high anxious subgroup, chlordiazepoxide in the low depressed/high anxious subgroup and amitripty-

tyline in the high depressed/low anxious subgroup. All agents, including placebo, were equally effective in the low depressed/low anxious group. These differences were not apparent when testing for main drug effects irrespective of initial level of anxiety and depression. In contrast to earlier studies, by dividing patients into 4 depressed subtypes, it was possible to separate not only the effects of the single antianxiety and antidepressant agents, but also the clinical effects produced by the drug combination from the effects produced by its single constituents.—*Journal summary.*

2567. **Rickels, Karl & Howard, Kay.** (University Hosp., Philadelphia, Pa.) **The Physician Questionnaire: A useful tool in psychiatric drug research.** *Psychopharmacologia*, 1970, Vol. 17(4), 338-344.—Discusses a 10-item Physician Questionnaire for rating neurotic symptomatology and presents the results of a factor analysis. The sensitivity of the 3 derived factor and 2 clinical cluster scores in detecting differences among psychotropic drug treatments was demonstrated.—*Journal abstract.*

2568. **Ross, Elizabeth K. & Priest, Robert C.** (U. Chicago) **The effect of hydroxyzine on phenothiazine therapy: A method of study.** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 412-414.—Assessed the possible potentiating effect of hydroxyzine (a minor tranquilizer) on phenothiazine (a major tranquilizer) in the treatment of 19 psychotic patients. Placebo and hydroxyzine were compared in a double-blind trial in addition to simultaneous phenothiazine therapy. Effects were assessed by the Hostility and Direction of Hostility Questionnaire, (51 items derived from the MMPI) administered independently. Results were the reverse of those expected, i.e., hydroxyzine minimized the effect of the phenothiazines ($p < .03$). Possible reasons for this result are discussed, including the role of occasional onset of depression during the course of hospital treatment.—*Journal summary.*

2569. **Schou, M., et al.** (Aarhus U., Risskov, Denmark) **Pharmacological and clinical problems of lithium prophylaxis.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 615-619.—While systematic use of lithium leads to improvement in recurrent affective disorders, there are some who do not respond. Treatment also may be accompanied by side effects, and in overdose serious intoxications may occur. Normal mental processes are little affected by lithium, but risks are sufficient to make it essential that the patients be motivated and well instructed, and that patients and doctors be prepared to observe the measures necessary for successful treatment. (33 ref.)—*R. L. Sulzer.*

2570. **Ucha Udabe, Ronaldo; López Molina, Amanda, & Niedermaier, Carmen.** **Nuevo tratamiento farmacológico del alcoholismo.** [New pharmacological treatment for alcoholism.] *Revista de Psiquiatria y Psicología Médica*, 1969(Jan), Vol. 9(1), 51-54.—A preliminary report on a 3-mo treatment of alcoholism in a group of 18 male and 12 female patients, 7 of whom were chronic (10-15 yr.) alcoholics, while the rest had histories of less than 2 yr. duration. The double-blind procedure was employed in administering a recently developed drug, metronidazole, which is said to decrease craving for alcohol. Patients were told that the medication was being given to improve the functioning of their livers. A dosage of 750 mg/day was used. At the end of the treatment period, 16 of the 20 patients who received the drug had abandoned the use of alcohol

completely. In 12 of these, anxiety level, as measured by an anxiety test, was also reduced. Of the 10 patients who received a placebo, only 1 improved. (17 ref.)—*L. Zusne.*

2571. Wittig, John & Coopwood, William E. **Lithium versus chlorpromazine for manics: Initiative and productivity versus tranquilization hospitalization.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 486-489.—Argues that lithium is "specific and superior for mania" and more useful than chlorpromazine in treating the manic depressive patient. 3 case histories are presented of patients who showed marked improvement when changed from chlorpromazine to lithium. It is felt that chlorpromazine usually succeeds in suppressing the more violent manifestations of mania, but has no specific effect on the fundamental mood change. Patients are "drugged rather than relieved of the manic symptoms." With lithium treatment, however, the patient "has no clouding of consciousness...and appears to have a normal degree of initiative and planning function." Reasons for resistance to the use of lithium are discussed, and it is suggested that posttreatment differences between the 2 drugs should be compared in patients through measures of initiative, mood, ability to plan daily activities, alertness, and attention. A rehabilitation program is suggested in conjunction with lithium treatment to enable the patient to use his new initiative productively and to recover from possible hospitalitis.—*P. McMillan.*

HOSPITAL CARE & INSTITUTIONALIZATION

2572. Bergen, Bernard J. & Thomas, Claudewell S. (Dartmouth Medical School) **An attempt to examine the perception of self and hospital among chronically ill mental patients.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 307-313.—Investigated whether chronically ill mental patients significantly differ from newly admitted acute cases in dependency on and identification with the hospital. Ss were newly admitted patients, chronic patients hospitalized for 2 yr., and chronic patients hospitalized for 5 yr., with 10 males and 10 females in each group. Measures of dependency and identification with the hospital included: (a) interviews to determine Ss' feelings about returning to the community, helpfulness of the hospital, acceptance of his mental illness, and circumstances leading to hospitalization; (b) a modified TAT test; and (c) presentation of hypothetical dilemmas involving a choice between engaging or not engaging in a deviant act. Results indicate that: (a) although anxiety about returning to the community is characteristic of long-term hospitalized patients, it may be specific only to male chronic patients with females exhibiting this anxiety regardless of length of hospitalization; and (b) length of hospitalization may not have as great an effect on changing the self as is sometimes assumed. It is suggested that future research investigate how psychopathology and the sense of social self are related in terms of balancing potentials for rehabilitation and community treatment.—*M. Maney.*

2573. Brodsky, Carroll M. (U. California, Medical Center, Adult Psychiatry Clinic, San Francisco) **The culture of the small psychiatric unit in a general hospital.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 246-257.—Examines the problems, needs, unique patient/staff benefits innate in a hospital-based small psychiatric unit. Information compiled from one such unit and generalizations drawn from observation of

similar units throughout the country are presented. Some problems noted were that of staffing the unit, conflicting interests among the diversified points of view held by the staff, conflicts with the hospital's administration, etc. It was noted that on the whole, young psychiatrists, just having completed their residency, are usually chosen (more from necessity than desire) for the post of director. Frustration among residents in their work was similarly noted. Problems of having a closed- or open-ward policy also arose. Some of the advantages noted were that: (a) staff viewpoint diversity allowed for the use of varied therapies as opposed to a set continuum policy; (b) far less dissociation (on the part of the patient) with the outside world, implying less dependency upon ward life; and (c) more personalized treatment due to small size of ward. Under cultural analysis, these units are seen to resemble a type of "transient cultures" that "assume responsibility for the custody and rapid processing of people."—*P. R. Shibelski.*

2574. Hemprich, R. D. & Kisker, K. P. (U. Heidelberg, Psychiatrische & Neurologische Klinik, W. Germany) **Die "Herren der Klinik" und die Patienten: Erfahrungen aus der teilnehmend-verdeckten Beobachtung einer psychiatrischen Station.** [The "clinic men" and patients: Experiences with camouflaged observations of a psychiatric ward.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 433-441.—Describes personal experience with a 6-wk observation via 1-way screen of the behavior of physicians, medical students, and ancillary personnel as therapeutic figures in a closed psychiatric ward. (22 ref.)—*B. A. Stanton.*

2575. Linn, Lawrence S. (U. Southern California, Medical School) **State hospital environment and rates of patient discharge.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 346-351.—Examined the relationship between hospital rates of patient discharge and the characteristics of 12 state hospital environments. Short-term hospitalization was found to be significantly correlated with small hospital size, high attendant-patient ratios, frequent and comprehensive staff-patient involvement in hospital activities, the frequency of normal activity observed on the wards, and the percentage of patients receiving visitors from outside the hospital. Data indicate that the quality of hospital living conditions defined by ward facilities or physical aesthetics, rules governing patients' behavior, and patients' age, mental status, or level of physical disability were not significantly correlated with length of hospitalization.—*Journal summary.*

2576. Muzekari, Louis H. (Philadelphia State Hosp., Pa.) **The therapeutic community and the mental institution: A new perspective.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 79-82.—Examines the nature of the therapeutic community as a system or subsystem within an organizational context and its role as an agent of change. 4 generic models of a therapeutic community are presented as a basis for the analysis and classification of existing therapeutic communities in relation to the total institution within which they function as well as the extramural community.—*Journal abstract.*

2577. Raphling, David L. & Lion, John. (Harvard Medical School, Boston, Mass.) **Patients with repeated admissions to a psychiatric emergency service.** *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 313-318.—Psychiatric emergency treatment units traditionally care for patients with acute psychosocial crises but are not ordinarily concerned with long-term follow-

up treatment. Nevertheless, a significant percentage of patients continue to request emergency treatment rather than becoming involved in durable treatment programs. These patients and their recurrent emergency treatment contacts are described. It is postulated that psychiatric treatment on an emergency basis may be an effective mode of treatment for patients prone to recurrent crises and unable to establish more stable treatment relations. (15 ref.)—*Journal abstract*.

2578. Ravensborg, Milton R. & Reyerson, Maurice. (Fergus Falls State Hosp., Minn.) **Discharge readiness: The similarity of social workers' and technicians' ratings of discharge criteria to a "community consensus."** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 222-228.—Describes a discharge readiness questionnaire sent to 20 social workers and 80 technicians of a state psychiatric hospital, and to 7 community groups. Overall importance-ratings (mean weights on a scale from 1-3) assigned to scale items were compared among the 9 groups. It was found that hospital social workers ascribed less importance to patient behaviors as criteria for discharge than most other groups. However, technicians showed significant overlap with a community consensus (items weighted as very important by at least 4 out of 7 community groups) while hospital social workers did not.—*Journal abstract*.

PSYCHOANALYTIC INTERPRETATION

2579. Andreae, Stefan. (9 Kirchsteig, Innsbruck, Austria) **Über das Verhältnis von Traum und Realität und seine Bedeutung für die Traumdeutung.** [Concerning the circumstances of dream and reality and its meaning for dream interpretation.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 100-120.—Emphasizes the value of the dream as a key to knowledge of the unconscious. Dreams correlate grossly with reality as symbols of wish fulfillment. The fundamental difference between them is that our human experiences as well as feelings of real biological and intellectual needs are symbols of the anticipation of the consummation of all our wishes. (59 ref.)—*B. A. Stanton*.

2580. Bach, Helmut. (281 Clayallee, Berlin/Zehlendorf, W. Germany) **Die Ausreifung der menschlichen Aggressivität (am klinischen Beispiel Tetanie und Schizophrenie).** [The maturation of human aggressiveness: Clinical examples of tetany and schizophrenia.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 147-168.—Discusses the role of aggressiveness in 18 cases of neurogenic tetany, 6 cases of which underwent psychoanalysis for a total of 2500 hr. The aggressiveness in neurogenic tetany is seen to appear in the form of "runoff impulses," "break-off tendencies," and defense mechanisms. 7 schizophrenics who underwent a total of 4000 hr. of psychoanalysis demonstrated aggressiveness in the form of remissions, infantilism, and suicidal impulses. It is concluded that maturation of aggressiveness is directly related to and dependent upon ego maturation. (English summary) (28 ref.)—*B. A. Stanton*.

2581. Burkhardt, Hans. **Sinnlichkeit und Selbststege-wissheit.** [Sensuality and self-assurance.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 337-351.—Briefly discusses Freud's concept of libido. The problems of puberty entail the need to integrate eros and sex. Perceived

sensual feelings create a dualism within the individual which causes a conflict between society and sex. One defense against sensuality is "morbid rationalism" which causes estrangement of sensuality.—*B. A. Stanton*.

2582. Burt, Forrest D. (Texas A & M U.) **William Somerset Maugham: An Adlerian interpretation.** *Journal of Individual Psychology*, 1970(May), Vol. 26(1), 64-82.—The framework for this discussion includes the earliest memory, family constellation, inferiority feelings, style of life, social interest, and the tasks of life. (28 ref.)—*A. R. Howard*.

2583. Caruso, Igor A. (45 Lainzerstr., Vienna, Austria) **Aggressivität oder "Todestrieb?"** [Aggressivity or "death-drive?"] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 105-121.—The death principle is seen to clearly manifest itself in the compulsion of repetition, but the compulsion of repetition is fundamentally ambivalent. Civilization carries with it manifestations of death, for it is originated as an answer to it. But its practice is not reduced to the utilization of the "death drive," but on the contrary, its return to the past is preformed under the signum of the "principle of Hope," and it is consecrated to the transcendent and progressive quality of eros. The psychoanalysis is based on the compulsion of repetition, but is based on the new quality of this phenomenon: about the "not yet" of the repetition, about the future and the "utopia" which are inherent to it.—*English summary*.

2584. Chasseguet-Smirgel, Janine. **Female sexuality: New psychoanalytic views.** Ann Arbor, Mich.: U. Michigan Press, 1970. viii, 220 p. \$8.95.—Presents articles by C. David, B. Grunberger, C. Luquet-Parat, J. Chasseguet-Smirgel, M. Torok, and J. McDougall which reexamine the theories of female sexuality using the Freudian approach to the unconscious.

2585. Gerpe, Marta & Valentini, Rodolfo. (735 Alvarez Thomas, Buenos Aires, Argentina) **Abwehr-mechanismen und Entfremdung.** [Defense mechanisms and alienation.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 266-274.—Reviews the Marxist concepts of work. The importance of alienation in relation to the nature and role of defense mechanisms is discussed. In his strivings for ego identity man is seen to develop defenses against nature and society. (24 ref.)—*B. A. Stanton*.

2586. Hawkins, David R. (U. Virginia, Medical School) **Psychoanalytic dream theory reexamined.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 233-240.

2587. Heigl-Evers, Annelise. (Niedersächsisches Landeskrankenhaus, Göttingen/Tiefenbrunn, W. Germany) **Rache als Gekränktheitsaggression.** [Revenge as aggression resulting from violation.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 182-198.—Examines the hostile reaction known as revenge and the neurotic character structure of the arrogant vindictive type as described by Karen Horney. On the basis of numerous case histories, it is demonstrated that neurotic revenge is an aggressive reaction to certain mortifications.—*English summary*.

2588. Holstijn, Westerman A. (10 Albrecht Durer-Str., Amsterdam, Holland) **Aggressivität, Todestrieb, Destruktionstrieb, Sadismus, Machtstreben.** [Aggressiveness, destruction instinct, sadism, death instinct, power instinct.] *Fortschritte der Psychoanalyse: Inter-*

nationales Jahrbuch zur Weiterentwicklung der Psychoanalyse, 1968, Vol. 3(3), 93-104.—Proposes that there is only 1 basic instinct, the life-instinct or eros-drive. The common conception of the word "aggressivity" is that of malicious aggressivity or destruction-drive. The original, neutral meaning of *adgredi* (to go toward) seems to be lost. The different forms of "aggressivity" are ways of defence, at the service of the life-instinct, by which we try to remove obstacles. Usually in psychoanalysis sadism is considered to be a mixture of sexuality and destruction drive. Sadomasochism, however, is an infantile form of libido-activity, in which, beside organic pleasure, a unity of S and O is pursued. It is illogical to call the physical entropy "death instinct" and to allege that it can be "turned outwards" into a drive to kill. This entropy may influence the psychic function. A tendency to stiffen in a fixed form is not aggressivity, at most "death-tendency"—Klages saw "the death of the soul" even in rational thinking. Only upon certain fixed forms, however, the development of mind as well as of life, can really progress. (German summary) (36 ref.)—*English summary*.

2589. Jones, Richard M. (State U. New York, Old Westbury) **The transformation of the stuff dreams are made of.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 221-227.

2590. Karon, Bertram P. (Michigan State U.) **An experimental study of parental castration fantasies.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 69-73.—Examined 32 male Ss, with no history of psychiatric disorder and having both mother and father figures in childhood, with a modified Blacky technique, a TAT variant, to discover which parent was the castrator in their fantasies. While the classical fantasy of the father castrator was found, it appeared to be a defensive fantasy against the deeper, more frightening idea of the mother as the threatening castrator. This extends the previous finding with schizophrenic patients, indicating as suggested by Fairbairn and others that this constellation is characteristic of the general human condition. (19 ref.)—*Journal summary*.

2591. Levin, S. **Further comments on a common type of marital incompatibility.** *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1097-1113.—In many instances a vicious circle of marital incompatibility results from a tendency on the part of the husband, when frustrated sexually by his wife to react by withdrawing from her and by developing an attitude of bitter grievance, which prevents a reconciliation. Some aspects of the sensitivity which underlies these reactions are discussed.—*Journal summary*.

2592. Lewis, Helen B. (State U. New York, Downstate Medical Center, Brooklyn) **The royal road to the unconscious: Changing conceptualizations of the dream.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 199-213.

2593. Lichtenstein, H. **Changing implications of the concept of psychosexual development: An inquiry concerning the validity of classical psychoanalytic assumptions concerning sexuality.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 300-318.—Clinical observations do not confirm a clear correlation between emotional maturity and ability to achieve genital orgasm. Sex is only 1 variable influencing human individuation. Sexuality is the earliest and most basic way to experience an affirmation of the reality of his existence. Suggestions concerning the

modification of the concept of genital primacy are introduced. (31 ref.)—*D. Prager*.

2594. Lipin, T. **Sensory irruptions and mental organization.** *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1055-1073.—Irruptions into the inner world of sensory elements occur normally and pathologically. They are generated by the activity of repressed mental processes. This activity utilizes primary and secondary processes. Splitting off of organized functional segments occurs pathogenically as a part of the defensive process against trauma or unpleasure. The activity of the split-off portions of the mind may increase disturbances caused by pathological processes; it also may serve as an instrumentality of reparative processes and be a component of adaptive and creative functioning. (18 ref.)—*D. Prager*.

2595. Luparello, T. J. **Features of fugue: A unified hypothesis of regression.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 379-398.—A case presentation showing intense separation anxiety, close relationship between fugue and sleep, and suicidal and murderous impulses. These features are discussed in terms of current concepts of fugue states. A unified hypothesis of regression to an early phase of the mother-child relationship is proposed to account for such features. This regression hypothesis is an amplification of one proposed in 1956 by Geleerd. (15 ref.)—*D. Prager*.

2596. Marcovitz, E. **On the nature of addiction to cigarettes.** *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1074-1096.—Heavy cigarette smoking is primarily a respiratory addiction consisting of the respiratory triad of inhalation-exhalation-visualization. It attempts the fulfillment of many unconscious purposes: delineation of inner boundaries and filling of emptiness of the chest, relief of fear of suffocation, gratification of respiratory erotism, respiratory introjection of a symbolic object with magic powers for the purpose of identification or mastery, and the projection by way of the exhaled smoke or onto it of the unconscious fantasy of the self. (27 ref.)—*D. Prager*.

2597. Noy, Pinchas. **A revision of the psychoanalytic theory of the primary process.** *International Journal of Psychoanalysis*, 1969(Apr), Vol. 50(2), 155-178.—Freud classified mental processes into primary (dominated by the pleasure principle) and secondary (dominated by the reality principle). A trend exists to widen the definition of primary process to include childhood, psychopathology, and dream thought processes. The original definition is adequate for clinical theory but inadequate in explaining creative activities. The 3 mechanisms of the primary process—displacement, condensation, and symbolism—need enlarging. The 2 processes are seen as a continuum, not as 2 different systems. The development of the primary process need not be limited to infantile stages. Its function need not be limited to disorganization and disintegration. Primary processes do not depend on feedback (consciousness) and are aimed at preserving self-integrations and are self-centered. Secondary processes are dependent on feedback and are reality oriented. (54 ref.)—*J. Chyatte*.

2598. Pollock, George H. (Inst. for Psychoanalysis, Chicago, Ill.) **Anniversary reactions, trauma and mourning.** *Psychoanalytic Quarterly*, 1970(Jul), Vol. 39(3), 347-371.—The concept of anniversary reactions (reactions which occur at the anniversary of a painful event in the patient's life, often on an unconscious basis)

is reviewed, "related to recent considerations of trauma, and specifically connected with unresolved mourning reactions resulting from significant losses. Clinical variations of these anniversary reactions are used to illustrate aspects of the theoretical propositions presented."—J. Z. Elias.

2599. **Pulver, S. E. Narcissism: The term and the concept.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 319-342.—Narcissism was used to denote a sexual perversion, a stage of development, a type of object choice, a mode of relating to the environment, and various aspects of self-esteem. Narcissism has not received sufficient elaboration in terms of ego psychology. (39 ref.)—D. Prager.

2600. **Reimann, Fritz.** (27 Oberföhringer Str., Munich, W. Germany) **Frühkindliche Formen der Aggression.** [Forms of aggression in early childhood.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 136-146.—Discusses aggression in relation to phases of psychosexual development. In the oral phase aggression is expressed in an intensive wish-force, cessation of detachment from the world, and the process of "taking in." The developmental objective is the establishment of the bond with the mother, and introjection is the dominant function. In the anal phase aggression is expressed in excretion and the creation of detachment and negation. Here repression is the dominant function, and the developmental objective is the assertion of independence and release from the maternal bond. In the phallic phase aggression is expressed in sexual rivalry, courtship, and conquest. The developmental objective is the gradual assumption of the sexual role, and identification is the dominant function.—*English summary.*

2601. **Ross, N. The primacy of genitality in the light of ego psychology: Introductory remarks.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 267-284.—Libidinal development and personality maturation are not dependent variables. Rich genital experiences of neurotics may be accounted for in terms of the existence of transitory fusions of early pregenital forms of tenderness with genital orgasm and/or especially rich constitutional libidinal endowments of relatively autonomous nature. Psychoanalysis cannot yet explain the unsatisfactory, nonorgastic sex life of more mature people. (55 ref.)—D. Prager.

2602. **Rothschild, Friedrich S.** (3 Redak Rd., Jerusalem, Israel) **Das Ich und das Gehirn.** [The ego and the brain.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 53-68.—In a survey of the evolution of intraorganismic sign systems the lawfulness is exposed which dominates the relation also between ego and brain. Essential conceptions of Freud's are argued from the viewpoint of biosemiotics, confirming issues, i.e., the relationships between the 3 qualities of psychical processes (unconscious, preconscious, and conscious), primary and secondary processes, developmental stages of childhood, and the role of defense against conflict in the predisposition of the ego towards health or disease. (16 ref.)—*English summary.*

2603. **Sarlin, C. N. The current status of the concept of genital primacy.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 285-289.—Discoveries making revision of the concept of genital primacy and the genital phase advisable fall into

4 interrelated categories: recognition of the equal importance of the aggressive drive in psychosexual development, focus on the earliest pregenital and preoedipal factors in the psychosexual development of character, greater understanding of ego functions and mechanisms, and increased knowledge of female psychosexual development. (25 ref.)—D. Prager.

2604. **Schlesinger, H. J. The place of forgetting in memory functioning.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 358-371.—Rather than the enemy of memory; repression can be viewed as a special form of memory, while forgetting, rather than the apparent opposite of memory, is a necessary result of the reorganizing of the working memory in the service of adaptation.—*Journal summary.*

2605. **Shapiro, T. Interpretation and naming.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 399-421.—The interpretation of an unconscious fantasy is the first step prior to working-through. A linguistic model is presented to describe the vicissitudes of verbal representation according to what is known about the development of reference. In this way disparate data on the interpretative process are brought together under the single heading called the "ego function of language." 6 clinical examples are given. In all instances the defects in verbal grasp can be viewed according to our understanding of the developmental faults in structuring language. (60 ref.)—D. Prager.

2606. **Silverman, L. H. Further experimental studies of dynamic propositions in psychoanalysis: On the function and meaning of regressive thinking.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 102-124.—Drive-related and neutral stimuli are presented subliminally and effects are observed on ego functioning and symptomatology. When a drive-related stimulus registers subliminally, it contacts congruent drive derivatives and stimulates unconscious conflict or it gets momentarily resolved. In the current work a series of experiments were conducted to provide an understanding of regressive thinking. Clinical and theoretical implications of the results are discussed. (40 ref.)—D. Prager.

2607. **Skinner, James C.** (Boston U., Medical School) **The dream in psychoanalytic practice.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 213-220.

2608. **Slochower, H. Psychoanalytic distinction between myth and mythopoesis.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 150-164.—Mythopoesis exemplifies the process of a change in function in its relation to mythology. What in mythology is a defense against drives develops here a degree of autonomy, which can set a goal in its own right with the hero participating in the labor to transform the old tradition. Mythopoesis takes the step by which magical and religious reality is transformed into symbolic and psychological reality. The function of the old mythology is not eliminated. This change of function renders the hero in mythopoesis at once tragically guilty and redeemable. (36 ref.)—D. Prager.

2609. **Spanijaard, Jacob. The manifest dream content and its significance for the interpretation of dreams.** *International Journal of Psycho-Analysis*, 1969(Apr), Vol. 50(2), 221-235.—Freud's views of manifest dream content never underwent reformulation or revision. Manifest dream content has a subjectively conflictual aspect which can be used for interpretation.

Freud warns against taking the manifest dream content seriously except perhaps the "undisguised wishful dreams." No technique of latent dream interpretation is evident in Freud's works. "Take all of the associations the patient reveals about the dream and himself and view these against the manifest dream background to interpret the dream.... The role of the dreamer in the dream itself is important to the interpretation of the current conflict." (113 ref.)—J. Chyatte.

2610. Spiegel, Rose. (350 Central Park W., New York, N.Y.) **A spectrum of varieties of violence toward understanding the violent individual.** *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 122-135.—The essential distinctions used so far in assessing violence hinge on the criterion of impulsivity vs. premeditation. This is seen to be too limited to subsume many other important phenomena of violence. An attempt is made to: (a) formulate a constellation of parameters or elements which apply to violence and which would serve to distinguish varieties in it; and (b) work out, on this basis, an orderly categorization which will increase the understanding of violence of different persons and be of practical use. (German summary) (21 ref.)—*Journal summary*.

2611. Streich, Hildemarie. (38 Preussenallee, Berlin, W. Germany) **Über die Symbolik der Musik: Ein Beitrag zur Interpretation musikalischer Motive im Traumgeschehen.** [The symbolism of music: A contribution to the interpretation of musical motives in dreams.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 120-133.—Briefly reviews the position held by music in Greek mythology and during the Middle Ages. Special meaning is ascribed to dreams having musical content. Frequently, dreams with musical content depict new phases of inner development. Musical harmony in dreams symbolizes totality of self. Case histories are presented to demonstrate how symbolic musical dream content may be used as a means of evaluating progress during psychoanalysis. Observations are made on symbolism accorded to various musical instruments (i.e., the flute and trumpet).—B. A. Stanton.

2612. Tenzler, Johannes. (12 Freiherrnstr., Weichs über Dachau, W. Germany) **Lebenswende und Individuationsprozess.** [Change of life and the individuation process.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 313-337.—Emphasizes the influence exerted by cultural factors, early personality development, ego strength, identity, and religious beliefs on attitudes towards acceptance and the change of life during middle age. Jung's views regarding the psychology of aging are summarized. (161 ref.)—B. A. Stanton.

2613. Wegeler, Adalbert. (5/12 Otto-Bauer-Gasse, Vienna, Austria) **Bemerkungen zu Ideologie und Rationalisierung.** [Remarks concerning ideology and rationalization.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 235-243.—An ideology used as a systematization of ideas and values is used by both the individual and the group as a rationalization. In the group it serves to provide structure and security. Ontogenetically, an ideology assumes the role of an ego ideal substitute. The manner in which the dialectic play between the group situation and the individual can foster self-understanding is demonstrated.—B. A. Stanton.

2614. Wollheim, Richard. **The mind and the mind's image of itself.** *International Journal of Psycho-Analysis*, 1969(Apr), Vol. 50(2), 209-220.—Reports of mental states presuppose a conception of mind itself. It is also assumed that every mental state is connected to a thought. Thoughts are passive (it just occurred to me) and active (we think thoughts). Freud's theory of thoughts originating in an attempt to avoid frustration and Klein's distinction between inner thought and the external object are introduced with the idea of pointing out that the conception of mind involves spatiality. If it is spatial, one must do more than attribute the mind with thoughts of 3-dimensional objects. For this, it is suggested that "either we should have some specific view about mental states assigning them an extended or quasi-extended character or else have some specific view about the relations in which objects of mental states stand to the mind, assigning to this a positional character." We are at home in our mind and this is the mind's image of itself. But is this a correct image? (33 ref.)—J. Chyatte.

2615. Zetzel, Elizabeth R. (Harvard Medical School, Boston, Mass.) **Is the domain of the psychological still floating?** *International Psychiatry Clinics*, 1970, Vol. 7(2), 240-247.

PSYCHODIAGNOSIS

2616. Adams, Jerry. (William S. Hall Psychiatric Inst., Columbia, S.C.) **Canter Background Interference Procedure applied to the diagnosis of brain damage in mentally retarded children.** *American Journal of Mental Deficiency*, 1970(Jul), Vol. 75(1), 57-64.—Evaluated the efficacy of Task-Central and Task-Peripheral forms of the Canter Background Interference Procedure for the diagnosis of brain damage in mentally retarded children. 30 brain-damaged and 30 non-brain-damaged 6-16 yr. old children were tested on both forms, several days apart, with counterbalanced presentation. A Type IV analysis of variance revealed no sequence or order effect and a significant difference between the 2 groups only on the Bender Error score. The 2 forms differed significantly on the difference score and the Number Positive, but not as a function of diagnostic category. Discriminant analyses revealed significant multiple correlations with diagnosis for each form, although the accuracy of prediction was low. Because the comparison of the 2 forms was difficult to interpret, a conceptual link to present literature remains to be clarified. Results indicate that the performance of older children of average intelligence would be more like that of adults, and several avenues of further research are suggested. (18 ref.)—*Journal abstract*.

2617. Becker, Alois M. (19 Spitalgasse, Vienna, Austria) **Indikation und Prognose in der psychologischen Diagnostik für den praktizierenden Arzt.** [Indications and prognosis in psychological diagnostics for the medical practitioner.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 48-52.—Discusses the role of the general practitioner in ruling out somatic diagnoses, advising patients of the need for psychiatric consultations, and instigating abortive drug therapy. The major difficulty lies in the fact that while patients will readily accept a somatic diagnosis, they frequently reject advice which entails obtaining a psychiatric consultation.—B. A. Stanton.

2618. Chandler, Michael J. (U. Rochester) **Self-**

- awareness and its relation to other parameters of the clinical inference process. *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 258-264.—Examines the extent to which 30 professional and student psychologists could accurately describe the inference process they followed in converting MMPI scores into descriptive ratings of patient pathology. The correlation between an S's ratings and set of derived judgments based on a series of subjective weights presumed to reflect the relative importance attached to available predictor variables was used as an index of level of awareness. In sharp contrast to previously reported results, these Ss were characterized by a substantial degree of awareness, and the extent of this capacity was related to their level of clinical training and the appropriateness of the confidence with which their judgments were made. (18 ref.)—*Journal abstract*.
2619. Engelhardt, George M. (Wayne State U., Coll. of Education) **Predicting rehabilitation of socially maladjusted boys.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 546-549.—Investigated whether it is possible to identify the potential rehabilitant or nonrehabilitant at time of placement in a special education program for socially maladjusted boys. A random sample of boys designated as rehabilitated ($N = 30$) and as nonrehabilitated ($N = 30$) comprised the normative group. The cross-validation group consisted of 30 rehabilitants and 30 nonrehabilitants randomly selected. 10 intellectual functioning variables were included in the multivariate predictive analysis using the linear discriminant function. Discrimination between rehabilitants and nonrehabilitants of the normative group was possible with $p < .001$. Socially maladjusted Ss in the cross-validation group were assigned to the rehabilitated-nonrehabilitated dichotomy. Identification of the rehabilitants and nonrehabilitants was possible with 75% accuracy.—*Journal abstract*.
2620. French, Nancy H. & Heninger, George R. (Yale U., School of Nursing) **A Short Clinical Rating scale for use by nursing personnel: I. Development and design.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 233-240.—Describes the development and design over an 8-mo period of the 13-item Short Clinical Rating scale suitable for use by nursing personnel. Each item consists of a carefully defined component of psychopathology which is rated in a global clinical manner from 0-8 according to specified degrees of severity at scale points 0, 2, 4, 6, and 8. The scale can be used easily and rapidly on an hourly, daily, or weekly basis to provide measurements of the major components of the more severe psychiatric syndromes. Rating data are immediately available without further processing. (15 ref.)—*Journal summary*.
2621. Langen, Dietrich. (U. Mainz, Psychotherapy Clinic, W. Germany) **Die Problematik der Diagnose in der Psychotherapie.** [The problem of diagnosis in psychotherapy.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 53-62.—The ambiguity of diagnosis of mental disturbances is aggravated by rigid diagnostic categories. 6 types of mental disturbance always seem to appear: (a) abnormal emotional disturbances, (b) abnormal emotional development, (c) abnormal personality, (d) vegetative regulatory disturbances, (e) sex drive disturbances, and (f) drug habituation.—*B. A. Stanton*.
2622. Mason, E. Mary. (Hampstead Child Therapy Clinic, London, England) **The contribution of the social history in the diagnosis of child disturbances.** *British Journal of Psychiatric Social Work*, 1968(Fal), Vol. 9(4), 180-187.—Asserts the returning importance of the social history, in addition to the psychiatric interview and psychological testing, for a complete diagnostic formulation in children. Purposes of the social history include: (a) eliciting a comprehensive picture of the present stage of development of the child; (b) creating an atmosphere which can overcome the parents' anxiety and the child's possible fear, thus helping to establish a positive attitude toward future treatment; and (c) affording an opportunity to check the parents' report of the child against information the child brings directly to the diagnostic examination.—*P. McMillan*.
2623. Maxwell, A. E. (U. London, England) *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 651-655.—Describes a test for comparing the lateral distributions in square contingency tables obtained when a sample of Ss is classified into k categories ($k > 2$) independently by 2 judges or agents. The test is supplemented by an extension of Q. McNemar's (see PA, Vol. 37:48) test for correlated proportions in a 4-fold table. This extension provides a check on the symmetry of misclassifications.—*Journal summary*.
2624. Mills, David H. (U. Maryland) **Adjectives pertinent to psychotherapy for use with the semantic differential: An heuristic note.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 211-213.—Attempts to get bipolar adjectives pertinent to psychotherapy for use in research with the semantic differential. A total of 41 pairs of adjectives were rated by 15 therapists as to their pertinence. Results are presented for their heuristic value and discussed in terms of their generality. Despite being theoretically biased, they overlap with R. B. Cattell's list of personality sphere variables and have general use.—*Journal abstract*.
2625. Phillips, J. P. (U. Hull, England) **A new type of personal questionnaire technique.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 241-256.—Describes a questionnaire for an individual psychiatric patient, suitable for obtaining relatively precise (interval) scalings of a small number of symptoms. For each symptom, statements are derived in consultation with S, representing graded levels of its possible intensity. A preliminary scaling may be obtained by the S making paired comparison judgments of the differences between these levels. When a scaling of the current level of the symptom is required, S makes paired comparison judgments of the difference between it and each of the statements in turn. After all data have been collected, the significance of changes in the level of the symptom is assessed by means of a final analysis of variance, which also checks the preliminary scaling of statements and tests for systematic inconsistencies in S's responses. 2 computer programs, in the Elliott 803 dialect of ALGOL 60, to check, analyze, and graph the results are reported, and a clinical example presented. (30 ref.)—*Journal abstract*.
2626. Piercy, Dwayne C. (U. Houston) **Idiodynamic associative sets in a clinical population.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5695.
2627. Pilowsky, I. & Boulton, D. M. (U. Sydney, Australia) **Development of a questionnaire-based decision rule for classifying depressed patients.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 647-650.—Following on the application of numerical taxonomy to the problem of classifying depressive

illnesses, a decision rule for identifying class members was developed. Its relationship to ECT response supports the validity of regarding "Class B depression" as representing "endogenous" or "psychotic" depression. The depression questionnaire on which the study was based should prove to be a useful research tool in the field of depressive illness.—*Journal summary*.

2628. Ravensborg, Milton R. (Fergus Falls State Hosp., Minn.) **Empirical validation of automated nursing notes: Informational utility.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 279-282.—Compared automated nursing notes (ANN) with traditional notes (TNN) made by 2 Os as to efficiency in recording and transmitting information and ability to preserve the identifiability of 8 adolescent patients' behavior. Analysis of summaries based on both types of notes showed that ANN yielded more informative reports than TNN, while retaining as much identifiability.—*Journal abstract*.

2629. Revers, Wilhelm J. (U. Salzburg, Psychologische Inst., Austria) **Testdiagnostik des Konfliktes.** [Diagnostic tests of conflicts.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 28-33.—Discusses psychological tests which can be of use to psychotherapists in facilitating establishment of a diagnosis and in identifying emotionally charged conflicts. The use of the Rorschach, Szondi, and other projective tests are discussed as a means of identifying neurotic behavior disturbances. The TAT which is seen to be useful in isolating both overt and latent conflicts is emphasized. Limitations (i.e., test interpretation difficulties) are discussed. (21 ref.)—B. A. Stanton.

2630. Rokhlin, L. L. **O differentsial'noi diagnostike shizofrenii, psikhopatii i psikhopatopodobnykh sostoyaniy.** [On differential diagnosis of schizophrenia, psychopathy and psychopathoid states.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970, Vol. 70(2), 235-241.—Discusses the problems of differential diagnosis of schizophrenia, psychopathy, and psychopathoid states of various etiology in young people (mostly 18-25 yr. old girls) with psychopathic and psychopathoid behavior (narcomania, minor criminality, hypochondriacal states, and dysmorphophobia—dysmorphomania). Errors in diagnosis of these people were in the direction of both schizophrenia and psychopathy. Certain cases of pathological, but socially engendered behavior, should not be placed in these usual categories of diagnosis. All diagnoses of the enumerated conditions should take account of the changes which have been occurring in contemporary society under the influence of the scientific and technological revolution. Consideration of the data of social psychology and of microsociological analysis can be useful. These changes involve such factors as automation, mechanization, the strain on the "perception of information due to mass communication," increasing socialization of man, the acceleration and retardation of physical and mental development, etc. (English summary) (19 ref.)—I. D. London.

2631. Sperber, Zanwil. (Cedars-Sinai Medical Center, Los Angeles, Calif.) **Psychodiagnostic appraisal of children in one interview.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 99-103.—Illustrates an "approach to psychodiagnostic appraisal of children utilizing a single interview as the observation setting. The style of interview emphasizes the interpersonal relationship of the adult and child and the youngster's use of this relationship and reaction to therapist-like activity of the diagnostician. We also try to

mesh the needs of a particular child and his family to one of the action alternatives available in the clinic."—H. K. Moore.

2632. Strotzka, Hans. (16 Daringergasse, Vienna, Austria) **Diagnose und Diagnostik.** [Diagnoses and diagnostics.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 1-9.—Discusses the World Health Organization's international diagnostic classifications of diseases pertaining to mental illness. There are 9 major classifications: psychogenic reactions (behavior disturbances manifest as the result of stress situations); neuroses (depressions, compulsive reactions, conversion reactions, anxiety neurosis, and phobias); character neuroses; psychosomatic disorders; schizophrenic psychosis; schizophrenic episodes; manic depressive psychosis; organic psychosis; and mental retardation.—B. A. Stanton.

2633. Swartz, Jon D. (U. Texas) **Pathognomic verbalizations in normals, psychotics, and mental retardates.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5703-5704.

2634. Tarter, R. E. (U. Oklahoma, Medical Center, Center for Alcohol Related Studies) **Acquiescence in chronic alcoholics.** *Journal of Clinical Psychology*, 1970(Jul), Vol. 26(3), 301-302.—The MMPI was administered to alcoholic, psychiatric, and control Ss. On the Acquiescence scale alcoholics scored significantly higher than the psychiatric and control Ss, and after a 3-mo period the trait appeared to remain stable in the alcoholic group.—E. J. Kronenberger.

2635. Taylor, James B., Haelele, Ethel; Thompson, Prescott, & O'Donoghue, Cathleen. (Menninger Foundation, Topeka, Kan.) **Rating scales as measures of clinical judgment: II. The reliability of example-anchored scales under conditions of rater heterogeneity and divergent behavior sampling.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 301-310.—4 example-anchored descriptive rating scales were developed which measure coping adequacy, physical health, informal support, and financial comfort. Mental health professionals and gatekeepers rank-ordered 30 authentic geriatric cases on each variable. After the scales were developed 15 professionals untrained in the rating technique rated clients familiar to them on the 4 example-anchored scales. Ratings were pooled and correlated with those of 2 clinicians. Interjudge reliability ranged from .77 to .87. Correlations between the scales within each group were moderate. "It is suggested that the new technique greatly reduces variance arising from instrument error, and that high interjudge reliability is apt to be found when (a) the trait being judged is stable across situations, and (b) when global judgments are required."—N. M. Chansky.

2636. Watanabe, Yuzo & Murakami, Eiji. [A study of defense mechanisms by means of the Rorschach sex response.] *Japanese Journal of Clinical Psychology*, 1968(Jul), Vol. 7(2), 73-84.

BEHAVIOR DISORDER

2637. Alderton, Harvey R. (U. Toronto, Ontario, Canada) **A comparison of the follow-up status of children's aid society wards and non-wards treated in a children's psychiatric hospital.** *Canadian Medical Association Journal*, 1969(Jun), Vol. 100(22), 1035-1042.—Compared 2 groups of 6-12 yr. old boys with serious acting-out behavior disorders following discharge from a children's psychiatric hospital. The groups were

comparable with regard to age, intelligence, duration of hospitalization, degree of disturbance, and interval since discharge. Wards had previously suffered more relationship losses than nonwards, the latter having generally remained with parent figures throughout life. Because of the adverse effects of repeated relationship loss, it was predicted that wards would be more poorly adjusted at follow-up, however the contrary was found to be true. Reasons are presented for concluding that the wards had made a better treatment response during hospitalization. The nonwards' prolonged contact with severely disturbed parents may result in behavior patterns which are harder to change than those of wards. However, factors operating during the stay in hospital may be responsible. These include a greater tolerance by wards of unavoidable relationship losses in the treatment setting, as a result of experience. Nonwards may be less significantly involved with treatment staff because of continuing external parental relationships, or their disturbance may be reinforced by parental visiting. (French summary) —*Journal summary.*

2638. Moran, E. (N. Middlesex Hosp., London, England) **Varieties of pathological gambling.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 593-597.—Survey of 50 persons whose excessive gambling resulted in personal or family problems suggests a 5-fold classification. 1/5 showed loss of control and may be considered the impulsive variety. 1/3 appeared to be neurotic, 1/4 were psychopaths, and subcultural and symptomatic varieties completed the group. Gambling may provide some relief from symptoms of tension and depression, and it can also be self-destructive in the context of the guilt feelings that occur in depression.—R. L. Sulzer.

2639. Paulson, M. J. & Blake, P. R. (U. California, Center for the Health Sciences, Neuropsychiatric Inst., Los Angeles) **The abused, battered and maltreated child: A review.** *Trauma*, 1967(Dec), Vol. 9(4), 1-3.—Attempts to "summarize all the pertinent articles on the subject through October 1967. The specific problems discussed are: What is the incidence of child abuse? What are the medical manifestations which differentiate such assault from other medical and legal problems? What are the social factors which contribute to the continued and apparently increasing pattern of parental behavior? What are the personality patterns which characterize such parents? What can society do to recognize this potential behavior within an individual, and once such preventive clues are found, what intervention procedures can be initiated to protect not only the rights of the child from abuse, but also to protect the parent from false and malicious accusations when justifiable and appropriate disciplining is administered?" The hope is expressed "that sound medical and psychological premises can be developed rapidly that can be used as guidelines of practice for both bench and bar."—I. N. Mensh.

2640. Sutker, Patricia B. (U. Georgia) **Vicarious conditioning, empathy, and sociopathy.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5703.

Drug Addiction

2641. St. Pierre, C. Andre. (Boston Dept. of Health & Hosp., Drug Addiction Treatment Unit, Mass.) **A treatment program for the drug-dependent patient.** *Social Work*, 1969(Oct), Vol. 14(4), 98-105.—Describes

the experiences of a drug addiction treatment clinic in a hospital setting that involved the disciplines of social work, medicine, and psychiatry. The treatment modality is based on the assumption that to reject drugs a patient must: (a) develop substitute satisfactions to be found in work and personal relationships; (b) discover outlets for pent-up emotions; (c) develop techniques to cope with day-to-day problems; (d) expand his threshold of tolerance for suffering, persevering, and delaying gratification; and (e) develop a more aggressive and self-assertive attitude. To accomplish these aims, the program emphasized a work training program to provide job skills and eventual employment. It is stressed that "in the final analysis, success in treatment must be equated with improved functioning rather than total and complete abstinence."—M. Maney.

Alcoholism

2642. Bonabesse, M. **Quelques considérations sur l'aspect psychologique de l'alcoolisme et de son traitement.** [Some thoughts on the psychological aspect of alcoholism and its treatment.] *Information Psychologique*, 1968(Apr), No. 30, 3-35.—Reviews various theories about the causes of alcoholism and methods of treatment.—S. G. Vandenberg.

2643. Canter, Francis M. (Eastern Michigan U.) **Alcoholism, tension-increase and existence.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 75-78.—Describes the case of a patient who used alcohol to increase, rather than to decrease, tension. It is suggested that therapy for excessive drinkers should be directed to the sources of their tension and the "development of more constructive ways of dealing with them."—H. K. Moore.

2644. Cautela, Joseph R. (Boston Coll.) **The treatment of alcoholism by covert sensitization.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 83-90.—Describes the application of the covert sensitization procedure in the treatment of alcoholism. The patient is instructed to close his eyes and imagine that he is about to drink an alcoholic beverage, instead he experiences a sensation of nausea and vomits. Some problems in the use of the treatment are noted. (24 ref.)—H. K. Moore.

2645. Chess, Stephen B. (U. Kansas) **The relationship between arousal level and Rod and Frame Test performance.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5684.

2646. Marconi, Juan. **Barreras culturales en la comunicación que afectan el desarrollo de programas de control y prevención del alcoholismo.** [Cultural barriers in communication which affect the growth of programs for the control and prevention of alcoholism.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 351-355.—Describes problems in reaching Chile's 3 cultural types—an educated middle class guided by scientific theory, a large working class guided by folk medicine, and the aborigines who practice a medicinal ritual. A survey showed alcoholism to be a large problem among the lower classes, particularly the aborigines. Existing programs for alcoholism at the National Health Service and the University of Chile are reviewed and suggestions are made for a more effective program. Suggestions include: (a) sectorization of the community; (b) computation and hierarchization of health objectives; (c) distribution of educational information about alcoholism; and (d) a

delegation of doctors, nurses, social aid organizations, and recuperated alcoholics in various communities.—P. Hertzberg.

2647. **Rosenberg, C. M.** (Boston City Hosp., Mass.) **Forearm blood flow in response to stress.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 180-184.—Examined the relationship between stress, forearm blood flow, and subjective anxiety. In 26 normal male Ss, electric shocks applied to the opposite forearm led to a rapid rise in anxiety and forearm blood flow. With repeated regular shocks, habituation of the vasomotor response occurred and anxiety became less intense. Changes appeared to be related to S's ability to predict accurately the intensity and frequency of the stimulus. Mental arithmetic under harassment produced a more gradual but greater rise in blood flow without an equal rise in anxiety. 23 alcoholic Ss who were judged to have limited motivation and ego strength showed a significantly lower vasomotor response during mental arithmetic. It is concluded that changes in forearm blood flow observed during stress cannot be related only to an increase in anxiety. This response seems to depend also on the significance of the stimulus to S, his psychiatric status, and his level of motivation. (19 ref.)—*Journal abstract*.

2648. **Simpson, R. Keith; Fitz, Erle; Scott, Bob, & Walker, Len.** (College Hosp., Des Moines, Ia.) **Delirium tremens: A preventable iatrogenic and environmental phenomenon.** *Journal of the American Osteopathic Association*, 1968(Oct), Vol. 68(2), 123-130.—Establishes a specific diagnostic criterion for the diagnosis of delirium tremens that considers the presence of tremor, hyperkinesia, diaphoresis, hallucinations, illusions, or mental confusion, and hyperthermia as essential requirements. The sequential development of these clinical phenomena is explored. It is believed that the classic expression of delirium tremens has been iatrogenic and environmental in origin. Of 1654 patients that were admitted to a treatment and rehabilitation center, none experienced a significant withdrawal phenomenon. Tremor, diaphoresis, tachycardia, elevated systolic and diastolic blood pressures, and hyperkinesia have been fleeting and uncomplicated, and hallucinations have been rare. The need for complete review of the current approach to the alcoholic patient in the acute phase of his disease is emphasized.—*Journal abstract*.

2649. **Spruell, Michael N.** (U. Georgia) **The development of facilitative training for a group of alcoholics.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5679.

2650. **Wanberg, Kenneth W.** (Ft. Logan Mental Health Center, Denver, Colo.) **Some psychodynamic dimensions found among alcoholics.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 79-85.—24 items from the Social History Questionnaire administered to 1891 alcoholics revealed 5 1st-order factors, viz, anxiety-depression, introversion-threat reactive, introversion-social isolation, social role stress-anxiety, and extraversion-coping. 2 broad psychodynamic dimensions resulted from the 5 primary factors, viz, severe stress and extraversion. Different treatment approaches might be established for the different dimensions.—H. K. Moore.

Suicide

2651. **DeSole, Daniel E., Singer, Phillip, & Aronson,**

Samuel. (Veterans Administration Hosp., Albany, N.Y.) **Suicide and role strain among physicians.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 294-301.—Uses data from Journal of the American Medical Association obituaries over a 3-yr period to report on an incidence of suicide among physicians and to identify the specialty in 278 of 291 cases, and presents 7 case histories for which data were obtained from interviews with physicians and paramedical professionals who knew the deceased as well as friends and relatives. The function of role strain in causing physician suicides is discussed. It is suggested that the amount of psychological role strain is greater for physicians than other professional groups since their ethical reach has become vastly extended without institutional supports to meet these extended demands. It is concluded "that without the opportunity for psychological regression and . . . institutional supports for his role as physician, the physician will continue to be more susceptible to role strain leading to depression and its resolution by suicide." (19 ref.)—M. Maney.

2652. **Ianzito, Benjamin M.** (Washington U., Medical School) **Attempted suicide by drug ingestion.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 453-458.—Characterizes the type of person who attempts suicide through drugs, and discusses "data concerning his management, diagnosis, and disposition." 95 cases of patients who were hospitalized for intentional overdoses of drugs were reviewed with respect to various parameters including age, sex, race, marital status, occupation, religion, major precipitating factors, intent, prior suicide attempts, past and present psychiatric care, type of medication used, and diagnosis on discharge. Results indicate that: (a) the majority of patients were females, including a high number in the nursing profession; (b) most attempts were gestures, although intent was difficult to determine; (c) 39% had made prior suicide attempts; (d) medication was usually of the sedative-hypnotic type; and (e) most cases had a prior psychiatric history.—P. McMillan.

2653. **Krauss, Herbert H.** (U. Georgia) **Social development and suicide.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 159-167.—Studied 58 societies to test the relationship between societal complexity and frequency of suicide. Suicide frequency was highest in the medium complexity cultures and lowest in the low complexity cultures. The highly complex cultures were divided between high and low suicide rates. "It is suggested that this result may eventually be understood in terms of the way in which societies bind their members into patterned social relations." (25 ref.)—A. Krichev.

2654. **Krieger, George.** (Veterans Administration Hosp., Palo Alto, Calif.) **Biochemical predictors of suicide.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 478-482.—Reports a follow-up study of 205 male psychiatric patients who were considered suicidal risks and for whom 24-hr urinary output of 17 hydroxycorticosteroids (17-OHCS), 17-OHCS/creatinine ratios, and 8:30 AM plasma cortisol levels were obtained. Within 1-29 mo. after the completion of the tests, 6 of these patients had suicided. While the 17-OHCS did not differentiate between suicides and nonsuicides, the 17 OHCS/creatinine ratio and plasma cortisol did so at a statistical significance of between .05 and .10. It is speculated that the elevated plasma cortisol may reflect

the vulnerability to suicide and be causative. (17 ref.)—*Journal summary.*

2655. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Adolescent suicide and premarital sexual behavior.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 131-132.—C. Kluckhohn's suggestion that adolescent suicide would occur more in societies where premarital sexual expression was severely punished was tested on a sample of 40 nonliterate societies. The hypothesis was not confirmed.—*Author abstract.*

2656. Lester, David & Brockopp, Gene W. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Chronic callers to a suicide prevention center.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 246-250.—Compared 24 chronic callers to a suicide prevention center with 378 1-time callers on a number of variables including age, sex, children, marital status, race, living arrangement, presenting problems, suicidal history, and rated suicidal risk on the 1st call. It was found that the 2 groups were similar in general characteristics and that chronic callers were "just as likely to be suicidal risks as average callers" and less likely to be anonymous. Types of chronic callers included those who were (a) currently seeing a therapist, (b) seeking diverse treatment and used the center, (c) wished to ventilate their feelings, and (d) disturbed people, previously in treatment. Possible useful approaches to the chronic caller include limiting the call from the outset, keeping a list of chronic callers, and preformulating a plan to deal with their needs.—*P. McMillan.*

2657. Rotov, Michail. (Trenton State Hosp., N.J.) **Death by suicide in the hospital: An analysis of 20 therapeutic failures.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 216-227.—Probes the reasons surrounding 20 suicides drawn from 2 public mental hospitals. Offers a postfactum examination of the circumstances as they are reflected in patient's hospital records, examining: (a) therapeutic regime, (b) patient/doctor relationship, (c) adequacy of preventative measures, and (d) missed clues of suicidal intent. Curtailement of the seclusion of suicidal patients is suggested and the retention ECS by the hospital as a possible method of treatment for selected patients is recommended. "An important clue to a patient's hidden suicidal impulses is a projective concern over his relatives or his own well-being." Tic-like suicides (impulsive and frequently repetitive suicidal attempt) may reflect a state of chronic dissociation. Some of the physicians responsible for the cases presented were of either of 2 character types: "the benevolent, indecisive, meek physician ... [and] an aggressive, nihilistically oriented physician."—*P. R. Shibelski.*

2658. Wyrsh, Jakob. **Schuld und Verantwortung bei Suizid.** [Guilt and responsibility with suicidals.] *Praxis der Psychotherapie*, 1968(Dec), Vol. 13(6), 241-252.—Discusses the roles and responsibilities of the physician in relation to institutionalizing vs. not institutionalizing patients who verbalize suicidal fantasies or intentions.—*B. A. Stanton.*

Crime

2659. Amelang, Manfred & Rodel, Gerd. (U. Hamburg, Psychological Inst., W. Germany) **Persönli-**

chkeits- und Einstellungskorrelate krimineller Verhaltensweisen. [Personality and attitude correlates with criminal behavior.] *Psychologische Rundschau*, 1970(Jul), Vol. 21(3), 157-179.—Discusses methodological difficulties in correlating personality characteristics with criminal tendencies. Some of these difficulties have been avoided in studies with 2 groups of prisoners: one incarcerated for traffic violations, the other group for thievery, breaking and entering, etc. Correlations with intelligence and personality tests showed no significant difference between the 2 groups with respect to IQ and extraversion, highly significant differences with respect to neuroticism and tendencies to lie, and a significant difference with readiness to take risks. (47 ref.)—*W. J. Koppitz.*

2660. Gattshall, Gerald W. (Ball State U.) **Imprisonment's affects upon the self concept and the actualizing process.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5235.

2661. Mucchielli, R. (U. Nice, France) **La personnalité criminelle.** [The criminal personality.] *Information Psychologique*, 1968(Feb), No. 29, 25-36.—Reviews various theories of the criminal personality from psychiatric and sociological viewpoints.—*S. G. Vandenberg.*

2662. Orgler, Herta. **Adlerian psychology: A help in solving the current crime problem.** *Individual Psychologist*, 1969(Nov), Vol. 6(2), 25-28.—Training in Adlerian psychology would be helpful to those who work with criminals. The criminals need to acquire insight into and change "their erroneous concept of life by enlarging their social interest and by setting themselves a constructive goal and pursuing it."—*A. R. Howard.*

2663. Quarantelli, E. L. & Dynes, Russell R. (Ohio State U.) **Property norms and looting: Their patterns in community crises.** *Phylon*, 1970(Sum), Vol. 31(2), 168-182.—Examines various views of looting, and suggests that such behavior is a subcultural pattern not unlike other normative behavior, rather than an individual action. As such, it is conforming behavior rather than an expression of deviance.—*A. R. Howard.*

2664. Renear, Katherine R. (Claremont Graduate School, Calif.) **Field dependence and parole success.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5678.

2665. Witter, Herman. (26 Alleestr., Homburg/Sanddorf, W. Germany) **Die Verantwortlichkeit des neurotisch Gestörten aus der Sicht der Begutachtung.** [The responsibility of the neurotically disturbed from the viewpoint of judgment.] *Praxis der Psychotherapie*, 1968(Dec), Vol. 13(6), 264-274.—Presents 8 case histories to demonstrate neurotic symptomatology which precipitated disturbed judgment resulting in criminal behavior. Several aspects of criminal law in relation to legal and social rights of emotionally disturbed offenders are discussed.—*B. A. Stanton.*

Juvenile Delinquency

2666. Baer, Daniel J. (Boston Coll.) **Taxonomic classification of male delinquents from autobiographical data and subsequent recidivism.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 27-31.—From a taxonomic analysis of a 75-item Biographical Questionnaire administered to 60 male delinquents, 3 groups were identified. Although no significant association was found between taxonomic classification and subsequent recidivism, some trend was evident. The group lowest in

recidivism also had the lowest proportion of stubborn child-runaway offenders and the highest incidence of larceny-theft delinquents. Results suggest that the taxonomic analysis of autobiographical data may be a useful method of classifying youthful offenders.—*Journal summary.*

2667. Balaščík, Drahomír. *Některé zvláštnosti intelektové úrovně u mladistvých provinilců.* [Some curiosities of intellectual level in juvenile delinquents.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(1), 21-50.—Discusses the discrepancy between data found in the literature indicating that the frequency of mental deficiency found in juvenile delinquents ranges from 2-96% and that the mean IQ levels of delinquents have both normal and subnormal values. An attempt was made to determine (a) the average IQ of 258 juvenile delinquents, (b) factors which could explain a decrease in IQ, and (c) reasons for data discrepancy. Results indicate (a) an IQ range of 89-94, (b) an intellectual performance level lower than normal Ss, (c) that intellectual insufficiency in etiology and development of offensive behavior occurred more often in 15-17 yr. olds than in older Ss, and (d) the tendency to commit various offenses is not conditioned by IQ. It is suggested that discrepancies in data findings were due to differences in level of observation used in research, validity of diagnostic methods, and representativeness of variables studied. It is concluded that age, nationality, educational level, and professional training are the main factors influencing intellectual performance in delinquents. (Russian summary) (44 ref.)—*English summary.*

2668. Bednar, Richard L., Zelhart, Paul F., Great-house, Larry, & Weinberg, Steve. (U. Arkansas, Rehabilitation Research & Training Center) *Operant conditioning principles in the treatment of learning and behavior problems with delinquent boys.* *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 492-497.—Gave 32 12-18 yr. old delinquent boys 18 consecutive weekly lessons of programed reading instruction. Ss were randomly assigned either to a group reinforced with monetary tokens, or to a group that was nonreinforced. Analysis of variance with repeated measures was employed to analyze the data. Results indicate that both groups showed significant improvement in reading skill from pre- to posttesting, but that the reinforced group showed significantly more improvement than the nonreinforced group. Teacher ratings of general classroom behavior showed concomitant improvement for the reinforced group. Results are discussed in the context of applying conditioning principles to learning problems and the role of the counseling psychologist as a consultant to teaching personnel.—*Journal abstract.*

2669. Fitzgerald, Bernard J., Pasewark, R. A., & Noah, Sally J. (U. Wyoming) *Validity of Rotter's Interpersonal Trust Scale: A study of delinquent adolescents.* *Psychological Reports*, 1970(Feb), Vol. 26(1), 163-166.—As a partial test of the validity of Rotter's Interpersonal Trust Scale, the instrument was utilized to differentiate male (N = 51) and female (N = 41) delinquent groups from like-sized nondelinquent groups matched for age and social class. Since Rotter states that delinquents are less trusting of others, the use of such groups seemed a fair test of the discriminability of the scale, but no significant differences were found on the Interpersonal Trust Scale among these male and female delinquent groups and their nondelinquent counterparts.

Thus, the validity of the instrument as a measure of the trust variable is questioned.—*Journal abstract.*

2670. Schindler, Sepp. (111 Schönbrunner Str., Vienna, Austria) *Aggressives Verhalten Jugendlicher: Eine sozialpsychologische Studie.* [Aggressive behavior of juveniles: A sociopsychological study.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 169-181.—Investigated all 1072 14-18 yr. olds sentenced for intentional physical bodily injuries by an Austrian court in 1961. Various personalities, social situations, behavioral characteristics, and relations between the offender and the persons who incurred injuries were compared. (23 ref.)—*English summary.*

2671. Schindler, Sepp. (111 Schönbrunner Str., Vienna, Austria) *Kann der Vater ersetzt werden? Zur Genese und Therapie kriminellen Verhaltens männlicher Jugendlicher.* [Can the father be replaced? Genesis and therapy of criminal behavior of male adolescents.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 141-147.—Proposes that therapy can provide compensation for the lack or deficiency of a father figure in youth. Statistics of increasing criminal behavior in male Austrian youths from 1951-1960 are compared. The roots of this socially aberrant behavior are traced to a deficiency in the father figure during early childhood. The need for treatment following the 1st criminal offense is emphasized as a means of providing compensation for lack of an adequate father figure. It is concluded that psychotherapy can increase achievement of ego and role identifications and decrease patterns of criminal behavior in adults.—B. A. Stanton.

2672. Spinks, Nellie J. (Florida State U.) *The effects of male and female models in vicarious therapy pretraining on the change in self-concept of institutionalized female juvenile delinquents in group counseling.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5702-5703.

2673. Taylor, Leslie R. (Purdue U.) *Dimensions of delinquent behavior.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5680.

2674. Tennent, T. G. (Broadmoor Hosp., Crowthorne, England) *Truancy and stealing.* *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 587-592.—Compared a group of truants to a group of delinquents to investigate the hypothesis that truants show a greater degree of maladjustment. No significant differences were found between the groups in any background factors, except that the truants were more often the youngest members of their family. A rating method based on the psychiatrist's global clinical impression suggests more emotional disturbance in the truants, but this was not confirmed by 6 area scores extracted from probation officers' and social workers' reports.—R. L. Sulzer.

2675. Truax, Charles B., Wargo, Donald G., & Volksdorf, Norman R. (U. Calgary, Alberta, Canada) *Antecedents to outcome in group counseling with institutionalized juvenile delinquents: Effects of therapeutic conditions, patient self-exploration, alternate sessions, and vicarious therapy pretraining.* *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 235-242.—An alternate session regimen led to poorer outcome in 40 female and 40 male 14-18 yr. old juvenile delinquents; vicarious therapy pretraining and depth of self-exploration did not lead to different levels of outcome; but high levels of therapist conditions led to

significantly better outcome than did low levels. Results are compared with conflicting results obtained with adult hospitalized and out-patient groups. (21 ref.)—*Journal abstract*.

Homosexuality & Sexual Deviation

2676. **Bieber, Irving.** (New York U., Medical School) **Homosexuality.** *American Journal of Nursing*, 1969(Dec), Vol. 69(12), 2637-2641.—Presents a comprehensive discussion of the parental family structure conducive to the development of homosexuality. 106 male homosexuals were employed in the study. Approximately $\frac{1}{3}$ of these Ss in psychoanalytic treatment became exclusively heterosexual. Describes male and female homosexuality in stages from childhood to adulthood. Discusses degrees of involvement, bisexuality, life style of homosexuals, and the psychodynamics and treatment of homosexuals.—*B. A. Stanton*.

2677. **Dellaert, R. & Kunke, T.** (207B Italelei, Antwerp, Belgium) **Investigations on a case of male transsexualism.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 89-107.—Presents an investigation of a case of transsexualism and describes progress achieved in psychotherapy via the cooperative efforts of a psychologist and a psychiatrist. The patient became obsessed with the idea of undergoing a surgical procedure to effect a change in sex when confronted with the prospect of marriage. Recovery ensued following a complete analysis of the negative and positive oedipus complex. Therapy results point to a psychogenic etiology of transsexualism.—*B. A. Stanton*.

2678. **Haynes, Stephen N.** (U. Oregon, Medical School) **Learning theory and the treatment of homosexuality.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 91-94.—The patient is punished for overt homosexual responses and gains gratification from heterosexual activity. (24 ref.)—*H. K. Moore*.

2679. **Imielński, K.** (Research Inst. Mother & Child Health, Warsaw, Poland) **Homosexuality in males with particular reference to marriage.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 126-132.—Based on an investigation of 28 homosexual males who married, it is stated that marriage may be recommended to homosexual individuals with 1st, or at least 2nd degree homosexuality according to Kinsey's scale. If homosexuality has reached greater intensification and, according to this scale, must be rated under the 3rd or higher degrees, the patient should be under treatment before marrying. Marriage may be suggested after the 1st or 2nd degrees have been reached. The marriage of homosexual individuals with 3rd or higher degree of homosexuality proved to be not lasting and frequently even fictitious. Separation of the partners even for a short period of time is contraindicated as sexual abstinence may bring about a recurrence of sexual perversion. (20 ref.)—*Journal summary*.

MENTAL DISORDER

2680. ———. **Mental disease: Biochemical causes.** *Nature*, 1969(Sep), Vol. 223(5210), 999.—Reviews a World Health Organization report which demonstrates the adverse effects of the following deficiencies on the brain and mental functioning: iodine, protein, vitamin A, thiamine, riboflavin, and vitamin B₁₂.

It is pointed out that electrolyte imbalance may cause mania and depression. It is suggested that the only rational biochemical approach to the study of mental illness is through investigation of conditions with similar symptoms, i.e., drug-induced psychoses.—*B. A. Stanton*.

2681. **Balbana, Virginia M.** (U. Georgia) **Psychopathology and the problem of guilt.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5682-5683.

2682. **Burton-Bradley, B. G.** (Dept. of Public Health, Territory of Papua & New Guinea) **Transcultural psychiatry in Papua and New Guinea.** *Journal of Cross-Cultural Psychology*, 1970(Jun), Vol. 1(2), 177-183.—Suggests "strongly that Papua and New Guinea cultural factors have a distinct pathoplastic effect on individuals relative to mental disorder, and that further cross-cultural studies will do much toward the clarification of many issues. Even at this stage it seems fairly clear that cultural factors are not of primary aetiological importance in the causation of mental disorder in the same sense as the pneumococcus is in relation to pneumonia. That they are of considerable secondary importance is clear from the above. The cultural factors operate with and against a background of psychological, physiological, and genetic forces which interact with one another in the production of mental disorder." (17 ref.)—*A. Krichew*.

2683. **Cadoret, Remi J., Winokur, George, & Clayton, Paula J.** (Washington U., Medical School) **Family history studies: VII. Manic depressive disease versus depressive disease.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 625-635.—Analyzed data from 5 previous studies for risk of affective illness in parents, siblings, and children of patients who were grouped by age, sex, and bipolar vs. unipolar (no history of mania). Significant sex differences lead to the postulation of 2 groups of unipolar illness, in which males and females have equal morbid risks and in which the illness is sex-limited to females. Risks for bipolar patients' relatives are mainly consistent with the hypothesis of X-linked dominant inheritance, i.e., brothers of female patients showed a lower risk than sisters, but sons and daughters of female patients showed equal risks. (23 ref.)—*R. L. Sulzer*.

2684. **de Bonis, M.** **Anxietés pathologiques et anxiété normale: II. Comparaison de la structure factorielle des réponses à la M.A.S. de Taylor et une échelle de symptômes.** [Pathological anxiety and normal anxiety: II. Comparison of the factorial structure of responses to the Taylor MAS and to a Scale of Symptoms.] *Revue de Psychologie Appliquée*, 1970, Vol. 20(1), 1-25.—Factorial structure reveals neurotics are apparently more anxious than schizophrenics and both of these are more anxious than normal Ss. Tentatively, anxiety appears independent of depression in normal Ss. Further, a leading factor among the normals is an emotional reactivity which does not appear among the ill. Application of discriminate analysis techniques arrived at results very similar to those obtained by the Scale of Symptoms despite important differences of factorial content between the 2 tests. On the Scale of Symptoms, normal Ss' scores were nearer to those of neurotics than of schizophrenics. Though of an entirely different source, the anxiety of the schizophrenic shows numerous aspects in common with the anxiety of the neurotic and both of these more intense than the anxiety of normal Ss.—*K. J. Hartman*.

2685. Dreyfuss, F., Dasberg, H., & Assael, M. I. (Hebrew U., Hadassah Medical School, Jerusalem, Israel) **The relationship of myocardial infarction to depressive illness.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 73-81.—In a 5-yr survey of the incidence of myocardial infarction among the 890 male and 1545 female patients hospitalized in a psychiatric hospital (1959-1963), 21 male and 8 female patients were found to have coronary artery disease manifested by myocardial infarcts. 26 of these patients (all over age 40) belonged to the depressive group of disorders whereas 60% of all patients in this age group were depressives. The other 3 infarct patients had predominately paranoid manifestations. Figures for 1964-1965 showed the same trend. 34 patients had myocardial infarctions and depressive disorders, while only 5 infarcts were seen in all other patients. (15 ref.)—*Journal summary.*

2686. El-Islam, M. Fakhr & El-Deeb, Hend A. (Cairo U. Hosp., Egypt) **The educational and occupational correlates of psychiatric disorder: A study at an Arab psychiatric clinic.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 288-293.—Compared the educational and occupational status of 508 male and 459 female psychiatric outpatients to that of 100 male and 100 female medical outpatients, used as a control group, to explore the general belief that the rising incidence of psychiatric disorder is a product of the changes brought about by civilization and industrialization. Male psychiatric Ss, especially cases of neurotic depression and anxiety states were educationally better than controls. This was true even after excluding the overrepresented group that had secondary school or university education whose overrepresentation was attributed to external factors related to the availability of private psychiatric services. Occupationally, both male and female psychiatric Ss (except schizophrenics) were better than controls. Selection by education and selection by occupation were discussed. The better educational and occupational status of psychiatric Ss as a whole group contrasted with the poor educational and occupational status of the schizophrenic subgroup. The relevant hypotheses explaining this phenomenon are discussed.—*Journal summary.*

2687. Erwin, C. William & Zung, William W. (Duke U., Medical School) **Behavioral and EEG criteria of sleep in humans: Comparison using radiotelemetry.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 375-377.—Compared behavioral and EEG criteria of the sleep of 13 psychiatric inpatients, using radiotelemetry for 18 nights. Nursing hospital personnel completed a routine sleep chart on Ss based on 1/2-hr observations using the following behavioral criteria: relaxed and regular respiration, sleeper still and eyes closed, snoring present, general posture in bed, effect of shining light near sleeper's face, and asking sleeper to give a signal if awake. Behavioral estimation of the wake-sleep states was in agreement with EEG criteria 93% of the time. The majority of errors (85%) occurred when Ss were scored as asleep behaviorally but were awake in Stage A by EEG. Approximately 1/3 of the bed-checks of Ss produced EEG arousals as evidenced by a shift in sleep stages. These were, however, transient and did not produce a significant number of awakenings.—*Journal summary.*

2688. Kostandov, E. A. (Serbskii Central Research Inst. of Forensic Psychiatry, Moscow, USSR) **Vliyaniye otritsatel'nykh emotsii na vospriyatiye u psikhopatov.** [Influence of negative emotions on perception in psy-

chopaths.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 225-235.—The 20-45 yr. old Ss included 22 excitable psychopaths, 10 psychopaths with ideas of superiority of nonpathological character, 6 psychopaths with paranoid development, and 22 normal individuals. It was shown that, under emotional excitation, part of the stimuli from the external environment, previously perceived, receded from awareness, but could nevertheless, act on the organism on the subsensory level. The influence of negative emotions on the processes of perception were more prolonged in psychopaths than in normal Ss. In psychopaths the threshold of recognition of "emotional" words, having to do with their conflictful life situation, could be decidedly lower or higher than that of "neutral" words. In cases of increased threshold of recognition, a subthreshold effect of the emotional word was recorded in the form of bioelectrical and autonomic reactions. The possible role of these changes in perception in the behavior of psychopathic personalities is discussed. (English summary) (39 ref.)—*I. D. London.*

2689. Lilienfeld, Diana M. (Metropolitan Hosp., New York, N.Y.) **Mental health information and moral values of lower class psychiatric clinic patients.** *International Journal of Social Psychiatry*, 1969(Fal), Vol. 15(4), 264-278.—A study of lower class psychiatric clinic patients found that their knowledge of mental illness and psychiatry, measured by scores on several mental health questionnaires, was significantly higher than the clinic's professional personnel expected it to be. The moral values professed by the patients were more authoritarian and repressed than those of the experts. There were no significant relationships found between mental health knowledge or moral values congruent with those of the experts and psychiatric impression rating, diagnosis, or disposition. (60 ref.)—*Journal summary.*

2690. Robinson, Ann E. & Wolkind, S. N. (London Hosp. Medical School, England) **Amphetamine abuse amongst psychiatric in-patients: The use of gas chromatography.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 643-644.—Analyzed urine samples of 54 acute psychiatric patients in an open ward to assess amphetamine abuse. Amphetamine derivatives were found in the urine of 22 Ss (15% of total ward population). Ss were compared with the total ward population for sex, age, and residence. There were more males, younger patients, and local residents in the group with positive urine samples. Clustering of positive results in 2 6-wk periods suggests the ease in which drugs are brought into and distributed within the hospital. The ability of patients to deny drug taking is noted.—*P. McMillan.*

2691. Rogovin, M. S. **Problema ékspresii i oë mesto v psikhopatologii.** [The problem of expression and its place in psychopathology.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jan), Vol. 70(1), 136-143.—Presents a survey of non-Soviet research which attempts to discern general tendencies in the development of various views in the area of expressiveness, and indicate the essential nature of the psychological mechanisms underlying expressive communication. General headings include: (a) expressive occurrences and intuitive knowing, (b) the problem of expression in historical perspective, and (c) features of the problem of expression and the concepts defining it. (68 ref.)—*I. D. London.*

2692. Schulman, William J. (U. Texas) **Personality and behavior characteristics of assaultive psychi-**

atric patients. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5698-5699.

2693. Shipman, William G., Heath, Helen A., & Oken, Donald. (Michael Reese Hosp. & Medical Center, Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **Response specificity among muscular and autonomic variables.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 369-374.—Describes an experiment designed to discover whether there are personality characteristics unique to persons having dominant responsivity in a particular muscular system or in 1 of the autonomic variables monitored. Ss were 44 18-49 yr. old psychiatric clinic outpatients. Muscle tension and autonomic scores were obtained under 4 conditions: rest, white noise, recovery, and psychological stress (simulated danger). Data indicate that an S tended to respond to the various stimuli consistently with the same muscle. Analysis of the autonomic variables also revealed response specificity. When the 4 subgroups of sufficient size were studied, certain characteristics emerged. Ss with a tense frontalis tended to be older, married, and depressed. Those with a tense gastrocnemius tended to be young, single, hostile, dependent, and active. Those with high heart rates were married, disorganized, and had chronic (trait) anxiety. Those with higher levels of palm sweating were young, slow moving, used suppression to handle fear, and had little interest in the opposite sex. The relations between trait anxiety and activity level and those between heart rate vs. palmar conductance (sweating) seemed to merit further research.—*Journal summary*.

2694. Shipman, William G., Oken, Donald, & Heath, Helen A. (Michael Reese Hosp. & Medical Center, Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **Muscle tension and effort at self-control during anxiety.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 359-368.—Hypothesized that effort at self-control accounts for the role of muscle tension during anxiety. 44 psychiatric outpatients were studied during periods of rest, white noise, and a contrived danger. Results indicate that the great increases in muscle tension and most autonomic functions during psychological stress were related to anxiety ratings and not to ratings of self-control. Personality variables were related significantly to some of the responses to white noise. Depressed Ss had a major increase in frontalis muscle tension, field-dependent Ss a major heart rate increase, and disorganized, impulse-ridden Ss the greatest increase in palmar skin conductance. (33 ref.)—*Journal summary*.

2695. Tolsma, F. J. (Rotterdam Mental Hosp., Poortugaal, Netherlands) **Doom expectancy from a psychopathological point of view.** *Psychiatria, Neurologia, Neurochirurgia*, 1968(Sep), Vol. 71(5), 435-446.—Presents a phenomenological analysis of doom expectancy. This is encountered in several psychiatric syndromes, and found interwoven in philosophical, political, and religious systems. The problem of temporalization and regionalization is discussed. It is concluded that excessive isolation can cause mental disturbances. The individual must therefore be protected from an excess of impressions while appropriate demands are made on him. The attraction which can be exerted on a patient or a group varies from case to case and from situation to situation, dependent on the degree of healthiness.—*Journal abstract*.

2696. Watzlawick, Paul. **Familia y patogenicidad.** [Fam-

ily and pathogenesis.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 334-340.—Explores the therapeutic potentialities inherent in the familial system, emphasizing a departure from the monadic psychoanalytic approach to a more comprehensive one based on the concept that interpersonal relations influence mental health. The effect of intra-familial communication on psychiatric disorders is illustrated by 2 examples. The basic pathogenic factor in human systems is thought to be overly rigid rules of conduct. 3 hypotheses based on studies of families of schizophrenics, depressed Ss, and delinquents are proposed to show the relation between familial interaction and pathogenesis. (English summary)—P. Hertzberg.

Neurosis & Emotional Disorder

2697. Agulnik, Peter L. (Littlemore Hosp., Oxford, England) **The spouse of the phobic patient.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 59-67.—50 patients, mostly agoraphobic in type, completed the Cornell Medical Index (CMI) and Caine's Hysteroid-Obsessoid Questionnaire as did their spouses. Patients gave high CMI scores, but spouses got low scores not indicative of neurosis. Neither patients nor spouses showed predominantly obsessoid characters, and they seemed to rate each other as reliably as controls. Conflicting with previous work, neurotic manifestations in the spouse did not appear to develop progressively with increasing duration of marriage. There was, however, a correlation of scores in recently married couples. (24 ref.)—R. L. Sulzer.

2698. Bruch, Hilde. (Baylor U., Medical School, Houston, Tex.) **Changing approaches to anorexia nervosa.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 3-24.

2699. Cohler, Bertram J., Weiss, Justin L., & Grunebaum, Henry U. (Harvard U.) **Child-care attitudes and emotional disturbance among mothers of young children.** *Genetic Psychology Monographs*, 1970(Aug), Vol. 82(1), 3-47.—Maladaptive attitudes regarding particular child-care issues may be a factor in the development of emotional disturbances in women during the 1st 3 yr. following childbirth. Results obtained using a paper-and-pencil measure (233-item Maternal Attitude Scale) based on issues to be negotiated between mother and child indicated that greater denial of child-rearing concerns and a belief in the unimportance of establishing reciprocity with a child distinguished the attitudes of mothers hospitalized during the 1st 3 yr. following childbirth (N = 35) as contrasted with a matched control sample (N = 35). Additional study of these hospitalized mothers indicated that poor pre-morbid social adjustment was related to less adaptive attitudes concerning the development of mother-child reciprocity and that conflict regarding the resolution of particular life issues at the time of hospitalization was associated with more maladaptive attitudes. (124 ref.)—*Author abstract*.

2700. Frank, Irving & Frank, Rosanne K. (Chicago Medical School, Ill.) **The management of the academic under-achiever in a family practice.** *Psychosomatics*, 1970(May), Vol. 11(3), 183-187.—Presents methods for better understanding the underachieving child in school by the family physician. Common problems encountered are school phobia and academic underachievement. The relationship of these problems to

faulty family interactions is reviewed. 3 case histories are summarized. It is concluded that the uniqueness of each child's personality and needs must be recognized and that the family physician can be an effective liaison between the parents, the school, and the child.—P. McMillan.

2701. Gifford, Sanford; Murawski, Benjamin J., & Pilot, Martin L. (Harvard Medical School, Boston, Mass.) **Anorexia nervosa in one of identical twins.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 139-228.

2702. Kreitman, Norman; Collins, Joyce; Nelson, Barbara, & Troop, Jane. (U. Edinburgh, Scotland) **Neurosis and marital interaction: I. Personality and symptoms.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 33-46.—Investigated the effects of neurosis on the patient's marriage and marital partner through a group of 60 male outpatients by conjoint interviews and tests. Ss' wives differed from matched controls both in higher ratings of impaired health and in results of the Cornell Medical Index (CMI) and the MPI. M-R and total CMI were higher and the N scale of the MPI was elevated. Early in marriage the Ss' wives were similar to the controls, yet duration of marriage did not have a simple relation to health of Ss' wives due to the most disturbed husbands appearing with the shortest marriages. CMI data do show a trend to increased scores late in marriage, but this is not paralleled in the MPI data. (15 ref.)—R. L. Sulzer.

2703. Lewinsohn, P. M. & Shaw, D. A. (U. Oregon, Psychology Clinic) **Feedback about interpersonal behavior change: A case study in the treatment of depression.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 82-88.—Describes the short-term intensive treatment of a 24-yr-old female with symptoms of depression, dysphoria, urinary tract dysfunction, and a mental preoccupation with a brain tumor. Treatment consisted of home observations with discussions of marital interactions. This effected a rapid cessation of the depression. At the same time it improved the interactions between spouses.—B. A. Stanton.

2704. Makhoul, Norris F., Jones, H. Gwynne, & Norris, Hugh. (North Middlesex Hosp., London, England) **Articulation of the conceptual structure in obsessional neurosis.** *British Journal of Social & Clinical Psychology*, 1970(Sep), Vol. 9(3), 264-274.—Describes a new method for the analysis of the organization of constructs in the cognitive structure based on the correlations between constructs. The method differentiated significantly between a neurotic group (11 obsessive-compulsive patients) and a normal control group (11 nonpsychiatric patients). The normal conceptual structure is articulated, comprising 2 or more relatively independent clusters joined by a linkage cluster. The obsessional conceptual structure is non-articulated, being typically monolithic or segmented.—Journal abstract.

2705. Nelson, Barbara; Collins, Joyce; Kreitman, Norman, & Troop, Jane. (Graylingwell Hosp., Chichester, England) **Neurosis and marital interaction: II. Time sharing and social activity.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 47-58.—A time-budget for a 1-wk period supported the hypotheses that patients (N = 60) and their wives spent more time in face-to-face contact than controls (N = 60), and spent less time as a couple in social intercourse with others. Wives of Ss spent less time in independent social activity than controls. An index of social integration gave lower

scores for Ss' wives, and all these differences were most marked for the long married. There is a progressive increase in social activity of normal wives as marriage progresses and a lack of such a progression in Ss' wives.—R. L. Sulzer.

2706. Rausch, Bernard. (32 Kaulbachstr., Nürnberg, W. Germany) **Der Gutachter zwischen Täter und Opfer: Bemerkungen aus der gerichtsärztlichen Praxis zur Begutachtung neurotisch gestörter Menschen.** [The assessor between culprit and victim: Observations from forensic practice concerning the judgment of neurotically disturbed individuals.] *Praxis der Psychotherapie*, 1968(Dec), Vol. 13(6), 275-283.—Discusses failures in judgment abilities of neurotic patients, and presents 8 cases to demonstrate the importance of legal consideration of situational factors which are frequently involved in hostile acts performed by neurotic individuals.—B. A. Stanton.

2707. Rowland, Christopher V. (Harvard Medical School, Boston, Mass.) **Anorexia nervosa: A survey of the literature and review of 30 cases.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 37-137.

2708. Schapira, Kurt; Kerr, T. A., & Roth, Martin. (U. Newcastle upon Tyne, England) **Phobias and affective illness.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 25-32.—Principal components analyses on the phobias elicited retrospectively from 111 patients with affective illness showed a tendency for phobias to separate into monosymptomatic and agoraphobic clusters. The 1st class was relatively unaffected by illness, while social phobias and agoraphobias were frequently related to it. The presence of agoraphobic symptoms may indicate a liability to affective illness. Ss with anxiety states had significantly more phobias both before and during illness than Ss with depressive illness. A control group of nonpsychiatric patients matched for age and sex showed the same tendency for phobias to separate into monosymptomatic and agoraphobic clusters. (15 ref.)—R. L. Sulzer.

2709. Sedman, G. (St. Ann's Hosp., Poole, England) **Theories of depersonalization: A re-appraisal.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 1-14.—Reviews the literature to show that even in organic states, the incidence of depersonalization is generally constant and near that shown in normal populations. Some studies show no relationship between degree of torpor and development of depersonalization. Psychometric tests produce little evidence of a relationship between clouding of consciousness and depersonalization. There may then be a built-in mechanism in 40% of the population to exhibit depersonalization with precipitating factors not related to clouding of consciousness. Relations with depressive mood change, the role of anxiety, and theoretical views are discussed. (91 ref.)—R. L. Sulzer.

2710. Sharma, S. D., Shah, P. B., & Acharya, P. T. (Medical Coll., Baroda, India) **Urinary 17-hydroxycorticosteroids levels and urine electrolytes in depression.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 343-347.—Studied plasma and urinary electrolytes and urinary 17-hydroxycorticosteroids (17-OHCS) levels (an index of anterior pituitary adrenal cortical activity), and their possible relationship in 8 24-60 yr. old normals, 10 endogenous and 3 neurotic 18-65 yr. old depression cases. It was found that there was sodium and chloride depletion in plasma and an increased excretion of these electrolytes in the endog-

enous depression and neurotic groups when compared to controls. The urinary excretions of 17-OHCS was lower in the endogenous group. This low level of 17-OHCS in urine was supported by increased excretion of sodium and chloride levels, and was possibly due to associated milieu factors of the ward. There were no significant changes as regards the plasma and urine electrolytes like potassium, bicarbonates, calcium and phosphorus. (16 ref.)—*Journal summary*.

2711. **Taschman, George.** (City Coll., City U. New York) **Historical antecedents in hysteric reading disability.** *Graduate Research in Education & Related Disciplines*, 1968(Win), Vol. 4(1), 3-24.—Examined "whether... the background of the defined hysteric child with reading disability includes self-absorbed, significant persons, from whom this child has 'learned' self absorption." 20 parents of children with retarded reading levels served as Ss. The hypotheses that Ss would be more successful than controls in detecting absurdities and that controls would better understand proverbs were supported.—*G. Steele*.

Psychosis

2712. **Colbach, Edward M. & Crowe, Raymond R.** **Marihuana associated psychosis in Vietnam.** *Military Medicine*, 1970(Jul), Vol. 135(7), 571-574.—Using a case study approach a psychotic syndrome subsequent to marihuana smoking has been found in approximately 10% of men hospitalized for psychiatric reasons in Vietnam. This syndrome is marked by time disorientation, recent memory loss, paranoid ideation, and occasionally auditory and visual hallucinations. These symptoms last up to 10 days after admission to the hospital. Affected individuals are characterized by a borderline personality organization.—*G. A. Chum*.

2713. **Frosch, J.** **Psychoanalytic considerations of the psychotic character.** *Journal of the American Psychoanalytic Association*, 1970(Jan), Vol. 18(1), 24-50.—The psychotic character establishes a reality-syntonic adaptation and may never show psychosis. Although the psychotic character shows fragmentation, projective identification, ego splitting, etc., these phenomena show a transient quality and can be reversed. Object relations are at a higher infantile level than in psychosis. The ego is threatened by breakthroughs of id-derived impulses but the psychotic character can reverse these phenomena. In contrast to the psychotic, the psychotic character shows a push toward differentiation and maturation derived via identification with reality-oriented love objects. The main goals of therapy with the psychotic character are encouraging differentiation, establishing feelings of identity, and facilitating the development of mature reality testing and reality constancy. (21 ref.)—*D. Prager*.

2714. **Gastager, Helmo.** (79 Ignaz-Harrer Str., Salzburg, Austria) **Frührehabilitation und Spätrehabilitation von Psychosen.** [Early and late rehabilitation of psychoses.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 456-459.—The early rehabilitation of 146 male and 277 female institutionalized, psychotic patients using intensive psychotherapy, recreational therapy, occupational therapy, and music therapy proved to be successful in all but 11 cases. 5 of these were mentally retarded and 2 were alcoholics. It is emphasized that although late rehabilitation can be accomplished, most patients who have been institutionalized for many yr. have lost

motivation and have resigned to the "institutional personality," thereby making therapy more difficult and success less likely.—*B. A. Stanton*.

2715. **Levine, David & Wittenborn, J. Richard.** (U. Nebraska) **Relation of expressed attitudes to improvement in functional psychotics.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 275-277.—Correlated the attitudes of 120 mental hospital patients toward themselves, their future, symptoms and hospitalization with 6 measures of improvement. It was found that Ss' attitudes were relevant for predicting the outcome of their mental disorder.—*Journal abstract*.

2716. **Meyer, A.** (Singel 50, Amsterdam, Netherlands) **Supersition and magic in the Caribbean: Some psychiatric consequences: Preliminary investigation.** *Psychiatria, Neurologia, Neurochirurgia*, 1968(Sep), Vol. 71(5), 421-434.—Presents examples of magical and superstitious beliefs in the Caribbean area. The similarity of these beliefs in these culturally, linguistically, and socioeconomically often so different territories is striking. Magic and supersition influence, in a far higher degree than is mostly assumed, not only inter-human relations but the thought-content and behavior pattern of the individual as well. They form a psychic disposition that could be described as compulsive-paranoic. An attempt is made to propose a theory which could explain the extremely high incidence of paranoid reactions among psychotics as a result of these superstitious beliefs, however, it is concluded that further exploration in this field and especially of its impact on mental health, is prerequisite. (44 ref.)—*Journal abstract*.

2717. **Müller-Hegemann, D.** (Wilhelm Griesinger Hosp., Berlin, E. Germany) **Sexuelle Auffälligkeiten bei Psychosen.** [Sexual abnormalities of psychotics.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Apr), Vol. 22(4), 137-140.—Presents data on the frequency of abnormal sexual behavior, length of medical history, and age groups of 6 categories of 593 psychotics.—*K. J. Hartman*.

2718. **Pethő, B. & Takács, L.** (Medical School, Budapest, Hungary) **Über die nosologische Stellung und Differentialdiagnostik der phasischen und psychoorganischen Psychosen.** [On the nosological position and differential diagnosis of phasic and psycho-organic psychoses.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Apr), Vol. 22(4), 146-150.—Stresses the need for more systematic classification of psychoses. Endorsed is the cerebropathologically oriented psychiatric school of thought of Wernicke, Kleist, and Leonhard. (29 ref.)—*K. J. Hartman*.

2719. **Schneider, Stanley E.** (U. Maryland) **The effects of work and counseling on chronic psychiatric patients with differing levels of ego strength.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5697-5698.

2720. **Zysman, Samuel; Volnovich, J. C., Tischkovsky Palant, J., & Wajzman de Steinbaum, N.** **Rasgos psicóticos: Justificación de este diagnóstico en psicopatología infantil.** [Psychotic traits: A diagnostic entity useful in child psychopathology.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 348-350.—Describes psychotic traits in children as an alternation of neurotic behavior which appears to be related to persecution anxiety that cannot be adequately controlled by the ego. A clinical picture of these traits is described from the observation of play situations. Important prognostic factors include S's (a) age, (b)

family situation, (c) conflicting situations at onset of illness, and (d) areas of expression. (English summary)
—P. Hertzberg.

Schizophrenia

2721. Bashina, V. M. (Inst. of Psychiatry, Moscow, USSR) **Nekotorye dannye kliniko-genealogicheskogo izucheniya semei detei zabollevshikh vyalotekushchei shizofreniei v doskol'nom vozraste.** [Some data from a clinicogenealogical study of the families of preschool children suffering from sluggishly proceeding schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 246-251.—Studied the families of 13 boys and 3 girls (5-8 yr.). Among the 236 relatives and members of the immediate family, 74 disclosed the following: 15 with manifest, rudimentary, and attenuated forms of schizophrenia; 52 with schizoid traits; 6 with schizothymic traits; and 1 with psychasthenic traits. Despite the unselective character of the study, "processual and postprocessual pathologies and anomalies of character" were uncovered in all families in both parental lines. Special attenuated forms of the schizophrenic process, as well as a distinctive psychopathic development, were detected. (English summary)
—I. D. London.

2722. Broadhurst, Anne. (U. Birmingham, England) **Time estimation related to personality, cognitive speed and schizophrenia.** *Life Sciences*, 1969(Jan), Vol. 8(2, Pt. 2), 69-78.—24 normal and 24 chronic schizophrenic males estimated duration of elapsed time at 2 simple motor tasks. Personality and cognitive correlates of these estimates were calculated. Cognitive speed was related to time estimation only in the normal group. As predicted from H. J. Eysenck's work, there is a positive relationship between time estimation and extraversion. (25 ref.)—*Journal abstract.*

2723. Flarer, Franco; Genovese, Carmelo, & Borsari, Raffaele. (U. Ferrara, Italy) **Rilevati statistici sull'attività grafica di psicotici il grafo-analizzatore GAD I.** [A statistical survey of the plotted activity of psychotics.] *La Ricerca Scientifica*, 1968(Jan), Vol. 38(1), 63-70.—Examines the execution of a drawing by soldiers, trained and untrained in drawing, and schizophrenics working under identical conditions. A technique of analysis of the choices made by individuals of certain fundamental graphic signs was employed. An electronic apparatus, GAD I, a digital grapho-analyzer, was devised to give special attention to the time factor and to make possible the study of psychomotor mechanisms and deviation of the groups. Suggestions for the wider use GAD I are made.—*English abstract.*

2724. Frith, Uta. (MRC Developmental Psychology Unit, London, England) **Studies in pattern detection in normal and autistic children: II. Reproduction and production of color sequences.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 120-135.—10 5-6 yr. old normal and 10 7-15 yr. old autistic children of comparable performance level built rows of colors according to predetermined binary patterns. Most errors made by normal Ss were in accordance with the dominant feature of the patterns. Most errors made by autistic Ss were due to the imposition of simple perseveration or alternation strings independent of the given patterns. Similar imposition tendencies were found in the spontaneous production of binary sequences by normal and autistic Ss. It is concluded that autistic Ss are

insensitive to differences in the structures present and tend to impose their own simple stereotyped patterns, while normal Ss impose such patterns in absence of structured input only. This is consistent with the hypothesis of an input processing deficit in autistic children.—*Journal abstract.*

2725. Golovan, L. I. (Inst. of Psychiatry, Moscow, USSR) **Roditeli detei, bol'nykh vyalotekushchei shizofreniei.** [Parents of children suffering from sluggishly proceeding schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 242-246.—The 50 parents of 25 schizophrenics (psychosis of the sluggish progressive type, starting in early childhood or puberty) were observed in a clinicogenealogical study to determine the types of anomalies of character most frequently encountered in the parents of schizophrenic children. Manifest forms of schizophrenia were observed in 7 parents (5 with attacklike schizophrenia; 2 following a sluggish course); attenuated ambulatory forms of schizophrenia in 18 parents. In several of them psychotic episodes were observed with affective, neurotic, and psychotiform symptomatology; in others (mostly fathers) changes in character predominated in the direction of autism, emotional impoverishment, psychopathization, and a decline of mental activity. 25 parents exhibited anomalies of character, capable of analysis within the frames of "constitutional psychopathies." (English summary)—I. D. London.

2726. Gordon, Robert B. (Indiana U.) **Thought disorder in schizophrenia.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5688.

2727. Heath, Robert G., Guschwan, Andrew F., & Coffey, John W. (Tulane U., Medical School) **Relation of taraxein to schizophrenia.** *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 391-395.—Attempted to define more clearly the relation of schizophrenia to taraxein, a protein fraction from serum of schizophrenics. Serum from 38 severely disturbed schizophrenic patients and 18 controls (6 healthy medical students and 12 patients with other diseases) was given by intraventricular and iv injections to rhesus monkeys with implanted cortical electrodes during EEG recordings. Psychosis-inducing (taraxein) activity was observed at least once and usually repeatedly in serum fractions from 30 of the schizophrenic donors. Fractions were inert from all but 1 of the controls. Data suggest that "taraxein is present in all subtypes of acutely ill schizophrenic patients and that it induces aberrations in brain activity and consequent behavioral signs and symptoms of the disease." However, the many variables involved make it impossible yet to conclude from this study that "schizophrenia is probably a single disease entity."—P. McMillan.

2728. Johnson, George R., Martin, Patrick L., & Vogler, Roger E. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Prediction of rehospitalization of family-care patients using the MMPI.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 273-274.—Peterson's scale, derived from the MMPI, was not predictive of rehospitalization for 40 schizophrenic patients preparing to leave the hospital.—*Journal abstract.*

2729. Kaplan, Helen S., et al. (New York Medical Coll., N.Y.) **Post-gastrectomy pain and schizophrenia.** *Psychosomatics*, 1970(May), Vol. 11(3), 157-163.—Found that 10 postgastrectomy patients who continued to complain of abdominal pain in the absence of demonstrable organic pathology showed a high inci-

dence of schizophrenia. This observation led to the development of 2 hypotheses: (a) postgastrectomy pain (PGP) is a psychopathological defense mechanism, considered to be a perceptual symptom (i.e., essentially a hallucinatory phenomenon, which is usually a manifestation of schizophrenia); and (b) PGP persists as a hallucinatory phenomenon in the schizophrenic because it is positively reinforced by alleviating anxiety and providing rewards. It is concluded that PGP, and perhaps various other intractable medical complaints, may represent still another of the many manifestations of schizophrenia.—*Journal summary.*

2730. Keup, Wolfram; Seto, Thomas A., & Gonda, Otto. (Brooklyn State Hosp., N.Y.) **Non-specificity of the "gray" spot (indole derivative) in the urine of schizophrenics.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 476-478.—Found that the "gray" spot claimed by G. L. Mattok, P. O. O'Reilly, and R. T. Hughes (see PA, Vol. 41:14001) to be a characteristic substance in the urine of schizophrenic patients, and appeared almost as frequently in the urine of 45 normal controls as in that of 68 schizophrenics. The amount of this substance fluctuated widely in a longitudinal study with 7 of the schizophrenics and 4 normals. It was found that the excretion of this factor was greatly increased with the ingestion of bananas.—*Journal summary.*

2731. Kozloff, Martin A. (Washington U.) **Social and behavioral change in families of autistic children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5543.

2732. Lane, Ellen A. & Albee, George W. (Case Western Reserve U.) **Correlations between the IQs of schizophrenic parents and their children.** *Psychological Record*, 1970(Win), Vol. 20(1), 81-82.—Obtained correlations between the IQs of 81 children of schizophrenics and the childhood IQs of their parents ($N = 47$). No relationship was found between the IQs of children and those of their schizophrenic parents but a significant and normal correlation was found between the IQ scores of these children and those of their nonschizophrenic parents. It is concluded that the lack of correlation between the IQs of children and their schizophrenic parents was due to the erratic test performance of schizophrenics, occurring long before the recognized onset of their disorder, rather than that of their children.—*Journal abstract.*

2733. Lupandin, V. M. & Stoyanov, St. (Inst. of Psychiatry, Moscow, USSR) **Parafrennye sostoyaniya pri remittiruyushchei shizofrenii u podrostkov.** [Paraphrenic states in remittent schizophrenia in adolescence.] *Zhurnal Nevropatologii i Psikhiatrii*, 1970, Vol. 70(2), 256-261.—50 adolescents with remittent schizophrenia (onset at 8-16 yr.), characterized by paraphrenic states, were observed. These states were not seen earlier than the age of 13 yr. While these states in adolescents shared the same general psychopathological structure and development seen in adults, there were a number of distinguishing features. Despite polymorphism, the fantasy delusions of adolescents were more rudimentary in character than in adults. At the same time, sensory disorders were displayed more clearly. Another essential feature of paraphrenic attacks in adolescence was the marked character of the catatonic disorders which frequently masked other psychopathological displays. 3 groups were distinguished: (a) where the course of the psychosis is intermittent (14); (b) where the appearance or intensification of negative symptoms follows an attack

(20); and (c) where a continuous course of the schizophrenia, featured by a paranoid syndrome, preceded the remittent course of the psychosis (16). There were differences among these 3 groups with respect to the interconnection of fantasy delusion and other disorders. In Group 1, fantasy delusion developed in close connection with a special state of consciousness; in Group 2, with affective disturbances; and in Group 3, primarily with instances of mental automatism. (English summary)—*J. D. London.*

2734. Mellor, C. S. (U. Dept. of Psychiatry, Manchester, England) **First rank symptoms of schizophrenia: I. The frequency in schizophrenics on admission to hospital. II. Differences between individual first rank symptoms.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 15-23.—Of 166 schizophrenic admissions to the hospital, 119 had "1st rank symptoms" as defined by K. Schneider. Those lacking 1st rank symptoms had been ill longer and had more admissions. Differences between individual 1st rank symptoms in associations with other symptoms and patients' sex, age of onset, number of admissions, and family history tabulated for 173 patients show a number of significant intercorrelations. These symptoms did not relate to the conventional subcategories of schizophrenia. (17 ref.)—*R. L. Sulzer.*

2735. Mishler, Elliot G. & Waxler, Nancy E. (Harvard Medical School, Boston, Mass.) **Functions of hesitations in the speech on normal families and families of schizophrenic patients.** *Language & Speech*, 1970(Apr), Vol. 13(2), 102-117.—Sampled sentences containing several types of hesitation, from the interaction of families of schizophrenic and normal children. These were submitted to 35 paid volunteer undergraduates who attempted to guess each successive word in the sentence. The degree to which words were correctly guessed was associated with the position of the word relative to the hesitation in the sentence. Differences were found in the predictability of words antecedent and subsequent to noncontent and content hesitations. The patterns of predictability were different for words from the 2 types of families; words following noncontent hesitations in schizophrenic families dropped to low levels of predictability, 18%, in contrast to a 36% level of predictability for the same type of word in normal families. Findings are discussed in terms of the possible different functions of hesitations in schizophrenic and normal families, and related to clinical reports of difficulty in comprehending conversations among schizophrenic family members. (15 ref.)—*Journal abstract.*

2736. Ornitz, Edward M. (U. California, Medical School, Los Angeles) **REM sleep and the autistic child.** *International Psychiatry Clinics*, 1970, Vol. 7(2), 112-117.

2737. Payne, Robert W., Hochberg, Arthur C., & Hawks, David V. (Temple U., Eastern Pennsylvania Psychiatric Inst.) **Dichotic stimulation as a method of assessing disorder of attention in overinclusive schizophrenic patients.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 185-193.—Gave matched groups of 12 clinically overinclusive schizophrenics, 12 nonoverinclusive schizophrenics, and 12 normals Payne and Friedlander's standard battery of tests of overinclusive thinking. They also took part in 2 experiments in which they repeated verbal material presented through 1 earphone, while distracted through the other. Tests of

overinclusive thinking intercorrelated significantly, as did the perceptual overinclusion scores derived from the amount of distracting material repeated. Overinclusive thinking did not correlate significantly with overinclusive perception, contrary to the hypothesis that both are due to some defective central filtering mechanism. Measures of both sorts of overinclusion discriminated significantly between the 2 schizophrenic groups, probably because the clinical definition of overinclusion included both thinking and perceptual distractibility. (29 ref.)—*Journal abstract.*

2738. Salzinger, Kurt; Portnoy, Stephanie; Pisoni, David B., & Feldman, Richard S. (New York State Dept. of Mental Hygiene, Biometrics Research, New York) **The immediacy hypothesis and response-produced stimuli in schizophrenic speech.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 258-264.—Compared speech samples emitted by 10 schizophrenics individually matched with 10 normals and used them to test the validity of the immediacy hypothesis, which states that schizophrenics are primarily controlled by the immediate aspects of their environment, whether response-produced or external. The cloze responses of 230 undergraduates to the verbal samples indicated that schizophrenic speech consists of relatively short strings of words related to one another, while in normal speech the dependency of 1 word on another holds over longer spans. Results are interpreted to mean that schizophrenics have a greater tendency than normals to be controlled by immediate stimuli (in this case, response-produced), thus providing further evidence for the immediacy hypothesis. (20 ref.)—*Journal abstract.*

2739. Shashkova, I. A. (Inst. of Psychiatry, Moscow, USSR) **Shizofreniya s psikhopatopodobnymi proyavleniyami u detei i podrostkov.** [Schizophrenia with psychopathoid manifestations in children and adolescents.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 251-256.—Studied: (a) the clinical features of child and adolescent schizophrenia, proceeding with psychopathoid manifestations; (b) the dynamic features of these disturbances; and (c) their connection with the course of the psychosis. 40 boys and 10 girls (7-15 yr.) were observed, 30 of whom displayed a continuous course of schizophrenia; 20 an attacklike-progressive course. Psychopathoid manifestations (especially heboid) were noted in both courses, preceded by the presence of certain traits before the onset of the psychosis. Emotional disorders were prevalent along with autism, disturbed behavioral drives, and social maladaptation; gross decline of mental ability was not observed despite the early onset of the psychosis. Social adaptation of these schizophrenics and their learning abilities depended on the degree of the psychopathoid manifestations expressed and not on the reduction of mental capacity. (English summary)—*I. D. London.*

2740. Siegel, E. & Heidrich, R. (Academy of Medicine, Erfurt, E. Germany) **Beziehungen zwischen pneumoencephalographischen und psychopathologischen Befunden bei Schizophrenie.** [Relations between pneumoencephalographic and psychopathological findings in schizophrenia.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Apr), Vol. 22(4), 132-137.—Reports pathological abnormalities in 334 of 381 pneumoencephalograms of schizophrenic patients during a 10-yr study in the authors' clinic. The cause of these morphological conditions is not known. (42 ref.)—*K. J. Hartman.*

2741. Silvert, Diane M. (Michigan State U.) **Cortical arousal in Russian paranoid schizophrenics as a function of a word association task.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5699-5700.

2742. Sonnenberg, Stephen M. & Miller, Jean B. (St. Elizabeth's Hosp., Washington, D.C.) **Depression in resolving schizophrenia.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 111-117.—5 randomly-selected patients showed significant depression during recovery from schizophrenia. This may be a common, maybe inevitable, occurrence. Recognition of and attention to the wish for autonomy, along with fear of its consequences, seems central to resolution of the depressive state through psychotherapy. Depression of this sort may be related to early experiences of the patient with symbiotic relationships. Prognostically, depression is neither a good nor bad sign. The relationship between the 2 major forms of severe mental disturbance, schizophrenia and depression is questioned.—*H. K. Moore.*

2743. Strauss, Milton E. (U. Missouri, St. Louis) **Thematic content and trials effects in the size estimation of meaningful stimuli.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 276-278.—Studies of size estimation have reported some inconsistent differences in responses to Harris' thematic stimuli in various subgroups of acute schizophrenics. To determine whether these inconsistencies might be due to the confounding of thematic content and sequence in these studies, a Latin-square design was employed with 36 male undergraduates. A significant Thematic Content \times Trials interaction suggested that (a) inconsistencies in previous studies may reflect a Schizophrenic Subgroup \times Thematic Content \times Trials effect, and (b) currently available data do not permit the unambiguous assessment of the role of thematic content in schizophrenics' size estimations.—*Journal abstract.*

2744. Suchotliff, Leonard C. (Fairfield Hills Hosp., Newton, Conn.) **Relation of formal thought disorder to the communication deficit in schizophrenics.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 250-257.—Evaluated 40 schizophrenics and 20 normals on a social communication task and on an individual cognitive task, both designed to reveal decentering deficits. It was hypothesized that the processes underlying the schizophrenic's thought disorder are formally similar to the processes involved in his deviant organization of social situations, specifically social communication, with both deficits to be interpreted in terms of faulty decentering. Schizophrenics manifested a decentering deficit on both the social communication ($p < .005$) and individual cognitive tasks ($p < .001$). The positive correlation between performance on these tasks within the schizophrenic group ($p < .025$) support the hypothesis. (17 ref.)—*Journal abstract.*

2745. Tolor, Alexander. (Fairfield U., Inst. for Human Development) **Fallacy of schizophrenic deficit in the interpersonal sphere.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 278-282.—Tested 24 process schizophrenics and 49 normal males for psychological distance by means of a modification of Kuehne's social schemata technique. Although the patients were generally older and less intelligent than the normals, neither of these variables was related to distance measures. Both groups of Ss underestimated the distances in relation to the standard. Schizophrenics

consistently replaced the designs, neutral as well as social, closer together than normals. Instead of indicating a psychological deficit in the area of interpersonal relationships, findings suggest that schizophrenics have a strong desire to associate with others. The possible relationship between hospital atmosphere and psychological distance is discussed. (31 ref.)—*Journal abstract.*

2746. Wolman, Benjamin B. (7 W. 96th St., New York, N.Y.) **Childhood schizophrenia or vectoriasis praecocissima.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 264-277.—An attempt was made to compare childhood schizophrenia (vectoriasis praecocissima) with adult schizophrenia considering 2 major points: (a) the schizophrenic child is a child and not an adult and should be viewed in this manner, and (b) adult schizophrenia has its roots in the schizophrenic childhood. It was also pointed out that unlike adult schizophrenia which is a downward ego adjustment, in child schizophrenia the ego has not yet had a chance to develop and so remains dormant through the usual maturation period. 4 syndromes of child schizophrenia are noted in order of decreasing severity: (a) the pseudoamative (child ego crushed at preverbal stage creating severe retardation), (b) the autistic, (c) the symbiotic (child develops an unusually strong attachment and dependency on mother), and (d) the aretic (mildest form which resembles paranoid schizophrenia in adults). (32 ref.)—P. R. Shibelski.

Schizophrenia Treatment

2747. Bloom, Joseph B. & Davis, Norman. (Veterans Administration Neuropsychiatric Hosp., Pittsburgh, Pa.) **Changes in liver disturbance associated with long-term tranquilizing medication: A follow-up study.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 309-317.—Reports a follow-up survey of 20 male schizophrenics who had been biopsied 3-3½ yr. earlier because of reported liver histopathology. Case summaries of the 11 Ss who were available for rebiopsy are presented, including clinical history, report of liver morphology and histopathology, type and quantity of psychotropic drugs consumed, liver profile abnormalities, and an interpretation of the serum paper electrophoretic patterns of these 11 Ss, 3 showed a worsening, 3 improvement, and 5 no change. All Ss remained asymptomatic and anicteric. Results indicate difficulty in isolating the causative agent or agents producing changes in the liver.—P. McMillan.

2748. Giovacchini, Peter L. **The influence of interpretation upon schizophrenic patients.** *International Journal of Psycho-Analysis*, 1969(Apr), Vol. 50(2), 179-186.—Interpretation is "a communication between analyst and patient... and is not simply a disembodied stream of words." Psychoanalysis depends on using interpretation in the transference situation. It can be in "depth" or "surface." It can get into the defensive superstructure or into the underlying conflicts. It is stated that schizophrenics can be made aware of the reasons or causes of their irrationality. A linking interpretation which correlates the external world event and the patient's behavior is described.—J. Chyatte.

2749. Goldberg, Harold L., DiMascio, Alberto, & Chaudhary, Basudeo. (Boston State Hosp., West-Ros-Park Mental Health Center, Mass.) **A clinical evaluation of prolixin enanthate.** *Psychosomatics*, 1970(May), Vol. 11(3), 173-177.—Investigated the effec-

tiveness of parenteral long-acting fluphenazine (prolixin enanthate) on schizophrenic patients who were known by their histories to be reluctant to take oral medication. Ss were randomly assigned to 2 groups, with 19 scheduled for oral phenothiazine (controls) and 26 for injections of prolixin enanthate. Duration of treatment was 6 mo. or less, depending on S's condition. Evaluations included rating scales, medical and psychiatric history, laboratory tests, and clinical observations. Side effects, controlled by antiparkinson drugs, included readily reversible extrapyramidal symptoms (i.e., pseudoparkinsonism, dystonia, dyskinesia, and akathisia), transient drowsiness, hypersalivation, and alterations in blood pressure. Results indicate that prolixin enanthate is significantly superior to oral phenothiazine in drug-reluctant Ss, particularly in paranoid cases, and those living at home, who would otherwise require hospitalization.—P. McMillan.

2750. Pons Bartrán, Ricardo. (Preventorio Psiquiátrico Municipal de Barcelona, Spain) **Ensayo del neuroleptico Imagan (TPN-12) en un contingente de enfermos esquizofrénicos.** [A test of the neuroleptic drug imagan (TPN-12) in a group of schizophrenics.] *Revista de Psiquiatria y Psicología Médica*, 1969(Jan), Vol. 9(1), 42-50.—A meleril derivative, 2-methylsulfo nyl-10-(12)-(N-methyl piperidyl-2"-ethyl-1") phenothiazine, was tested in a group of 56 schizophrenics classified as acute type with psychomotor excitement, intermittent type, and chronic type with poor prognosis. A 300-mg dosage was administered to the 1st 2 groups, 600 mg. to the 3rd group. In the 1st group the drug reduced psychomotor activity as well as other symptoms in 17 of the 25 cases. In the 2nd group remission of symptoms was very rapid, and 14 of the 15 patients were cured. 6 of them, however, relapsed after 2 mo. In the 3rd group, the effect was moderate; improvement was noted in about 2/3 of the 16 patients. The symptoms showing fastest remission were agitation, lack of appetite, and insomnia. Positive effects on anxiety and sociability were also observed. There were no significant side effects.—L. Zusne.

2751. Weingaertner, Arthur H. (U. Southern California) **The effects of self shock procedure on hallucinatory activity in hospitalized schizophrenics.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5704-5705.

PSYCHOSOMATIC DISORDER

2752. Baltruch, Hans. (International & Cross-Cultural Leukemia Project, Oldenburg, W. Germany) **Einige psychosomatische Aspekte der Krebskrankheit unter Berücksichtigung psychotherapeutischer Gesichtspunkte.** [Several psychosomatic aspects of cancer with consideration of psychotherapeutic aspects.] *Zeitschrift für psychosomatische Medizin und Psychoanalyse*, 1969(Jan), Vol. 15(1), 31-36.—Based on collective investigations of a total of 3200 patients having various forms of carcinomas, the following were deemed characteristic psychological manifestations of patients with cancer: (a) disturbances in object relations; (b) dissatisfaction, aggression, and hostility; (c) depression; and (d) feelings of hopelessness. Psychoanalytic investigations of cancer patients demonstrate that most patients have an amnesic history of very high dependency needs and parental attachment and arrested psychosexual development. 79 out of 100 investigated patients with

malignancies had a history of neurotic or psychosomatic disturbances prior to the development of their malignancies. The palliative benefits of psychotherapy with these patients are discussed.—*B. A. Stanton.*

2753. **Gol'dman, N. B., Matlina, E. Sh., & Fets, A. N.** **Ékskretsiya adrenalina, noradrenalina i lkh predshestvennikov (dofa i dofamina) u bol'nykh migren'yu.** [Excretion of adrenaline, noradrenaline and their predecessors (DOPA and dopamine) in migraine sufferers.] *Zhurnal Nevropatologii i Psikhiiatrii*, 1970, Vol. 70(2), 199-203.—Studied diurnal urinary excretion of adrenaline, noradrenaline, dopamine, and DOPA (dihydroxyphenylalanine) in the intercritical period, during crisis, and during insulin administration. Results are based on data derived from 2 male and 23 female sufferers of migraine (19 were 55 yr. of age; duration of condition, 1-43 yr.) and from normal controls. No significant differences in the excretion of these substances were observed in the intercritical period; only a decrease in the noradrenaline-adrenaline excretion ratio was shown. In the precrisis period, a decrease in adrenaline excretion was noted. In the crucial period of the crisis, adrenaline excretion mounted significantly. If, during insulin administration, a migraine attack occurred, there was an increase in adrenaline secretion beyond that seen in normal persons. It is suggested that change in adrenaline level plays a certain role in the development of a migraine attack. (English summary)—*I. D. London.*

2754. **Hagedorn, E.** (U. Freiburg, W. Germany) **Psychosomatische Aspekte bei Funktionsstörungen und Erkrankungen der Leber.** [Psychosomatic aspects in functional disturbances and diseases of the liver.] *Zeitschrift für psychosomatische Medizin und Psychoanalyse*, 1969(Jan), Vol. 15(1), 1-31.—Reviews the literature concerning investigation of correlations between psychosomatic factors and liver pathology. Studies are cited concerning the effects of anger and anxiety on biliary excretion. Parasympathetic stimulation results in increased secretion of bile, whereas sympathetic stimulation results in inhibition of biliary secretion. Liver glycogen changes were also reported following selective sympathetic and parasympathetic stimulation of hypothalamic regions in animals. Articles are cited which concern correlations between anxiety and hippuric acid excretion, psychological factors in icterus, and the posthepatitis syndrome. (129 ref.)—*B. A. Stanton.*

2755. **Lefer, Leon.** (350 Central Park W., N.Y.) **The patient with temperomandibular joint pain-dysfunction syndrome** *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 69-89.—25 patients with a temperomandibular joint dysfunction syndrome (pain in jaws, temperomandibular joint, eye and/or ear, spasm of jaw and/or neck muscles, difficulty in opening the mouth) were requested to seek psychiatric consultation following a workup by a dental specialist which had shown no demonstrable organic pathology. Ss provided evidence of severe and acute problems in living. The jaw symptoms served primary and secondary goals. Symptomatology became acute when the S who was most passive in his emotional relationship with a single important person was forced by life changes to activity in the search for another important dependency relationship. Speculations were made to explain the localization of symptoms in the mouth and jaws. Clenching and jaw spasm were seen to be aids in the search for a sense of identity. (German summary)—*Journal summary.*

2756. **Morse, Robert M.** (Mayo Clinic & Mayo Foundation, Section of Psychiatry, Rochester, Minn.) **Postoperative delirium: A syndrome of multiple causation.** *Psychosomatics*, 1970(May), Vol. 11(3), 164-168.—Compared psychosocial factors in 117 postoperative patients, 60 showing delirium (defined as disturbed orientation), and 57 controls matched for age, sex, and type of operation. Comparison on 14 psychosocial items revealed a significantly higher incidence of preoperative fear of death, alcoholism, and depression among the delirious Ss. It is concluded that delirium, so defined, is a psychosomatic condition encompassing both biologic and psychologic variables.—*P. McMillan.*

2757. **Schwidder, Werner.** (Niedersächsisches Landeskrankenhaus, Göttingen/Tiefenbrunn, W. Germany) **Psychoanalyse und psychosomatische Medizin: Neue Ergebnisse und heutiger Stand der Forschung.** [Psychoanalysis and psychosomatic medicine: New results and the present state of research.] *Fortschritte der Psychoanalyse: Internationales Jahrbuch zur Weiterentwicklung der Psychoanalyse*, 1968, Vol. 3(3), 11-29.—Emphasizes the significance of psychoanalysis for the development of the various psychosomatic conceptions, in particular, for the interpretations of the etiology of psychosomatic disturbances. The continuous development of psychoanalytical basic positions as well as the inclusion of experimental, clinical, and psychological results of research has entailed a differentiation of the original psychosomatic model of Freud (conversion—narcissistic neurosis). Current experiences concerning the problem of the specificity and nonspecificity of psychosomatic illnesses are discussed. (72 ref.)—*English summary.*

2758. **Shanon, Jacob.** (Hadassah University Hosp., Psychosomatic Skin Clinic, Jerusalem, Israel) **The subconscious motivation for the appearance of psychosomatic skin disorders in concentration camp survivors and their rehabilitation.** *Psychosomatics*, 1970(May), Vol. 11(3), 178-182.—Discusses psychosomatic skin disorders in 128 survivors of concentration camps, classifying them as conflictogenic or stressogenic. Conflictogenic cases included pruritus, neurodermatitis, and concentration camp syndrome, and were linked to real or imaginary feelings of guilt. Stressogenic cases, particularly urticaria, were prompted by feelings of shame and injured self-esteem. Methods of rehabilitation emphasize reestablishing basic trust, emotional desensitization, reeducation toward reality, vocational counseling, and guidance in matters of family mental hygiene. A case history of a conflictogenic patient is included.—*P. McMillan.*

2759. **Steinhardt, Milton J.** (Grace Hosp., Detroit, Mich.) **Modes of therapy in emotional aspects of respiratory dysfunction.** *Psychosomatics*, 1970(May), Vol. 11(3), 169-172.—Presents 5 case summaries illustrating diagnostic issues and management problems of patients with asthmatic and similar breathing difficulties. The cases are used to indicate whether a patient should be referred to an internist or to a specialist (i.e., allergist or psychiatrist). It is concluded that the selection of therapist and mode of treatment are determined by the particular psychological mechanisms found in each case. (15 ref.)—*P. McMillan.*

CASE HISTORY

2760. **Aleksandrowicz, Jerzy; Klimek, Rudolf, & Ryn,**

Zdzisław. (Medical Academy, Psychiatric Clinic, Cracow, Poland) **A case of manic-depressive psychosis with 14-day cycles: Psychopathologic and endocrinologic observations.** *Polish Endocrinology*, 1968, Vol. 19(5-6), 280-284.

2761. **Arons, Barbara; Kosek, Jon C., & Forrest, Irene S.** (Stanford U., Medical School) **Chlorpromazine therapy in a female albino mental patient: Clinical, histochemical and biochemical observations.** *Life Sciences*, 1968(Dec), Vol. 7(24, Pt. 2), 1273-1280.—While it was previously demonstrated that chlorpromazine and melanin interact in vitro and in vivo, the effect of virtual absence of peripherally circulating melanoprotein in a 26-yr-old female true albino mental patient was unknown. Neither chlorpromazine metabolism as reflected by urinary drug excretion, nor the efficacy of chlorpromazine therapy were found affected. S showed clinical improvement beyond her previous level after 4 mo. of therapy with 800 mg/day chlorpromazine. S's urinary drug excretion pattern was entirely normal, both qualitatively and quantitatively. (18 ref.)—*Journal summary.*

2762. **Aronson, Stanley M. & Aronson, Betty E.** (State U. New York, Downstate Medical Center, Brooklyn) **Clinical neuropathological conference.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 348-354.—Presents the case of a 6½ yr. old boy hospitalized with complaints of progressive unsteadiness of gait, dizziness, headache, and double vision, beginning several wk. before admission. The patient was also noted to be lethargic and unable to swallow. In a discussion of the clinical aspects of the case by 2 physicians, a diagnosis of an inoperable infiltrating glioma of the brainstem was suggested. In a discussion of the pathological aspects of the case after autopsy, the final anatomical diagnosis was malignant pontine astrocytoma, Grade IV, with extension to medulla, right basal ganglia, thalamus and subarachnoid space.—*P. McMillan.*

2763. **Aronson, Stanley M. & Aronson, Betty E.** (Miriam Hosp., Providence, R.I.) **Clinical neuropathological conference.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 497-503.—Presents the case of a 48-yr-old Negro man, with a long-standing history of osteomyelitis, who was admitted to the hospital because of the recent development of seizures, confusion, swelling of the right elbow, and the presence of draining sinuses from his right shoulder. In a discussion of the clinical aspects of the case by 3 physicians, a diagnosis of cerebral abscess and chronic tertiary syphilis was suggested. An intracerebral gumma was also suggested as a rare possibility. The report of the pathologist after autopsy revealed the presence of a large granuloma within the left cerebral hemisphere. "The gross and histologic character of the granuloma suggested that it was a syphilitic gumma."—*P. McMillan.*

2764. **Boer, A. P. & Sipprelle, C. N.** (U. South Dakota) **Induced anxiety in the treatment of LSD effects.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 108-113.—Describes a patient who following ingestion of LSD, displayed a variety of symptoms usually considered to be effects of that drug. Functional analysis of the case indicates the effects were really displaced manifestations of anxiety triggered by anxiety over separation from the family which was being bound by an avoidance response to LSD. Behavior therapy designed to reduce the displaced anxiety motivating the avoidance response was effective in removing the symptoms.—*Journal abstract.*

2765. **Constantinidis, J.** (U. Geneva, Psychiatric Clinic, Switzerland) **Ostéome intrathalamique.** [Intrathalamic osteoma.] *Psychiatria et Neurologia*, 1967, Vol. 154(6), 366-372.—Reports on the anatomoclinical observation of a woman who had suffered over a long period from specific motor disabilities, difficulties of coordination, and of left-side sensitivity. As a result of softening of the left occiput, the S developed a right hemianopsia, an acute confusional state, and marked signs of left thalamic and cerebellar disturbance. Radiography and a macroscopic examination of the brain after death at 74 yr. confirmed the presence of a calcified mass in the right posterior thalamus. Microscopic examination showed that this calcified mass, which was encased in a fibrous sheath, contained a bony formation with characteristic trabeculae and numerous osteoblasts. The literature has not revealed any other case of intrathalamic osteoma. Intrathalamic calcifications are very rare and only 3 cases were found in the literature. 1 of these was studied histologically and no bony formations were found. The pathogenesis of these calcified and ossified masses is not always clear. An inflammatory process, an abscess, a hematoma, a chance hyperplasia, or an embryonic malformation may be the cause.—*English summary.*

2766. **Cripps, Jean H., Tuites, Ann, & Blocklinger, Nancy.** (Hockessin Friends Preschool, Del.) **The re-education of a pampered prince.** *Individual Psychologist*, 1969(Nov), Vol. 6(2), 29-33.—Describes the modification of a preschool child's behavior according to Adlerian principles. The outcome is seen as a function of home and school cooperation.—*A. R. Howard.*

2767. **Donner, Gail.** **The treatment of a delusional patient.** *American Journal of Nursing*, 1969(Dec), Vol. 69(12), 2642-2644.—Repressed material must be examined prior to appropriate intervention with delusional patients. The correlation between delusional content and therapeutic intervention in a 20-yr-old female schizophrenic patient is described. The subject of whether the patient's dependency needs should be met with frustration, gratification, or investigation is discussed.—*B. A. Stanton.*

2768. **Drake, William E.** (Veterans Administration Hosp., San Francisco, Calif.) **Clinical and pathological findings in a child with a developmental learning disability.** *Journal of Learning Disabilities*, 1968(Sep), Vol. 1(9), 486-502.—Presents the case history and results of a neuropathological examination of a child with a relatively mild developmental learning disability who died unexpectedly. It is presented from an interdisciplinary approach involving various professional efforts and evolutionary thoughts.

2769. **Espin Montañez, José & Iranzo Prieto, Vicente.** **Un caso prurito anal de origen psíquico.** [A case of anal itching of psychological origin.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jul), Vol. 28(3), 184-191.—Presents the clinical history of a 30-yr-old male who suffered anal itching from age 14 and failed to respond to local and general medication. Psychiatric analysis revealed that the itching was caused by neurotic somatization. The S showed (a) a fixation for infantile satisfactions, (b) rigid defenses of morbidity and religiosity, and (c) characteristics of self-punishment. Psychotherapy effected successful removal of the itching symptoms. (English summary)—*P. Hertzberg.*

2770. **Greene, Robert J., Hoats, David L., & Hornick, Adelbert J.** (Edward R. Johnstone Training & Research

Center, Bordentown, N.J.) **Music distortion: A new technique for behavior modification.** *Psychological Record*, 1970(Win), Vol. 20(1), 107-109.—Distorted music was made contingent upon disruptive rocking behavior of a blind, retarded S using an escape-avoidance design. Conditioning, extinction, reconditioning, and intermittent reinforcement procedures demonstrate the aversiveness of music distortion.—*Journal abstract*.

2771. **Hahn, Peter.** (U. Heidelberg, Ludolf Krehl Klinik, W. Germany) **Symptom und Erlebnisgeschichte.** [Symptoms and history of experiences.] *Praxis der Psychotherapie*, 1969(Jan), Vol. 14(1), 10-17.—Presents a case history of a 62-yr-old female with atrial sclerosis and a depressive-phobic state accompanied by a severe anxiety neurosis. The connection between clinical symptoms and subjective history of experiences in reference to symptom formation and neurotic structure is illustrated.—*B. A. Stanton*.

2772. **Hersen, Michel.** (Fairfield Hills Hosp., Newtown, Conn.) **The use of behavior modification techniques within a traditional psychotherapeutic context.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 308-313.—Presents a case history to support the contention that techniques and approaches in psychotherapy should be applied in terms of the particular problems and needs of the patient. A 26-yr-old female presented surface symptoms of anxiety and depression with underlying compulsive symptomatology. After 1 yr. of psychoanalytic therapy, the symptoms were magnified. However, following behavior modification, traditional treatment was once again employed with positive results. Flexibility of technique was further emphasized, as continued use of a particular technique with theoretical bias can be detrimental to the patient.—*P. R. Shibleski*.

2773. **Ingvar, David H. & Sourander, Patrick.** (U. Goteborg, Sweden) **Destruction of the reticular core of the brain stem: A patho-anatomical follow-up of a case of coma of three years' duration.** *Archives of Neurology*, 1970(Jul), Vol. 23(1), 1-8.—Severe lesion of the rostral reticular formation, associated with consciousness disturbances, was revealed in an adult male. Symptoms can be well-explained by long-term study of the topography of the lesion, involving the rostral part of the reticular core, with destruction almost complete at the level of the mesencephalon and rostral pons. Secondary brain lesions revealed, over time, distinct neuronal changes in the cerebral cortex that support the view that loss of a small volume of critical brain tissue leads to global functional depression of the brain, progressive in character. (28 ref.)—*S. E. Gavin*.

2774. **Jelinek, V. M. & Garson, O. Margaret.** (U. Melbourne, Victoria, Australia) **A case of adult male pseudohermaphroditism: The problems of diagnosis and treatment.** *Medical Journal of Australia*, 1969(Jul), Vol. 2(3), 150-151.—Describes a 28-yr-old male with genital ambiguity. Clinical findings suggested that S was either a male pseudohermaphrodite or, less likely, a true hermaphrodite. Cytogenetic and endocrinological investigations failed to differentiate with certainty between the 2 diagnoses. As the S's main problems were psychosocial, laparotomy and androgen therapy were thought to be contraindicated, and no active treatment for the intersex state was instituted. (17 ref.)—*Journal abstract*.

2775. **Kaesler, A. C., Rodnight, R., & Ellis, B. A.**

(Runwell Hosp., Essex, England) **Psychiatric and biochemical aspects of a case of homocystinuria.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Apr), Vol. 32(2), 88-93.—Describes a homocystinuric adult with minor mental defect suffering from a psychosis and other psychiatric disorders. Treatment with pyridoxine resulted in a marked lowering of the plasma and urinary levels of homocystine but no change was demonstrated in his ability to metabolize a methionine load. Findings are discussed in relation to their etiological implications for psychosis and enzyme function. (21 ref.)—*Journal summary*.

2776. **Kahrweg, A. & Schmidt, J.** (Ruhr U., Neurologische Klinik, W. Germany) **Akute Chininvergiftung mit transitorischer Erblindung und Schwerhörigkeit (Suicidversuch).** [Acute quinine poisoning with transitory loss of sight and hearing (suicide investigation).] *Nervenarzt*, 1968(Oct), Vol. 39(10), 478-480.—Describes the means by which the correct diagnosis of attempted suicide was arrived at in the case of a 26-yr-old male who had ingested 3-5 gm. of quinine in conjunction with a large quantity of ethanol. Presenting symptoms included CNS disturbances in the form of headache, nausea, tinnitus, loss of hearing, blindness, and optic atrophy. In 3-4 wk., all symptoms subsided. It is concluded that quinine exerts a direct toxic effect on retinal ganglion cells. (17 ref.)—*B. A. Stanton*.

2777. **Keddie, Kenneth M.** (Sunnyside Royal Hosp., Montrose, England) **Hereditary ataxia, presumed to be of the Menzel type complicated by paranoid psychosis, in a mother and two sons.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Apr), Vol. 32(2), 82-87.—Describes the case histories of 2 brothers suffering from Menzel type of hereditary ataxia. A paranoid psychotic illness affected each S before the neurological disturbance became manifest. In the elder S the psychosis was present for 12 yr. before the ataxia manifested itself and has persisted for a further 6 yr. The younger S was paranoid for only 5 yr. before his ataxia became obvious 3 yr. ago. The psychosis in this case remitted temporarily under the influence of drugs. The mother of the Ss also had ataxia for the last 15 yr. of her life. The responsible pathology is probably the same as in the case of her sons. The probability is even greater in view of the fact that she suffered from a paranoid psychosis for the last 23 yr. of her life. All Ss showed the common factors of ataxia, paranoid psychosis, and alcoholism. The relationship between those syndromes is discussed.—*Journal summary*.

2778. **Kimura, Bin.** [A family case with induced invocatory psychosis: I. Psychiatric study.] *Japanese Journal of Clinical Psychology*, 1968(Jul), Vol. 7(2), 107-114.

2779. **Kohlberg, Irving J. & Rothenberg, Michael B.** (U. Washington, Medical School) **Comprehensive care following multiple, life-threatening injuries.** *American Journal of Diseases of Children*, 1970, Vol. 119(5), 449-451.—Presents a case report demonstrating typical psychological reactions occurring in an adolescent boy with multiple, severe, permanent disabilities. Methods of dealing with such a patient are described which simultaneously are therapeutic and preventive of future psychological problems.—*A. B. Warren*.

2780. **Korganova, L. M.** (Municipal Hosp. No. 1, Rostov-on-Don, USSR) **Smeshannaya forma boleznii Recklinghausena.** [A mixed form of Recklinghausen's disease.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol.

70(2), 216-218.—Presents the rare case of neurofibromatosis, representing a mixed form of Recklinghausen's disease. Detailed histological study of the neurofibromata involved appears to confirm the view that the neurinomata in Recklinghausen's disease are hamartomatous in nature. (English summary)—*I. D. London.*

2781. Kraft, T. B. **Ein fall akuter paranoider psychose durch persuasion sofort genesen.** [A case of acute paranoid schizophrenic psychosis which showed improvement following persuasion therapy.] *Psychiatria, Neurologia, Neurochirurgia*, 1968(Sep), Vol. 71(5), 399-408.—Presents the history of a 42-yr-old female physiotherapist who developed a paranoid hallucinative psychosis following treatment by a homeopath. After a 1½-hr consultation with a psychiatrist it seemed possible to cure her completely by strong persuasion. No relapse has occurred during 2 yr. and the S could discuss her past condition objectively. F. Labhardt's short schizophrenia-like emotional psychosis is considered the most likely diagnosis. It is noted that such treatment is normally fruitless in psychoses. (German summary) (16 ref.)—*English summary.*

2782. Maier, William J. (3411 N. 5th Ave., Phoenix, Ariz.) **Sensory deprlrvn therapy of an autistic boy.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 228-245.—Describes the process of treatment of a 5-yr-old psychotic boy whose disability resembled L. Kanner's infantile autism syndrome. Common features of the syndrome are: (a) extreme aloneness, (b) failure to assume an anticipatory posture when picked up, (c) failure to use language to communicate, (d) obsessive desire for a status quo, (e) fascination with objects that can be handled, (f) skill in fine motor movement, and (g) good cognitive potential. It was hoped that the isolation experience would lead to: (a) "regression loosening of the child's defense stabilization, (b) alternating periods of successful defensive reestablishment, and (c) ... a significant personality reorganization." The child was placed in a small barren, dimly lit room for a period of some 74 days. During this time, he was fed and visited twice daily by a therapist at irregular times. The resulting effect was a significant improvement of the boy's ability to relate to other people and adapt to his environment. (16 ref.)—*P. R. Shibelski.*

2783. Melgar, Ramón & Goldar, Juan C. **Sobre las amnesias por lesiones límbicas: A propósito de un caso.** [On amnesia by limbic lesions: Regarding one case.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 341-347.—Describes the syndrome of a 57-yr-old male with amnesia in regard to recent events, spatial and temporal disorientation, and faulty recognition. S was diagnosed as having circumscribed cerebral atrophy (atypical Pick's disease) with temporolimbic localization. Literature relating to disturbances of the limbic circuit and their effect on memory is discussed. (English summary) (22 ref.)—*P. Hertzberg.*

2784. Merry, Julius & Gompels, B. M. (St. Thomas's Hosp., London, England) **Miliary tuberculosis, tuberculosis of ribs and heroin addiction.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 645-646.—Presents a case history which illustrates an uncommon form of blood-disseminated infection complicating drug dependence. Blood-borne infections are common complications of drug self-administration because drug addicts are notorious for disregard of elementary hygienic

precautions. A needle cleaned by licking it can spread tuberculosis.—*R. L. Sulzer.*

2785. Oesterreich, Klaus. (U. Heidelberg, Psychiatrische & Neurologische Klinik, W. Germany) **Über den Einfluss von Sexualhormonen auf den Verlauf einer Psychose.** [The influence of sex hormones on the progression of a psychosis.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 481-482.—Presents the case history of a 34-yr-old female having endogenous depression with strong paranoid anxiety components. Following unsuccessful treatment with melleril (thioridazine) and tofranil (imipramine), it was noted that the S's depression coincided with her menstrual cycle. Estrogen therapy was instigated to which the S responded favorably. The possibility of an endocrinological etiology of psychoses is suggested and briefly discussed.—*B. A. Stanton.*

2786. Ozaydin, S. & Nassi, G. **Un cas de narcolepsie associée au syndrome de Kilyaditi: Sa comparaison avec le syndrome de Pickwick.** [A case of narcolepsy associated with Kilyaditi's syndrome: Comparison with the Pickwick syndrome.] *Encéphale*, 1970(Jan), Vol. 59(1), 56-66.—Reports a clinical study of narcolepsy in a 65-yr-old man with rapid mental deterioration. He developed an uncompensated respiratory acidosis as determined by arterial blood gases. X ray revealed the interposition of colon between the right diaphragm and the liver—an anomaly known as Kitayditi's syndrome. Hypercapnia due to hypoventilation was attributed to diaphragmatic dysfunction. Resemblance to the Pickwick syndrome is discussed. (22 ref.)—*W. W. Meissner.*

2787. Pattison, E. Mansell. (U. Washington, Medical School) **The patient after psychotherapy.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 194-215.—Examines the psychodynamic changes which occurred during a 30-mo posttherapy period in a 30-yr-old female patient, originally diagnosed as having symptoms of spasmodic torticollis which, after approximately 1 yr. of psychotherapy, had disappeared. Through mail correspondence, the therapist and patient continued their relationship. A gradual shift from a therapeutic relationship to one of a human sharing relationship resulted which was also accompanied by a degree of generalization of the acquired coping skills on the part of the patient. Thus, she extended her therapeutic relationship to others in her new environment. Conclusions drawn point to a definite value in continued communication with the posttherapeutic patient in 3 areas: (a) development of a meaningful human relationship, (b) collection of psychotherapy research data, and (c) development of a therapeutic tool for the patient. (47 ref.)—*P. R. Shibelski.*

2788. Poser, Charles M., Huntley, Carolyn J., & Poland, Jack D. (U. Vermont, Coll. of Medicine) **Para-encephalitic parkinsonism.** *Acta Neurologica Scandinavica*, 1969, Vol. 45(2), 199-215.—Observed a case of severe transient parkinsonian syndrome following a meningoencephalitis associated with the coxsackie virus type B2 in a 16-yr-old boy. The onset of the clinical syndrome occurred immediately following the acute meningoencephalitis and lasted in its severest form for approximately 12 days. 8 mo. after the acute illness the only residual consisted of very mild cogwheel rigidity at the elbow joints which was confirmed by EMG reciprocal innervation studies. 15 mo. later, S had returned to his premorbid state. The validity of the concept under which postencephalitic parkinsonism is said to follow

only von Economo's encephalitis lethargica and the advisability of differentiating postencephalitic parkinsonism from the other 2 clinical types, idiopathic and arteriosclerotic, are questioned. It is hypothesized that all parkinsonism is viral in origin, and that the damage to the cells of the basal ganglia results from viral meningoencephalitis. The parkinsonism syndrome may become manifest later as the result of a secondary noxious situation, bringing into play the phenomenon of pathoclosis within the CNS. (30 ref.)—*Journal summary.*

2789. Reinhardt, G., Geldmacher, J. H., & Geldmacher-von Mallinckrodt, M. (U. Erlangen-Nürnberg, W. Germany) *Zur Toxizität von Noveril.* [Noveril toxicity.] *Nervenarzt*, 1968(Oct), Vol. 39(10), 473-476.—Discusses pathological and anatomical findings on autopsy of 2 patients who had successfully committed suicide via ingestion of an overdose of noveril (dibenzepin). It is suggested that when long-term treatment with tricyclic antidepressants is advisable, only small quantities of drugs be given to patients at 1 time to minimize ingestion of overdoses.—*B. A. Stanton.*

2790. Savitt, R. A. *Transference, somatization, and symbiotic need.* *Journal of the American Psychoanalytic Association*, 1969(Oct), Vol. 17(4), 1030-1054.—Presents a case report showing recurrence of peptic ulcer in the course of analysis. Environmental and predispositional factors combined to cause the original peptic ulcer and were also responsible for the recurrences. This analysis furthered understanding of the psychosomatic process and its resolution, particularly as it may refer to peptic ulcer. (18 ref.)—*D. Prager.*

2791. Stam, F. C., Wigboldus, J. M., & Grosveld, F. M. (Free U., Valerius Clinic, Amsterdam, Netherlands) *A peculiar type of presenile dementia.* *Psychiatria, Neurologia, Neurochirurgia*, 1968(Jul), Vol. 71(4), 337-350.—Describes a case of presenile dementia in a 56-yr-old male which showed a high degree of clinical similarity to subacute spongiform encephalopathy. However, the neuropathological findings proved to be of an entirely different type. The characteristic finding was the presence of disseminated racemose deposits of sialomucoproteins in the grey substance of the cerebrum, in the basal ganglia, and in the cerebellum. (28 ref.)—*Journal summary.*

2792. Tets, I. S., Perevoshchikova, G. F., & Smirnova, N. A. (Bekhterev Psychoneurological Inst., Leningrad, USSR) *K voprosu o sootnosheniyakh osobennostei kliniki i morfologicheskikh izmenenii mozga pri propul'sivnoi forme épilepsii.* [On the interrelationships of features of the clinical picture and those of morphological changes in the brain in the propulsive form of epilepsy.] *Zhurnal Nevropatologii i Psikhiatrii*, 1970(Jan), Vol. 70(1), 115-122.—Reports results of a clinico-anatomical study of 1 case of propulsive epilepsy with lethal outcome. This form of epilepsy is 1 of the varieties of dysontogeny. Cerebral malformations, providing the morphological basis of the disease, occur in early embryogenesis. Harmful peri- and postnatal factors complete the process whereby propulsive epilepsy eventuates. Characteristic of this form of epilepsy are (a) mental immaturity connected, obviously, with organic insufficiency of the brain at several levels, i.e., cerebellar, brainstem, subcortical ganglia, and cortex (especially in the speech zones of the motor and temporal cortex); and (b) acute cerebral ataxia accompanied by speech disorders.—*I. D. London.*

2793. Unger, L., Brunecker, G., & Drietomsky, E.

(Städtischen Krankenhaus für Psychiatrie und Neurologie Herzberge, Berlin, E. Germany) *Schwärmerische Euphorie mit chronischem Verlauf.* [Wild euphoria with a chronic course.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Apr), Vol. 22(4), 150-153.—Reports the case histories of 2 middle-aged women. Both cases were characterized by a wild euphoria. The syndrome is distinctive but is believed to be different from schizophrenia. Both patients also had religio-erotic delusions.—*K. J. Hartman.*

2794. Van Dongen, H. R. & Fortuyn, J. Droggeleever. (University Hosp., Groningen, Netherlands) *Drawing with closed eyes: Report of a case.* *Psychiatria, Neurologia, Neurochirurgia*, 1968(May), Vol. 71(3), 275-280.—Describes a case of glioma in the right parietal lobe of a 58-yr-old male. In this case the ability to draw was greatly improved by closing the eyes. Only a few similar cases have been published.—*Journal abstract.*

MENTAL HEALTH & REHABILITATION

2795. Goldston, Stephen E. (National Inst. of Mental Health, Chevy Chase, Md.) *Mental health considerations in public health: A guide for training and practice.* *Public Health Service Publication*, 1969(May), No. 1898, 3-252.—Presents proceedings of a 1968 National Conference on Mental Health in Public Health Training. Presentations by various authors cover such topics as general health administration, health education, epidemiology, biostatistics, chronic diseases, maternal and child health, public health nursing, family planning and population policies, and environmental and occupational health.

2796. Harms, Ernest. (108 E. 95th St., New York, N.Y.) *The need for differentiation in rehabilitating the mentally retarded.* *Mental Hygiene*, 1970(Jul), Vol. 54(3), 457-458.—Challenges the educational psychology research teams to develop views and techniques to meet the differing "dynamic aspects" of various characteristic forms of psychopathology, specifically, cerebral palsy, polio, and epilepsy.—*A. M. Cawley.*

2797. Misawa, Gichi. [Activities of psychologists in the field of rehabilitation for the handicapped in European countries.] *Japanese Journal of Clinical Psychology*, 1968(Jul), Vol. 7(2), 128-131.

2798. Terhune, William B. (Silver Hill Foundation, New Canaan, Conn.) *Mastering your emotions: Mental health through reeducation of self.* New York, N.Y.: William Morrow, 1970. 249 p. \$5.95.

2799. Tseng, M. S. (West Virginia U.) *Locus of control as a determinant of job proficiency, employability, and training satisfaction of vocational rehabilitation clients.* *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 487-491.—Investigated job proficiency, personal quality, employability, need for achievement, fear of failure, and 16 other personality attributes of 140 vocational rehabilitation clients in relation to their locus of control. Correlates of the locus of control were the S's compliance with rules, observance of safety practices, care of equipment, ability to work with others, work tolerance, manners in the shop, training satisfaction, and 16 PF factors B and G. Internals and externals showed significant mean differences on their ability to work with others, cooperation, self-reliance, courtesy, reliability, work tolerance, work knowledge, care of equipment, safety practices, compliance with shop rules, training satisfaction, need

for achievement, and 16 PF factors B, G, Q₁, and Q₂.—*Journal abstract.*

COUNSELING & GUIDANCE

2800. Pedersen, Paul B. **A proposal: That counseling be viewed as an instance of coalition.** *Journal of Pastoral Care*, 1968(Sep), Vol. 22(3), 139-146.—Presents a theory of counseling which introduces the client's problem as a 3rd factor in the client-counselor relationship thus creating a triadic means-oriented relationship. It is hypothesized that the coalition formation can be anticipated when "the initial distribution of resources among members" and the pay-off rewards are known. Perceptual field theory is utilized. Interpretation, confrontation, and control are used by the counselor to align himself with the client against the problem. A ratio of relationships, general structure of behavioral change, limitations of unidimensional theoretical approaches, and predictions for different approaches are suggested by the coalition analogy. Case reports are included.—G. Steele.

2801. Robinson, Francis P. (Ohio State U.) **The growth of counseling psychology.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 385-387.—Discusses those evidences of growth in the field of counseling psychology which are indicated by the number of manuscripts submitted, the rejection rate, the number of pages published, and the circulation of the *Journal of Counseling Psychology* each yr. during its 16-yr history. Observations on common errors in manuscripts submitted are also made.—*Journal abstract.*

2802. Shutts, Ellis L. (U. Missouri, Kansas City) **The effects of group games counseling and group centered counseling with a population of hospitalized children and adolescents.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5247-5248.

2803. Strong, Stanley R. (U. Minnesota) **Causal attribution in counseling and psychotherapy.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 388-399.—Presents a behavioristic view developed from attribution theory of how persons acquire knowledge of their psychological characteristics, and examines counseling from this framework. Persons infer underlying motivational characteristics to account for actions they assign to personal causes. Assignment of cause is based on social comparison and counseling provides such comparison. Implications of this view for counseling include: (a) why clients come to counseling; (b) how counselors change clients' views of their psychological characteristics, and how counselors change clients' behavior; (c) counselor characteristics; and (d) limits to the effectiveness of counseling. (31 ref.)—*Journal abstract.*

2804. Tarnower, William. (Menninger Foundation, Topeka, Kan.) **The experience of seeking and receiving help.** *Journal of Pastoral Care*, 1968(Sep), Vol. 22(3), 147-151.—Presents a representation of a client-counselor relationship and the treatment process. The conflicts revealed are real and universal. The client's feelings about receiving help and his perception of the therapist are expressed.

2805. Ullrich, Maureen F. (Southern Illinois U.) **The effect of expectancy on vocational counseling.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5704.

2806. Weiss, David J. (U. Minnesota) **Factor analysis and counseling research.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 477-485.—Dis-

cusses topics including factor analysis vs. cluster analysis, analysis of Q correlation matrices, ipsativity and factor analysis, and tests for the significance of a correlation matrix prior to application of factor-analytic techniques. Techniques for factor extraction discussed include principal components, canonical factor analysis, alpha factor analysis, principal factors and image factor analysis, and multimethod factor analysis. (26 ref.)—*Journal abstract.*

Marriage & Family

2807. Blair, Maudine. (Florida State U.) **Divorcedes' adjustment and attitudinal changes about life.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5541-5542.

2808. Bontrager, Helen L. (U. Kansas) **Patterns of family interaction with emotionally disturbed versus nondisturbed siblings in a teaching situation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5683-5684.

2809. Meadows, Mark E. & Taplin, Jaci F. (Auburn U.) **Premarital counseling with college students: A promising triad.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 516-518.—Describes a premarital counseling model and its application in a university counseling center. 6 engaged student couples participated in a series of individual and joint counseling interviews. Results of a postcounseling questionnaire are discussed, revealing a positive response on the part of clients. The premarital counseling triad is recommended as an appropriate and needed service in the college setting.—*Journal abstract.*

2810. Streeter, Noble M. & Owens, W. Eugene. (1st Presbyterian Church, Redding, Calif.) **Partners in ministering: A psychiatrist and a pastor.** *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 292-299.—Suggests criteria essential for good interdisciplinary relationships between a pastor and psychiatrist working conjointly in therapy. It is suggested that: (a) stereotypes and traditional roles are barriers which must be "worked-through"; (b) the "working-through process" may not be applicable to every professional dyadic relationship, but the conjoint approach might be considered in addition to current *modus operandi*; and (c) interdisciplinary cotherapists must utilize the same process they are trying to teach their patients.—*Journal abstract.*

Social Casework

2811. Levine, Baruch & Schild, Judith. (U. Chicago, School of Social Service Administration) **Group treatment of depression.** *Social Work*, 1969(Oct), Vol. 14(4), 46-52.—Suggests that a group treatment approach based on the integration of casework and group treatment methodology is a viable means of serving depressed clients without overburdening the limited agency and worker resources, i.e., as group members relate to each other, they are less manipulative of and dependent on the worker. 3 stages of treatment are identified: mutual mourning, ego reactivation, and mastery. The characteristics of each stage, the rationale for specific therapeutic interventions, and case examples are presented.—*Journal summary.*

2812. MacNamara, Margaret. (U. Adelaide, South Australia) **The crisis of dialysis and renal homo-**

transplantation: A team approach to patients and families. *British Journal of Psychiatric Social Work*, 1968(Fal), Vol. 9(4), 193-200.—Describes the activities of the social worker in a renal unit of an Australian hospital. The importance of close collaboration between members of a multidisciplinary team in working with the patient, donors, and family members is stressed.—P. McMillan.

2813. Vail, Susan. (Smith Coll., School for Social Work) **The effects of socio-economic class, race, and level of experience on social workers' judgments of clients.** *Smith College Studies in Social Work*, 1970(Jun), Vol. 40(3), 236-246.—140 professional social workers and 140 student social workers were mailed descriptive material on a client and were asked to assess the potential and level of treatment proposed. Additional data on the client's social class and race were included. Information on age, sex, and level of experience were obtained on the social workers. Findings from 170 Ss showed that socioeconomic class of the client significantly influenced caseworkers in assessment and plan for treatment. Race of the client and level of experience of the social worker were not related to assessment.—M. W. Linn.

PHYSICAL HANDICAP

2814. Rosillo, Ronald H. & Fogel, Max L. (U. Pennsylvania, Medical School) **Emotional support.** *Psychosomatics*, 1970(May), Vol. 11(3), 194-196.—Views emotional support as an interactive process involving a temporary borrowing of ego strength from the supporter for the help of the supported. This process is mediated by the mechanisms of identification and magical thinking. Illustrations from a group of physically disabled patients, who used a 7-point scale to evaluate the roles they usually adopted in interpersonal relationships are presented. Emotional abreaction, which sometimes occurs during emotional support, is viewed as a related but separate process.—P. McMillan.

Blindness & Visual Disorder

2815. Groffman, Sidney. **Operant conditioning and vision training.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Aug), Vol. 46(8), 583-593.—Vision training is concerned with modification of visual behavior. Operant conditioning is a method of behavior modification useful for improving the design of vision training programs and insuring patient interaction with such programs. The optometric application of operant conditioning is illustrated by 2 experimental studies. In Exp. I, with an 8-yr-old girl, individual patient control was obtained by restructuring an existing vision training procedure. Exp. II, with 5 3rd and 4th grade boys, demonstrated the extinction of disruptive behavior in group vision training through the use of a token reinforcement system.—*Journal abstract*.

2816. Petrov, Yu. P. **Osnovnye problemy fiziologii zritel'nogo analizatora v ékstremaal'nykh usloviyakh.** [Basic problems in the physiology of the visual analyzer in extremal conditions.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 118-123.—Presents a survey of research on disturbances of visual functions (narrowing of the visual field, decrease in visual acuity, deterioration of color vision, pathological vasomotor effects, etc.) under the influence of the following extremal factors: changes in

gravity, changes in the pressure of the atmosphere and its composition, mechanical oscillations (vibration, noise), and the action of different parts of the electromagnetic spectrum. Possible mechanisms underlying these disturbances are discussed.—I. D. London.

2817. Warren, R. L. (3540 E. 31st St., Tulsa, Okla.) **What constitutes blindness? II. Psychology.** *Journal of the American Optometric Association*, 1969(Nov), Vol. 40(11), 1116-1120.—Provides practical suggestions for the understanding and management of the low vision patient. Special needs of patients with 3 categories of visual loss are discussed, including those with problems (a) existing at birth, (b) of recent origin, and (c) existing for many yr. Sociological and monetary considerations are presented in terms of the person who is considering entering the vision care field. It is noted that the tendency to view vision care as a humane act and therefore something to be given away is 1 of the chief deterrents to the expansion of the field of optometry. Specific suggestions for determining the cost of an optometric service are reviewed.—P. McMillan.

Deafness & Hearing Disorder

2818. Burmistrova, T. I. (Inst. of Defectology, Moscow, USSR) **Issledovanie arifmeticheskikh znanii vzroslykh glukhonemykh.** [Investigation of arithmetic knowledge of adult deaf-mutes.] *Defektologiya*, 1970, Vol. 2(1), 70-75.—Presents a study of the character of the arithmetic knowledge of over 100 20-50 yr. old deaf-mutes.—I. D. London.

2819. Cox, Bernard P. (U. Pittsburgh) **The identification of unfiltered and filtered consonant-vowel-consonant stimuli by sensori-neural hearing-impaired persons.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5734-5735.

2820. Larson, Alfred D. (U. Kansas) **A comparative study of the ability of children with high frequency hearing loss and normal children to discriminate low-pass filtered speech.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5168-5169.

2821. VanderWoude, Kenneth W. (Michael Reese Hosp., Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **Problem solving and language.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 337-342.—Attempted to combine the methodological approach indicated by H. Furth and M. Vernon in a study of problem-solving processes. It was hypothesized that there would be (a) no differences in the problem-solving processes used by matched groups of hearing and deaf children, and (b) no interaction between language and problem-solving performance. 18 deaf children (nonverbal group) were matched with 18 hearing children (verbal group) on the basis of age, sex, and IQ. Results confirm the hypothesis and indicate that both groups use similar tactics in their solutions to the problems. Also, for both groups there is no consistent relationship between problem-solving processes and final answers. (36 ref.)—*Journal summary*.

SPEECH DISORDER

2822. Adams, Martin R. & Brutten, Gene J. (Kent State U.) **An exploratory study of some learning-based procedures for modifying stuttering.** *Journal of Communication Disorders*, 1970(Aug), Vol. 3(2), 123-132.—15 15-44 yr. old stutterers read aloud, 3 times in

succession, a list of 75 common monosyllable nouns. Words that were consistently stuttered or spoken with consistent fluency were the test elements of this study. In the experimental conditions, $\frac{1}{2}$ of these words were audibly presented to the Ss in quick succession. In the matched silent condition, the other $\frac{1}{2}$ of the consistently stuttered or fluent words were not repetitively presented. After each of these situations, Ss orally read the original word list 3 additional times. The consistency of stuttering decreased significantly in both the auditory and silent conditions. Less absolute stuttering occurred in the auditory condition than in the silent condition but, apparently because of sample size, significance was not reached. Consistent fluency, like consistent stuttering, was demonstrated to be a reliable phenomenon. The consistency of stuttering and fluency is viewed in conditioning terms; the decrease in stuttering is viewed in deconditioning terms.—*Journal abstract.*

2823. Brenner, Norman C. (U. Southern California) **Effect of types of rehearsal on frequency of stuttering.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5734.

2824. Perrin, Kenneth L. (Stanford U.) **An examination of ear preference for speech and non-speech stimuli in a stuttering population.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5736-5737.

2825. Weston, Alan J. (U. Kansas) **The use of paired stimuli in the modification of articulation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5738.

NEUROLOGICAL DISORDER

2826. Akhutin, E. A. **Spisok knig po nevropatologii, psikiatrii i smezhnym distsiplinam, postupivshikh v Gosudarstvennyy tsentral'nyy nauchnyy meditsinskyy biblioteku v sentyabre-oktyabre 1969 g.** [List of books on neuropathology, psychiatry and contiguous disciplines, arriving at the State Central Scientific Medical Library in September-October 1969.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 310-312.—Lists Soviet and non-Soviet publications.—*I. D. London.*

2827. Amler, G. & Gergener, M. (U. Dusseldorf, Psychiatric Clinic, W. Germany) **Typisches EEG-Muster beim Creutzfeldt-Jakob-Syndrom unter Berücksichtigung diagnostischer und differentialdiagnostischer Gesichtspunkte.** [The typical EEG pattern with Creutzfeldt-Jakob-syndrome with consideration of diagnostic and differential diagnostic aspects.] *Psychiatria et Neurologia*, 1967, Vol. 154(6), 373-383.—In a case of the Creutzfeldt-Jakob syndrome, a typical EEG pattern was found showing rhythmically appearing step high voltage waves arising against a background of severe generalized abnormalities. In conjunction with similar observations reported in the literature, these EEG changes are regarded as pathognomonic for the Creutzfeldt-Jakob syndrome (subacute spongy encephalopathy) and the focus of origin of the dominant signs of rhythmization and hypersynchronization can be localized into deep centrocephalic subcortical areas of the brain. Certain parallels with subacute encephalitis do exist. The typical EEG changes in the Creutzfeldt-Jakob syndrome appear mainly when the progress of the disease process shows evidence of involvement of basal areas of the brain. The fact that it is astroglia rather than neuronal tissue which is affected by the disease process is

obviously of no importance, and must be interpreted in the light of the newest research findings of the functional and biochemical unity of neurons and glia. (33 ref.)—*English summary.*

2828. Billevich-Popova, A. S. (Inst. of Neurology, Moscow, USSR) **Narusheniya elektricheskoi aktivnosti myshts u "zdorovykh" rodstvennikov lits, stradayushchikh semeinoi spasticheskoi paraplegiei Shtryumpelya.** [Disturbances of electrical activity of the muscles in "healthy" members of families of persons suffering from Strümpel's familial spastic paraplegia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 218-224.—Reports the results of an EMG study of 28 "healthy" members of 7 families, individual members of which were suffering from familial spastic paraplegia. 12 exhibited disturbances of muscular electrogenesis, characteristic for spastic enhancement of muscular tonus; 6 displayed attenuated forms of the spastic syndrome; and 10 manifested no pathology of muscular tonus. The results of EMG examinations, which also take into account the available clinical and genealogical data, can be utilized for diagnosis of the "minor" forms of Strümpel's spastic paralysis as well as of its initial stages. (English summary)—*I. D. London.*

2829. Boller, Francois C. & Sherwin, Ira. (Veterans Administration Hosp., Boston, Mass.) **Electroencephalography and brain scan in the diagnosis of posterior fossa lesions.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 490-493.—Compares the relative usefulness of EEG and brain scan tests, both described as repeatable and safe procedures, in diagnosing posterior fossa tumors. Data were drawn retrospectively from the hospital records of 9 patients with a verified diagnosis of posterior fossa pathology on whom both EEG and brain scan had been obtained. Examination of records revealed that EEG was of localizing value in 8, but a positive brain scan was found in only 3. The discrepancy between these brain scan findings and more positive findings by others in the literature is discussed. It is noted that a special head position (not used in the cases studied here) might increase the yield of positive scans. It is concluded that together EEG and brain scan are of complementary value in diagnosing posterior fossa tumors.—*P. McMillan.*

2830. Eisen, A. A. & Norris, J. W. (McGill U., Montreal, Quebec, Canada) **Adrenal steroid therapy in neurological disease: I.** *Canadian Medical Association Journal*, 1969(Jan), Vol. 100(1), 27-30.—Examines "the therapeutic uses of the adrenal steroids, their synthetic analogues and the adrenocorticotrophic hormone (ACTH) as applied to diseases of the nervous system." Collagen diseases, diseases of muscle and the neuromuscular junction, and demyelinating disease are discussed. (47 ref.)

2831. Ernst, K. & Sayk, J. (Universitäts-Nervenklinik, Rostock, E. Germany) **Untersuchungen zur reflektorischen Aktivierbarkeit spinaler Motoneurone bei spastischen, myogenen und peripher-neurologischen Erkrankungen.** [Investigations into the activity of spinal motoneurons in spastic, myogenic and peripheral-neurological diseases.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Apr), Vol. 22(4), 140-146.—Electroneurographic studies of 122 patients failed to yield statistically significant differences in afferent conductance between normal and pathological muscle tone or spinal excitability. (49 ref.)—*K. J. Hartman.*

2832. Gannushkina, I. V. (Inst. of Neurology, Moscow, USSR) **Znachenie autoantigennosti élementov nervnoy tkani pri sosudistyykh i travmaticheskikh porazheniyakh mozga.** [Significance of the autoantigenic character of nerve tissue elements in vascular and traumatic lesions of the brain.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 172-177.—Studied the role of the autoantigenic properties of nervous tissue in the development of pathological processes in the brain, which arise as a result of acute and even momentary damage of the hematoencephalic barrier and which are of vascular or traumatic origin. It is shown that prior sensitization of animals to the antigens of nervous tissue complicated the clinical picture in brain injury and in cerebral circulatory disorders, as a result of the antigen-antibody reaction that occurred in the brain under these conditions. The sera of specifically sensitized animals and patients with multiple sclerosis contained anticerebral antibodies which were fixed on certain elements of the nerve and glial cells as revealed in the Kuns immunofluorescent test; the sera of patients with cerebral circulatory disorders, hepatocerebral dystrophy, and lateral amyotrophic sclerosis contained anticerebral antibodies which were fixed on the basal membranes of small vessels and capillaries. (English summary)—*I. D. London.*

2833. Gel'fand, I. M., et al. (Inst. of Neurology, Moscow, USSR) **Matematicheskoe prognozirovaniye iskhodov pri gemorragicheskikh insul'takh s tsel'yu opredeleniya pokazaniy k ikh khirurgicheskomy lecheniyu.** [Mathematical prediction of outcomes in hemorrhagic strokes with the aim of determining the indications for their surgical treatment.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 177-181.—Analyzed 124 case histories of patients with cerebral hemorrhages, developed out of high blood-pressure and atherosclerosis. 56 indices, the most significant for predicting hemorrhagic strokes, were taken into account along with their dynamics for 12 hr. following the onset of the stroke. Computer analysis of these indices yielded correct prognoses of survival over the 1st 5 days with 95% accuracy. (English summary)—*I. D. London.*

2834. Grechko, V. E. & Florianovich, N. M. **Mediko-tekhnicheskile trebovaniya k apparature dlya ékhóntsefalografii.** [Medico-technical requirements demanded of apparatus for echoencephalography.] In V. V. Parin (Ed.), *Sovremennyye pribory i tekhnika fiziologicheskogo éksperimenta.* (See PA, Vol. 45:Issue 2) 161-163.—Examines the possibilities of applying echoencephalography in the diagnosis of cerebral pathological processes, and defines necessary characteristics for echoencephalographic instrumentation.—*I. D. London.*

2835. Heitzman, Martin & Johnston, Gerald S. (Walter Reed General Hosp., Div. of Neurology & Nuclear Medicine, Washington, D.C.) **Radioactive bromide in the diagnosis of central nervous system disease.** *Diseases of the Nervous System*, 1970(Jul), Vol. 31(7), 483-486.—Determined a blood serum/cerebrospinal fluid (CSF) bromide partition ratio on 24 patients with CNS disorders. Sodium bromide-82 was administered and the serum and CSF collected for radioactivity assay at 24 hr. 5 Ss presented with possible neurosyphilis and 1 with possible tuberculous meningitis. The bromide partition ratio was helpful in determining the diagnosis in each of these Ss and their case histories are summarized. In the 18 remaining Ss, with a variety of CNS conditions, including head injury, multiple scler-

osis, Guillain-Barre syndrome, chorioretinitis, epilepsy, pituitary tumor, and herniated nucleus pulposus, the bromide partition was normal. The specificity of this test for active neurosyphilis and for tuberculous meningitis gives it value in ruling out these entities and confirming their presence.—*Journal summary.*

2836. Kanareikin, K. F. **Sovmestnaya nauchnaya sessiya Instituta nevrologii AMN SSSR i Instituta nevrologii Akademii nauk Sotsialisticheskoi Respubliki Rumynii, posvyashchennaya mozgovym insul'tam.** [Joint Scientific Session of the Institute of Neurology of the USSR Academy of Medical Sciences and the Institute of Neurology of the Romanian Academy of Sciences, devoted to cerebral strokes.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(2), 91-93.—Presents summaries of a number of the papers read at the 1969 conference, held in Bucharest, Romania.—*I. D. London.*

2837. Khalfina, F. A. (Research Inst. of Neurology & Psychiatry, Kharkov, USSR) **Izmeneniye zritel'nykh posledovatel'nykh obrazov v klinike prekhodyashchikh narusheniy krovoobrashcheniya v vertebral'no-bazilyarnoi sisteme.** [Changes in successive visual images in the clinical picture of transient circulatory disturbances in the vertebrobasilar system.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 182-186.—Studied visual trace effects (successive images and successive contrasts) in 50 33-72 yr. old patients. 1 deviation or another was detected in the dynamics of the successive images and contrasts. In the beginning, the character of the course of successive images was changed following the presentation of colored and multicolored test objects; then there was a loss of capacity to differentiate an added form (white circle on a black background, yellow horseshoe on a black background) after exposition of the "combined" test objects. The grossest pathology, observed in almost 1/2 the patients, was the disappearance or sharp diminution of retention time of the afterimage following the presentation of colored, combined, and black test objects. The frequent disturbance of visual trace reactions in the presence of circulatory disorders in the vertebrobasilar system, often in the absence of defects in the visual field and of other symptoms, indicated that this test can disclose fine changes in the neurodynamics in the cortical terminus of the visual analyzer, which is supplied with blood from the basin of the posterior cerebral artery. (English summary)—*I. D. London.*

2838. Khondkarian, O. A. & Maksudov, G. A. (Inst. of Neurology, Moscow, USSR) **K épidemiologii bokovogo amiotroficheskogo skleroza.** [On the epidemiology of lateral amyotrophic sclerosis.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 83-86.—Preliminary studies suggest that serious research should be directed to the problem of epidemiology of lateral amyotrophic sclerosis, since there is some basis for conjecturing the possibility of a latent infection in this disease.—*I. D. London.*

2839. Kuznetsova, A. S. (Kuusinen U., Petrozavodsk, USSR) **Diagnosticcheskoe znachenie defektov polia zreniya pri subarakhnoidal'nykh krovoizlivaniiyakh.** [Diagnostic significance of visual field defects in subarachnoid hemorrhages.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 195-199.—Ss were 14 patients with hemorrhaging into the subarachnoid space and consequent stable changes in the visual field. Homonymous hemianopsia, developing from hemorrhages from dif-

ferent vascular regions, were observed in 11 Ss. A combination of homonymous hemianopsia with paresis of the oculomotor nerve is characteristic for hemorrhages from a supracallosal aneurysm of the internal carotid artery. In combination with apathetic disorders, the hemorrhage probably occurs from the radicular branches of the middle cerebral artery. In isolated hemianopsia without affection of cranial nerve innervation and hemiparesis, or combination with cerebellar changes, the hemorrhagic foci are probably located in the region of the posterior cerebral artery. Full loss of sight in the acute period of the disease is an unfavorable sign for visual restitution and is most likely due to hemorrhages from the anterior connective artery. (English summary) —I. D. London.

2840. Lebedeva, N. V. (Inst. of Neurology, Moscow, USSR) *Opređenje glubiny ochaga pri krovolyaniyakh v bol'shie polushariya golovnogogo mozga.* [Determination of depth of the hemorrhagic focus in the cerebrum.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 168-171. — Presents the results of clinical examination of 242 patients with cerebral hemorrhage in combination with (a) EEG data obtained during the hours immediately following the onset of the hemorrhage, and (b) the data of angiography when they provide sufficient basis for accurate topical diagnosis of the depth and the location of the hemorrhage, backwards in the parieto-occipital direction or forwards in the direction of the frontal lobe. (English summary) —I. D. London.

2841. Lugovskii, B. K. (Provincial Psychiatric Hosp., Mogilev, USSR) *K voprosu o klinike bolezni Friedreicha, protekayushchei s psikhicheskimi narusheniyami.* [On the clinical picture in Friedreich's disease, proceeding with mental disturbances.] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jan), Vol. 70(1), 101-106. Reports on 4 cases of Friedreich's ataxia (a recessive hereditary anomaly, marked by muscular incoordination and twitching), accompanied by severe mental disorders involving progressive dementia and affective (dysphoric) disturbances. In 2 cases paranoid, hallucinatory-paranoid, and catatoniform symptoms were manifested. Friedreich's disease is to be differentiated from neural amyotrophy and from Marie's disease, since in all the cases observed peripheral pareses of the extremities appeared. —I. D. London.

2842. Martindale, Colin & Black, F. William. (Harvard U.) *Season of birth and intelligence.* *Journal of Genetic Psychology*, 1970(Sep), Vol. 117(1), 137-138. To determine the effect of season of birth on IQ, 10 neurologically damaged children born in each of the 12 mo. were evaluated using the Stanford-Binet (N = 46), the WISC (N = 44), and the Arthur Adaptation of the Leiter International Performance Scale (N = 30). Summer-born Ss were found to perform significantly better. There was a clear curvilinear relationship between mean temperature of mo. of birth and IQ. Prenatal and perinatal stress is suggested as a causal factor. —F. W. Black.

2843. Nikiforov, B. M. (Pediatric Medical Inst., Leningrad, USSR) *Tromboz meshotchatykh anevrizm posle podpautinnogo ili subarakhnoidal'no-parenkhimatoznogo krovolyaniya.* [Thrombosis of sacular aneurysms following subarachnoid-parenchymatous hemorrhage.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 209-212. — Reports results of carotid angiography undertaken to detect the presence of sacular

aneurysm in 306 patients with subarachnoid hemorrhaging. (English summary) (16 ref.) —I. D. London.

2844. Olson, Norinne H., Olson, Arthur V., & Duncan, Patricia H. *Neurological dysfunction and reading disability.* *Reading Teacher*, 1968(Nov), Vol. 22(2), 157-162. — Reviews research on neurological dysfunction associated with reading disability and on the parts of the brain involved in the reading process. Alexia, dyslexia, mixed-lateral dominance, and strephosymbolia are examples of the types of disability involving neurological dysfunction. It was found that these types often coexist "with more broadly classified neurological categories." It is concluded that "in proper dynamic diagnosis they [neurological symptoms] should be regarded, along with other significant correlates of performance, in the synthesis of a disability profile." —G. Steele.

2845. Prudenskii, E. A. (Gorki Medical Inst., Donetsk, USSR) *Spinal'naya flebografiya v differentsial'noi diagnostike bolevykh poyasnichno-kresttsyovnykh sindromov.* [Spinal phlebography in differential diagnosis of lumbosacral pain syndromes.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 186-191. — Of 52 17-67 yr. old patients, 30 had spinal osteochondrosis with pronounced radicular pain symptoms, 16 exhibited inflammatory processes (cauditis, meningoradiculitis), and 6 had varicosis of the spinal veins. For each group it was possible to distinguish characteristic changes in the system of spinal venous plexures. A certain relationship existed between the character of phlebographic changes and the intensity of radicular pain syndromes. (English summary) —I. D. London.

2846. Snezhnevskii, A. V., et al. *"Zhurnal nevropatologii i psikiatrii im. S. S. Korsakova" 70 let.* [The 70th anniversary of the "S. S. Korsakov Journal of Neuropathology and Psychiatry".] *Zhurnal Nevropatologii i Psikiatrii*, 1970(Jan), Vol. 70(1), 132-134. Presents a history of the journal, which from 1930-1951 bore variant names. —I. D. London.

2847. Stang, R. R. *The etiology of Parkinson's disease.* *Diseases of the Nervous System*, 1970(Jun), Vol. 31(6), 381-390. Postulates that there is a single disease — parkinsonism, with a common etiology, multiple precipitating factors, and highly variable onset, course, and symptomatology. A genetic study was made of unselected patients with parkinsonism, 110 males (3 adopted) and 90 females (2 adopted). Data from a questionnaire indicated that parkinsonism was or had been present in 198 parents (155 having at least 1 sibling with the disease), and at least 135 siblings, 33 children, and 134 grandparents (75 having at least 1 sibling with the disease). "Thus parkinsonism in characteristic hereditary form was present in 94.5% of Ss. It is concluded that (a) all forms of the disease are hereditary and degenerative, (b) mode of inheritance is autosomal dominant, and (c) the disease is likely to increase rather than decrease in incidence. The diverse clinical nature of parkinsonism, due in part to "the age at which it begins and its duration when the patient is seen," is primarily due to the resultant interaction between the nature of the precipitating factors and "the degree of reactivity of the inherited substrate material." (21 ref.) —P. McMillan.

2848. Suchkov, V. V. (Myasnikov Inst. of Cardiology, Moscow, USSR) *Vliyaniye gipoksii mozga na sino-karotidnye refleksi i rol' baroretseptorov karotidnykh sinusov v kompensatsii mozgovykh tsirkulyatornykh narushenii.* [Influence of cerebral hypoxia

on the sinocarotid reflexes and the role of the carotid sinus baroreceptors in compensation for cerebral circulatory disturbances.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 77-86.—Using 30 narcotized dogs, it was shown that (a) the carotid sinus baroreceptors participated continuously in regulating cerebrovascular tonus, and (b) depressor reactions to stimulation of the carotid sinus baroreceptors acquired a pressor character, as cerebral hypoxia increased, and became distorted in deep cerebral hypoxia. Compensation for cerebral hypoxia and the emerging magnitude of the cerebroischemic hypertension depended on the functional state of the carotid sinus baroreceptors. Optimal compensation was observed when the baroreceptors were in the normal state. Both their excitation and the absence of stimulation complicated the course of hypoxia and promoted the appearance of more pronounced hypertensive reactions to cerebral hypoxia. Hypoxic excitation of the pressor regions of the vasomotor center and inhibition of its depressor regions constituted the mechanisms for bringing about a change in the sinocarotid reflexes. *I. D. London.*

2849. Vil'shanskaya, M. I. *Spisok otechestvennykh dissertatsii po nevropatologii, psikhiatrii i smezhnym dissiplinam, postupivshikh v Gosudarstvennyy tsentral'nyy nauchnyy meditsinskuyu biblioteku v III kvartale 1969 g.* [List of dissertations in the Soviet Union on neuropathology, psychiatry and contiguous disciplines, arriving at the State Central Scientific Medical Library in the 3rd quarter of 1969.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 313-315.—Lists 63 dissertations.—*I. D. London.*

2850. Weiskrantz, L. & Warrington, Elizabeth K. (Inst. of Experimental Psychology, Oxford, England) **Verbal learning and retention by amnesic patients using partial information.** *Psychonomic Science*, 1970(Aug), Vol. 20(4), 210-211.—Showed that learning and retention occurred in 3 amnesic patients when the partial information about words was in the form of whole letters. Results tend to discount an interpretation in terms of spared perceptual learning in such patients.—*Journal abstract.*

2851. Zlotnik, E. I., Oleshkevich, F. V., & Pavlovets, M. V. (Belorussian Research Inst. of Neurology, Neurosurgery, & Physiotherapy, Minsk, USSR) **Atipichnoe techenie gemorragicheskogo perioda pri oslozhnenii razryva anevrizmy arterial'nym spazmom i vnutrimozgovoi gematomoi.** [Atypical course of the hemorrhagic period due to the complication of aneurysmal rupture by arterial spasm and intracranial hematoma.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(2), 212-216.—Discusses 5 cases where, despite angiographically detected intracranial hematomata and cerebroarterial spasm, the hemorrhagic period went off lightly with no postoperative neurological disorders. (English summary)—*I. D. London.*

Brain Damage

2852. Bartko, Daniel & Trávníková, Margaréta. (Comenius U., Neurological Clinic, Bratislava, Czechoslovakia) **Acute focal hypoxia of the brain and personality changes.** *Studia Psychologica*, 1970, Vol. 12(1), 69-75.—Attempted to determine (a) "whether a psychological investigation will reveal certain concepts on the mental and personality changes in acute focal hypoxia of the brain," and (b) "whether these changes

will bear some correlation to the degree of organic lesions, or to their localization and laterality." Experimental Ss were 91 patients, average age 59.6 yr., with acute focal hypoxia of the brain (36 with lesions on the right, 42 on the left, and 13 with bilateral lesions). Controls were 30 hypertonic and arteriosclerotic Ss, with a mean age of 53.6 yr. Test instruments used were the Wechsler-Bellevue for intellectual functioning and the ROR projective technique for personality factors. Results indicate that a marked decrease in the overall IQ occurred in groups with acute focal brain hypoxia, severe neurological findings, and left-sided, cortically and supratentorially localized lesions. Similar changes were noted in verbal IQ, but the most pronounced changes were in the performance component. "Disorders of emotionality occurred in 88.6% of cases in the entire sample, which constitutes a significant difference against the 70% in the control group." (17 ref.)—*P. McMillan.*

2853. Ingebrigtsen, Brynjulf. (Ullevål Hosp., Oslo, Norway) **Arachnoid rupture as cause of the postconcussion syndrome: A new theory of the pathophysiology.** *Acta Neurologica Scandinavica*, 1969, Vol. 45(2), 231-237.—Presents a new theory for the pathogenesis of the postconcussion syndrome. It is hypothesized that the syndrome is caused by a traumatic rupture of the arachnoid membrane with secondary accumulation of cerebrospinal fluid in the subdural space. The following pathophysiological consequences are considered likely: (a) brain deformation, (b) increased vulnerability to mechanical injuries, and (c) impaired circulation of blood and cerebrospinal fluid. This explains the uniformity of the symptoms in the postconcussion syndrome. It is concluded that most of the symptoms of the postconcussion syndrome can be satisfactorily explained by this theory.—*Journal summary.*

2854. Newcombe, Freda & Russell, W. Ritchie. (Churchill Hosp., Oxford, England) **Dissociated visual perceptual and spatial deficits in focal lesions of the right hemisphere.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Apr), Vol. 32(2), 73-81.—81 right-handed men with focal, unilateral brain lesions due to missile injury were reexamined neurologically and psychologically, 20 yr. after World War II in an on-going study of the long-term sequelae of these injuries. The performance of 44 Ss with unilateral lesions of the left hemisphere and 37 Ss with right hemisphere lesions in 2 visually-presented tasks, face identification (closure) and maze-learning are reported. Ss with right hemisphere lesions were significantly impaired in both tasks, whereas Ss with lesions in the left hemisphere performed as well as normal controls. There was also evidence of dissociated deficits within Ss with right post-Rolandic lesions: there was no overlap in scores of Ss most severely impaired in closure and those most severely impaired in maze-learning. The anatomical characteristics and some other features of these groups are discussed. Data support the concepts of hemispheric asymmetry and of functional differentiation within the hemisphere. (48 ref.)—*Journal summary.*

Epilepsy

2855. Broughton, Roger; Meier-Ewert, Karl H., & Ebe, Mituru. (U. Ottawa, Ontario, Canada) **Evoked visual, somato-sensory and retinal potentials in**

photosensitive epilepsy. *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 373-386.—Made a comparison of the group mean visual evoked potential (VEP), somato-sensory evoked potential (SEP) and electroretinographic (ERG) response between 10 photosensitive epileptic Ss and 10 age and sex-matched normal controls. The VEP of Ss was similar in wave form but differed significantly in a number of other features from that of controls, all components being of larger amplitude in photosensitive Ss. There was evidence for alteration of the ERG in the form of an earlier α wave. The changes indicate participation in photosensitivity of: the retina; visual pathways of primary, secondary and associative type; unspecific diffuse projection systems projecting maximally to the vertex; or local changes of the central cortex. Differential stages of sleep and states of arousal produced quite stereotyped changes of the VEP. The SEP was altered even more than the VEP. Individual components showed marked changes in amplitude, latency and distribution, some having mean amplitudes of up to 8 times normal. It is suggested that "photosensitivity" represents a diffuse multimodal alteration in cerebral excitability affecting various levels of different sensory systems. (French summary) (41 ref.)—*Journal summary*.

2856. Corkin, Suzanne; Milner, Brenda, & Rasmussen, Theodore. (McGill U., Montreal, Quebec, Canada) **Somatosensory thresholds: Contrasting effects of postcentral-gyrus and posterior parietal-lobe excisions.** *Archives of Neurology*, 1970(Jul), Vol. 23(1), 41-58.—127 Ss who underwent unilateral cortical excision for relief of focal epilepsy yielded preoperative, postoperative, and follow-up data on somatosensory discrimination. Tests of pressure sensitivity, 2-point discrimination, point localization, position sense, and tactual object recognition revealed lasting sensory loss associated with lesions of the postcentral gyrus. Parietal-lobe excisions were followed by transient deficits or no deficits. Ipsilateral sensory defects, related to lesion size, appeared in 12 of 50 patients in the parietal-lobe groups. (37 ref.)—S. E. Gavin.

2857. Ebe, Mituru; Meier-Ewert, Karl H., & Broughton, Roger. (McGill U., Montreal, Quebec, Canada) **Effects of intravenous diazepam (Vallum) upon evoked potentials of photosensitive epileptic and normal subjects.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 429-435.—Studied the effects of 7.5-10 mg. of iv diazepam in 7 patients with photo-sensitive epilepsy and in 9 normal controls. Minimal side effects occurred in 3 controls, but not in the epileptic Ss. Diazepam rapidly blocked the photoconvulsive and photomyoclonic responses of epileptic Ss, and reduced the blinking and autonomic or vegetative changes induced by photic stimulation. Spontaneous epileptic discharges were abolished. In both epileptic and normal Ss, beta activity appeared in the EEG maximally in anterior head regions, and marked hypotonia and subjective relaxation were induced. Visual and somatosensory evoked potentials and the electroretinogram were modified. The effects of iv diazepam on the evoked potentials of photosensitive epileptics represents a normalization of cerebral reactivity. (French summary) (25 ref.)—*Journal summary*.

MENTAL RETARDATION

2858. Bialer, Irv & Sternlicht, Manny. (Kennedy

Child Study Center, New York, N.Y.) **Psychological issues in mental retardation: Report of a survey.** *Mental Retardation*, 1969(Aug), Vol. 7(4), 35-37.—To determine what are considered to be the most cogent psychological issues in mental retardation, a mail survey was conducted among 56 psychologists both in and out of that field. A strong degree of congruence was obtained between the 2 groups on issues relating to: (a) cognitive, affective, and psycholinguistic development; (b) intelligence as a concept; (c) differential diagnosis; and (d) success and failure as motivators with retardates. Differences between the 2 groups are discussed along with those issues which seem to be of generally decreasing concern and/or are newly emerging among psychologists in mental retardation.—*Journal abstract*.

2859. Corte, Henry E. (U. Kansas) **The use of punishment in the modification of self-destructive behavior of retarded children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5685.

2860. Dallaire, Louis; Kingsmill-Flynn, Diana, & Leboeuf, Giles. (Douglas Hosp., Medical Genetics Lab., Montreal, Quebec, Canada) **Autoimmunity and chromosomal aberrations: Serological studies in mothers of children with Down's syndrome.** *Canadian Medical Association Journal*, 1969(Jan), Vol. 100(1), 1-4.—2 thyroid serological tests (Tanned Red Cell Hemagglutination and Complement Fixation—CF) revealed a significant increase of antibodies in 86 euthyroid mothers of children with Down's syndrome. Results show that 23.3% of these Ss had circulating thyroglobulin antibodies as compared to 10.4% of matched controls. The complement fixation reaction with an extract of thyrotoxic gland was positive in 61% and 13.9%, respectively. Of the 13 Ss whose 1st single pregnancy resulted in a mongol child none had thyroglobulin antibodies but 7 had a positive CF test. Findings are examined in consideration of the present knowledge of thyroid autoimmunity. It is concluded that the results support the concept that a maternal autoimmune phenomenon is related to the birth of some aneuploid children and suggest that the cornerstone of the deranged immunological reaction may not be thyroid-specific. (French summary) (20 ref.)—*Journal summary*.

2861. Dickerson, Donald J. & Girardeau, Frederic L. (U. Connecticut) **Oddity preference by mental retardates.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 28-32.—Gave 3 groups of 45 12-16 yr. old severely retarded and 3 groups of 45 12-20 yr. old mildly retarded Ss a series of 5 10-trial oddity problems under nonreward conditions. The groups were presented with stimulus arrays containing 1 odd stimulus and 2, 3, or 4 identical stimuli. Results indicate that mildly retarded Ss responded to the odd object slightly less than 50% of the time, significantly above chance expectancy, whereas severely retarded Ss responded to the odd object approximately 33% of the time, significantly above chance expectancy for those groups with 3 and 4 identical stimuli. Findings suggest that oddity is a stimulus characteristic to which an approach response is made independent of its concurrent association with reward, and that the stimulus value of oddity differs for mildly and severely retarded Ss.—*Journal abstract*.

2862. Ferrell, C. Richard; Tokstad, Gary C., Listella, Guido M., & Jackson, Jay. (Fairview Hosp. & Training Center, Salem, Ore.) **Influence of a therapeutic community on behavior and adjustment of defective delinquents.** *Mental Retardation*, 1969(Dec), Vol. 7(6),

6-9.—Reports findings on the effectiveness of a therapeutic community approach to the treatment of 25 adult male defective delinquents. A comparison of S movement before and after the inception of the program showed a significant increase in placements to the community, half-way houses, or more open institutional environments. Ss' social participation in open ward meetings was rated by staff twice weekly on a behavior rating scale. Those moving to "superior" placements had made significant improvements while those moving to "inferior" placements or remaining on the ward had not improved.—*Journal abstract.*

2863. Flick, Grad L. (U. Miami) **Attention to color-form stimuli as a function of stimulus parameters and the level of adaptation in normal and mentally retarded children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5687.

2864. Gerjuoy, Irma R. & Winters, John J. **Psychological research in mental retardation.** *Mental Retardation*, 1969(Aug), Vol. 7(4), 4-10, 45.—Offers suggestions and describes techniques and methodologies that would alleviate some of the problems germane to psychological research with the mentally retarded. Recommendations are offered as a result of the authors' experiences and the observations of other Es. No resolution of all questions has been attempted, however, it is hoped that the counsel offered will help Es anticipate some of them and make them wary of the problems they may encounter. (29 ref.)—*Journal abstract.*

2865. Goda, Sidney. (120 Grand St., White Plains, N.Y.) **Language therapy for the non-speaking retarded child.** *Mental Retardation*, 1969(Aug), Vol. 7(4), 22-25.—Presents guidelines and specific procedures for a language program for children with severe deficits affecting both the encoding and decoding of language. The level of a child's speech comprehension is as important as his speech level in such a program, and should determine the materials which will be spoken or read to him. It is stressed that success depends upon the child's level of understanding, and that this should never be assumed without definite proof. The initial goal of language therapy is to make language symbols meaningful, and in teaching the nonspeaking retarded child should be associated with activities which he finds pleasurable. The use of coloring books, index cards with pictured objects, puzzles, simple toys, intraverbal responses, and carefully selected reading materials are described. It is suggested that the management and eventual placing of a retarded child in a home, is greatly facilitated when he has learned to substitute language for overt behavior.—*P. McMillan.*

2866. Hudson, Frederick P., Mordaunt, Virginia L., & Leahy, Irene. (Alder Hey Children's Hosp., Liverpool, England) **Evaluation of treatment begun in first three months of life in 184 cases of phenylketonuria.** *Archives of Disease in Childhood*, 1970, Vol. 45(239), 5-12.—184 Ss did not have the severe retardation that usually is found in untreated phenylketonuric Ss.—*A. B. Warren.*

2867. Lonsdale, Derrick & Foust, Margaret. (Cleveland Clinic, O.) **Normal mental development in treated phenylketonuria.** *American Journal of Diseases of Children*, 1970, Vol. 119(5), 440-446.—Reports on 10 Ss with hyperphenylketonuria. "The results support the belief that it is possible for the children to attain normal levels of mental development" if dietary restriction of phenylalanine is practiced during the 1st yr. of life.

Problems in the management of secondary emotional effects are discussed.—*A. B. Warren.*

2868. Mechem, Richard S. (U. New Mexico) **A study of differences in measures of overprotective attitude between mothers of high and low functioning mongoloid children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5290-5291.

2869. Monaco, T. M. & Noble, D. (Central Missouri State Coll.) **Pilot project: An activities program for mentally retarded adults.** *Central Missouri Synthesis on Mental Retardation*, 1968(Dec), Vol. 1(2), 1-4.—Tested the effectiveness of an activities program for 80 mentally retarded, institutionalized adults. By taking an active part in institutional life through recreational activities, an increase in motor performances was exhibited on a pre-post test designed to note differences in pre- and postmeasures of motor performance.—*Journal abstract.*

2870. Montgomery, Jacqueline & McBurney, Raymond. (Camarillo State Hosp., Calif.) **Problems and pitfalls of establishing an operant conditioning-token economy program.** *Mental Hygiene*, 1970(Jul), Vol. 54(3), 382-387.—After a successful project with the mentally ill, the programs were set up on 4 of 8 units (later, 8 of 9) in a new mental retardation division. Similarities in the 2 project programs include group leaders and their groups (on 3 levels), group medication, and particular attention to grooming and appropriate social behavior. Difficulties arise from breakdowns in communication and inappropriate personnel (i.e., hostile nursing service and/or disinterested physicians). "Where the environment can be controlled, behavior can be controlled and a token economy is a highly efficient way of accomplishing the training of many by a few."—*A. M. Cawley.*

2871. Paul, Howard A. & Markow, Michael J. (American Inst. for Mental Studies, Training School Unit, Vineland, N.J.) **Neurological organization exercises on retarded children with strabismus.** *Journal of the American Optometric Association*, 1969(Jul), Vol. 40(7), 706-709.—Hypothesized that an exercise program patterned along "neurological organization" lines will reduce strabismus and increase intellectual performance in retarded children. Ss were students in a training school for retarded children, and included 5 strabismic Ss (Experimental group), and 5 nonstrabismic Ss (Control Group I), all of whom received experimental treatment. 10 controls (Control Group II) received a normal physical education program. Pretreatment optometric examinations and a Merrill-Palmer Scale of Mental Tests were given to all Ss. Experimental exercises included coupling hand and foot usage, cross pattern motion of arms and legs, binocular visual pursuit of objects held and moved by others, and ball toss and kick with dominant hand and foot. Results show that the strabismic group advanced twice as much as the 2 control groups during the 6 mo. of training as based on Merrill-Palmer scores. Also a change in dominance toward right handedness was strikingly evident in the experimental group.—*P. McMillan.*

2872. Phelps, William R. (West Virginia Rehabilitation Center, Charleston) **Further evidence on the Hain scoring method for the Bender-Gestalt Test.** *Journal of Learning Disabilities*, 1968(Jun), Vol. 1(6), 358-360.—Scored 76 Bender-Gestalt protocols utilizing the Hain scoring method. Ss were 89 young adult moderately or mildly mentally retarded females. Protocols were scored for Hain's 15 differentiating signs

identifying brain damage: 37% of the rehabilitated group and 39% of the nonrehabilitated group received critical scores. Characteristics of the procedure and limitations of the study are discussed.—*Journal abstract.*

2873. Raškaya, M. M. (Inst. of Defectology, Moscow, USSR) *Znachenie tsitogeneticheskikh metodov v izuchenii etiologii oligofrenii.* [Significance of cytogenetic methods in the study of the etiology of oligophrenia.] *Defektologiya*, 1970, Vol. 2(1), 19-24.—Discusses the chromosomal bases of congenital feeble-mindedness, particularly chromosomal pathology stemming from anomalies in the sex chromosomal system.—*I. D. London.*

2874. Roicki, Maria. (Fordham U.) *A comparison of the critical flicker frequency and other perceptual tasks in mental defectives and normals.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5697.

2875. Stein, Zena & Susser, Marvyn. (Columbia U.) *Mutability of intelligence and epidemiology of mild mental retardation.* *Review of Educational Research*, 1970(Feb), Vol. 40(1), 29-67.—Individuals and groups vary in measured intellectual performance at different times, and an attempt is made to order knowledge about such mutability, especially as it relates to mental retardation. Environmental conditioning seems to be the greatest single factor in affecting IQ and perhaps the greatest advantage will incur through a serious attack on the social factors of poverty and unemployment. (3 p. ref.)—*P. D. Leedy.*

2876. Stephens, Wyatt E. (Southern Illinois U.) *Interpreting mental retardation to parents in a multi-discipline diagnostic clinic.* *Mental Retardation*, 1969(Dec), Vol. 7(6), 57-59.—Compares 2 methods of interpreting diagnostic findings to the parents of handicapped children. The "virtuoso model" involves the diagnostic findings of a group of highly trained medical specialists, extensive laboratory tests, and a single meeting with the parents to inform them of the groups conclusions concerning the child. The other method, the "interaction model" with no more than 2 professionals in attendance, uses several interview sessions, "approaches interpretation through the questions raised by the parents, and... seeks to deal with their underlying concerns." It is concluded that the 1st method, though usually favorably received by other professional persons, fails to meet the needs of the parents, who often can neither comprehend nor believe information transmitted in a single session in a group setting.—*P. McMillan.*

2877. Towbin, Abraham. (Harvard Medical School, Boston, Mass.) *Mental retardation due to germinal matrix infarction.* *Science*, 1969(Apr), Vol. 164(3876), 156-161.—Describes "the transition between acute cerebral infarctional damage in the newborn and chronic encephaloclastic lesions in mental retardation." Over 600 clinically correlated cases were investigated. Whole-brain serial histologic sectioning allowed detailed pathologic analysis of the CNS. Results suggest that in both the fetus and newborn most cerebral lesions caused by hypoxia are infarctional in origin. Implications of these findings for improving clinical methods of management in premature delivery are presented. (22 ref.)—*P. McMillan.*

2878. Wilkerson, D. C. (Clearbrook Center, Rolling Meadows, Ill.) *The mentally retarded child: A psychological and child-care approach.* *Mental Retardation*, 1969(Dec), Vol. 7(6), 17-19.—Describes the principles and philosophy underlying a clinical program

for the intellectually disturbed, approaching it from a psychological and child care viewpoint. Many children labeled mentally retarded are cared for in institutions where the treatment programs stress the organic etiology of retardation. Experience with such children indicates that true intellectual potential asserts itself in a situation where the emphasis is not on training a retarded child, but on the development of a relationship within which the child can learn. Since the teacher is the most involved in the care of the child, focus should be on her therapeutic and educational skills.—*Journal abstract.*

Learning & Motor Ability

2879. Lambert Sue E. (U. Wisconsin) *The effect of white noise and rest interval on pursuit rotor learning in retardates.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5312.

2880. Shearer, William M. & Baud, Henry E. (Northern Illinois U., Speech & Hearing Clinic) *Adaptation in mentally retarded stutterers and non-stutterers.* *Journal of Communication Disorders*, 1970(Aug), Vol. 3(2), 118-122.—Observed speech adaptation rates in 8 mentally retarded stutterers and 12 nonstutterers to determine whether or not adaptation was consistently present in these groups, and to compare resulting adaptation behavior with that reported for normal and high IQ groups. Adaptation was found consistently in the mentally retarded groups and the influence of mental retardation upon this behavior was not evident. (15 ref.)—*Journal abstract.*

2881. Weisberg, Paul; Lieberman, Christiane, & Winter, Katherine. (U. Alabama) *Reduction of facial gestures through loss of token reinforcers.* *Psychological Reports*, 1970(Feb), Vol. 26(1), 227-230.—A procedure involving presentation of tokens, exchangeable for the opportunity to play a piano, which strengthened many appropriate work behaviors of a retardate in an occupational setting, failed to affect an attention-getting, distractable, facial gesture. The frequency of gesturing was drastically reduced when a deliberate contingency, token removal for gesture display, was superimposed on the above procedure. The simultaneous use of token delivery and token removal enabled the assessment of the tokens as conditioned reinforcers without causing disruptive behavioral effects which are possible with procedures wherein the back-up reinforcers are removed.—*Journal abstract.*

Training & Vocational Rehabilitation

2882. Becker, Ralph L. & Ferguson, Roy E. (Columbus State Inst. for the Mentally Retarded, O.) *Assessing educable retardates' vocational interest through a non-reading technique.* *Mental Retardation*, 1969(Dec), Vol. 7(6), 20-25.—Describes a reading-free vocational interest test for mildly retarded adolescent youth enrolled in a prevocational evaluation center at a state residential facility. Work areas on the grounds were observed for type, kind, methods, and materials used by job incumbents. A series of sketches of activities with occupational significance were prepared for males and females in booklet format. Preliminary administration of the instrument to 170 males and 113 females in the evaluation center gives strong evidence of the utility of this type of measurement in the guidance process. (15 ref.)—*Journal abstract.*

2883. Monaco, Theresa M., Fizer, Francis, & Sedge, Zelma. (Central Missouri State Coll.) **Pilot project: Housekeeping incentive plan.** *Central Missouri Synthesis on Mental Retardation*, 1968(Dec), Vol. 1(2), 12-14.—Tested the effectiveness of a monetary form of reward in developing quality control and speed associated with housekeeping tasks performed in cottages by 40 mentally retarded institutionalized females. CA ranged from 15 yr. through adulthood; MA ranged from untestable through high trainable. After a period of task orientation, the operant level of performance was determined prior to the introduction of the monetary form of reinforcement. An analysis of pre- and post-monetary performance indicates that quality and speed in performing specific cottage housekeeping tasks increased and remained consistent after the introduction of money as a reinforcing agent.—*Journal abstract.*

2884. Tsikoto, G. V. (Inst. of Defectology, Moscow, USSR) **O semeinom vospitanii umstvenno otstalogo rebënka rannego vozrasta.** [On training of the young mentally retarded child in the family.] *Defektologiya*, 1970, Vol. 2(1), 78-83.—Accompanied by practical suggestions and illustrative exercises, the training of young mentally retarded children at home is discussed, based on the work of A. Broner and F. Broner.—*I. D. London.*

2885. Twiehaus, John & Meinershagen, Joyce. (Central Missouri State Coll.) **Effectiveness of a home living program for institutionalized adolescent retardates.** *Central Missouri Synthesis on Mental Retardation*, 1968(Dec), Vol. 1(2), 15-18.—Gave 22 9-13 yr. old male retardates a 6-wk intensive program stressing social and self-care skills and a general knowledge of home living. Pre- and posttest results from 21 questions in the area of general living show that all but 1 S improved. It is concluded that such a program is beneficial, feasible, and should be adopted as part of the curriculum for adolescent institutionalized retardates.—*M. Maney.*

PHYSICAL ILLNESS

2886. Almajan, P. & Vintila, P. (Center of Cardiology, Bucharest, Romania) **Aspects psychologiques du patient coronarien.** [Psychological aspects of the coronary patient.] *Revue de Medecine psychosomatique*, 1970(Spring), Vol. 12(1), 65-71.—Compared coronary patients to a nonpatient population in an effort to determine differences in personality traits. The instruments used were clinical interviews, objective and projective tests. Patients were found to display significantly greater affectivity and aggression. Implications of these findings regarding early detection of future coronary patients are discussed. (30 ref.)—*R. Naar.*

2887. Bruch, Hilde. (Baylor U., Medical School, Houston, Tex.) **Juvenile obesity: Its course and outcome.** *International Psychiatry Clinics*, 1970, Vol. 7(1), 231-254.

2888. Hansotia, P., Harris, Ruth, & Kennedy, Jean. (National Hosp., London, England) **EEG changes in Wilson's disease.** *Electroencephalography & Clinical Neurophysiology*, 1969(Nov), Vol. 27(5), 523-528.—Correlated the EEGs of 23 patients and 5 asymptomatic siblings with Wilson's disease with their clinical states and biochemical studies related to liver function and copper metabolism. In uncomplicated cases of the disease the EEG may be normal or abnormal. When the

EEG is abnormal there does not appear to be a clear correlation with a clinical or biochemical state. Severely abnormal EEGs are seen with severe complications of the disease and are appropriate to the complication. These EEGs show improvement parallel with clinical improvement. Asymptomatic siblings with the characteristic biochemical defect of copper metabolism may also show normal or abnormal EEGs, a feature which seems to have a familial tendency. The abnormal EEGs of asymptomatic siblings show improvement with treatment, supporting the argument for prophylaxis in such cases. (French summary) (15 ref.)—*Journal summary.*

2889. Hornsby, L. G. **Ulcerative colitis: A contemporary overview.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 338-343.—Reviews the literature concerning etiology and treatment indications for chronic ulcerative colitis in both children and adults. No single cause (genetic, endocrine, allergic, infective, or psychogenic) has gained full acceptance. It is noted that emotional factors may either be predisposing to the illness or secondary once the illness is established. Treatment indications, ranging from surgery through psychotherapy, are discussed, and contraindications presented. Close team work between the internist, surgeon, and psychiatrist is stressed. (20 ref.)—*P. McMillan.*

2890. Kempf, John P. (State U. New York, Downstate Medical Center, Brooklyn) **Observations of the effects of kidney transplant on donors and recipients.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 323-325.—Describes psychological effects of renal homotransplantation on 37 15-44 yr. old recipients and their 15-59 yr. old donors. Psychological tests showed that although potential recipients became more optimistic after learning of the possibility of receiving a transplant, they remained preoccupied with thoughts of death and dying. Young recipient Ss reacted to their illness with more denial than older Ss, and many recipients felt guilt about receiving another's kidney, or felt that their illness was a punishment. Donors went through "a process of mourning" after surgery, with occasional depression or anxiety, caused in part by the fact that recipients could not live long. Both donors and recipients at times showed unconscious castration fears. No permanent impairment of psychological functioning occurred, however, in either donors or recipients as a result of transplant.—*P. McMillan.*

2891. Kolarov, S. A. (Inst. of Pediatrics, Moscow, USSR) **Vzaimootnoshenie struktury i funktsii pri funktsional'nykh zabollevaniyakh rebënka.** [Interrelationship of structure and function in functional diseases of the child.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 66-71.—Concludes that there is an independent group of diseases properly termed functional, but also recognizes that "functional diseases at their basis have a morphological substratum, localized at the level of the microstructure of the ailing organ."—*I. D. London.*

2892. Kowal-Gierczak, B., Fałowska-Adamczyk, W., & Hańczy, H. (Medical Academy, Wrocław, Poland) **Activity of salivary muramidase in allergic bronchial asthma.** *Polish Medical Journal*, 1969, Vol. 8(3), 584-588.—Determined the activity of salivary muramidase in various clinical states of allergic bronchial asthma in 126 16-64 yr. old Ss. All Ss with allergic bronchial asthma showed an increase of the enzyme activity. The highest enzyme level was found in status asthmaticus and in

asthmatic attack. The role of muramidase in allergic bronchial asthma is manifold. Since it has a lytic activity against micro-organisms it releases bacterial antigens and favors asthmatic attacks. On the other hand, its ability to bind histamine is likely to participate in the pathomechanism of bronchial asthma.—*Journal abstract.*

2893. Lüders, Hans; Kato, Motohiro, & Kuroiwa, Yoshigoro. (Kyushu U., Fukuoka, Japan) **Cortical evoked potentials in hepatolenticular degeneration.** *Electroencephalography & Clinical Neurophysiology*, 1969(Oct), Vol. 27(4), 425-428.—Studied somato-sensory and visual evoked potentials in 3 patients with hepatolenticular degeneration. In 1 S all of the components of the somato-sensory evoked potential were absent. In the other 2 Ss prominent alterations of N₁, P₁, and N₂ were observed. The visual evoked potentials were within normal limits in all Ss, except for the absence of rhythmic after-discharges. Findings suggest that somato-sensory evoked potentials are a more sensitive test than EEG in hepatolenticular degeneration. (French summary)—*Journal summary.*

2894. Markov, Kh. M. (Inst. of Pediatrics, Moscow, USSR) **Neirogennyye mekhanizmy patogeneza pochечноj gipertonii.** [Neurogenic mechanisms in the pathogenesis of renal hypertension.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(1), 87-95.—Presents a critical survey of primarily the non-Soviet literature, and discusses (a) the significance of the baroreceptor mechanisms, (b) the enhancement by angiotensin of the pressor effect of endogenous nor-adrenaline and the participation of the nervous system in the vasoconstrictive action of angiotensin, and (c) the significance of the cerebro-ischemic pressor mechanism. It is concluded that the "sympathetic nervous system and those changes of its functioning subjected to analysis [by the author] should be viewed as very essential and, possibly, determining, but, nevertheless, not the [1] single factor, but only as 1 of the components in the pathogenesis of chronic renal hypertension."—*I. D. London.*

2895. Nemtseev, G. I. & Kharon, N. S. (Research Inst. of Work Hygiene & Occupational Diseases, Kharkov, USSR) **Vremya zritel'nogo oshchushcheniya pri vozdeystvii terapevticheskikh doz rentgenovskikh luchei na diencefalo-gipofizarnuyu oblast'.** [Time of visual sensation under the action of therapeutic doses of roentgens on the diencephalo-hypophyseal region.] *Problemy Fiziologicheskoi Optiki*, 1969, Vol. 15, 72-76.—Investigated the "time of visual sensation" in 26 patients (17 endocrinal exophthalmia, and 9 optochiasmal arachnoiditis with disturbance of the visual functions). Under the influence of irradiation almost all Ss exhibited a reduction in "time of visual sensation." This is attributed to a decrease in the threshold of excitability of the interneuronal synapses in the optic pathway.—*I. D. London.*

2896. Rimón, Ranan; Lehtonen, Johannes, & Scheinin, T. M. (U. Turku, Finland) **Psychiatric disturbances after cardiovascular surgery.** *Diseases of the Nervous System*, 1970(May), Vol. 31(5), 326-328.—Investigated the psychiatric and social adjustment of 24 4-40 yr. old patients in whom psychopathological phenomena had occurred after major cardiovascular surgery. The mean duration of the observation was 3.2 yr. During the follow-up period, 6 Ss showed psychiatric symptoms: 3 had neurotic syndromes, 1 depression, 1 organic brain syndrome and 1 subnormal intelligence. In 4 cases these

symptoms caused partial incapacity and 2 were completely handicapped. 17 Ss accomplished good social adjustment and 9 showed improvement in general adaptation to social life after cardiac surgery. The significance of postoperative long-term psychiatric control and treatment is emphasized.—*Journal summary.*

2897. Serov, V. V. (1st Moscow Medical Inst., USSR) **Strukturno-funktsional'nye osnovy patologii pochek.** [Structuro-functional bases of renal pathology.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(3), 32-40.—Presents an analysis of structure and function, using data on the fine structure of the neuron, in order to develop an understanding of the renal pathological process.—*I. D. London.*

2898. Tambortsev, P. D. (Children's Clinical Sanatorium, Leningrad, USSR) **Fiziolopskhoprofilaktika khronicheskikh nespetsificheskikh pnevmonii u detei.** [Physiopsychoprophylaxis of chronic nonspecific pneumonias.] *Pediatriya*, 1970, Vol. 49(2), 92-93.—An analysis of the case histories of 5770 children led to their division into 2 groups, i.e., for Group 1, N = 4216, and for Group 2, N = 1554. Group 1 was decidedly inferior to Group 2, as indicated by a number of physical and emotional indices. The more normal life of Group 2 Ss suggests that the inferiority of those in Group 1 is due to the failure to undertake physio- and psychoprophylactic measures.—*I. D. London.*

2899. Tropauer, Alan; Franz, Martha N., & Dilgard, Victor W. (U. Cincinnati) **Psychological aspects of the care of children with cystic fibrosis.** *American Journal of Diseases of Children*, 1970, Vol. 119(5), 424-432.—Studied 20 children with cystic fibrosis and 23 mothers of such children using psychiatric interviews and the House-Tree-Person test. Results indicate emotional problems in both patients and mothers which if unresolved can impede medical therapy.—*A. B. Warren.*

2900. Wijsenbeek, H., Maoz, B., Nitzan, Ilanah, & Gill, Ruth. (Tel Aviv U., Medical School, Israel) **Ulcerative colitis: Psychiatric and psychological study of 22 patients.** *Psychiatria, Neurologia, Neurochirurgia*, 1968(Sep), Vol. 71(5), 409-420.

COMMUNITY SERVICES

2901. ———. **Hope for the family that is failing: A new dimension in the delivery of psychiatric care.** *Menninger Quarterly*, 1968-1969(Win), Vol. 22(4), 15-21.—Describes a community service project established to assist families in a low-income area who were failing in the basic tasks of feeding, clothing, and providing shelter. Results of 3 yr. of operation are described, focusing on findings involving what a psychiatrist, a clinical psychologist, and a social worker, working as a team and going into their clients' homes, have to offer this group of people and what techniques of helping prove most efficacious.—*M. Maney.*

2902. Beigel, Allan. (U. Arizona, Medical School) **Planning for the development of a community mental health center: I. Catchment area, administration, continuity of care, staffing and funding.** *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 267-275.—Discusses "the development of a community mental health center as described in federal legislation." Guidelines suggested for successful planning include: (a) sufficient funds from local organizations or individuals, (b) community support (the formation of a board of advisers of community leaders and potential consumers

is suggested), (c) priority evaluation of community needs, and (d) a knowledge of services currently being provided by other agencies so that duplication can be avoided. The administrative structure, continuity of care and records, staffing, and funding of a mental health center are also discussed. (42 ref.)—*P. McMillan*.

2903. Gottesfeld, Harry; Rhee, Chongik, & Parker, Glenn. (Roosevelt Hosp., New York, N.Y.) **A study of the role of paraprofessionals in community mental health.** *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 285-291.—Conducted a study of paraprofessionals in 10 New York institutions with mental health programs. 58 Ss were interviewed, including the director of the program, supervisor of paraprofessionals, 3 paraprofessionals, and 1 clinician in each institution. Data indicate that: (a) in the New York area, fewer paraprofessionals are utilized than in the rest of the nation; (b) their work overlaps with the professional; (c) many are involved in community organization and various forms of psychotherapy; (d) the paraprofessional contribution is perceived as "highly desirable" by administrators and clinicians; and (e) training and career opportunities for paraprofessionals are generally poor. Findings raise questions not only about the role and training of paraprofessionals but of professionals in community mental health.—*Journal abstract*.

2904. Gould, R. L. **Preventive psychiatry and the field theory of reality.** *Journal of the American Psychoanalytic Association*, 1970(Apr), Vol. 18(2), 440-461.—Community psychiatry is a public health venture that demands affecting individual internal systems by external social systems. Social reality is a force affecting the individual's internal equilibrium via a complex of channels regulating drive discharge by complementing ego structures. Reality operates as a series of signs mediating change demands or maintenance demands of structures. Concepts of structure-maintaining and structure-changing forces are equally useful in more fully understanding the individual as well as a society of individuals. (17 ref.)—*D. Prager*.

2905. Hersch, Charles. (Mental Health Center, Cambridge, Mass.) **The process of collaboration: II. Implementation and its discontents, or you don't learn that in school.** *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 300-312.—Describes the 2nd phase of a mental health program designed to help the poor. Phase I brought the collaborating groups to the point of a mutually endorsed plan. Phase II secured the funds needed to implement the program. Difficulties of this endeavor in the areas of community organization and political action are described. The strategies employed and unexpected obstacles encountered are emphasized.—*Journal abstract*.

2906. Sindberg, Ronald M. (Central Wisconsin Colony & Training School, Madison) **A fifteen-year follow-up study of community guidance clinic clients.** *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 319-324.—Conducted a 15-yr total sample follow-up study on 28 clients of a small general purpose community mental health clinic. Ss who received psychotherapy and those not receiving therapy had not initially differed significantly on a number of variables. Results indicate that although a higher proportion of the therapy group 15 yr. later showed no continuing emotional problems, and were more often happily married and steadily employed, the only statistically significant difference between groups was in subsequent

institutionalization which was much higher in the no-therapy group. For many therapy Ss the clinic apparently served a crisis intervention function, and clinic psychotherapy probably served as an alternative to institutionalization.—*Journal abstract*.

2907. Wolkon, George H. (Mental Health Rehabilitation & Research, Inc., Cleveland, O.) **Characteristics of clients and continuity of care into the community.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 215-221.—Describes a study of 312 20-60 yr. old patients who were referred from psychiatric hospitals to a posthospital social rehabilitation center. $\frac{2}{3}$ of the Ss did not follow through on the referral. It was found that Ss who participated in the rehabilitation service were more dependent in several areas of functioning than those who did not participate. (18 ref.)—*Journal abstract*.

GERIATRICS

2908. Muller, C. (U. Lausanne, Switzerland) **Le problème de l'interférence des troubles de la sénescence avec les psychoses préexistantes.** [The problem of the interference of senile deterioration with preexisting psychoses.] *Encéphale*, 1970(Jan), Vol. 59(1), 81-89.—Reviews personality changes associated with senescence. Preexisting symptomatology seems less affected by senile changes than by the continuation of pathogenetic processes. The influence of cerebral-organic changes seems minimal, but the psychological changes associated with disengagement seem to have a greater effect.—*W. W. Meissner*.

2909. Schwartz, Ph. (State Hosp., Pathological Inst., Warren, Pa.) **Neue Beiträge zur Pathologie des Alterns: Fluoreszenzmikroskopische Untersuchungen.** [New contributions to the pathology of aging: Fluorescent microscopic investigation.] *Psychiatria et Neurologia*, 1967, Vol. 154(6), 337-365.—Describes a new method for the detection of amyloid deposits in tissues: treatment of histologic sections with thioflavine-S and viewing the preparations in ultraviolet light. It is emphasized that senile mental and physical deterioration is often caused by the accumulation of amyloid in the brain, cardiovascular system and pancreatic islets. Amyloidosis is the most common morphologically recognizable significant disease in human pathology. Cerebral, aortic and pancreatic insular amyloid degeneration in cases of mongoloid idiocy were found. Alzheimer's disease and pugilistic dementia were detected. Cerebral and cardiovascular amyloidosis, as observed in human pathology, also occurs in aged dogs. (4 p. ref.)—*English summary*.

2910. Speck, Peter W. (U. Birmingham, England) **Visiting in a female psycho-geriatric ward.** *British Journal of Psychiatry*, 1970(Jul), Vol. 117(536), 93-94.—Conducted a 7-day survey in a female psychogeriatric ward of 24 patients in order to collect information from 94 visitors concerning the value of their visit with a patient. A questionnaire was administered to elicit (a) factual information about visitors, (b) subjective accounts of their visiting behavior, and (c) their attitudes towards the hospital and visiting. A statistical test was made of the relationship between aspects of visiting behavior considered desirable by the investigator and the Ss' reported attitudes. Results suggest a ward-aid scheme in which visitors feel they take a more active part in the care of the patient.—*P. McMillan*.

2911. Whittingham, Senga, et al. (U. Melbourne,

Victoria, Australia) **Absence of brain antibodies in senile dementia.** *British Journal of Psychiatry*, 1970(Apr), Vol. 116(533), 447-448. —No antibody specific to brain antigens was detected in sera from 18 patients.—R. L. Sulzer.

EDUCATIONAL PSYCHOLOGY

2912. ———. **O rabote Pervogo soveshchaniya rektorov vysshikh uchebnykh zavedenii SSSR i GDR.** [On the work of the 1st Conference of Rectors of the Higher Educational Institutions of the USSR and the GDR.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(1), 90. —Presents an account of the 1969 conference, held in Berlin, E. Germany.—I. D. London.

2913. Baruchin, Fred. (State Education Dept., Albany, N.Y.) **Middle school for elementary youngsters? Maybe not!** *New York State Education*, 1967(Feb), Vol. 54(4), 44-47. —Argues that the rush to link "the elementary grades onto the middle school may not be justified and as scientifically based as its proponents make it seem...." —L. D. Summers.

2914. Centra, John A., Hartnett, Rodney T., & Peterson, Richard E. (Educational Testing Service, Princeton, N.J.) **Faculty views of institutional functioning: A new measure of college environments.** *Educational & Psychological Measurements*, 1970(Sum), Vol. 30(2), 405-416. —The Institutional Functioning Inventory (IFI) yields 11 scores. Among these are intellectual-esthetic extracurriculum, freedom, human diversity, and institutional esprit. IFI scales correlated with Astin variables as well as with scores on the College and University Environment Scales. The demonstrations of the validity of all scales are discussed.—N. M. Chansky.

2915. Edington, Everett D. (New Mexico State U.) **Disadvantaged rural youth.** *Review of Educational Research*, 1970(Feb), Vol. 40(1), 69-85. —A review of research relevant to characteristics of disadvantaged rural youth shows them disadvantaged in 7 different areas: socioeconomic status, low level of aspiration, attitudes nonsupportive of educational progress, educational achievement, inadequate and irrelevant curricula, and the wide spectrum of ethnic and cultural factors. Research is meager in the area, but the problems of the group under study are overlapping and interrelated to the general problems of education in this country. (2 p. ref.) —P. D. Leach.

2916. Erlich, M. **Research in classroom interaction and its implications for instruction.** *Hachinuch*, 1970(Jun), Vol. 42(5), 366-374.

2917. Graff, Robert W., & Bradshaw, Harley E. (Southern Illinois U., Counseling & Testing Center) **Relationship of a measure of self-actualization to dormitory assistant effectiveness.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 502-505. —Investigates the relationship between a measure of self-actualization and dormitory assistant effectiveness. The Personal Orientation Inventory (POI) was administered to 71 male undergraduate dormitory assistants. Effectiveness was measured by a semantic differential questionnaire in which students and personnel deans rated the assistants. Canonical correlations were used to explore the relationship between the POI variables and criterion measures. Results suggest that the POI may have value as a tool in the selection of dormitory assistants.—*Journal abstract*.

2918. Horne, Kibbey M. (Defense Language Inst., West Coast Branch, Monterey, Calif.) **Optimum class size for intensive language instruction.** *Modern Language Journal*, 1970(Mar), Vol. 54(3), 189-195.

—Reviewed past discussions and studies on optimum size of classes in foreign language instruction. It is suggested that a class size between 5 and 9 students constitutes the ideal. Justification for this class size revolved around the theories that (a) language is best learned as a small group activity rather than individually or on a mass basis, (b) with larger classes the students would not be allowed any speaking time, (c) students should be close enough to see and hear the instructor clearly (approximately 4-12 ft.), and (d) this size group enhances the atmosphere for informal group discussion.—C. O'Donnell.

2919. Howie, George. **Educational theory and practice of St. Augustine.** New York, N.Y.: Teachers Coll. Press, 1969, vi, 338 p. \$4.25(paper).

2920. Howie, George. **Psychological aspects.** In G. Howie, *Educational theory and practice of St. Augustine*. (See PA, Vol. 45:Issue 2) 63-98.

2921. Hruska, Jack L. (Michigan State U.) **An analysis of Paul Goodman's conception of the nature of man as a perspective on his educational proposals: A study in the philosophical foundations of radical educational thought.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5286-5287.

2922. Murphy, Maribeth L. (United States International U., San Diego, Calif.) **Measurement of values through responses to selected visual stimulus materials.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5294.

2923. Petrofesa, John J. (Wayne State U.) **A comparison of the personality need structure of college students enrolled in different academic majors.** *National Catholic Guidance Conference Journal*, 1970(Sum), Vol. 14(4), 218-228. —Ss were 854 upper-classmen and graduate students, under 25 yr. of age, of liberal arts and professional schools of a university. Data were need pattern scores of the EPPS. Need preference patterns of males and females in the various majors in the different schools were compared. It is concluded that: (a) "a fundamental relationship exists between the individual's personality needs and the college major he selects...." (b) Personality need patterns are relatively similar among the students in different areas of study in the same school.... (c) Differences among natural groups of both male and female Ss were in the expected directions.—A. M. Cawley.

ATTITUDE & ADJUSTMENT

2924. Adinolfi, Allen A. (Harvard U.) **Characteristics of highly accepted, highly rejected, and relatively unknown university freshmen.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 456-464. —Presents an empirical-descriptive study of personality, value, interest, social awareness, and interpersonal orientation variables associated with a sociometric status of high acceptance, high rejection, or relative anonymity of 297 male and 325 female freshmen undergraduates. A range of assessment techniques revealed differences among groups in needs expressed in interpersonal settings, in affectionate and inclusive social behavior, in interests, and in past dating behavior and

requests for current emotional counseling. Results indicate the anonymous student as defensive, self-protective, and emotionally uncomfortable; the highly accepted student as interpersonally rewarding; and the rejected student as interpersonally aversive. Regardless of objective social status all Ss felt accepted by others. Results are seen as means for helping anonymous and possibly rejected students establish a more satisfying interpersonal environment. (22 ref.) *Journal abstract.*

2925. **Baird, Leonard L., Richards, James M., & Shevel, Linda R.** (American Coll. Testing Program, Iowa City, Ia.) **A description of graduates of two-year colleges.** *ACT Research Report*, 1969(Jan), No. 28, 25 p.—Administered comprehensive follow-up survey to 2nd-yr students at 29 2-yr colleges. Ss responded to items regarding their background and plans, participation in nonacademic activities, financial and work status, and general satisfaction with college. The majority of Ss planned to transfer to 4-yr colleges. Ss were satisfied with most aspects of their instructors' performance, and described them as clear, factual, consistent, and concerned with their students. Ss participated in several areas of extracurricular activity, but seldom attained public recognition of their accomplishment. Most Ss worked part of their 2-yr college careers and commuted to campus. However, working or commuting were found to have little effect on college experiences or achievement. Graduates were generally satisfied with their 2-yr college. Some problems of 2-yr colleges were found to be real, others, e.g., student time spent in working or commuting, were not as great as expected. *Journal abstract.*

2926. **Cooley, Fannie R.** (U. Wisconsin) **Women doctoral students: Differential perceptions of their role behavior in the academic environment.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5228-5229.

2927. **Duerries, Lee E.** (U. Rhode Island) **Purpose in life and social participation.** *Journal of Individual Psychology*, 1970(May), Vol. 26(1), 50-53. 122 undergraduates took the Purpose in Life Test and completed a checklist of clubs, organizations, and community groups. High test scorers, as hypothesized, participated in more organizations than low scorers. Lack of support for hypothesizing that higher scores would be obtained by Ss who believed that their professor would evaluate their performance than Ss who felt that a graduate student was conducting a study in which they would remain anonymous was interpreted as contributing to the validity of the test.—*A. R. Howard.*

2928. **Fisher, Richard I.** (U. Kansas) **The effect of the academic self-concept and the method of problem presentation on problem solving performance.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5284.

2929. **Katkin, Steven.** (U. Georgia) **The relationship between professed values and emotional adjustment of college students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5690.

2930. **Nelson, Charles M.** (U. Kansas) **Differences in measures of locus of control, evaluative style, incentive orientation, academic achievement, and overt behavior between conduct disturbed children and their peers in the regular classroom.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5295-5296.

2931. **Patterson, James P.** (U. Texas) **Correlates of**

student satisfaction in undergraduate educational psychology. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5297.

2932. **Sandven, John.** (U. Oslo, Inst. for Educational Research, Norway) **Students in general and school-rejecting students compared: Results of an investigation concerning relations to school and personality characteristics among 9th graders in the compulsory school.** *Scandinavian Journal of Educational Research*, 1968, No. 3-4, 91-140. Investigates the main characteristics in the students' relations to school, and compares findings for students in general with school-rejecting students, i.e., students who express a desire to leave school immediately if permitted. School-rejecting students were compared with other students with regard to: school achievement motivation, feeling of security, and problem-solving ability. The findings show that most students feel attached to school, like their work, and make efforts. School-rejecting students present a complex picture, but as a group they differ clearly from the others in their relations to school as well as in personality characteristics. *Journal abstract.*

2933. **Vikainen, Inkeri.** (U. Turku, Finland) **Attitudes as defence mechanisms of pupils with varying scholastic success.** *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 108-118. Gave attitude check lists to 1092 Finnish 4th graders. Although the correlation of school success and attitudes is often observed, it was found that the correlation was very low. Results are attributed to the fact that the negative attitudes of weaker pupils towards school and teachers are weaker not stronger than average. "A further study is being made of how different attitudes are reflected in the behaviour of different school-success groups." (German summary)—*A. M. Berg.*

2934. **Weilman, Robert E.** **Psychological growth and openness to learning in secular and parochial colleges.** *National Catholic Guidance Conference Journal*, 1970(Sum), Vol. 14(4), 256-262. Compared realistic personal values of students attending different kinds of colleges in an attempt to answer the question "Does college experience help students learn to confront human problems effectively?" The measuring instrument consisting of 20 statements requiring choice among 4 levels of approval, was adapted from the kinds of problems that bring students to the counseling situation. Ss were samples from the freshmen and senior students of 3 Catholic women's colleges, 1 Catholic men's college, and 1 private and 1 state coeducational college. Results suggest that a substantial percentage of the sample lack awareness of a realistic attitude that would assist them to live a creative human existence despite evidence of limited favorable movement among Catholic college students.—*A. M. Cowley.*

2935. **Wolffenden, John.** (British Museum, London, England) **Students' strains and stresses.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 577-585.—As part of the price of growing up, young people have always suffered from stresses and strains. While some have thought that the relative affluence of today makes the lot of the young easy, other differences from the past increase strain, including the "focus on youth" attitude, personal problems generated in part by the passion for honesty and sincerity, the loss of conventions and other simple guidelines to behavior, and the revolutionary ethos of "smash the system." It is concluded that the unhappiness behind the desire to smash has

roots in a profound disillusion with internal, domestic, national policies, and in a deep concern about the great causes.—R. L. Sulzer.

2936. Wright, Logan & Dunn, Thomas. (U. Oklahoma, Medical Center, Oklahoma City) **Factor structure of the Expanded Sociometric Device: A measure of personal effectiveness.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 319-326.—The Expanded Sociometric Device was administered to 88 female and to 168 male college student members of Greek societies. 4 factors were extracted from the factor analysis of item intercorrelations: perceptual and task effectiveness, autonomy and self-actualization, commitment, and openness. These findings were replicated on a 2nd sample of 393 Ss from the same university. Findings were partially replicated for fraternity and sorority Ss of the 2nd sample.—N. M. Chansky.

TESTING

2937. Achenbach, Thomas M. (Yale U.) **The Children's Associative Responding Test: A possible alternative to group IQ tests.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 340-348.—308 5th graders took the Children's Associative Responding Test (CART), a previously standardized and validated multiple-choice analogy test designed to identify children who rely on free association rather than on reasoning processes which may be available to them. 2 experiments replicated previous findings that the correlations between classroom performance and ability measures (Otis and Binet IQ, mental age) were lower for children who, on the CART, relied excessively upon free association (high Ds) than for children who did not (low Ds). High Ds were significantly poorer than low Ds on an individual paired-associate task, but not on content-free problem-solving tasks. Unlike the Otis and Binet, total errors on the CART had consistently high correlations with classroom performance for all groups.—*Journal abstract*.

2938. Baggaley, Andrew R., Isard, Eleanore S., & Sherwood, Emily J. (U. Pennsylvania) **Discrimination of academic curricula by the Runner Studies of Attitude Patterns, College Form.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 41-44.—All freshmen entering a large urban university completed the college form of the Runner Studies of Attitude Patterns (RSAP). 2 yr. later, 628 of these students had attained junior status and had selected academic majors. Multiple-discriminant analysis was applied to the 10 personality variables of the RSAP and to 17 groups of academic majors. The hypothesis of equality of population centroids for the 17 groups was rejected at the .01 level. The 1st 2 latent roots accounted for 55% of the discrimination. The 2 discriminants were identified as need for exploring new ideas and competitive tendency.—S. M. Amatora.

2939. Bracht, Glenn H. & Hopkins, Kenneth D. (Southern Illinois U.) **The communality of essay and objective tests of academic achievement.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 359-364.—An essay and a multiple-choice test were administered to 279 undergraduate sophomores. Items for both tests were based on similar assigned content. The Kuder-Richardson Formula 20 reliability for the objective test were .4 and .5; for essay, .3 and .7. When allowances were made for the unreliability in the tests, all intercorrelations between essay and objective

tests were approximately .9. (15 ref.)—N. M. Chansky.

2940. Brown, Frederick G. (Iowa State U.) **Review of the past, focus for the future.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 18-24.—Views A. R. Jensen's (see PA, Vol. 43:9740) report as reemphasizing many of the persistent problems of psychological measurement rather than as raising a new set of issues. In particular, it forces test developers and users to consider: (a) the multiplicity of determiners of test performance, (b) the central role of the norming population in test interpretation, (c) whether tests measure basic psychological traits or are only decision-making aids, (d) the diversity of human abilities and possible tests, and (e) the adequacy of the present model for conceptualizing test performance. Attention is also directed to the social consequences of testing.—S. M. Amatora.

2941. Cameron, Howard K. (Howard U.) **Cultural myopia.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 10-17.—The controversy resulting from A. R. Jensen's (see PA, Vol. 43:9740) report is viewed in terms of the questionable usefulness and applicability of standardized tests in measuring personality attributes of minority group Ss. A moratorium on testing minority group members with existing standardized measuring instruments, accompanied by a reassessment of the validity of standardized tests and an ethical appraisal of testing practices with minority groups whose cultural backgrounds vary significantly from that of the middle-class white norm is recommended. There must be lessened emphasis on the predictive aspects of cognitively based tests, increased emphasis on their diagnostic value, and greater professional attention to researching nonintellectual predictors of behavior.—S. M. Amatora.

2942. Carr, George L. (Cornell U.) **The development, construction, and validation of a test of problem-solving ability in physical science for use with nonscience majors in college.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5279-5280.

2943. Cole, Nancy S. (American Coll. Testing Program, Iowa City, Ia.) **Differential validity in the ACT tests.** *ACT Research Report*, 1969(Aug), No. 30, 8 p.—Investigates the differential validity of subject area tests of academic ability. Principal components analyses of test scores, and high school and college grades in English, math, social studies, and natural sciences show a dominant general ability dimension and a consistent configuration of subject areas on 2nd and 3rd dimensions. Data from 250 colleges yield correlations of subject area college grades with subject area test scores on the American College Tests (ACT) and with high school grades. A criterion of differential validity is proposed and calculated for the ACT tests and high school grades in predicting college grades. The moderate differential validity found is interpreted in terms of the 1st analysis.—*Journal abstract*.

2944. Costin, Frank. (U. Illinois) **The optimal number of alternatives in multiple-choice achievement tests: Some empirical evidence for a mathematical proof.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 353-358.—Presents empirical evidence which supports Tversky's mathematical proof that a 3-choice multiple-choice test is more powerful than a 4-choice test. Power refers to 1 minus the p of attaining a perfect performance by chance alone. 3-choice items were slightly easier and more discriminating than 4-choice items.—N. M. Chansky.

2945. Debyser, R. & Jennen, J. (Royal Military School, Brussels, Belgium) **Une batterie de tests d'intelligence destinée à des étudiants du niveau de l'enseignement supérieur.** [A battery of intelligence tests for college students.] *Information Psychologique*, 1969(May), No. 34, 34, 39-80.—8 tests including the Progressive Matrices and the Dominoes Test were administered to 111 students at the Royal Military School, Brussels, Belgium. Means, standard deviations, and intercorrelations are reported as well as the results of factor analyses. Correlations with school success are not reported.—S. G. Vandenberg.

2946. Dreyer, Dorothy E. (Michigan State U.) **Listening performance related to selected academic and psychological measures.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5735.

2947. Goolsby, Thomas M. (U. Georgia) **The validity of the College Level Examinations Programs tests for use at the college sophomore level.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 375-380.—The College Level Examination Program was administered to 2 samples at the end of the sophomore year. Intercorrelations between the subtests are presented. Given also are correlations of subtest scores with sophomore and with junior GPA. Correlations were moderate. They were interpreted to be too low for predictive purposes.—N. M. Chansky.

2948. Goolsby, Thomas M. & Frary, Robert B. (U. Georgia) **Validity of the Metropolitan Readiness Test for white and Negro students in a southern city.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 443-450.—A battery of tests including the Metropolitan Readiness Test (MRT), the Otis-Lennon Mental Ability Test, the Metropolitan Achievement Tests, and the Botel Reading Inventory were administered to children in integrated and segregated schools. Intercorrelations between the tests were computed. Correlations of MRT with subsequent achievement tended to be higher among Negroes. Factor analyses of the data from the 2 races revealed similar factors. Factor 1 had more MRT loadings in the Negro than in the Caucasian group.—N. M. Chansky.

2949. Hanna, Gerald S. (Kansas State U.) **Influence of directions regarding guessing on validity.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 35-40.—4 psychometric and 2 ethical issues concerning test directions regarding guessing and the use of scoring formulas were identified. Most standardized tests of maximum performance ignore the warning against scoring on the basis of number right in the absence of power-testing conditions and instructions to mark every item. The validity concomitants of 4 sets of directions regarding guessing were investigated with a sample of high school geometry students. The most valid procedures were testing with directions indicating or implying the use of a scoring formula, and scoring by means of either conventional or multiple-regression formulas.—S. M. Amatora.

2950. Lunneborg, Clifford E., Greenmun, Renny, & Lunneborg, Patricia W. (U. Washington) **A factor analysis of the core elements of the CEEB Comparative Guidance and Placement Battery.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 387-392.—The Comparative Guidance and Placement Battery (CGPB) was administered to 687 community college entrants. The 20 measures obtained from the CGPB were factor analyzed. 6 factors accounted for

72% of the variance: verbal skill, verbal interest, scientific interest, business interest, fine arts, and mechanical perceptual factors.—N. M. Chansky.

2951. Ostyn, N. (Royal Military School, Brussels, Belgium) **Ijkingen van de intelligentietest voor ruimteverhoudingen.** [Standardizing the spatial relations test of Gedeon for 19-22 year old boys.] *PMS: Tijdschrift voor Psycho-Medisch-Sociaal Werk*, 1970, Vol. 16(1), 27-31.—Norms are given for Gedeon's French-Canadian test of spatial relations based on 4 groups with different amounts of education: university level, 191; technical education, 595; high school diploma, 1377; and 6 yr. of education, 949.—S. G. Vandenberg.

2952. Payne, Paul A. (U. Cincinnati) **Meanwhile, back at the items . . . Measurement & Evaluation in Guidance**, 1970, Vol. 3(1), 28-34.—Presents an approach to test interpretation which involves the selected use of scale items. Examples are given of situations for such item utilization that could have appreciable effects on conclusions reached. Procedures are described for making use of scale items in a more practical manner in interpretation.—S. M. Amatora.

2953. Pennscott, William W. & Sorensen, Mourits A. (Clemson U.) **OAIS achiever personality and desire for improvement in reading and study skills.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 25-27.—Assesses the validity of the Achiever Personality (AP) scale of the Opinion, Attitude, and Interest Survey (OAIS), using a behavioral criterion. 130 volunteer students on a reading and study skills program were matched with 130 nonvolunteers on the basis of sex and scores on the Davis Reading Test. Groups were compared on their AP scale scores. Volunteers' AP scores were correlated with the number of hr. they remained on the program. AP scale scores of the volunteers were found to be significantly higher than those of nonvolunteers; and persistence in the program and AP scale scores were significantly related. Results tend to support the statement in the OAIS manual describing the AP scale as a measure of motivation and conscientiousness.—S. M. Amatora.

2954. Poole, Richard L. (Syracuse U.) **An examination of cognitive processes elicited by test items as a function of the taxonomy of educational objectives and selected cognitive factor abilities.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5298-5299.

2955. Pounders, Cedric J. (U. Southern California) **The Admissions Test for Graduate Study in Business: A factor analytic study.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 469-473.—4 factors were extracted from a factor analysis of the Admissions Test for Graduate Study in Business administered to 102 business students whose verbal and quantitative ability was slightly above the national average. These factors were numerical facility, verbal comprehension, abstract reasoning, and perceptual speed.—N. M. Chansky.

2956. Shand, Jack. (Gettysburg Coll.) **The Graduate Record Examination Advanced Test in Psychology in relation to undergraduate academic standing.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 85-90.—Indicated difficulties in the predictive validation of the Graduate Record Examinations (GRE) using existing procedures and prevalent criteria of success in graduate school. A method of concurrent validation (based on correlation of the GRE Advanced Test in Psychology

with undergraduate psychology quality point average) was used for each of 5 successive yr. ($N > 30$ for each yr.), and yielded consistently higher correlations (near .50) than those commonly reported in the literature for the correlation of either GRE-V, GRE-Q, or the GRE Advanced Test in Psychology scores with various criteria of success in graduate work in psychology.—*Journal summary*.

2957. Warries, E. (Research Inst. voor de Toegepaste Psychologie, Amsterdam, Netherlands) **Het relatief meten van leerprestaties in het onderwijs.** [The relative measurement of learning-achievement in the process of instruction.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 429-439.—Discusses the merits of the normative vs. absolute standards of achievement. The defects of the normative approach are that (a) the bases for grading vary too widely among classes and teachers for the prediction of the pupil's later progress, (b) an undue emphasis is placed on differentiation among the pupils, and (c) that the communicative values of teachers' marks are frequently spurious. Absolute measurement is preferable for small groups that are being measured by teacher made tests. The normative approach to grading, if taken seriously, underlies the mistaken concept that a certain proportion of the pupils are destined to fail.—A. J. Ter Keurst.

2958. Wasik, John L. & Wasik, Barbara H. (North Carolina State U.) **A note on use of the WPPSI in evaluating intervention programs.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(1), 54-56.—A study of the test-retest data used to provide stability estimates of the Wechsler Preschool and Primary Scales of Intelligence (WPPSI) showed a consistent positive gain in performance from the 1st to the 2nd testing. The difficulty of interpreting gains on the WPPSI to demonstrate the effectiveness of preschool intervention programs is discussed. A procedure is presented allowing true estimates of the effectiveness of intervention programs when the WPPSI is used as the evaluative measure.—S. M. Amatora.

2959. Zaretskii, L. M. (Provincial Pedagogical Inst., Moscow, USSR) **O chisle otvetov k zadaniyam pri programmirovannom kontrole.** [On the number of answers to problems in programed checking.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(2), 34-39.—Presents a technical analysis of how the number of choices listed as possible answers to a problem influences the checking process, in order to determine the optimal number of choices.—I. D. London.

2960. Zimmerman, Wayne S., Michael, Joan J., & Michael, William B. (California State Coll., Los Angeles) **The factored dimensions of the Study Attitudes and Methods Survey Test-Experimental Form.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 433-436.—The test was administered to 91 college freshmen and to 320 high school students in the college community. More interpretable factors were extracted from the high school sample. Among the factors named were learning affect-satisfaction, persistence-conformity, self-assurance, and systematic study.—N. M. Chansky.

SPECIAL EDUCATION

2961. Carlson, Ralph M. (U. Oregon, School of Education) **Behavior modification: Educational im-**

plications. *Journal of Learning Disabilities*, 1968(Sep), Vol. 1(9), 515-519.—Clarifies the origin and meaning of behavior modification and shows how it relates to the teaching process. A task analytic approach to the education of the emotionally disturbed and neurologically handicapped is outlined, analyzing where the educational process has failed. It is emphasized that it is "the teacher's rightful domain to structure the classroom environment in such a way so as to produce the desired behavior."—M. Maney.

2962. Crosson, James E. (U. Oregon) **The functional analysis of behavior: A technology for special education practices.** *Mental Retardation*, 1969(Aug), Vol. 7(4), 15-18, 45.—Deals with the science of behavior from the viewpoint of Special Education. Fundamental principles of operant behavior are presented in terms of their role as important tools for the practitioner and described in relation to common examples of behavior. Procedures for analyzing and modifying behaviors are discussed and typical applications are described. Selected references are included as guides to additional information.—*Journal abstract*.

2963. Quadfasel, F. A. & Goodglass, H. **Specific reading disability and other specific disabilities.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 590-600.—Deals with the conflicting views concerning the nature of reading disabilities by developing the propositions that: (a) "most cases of reading retardation must be understood in the context of variations in talent from the acquisition of special skills, however the population of reading retardates also includes cases caused by brain injury"; (b) "inferiority in learning endowment for specific skills reflects functional inefficiency in the brain structures underlying these skills and may present symptoms like those occurring with actual injury"; (c) "distinctive errors of reading and spelling, accompanied by perceptual motor test deficits ... are found in a subgroup of reading retardates [and] examination should always test for these deficits"; and (d) "emotional factors are usually secondary to an initial deficiency in learning ability and remedial reading instruction is normally the treatment of choice." Different views regarding specific disabilities among the various disciplines are discussed and a system of diagnostic classification is proposed on the etiology. (18 ref.)—M. Maney.

2964. Wasik, Barbara H. (U. North Carolina, School of Education) **The application of Premack's generalization on reinforcement to the management of classroom behavior.** *Journal of Experimental Child Psychology*, 1970(Aug), Vol. 10(1), 33-43.—Successfully employed a behavior management procedure in a demonstration school for culturally deprived children to increase appropriate behavior in a 2nd-grade classroom. A free-choice activity time was introduced into the classroom and access to this activity was made contingent upon the prior occurrence of desirable behavior. Data were collected on 19 children twice a day in an individual work time and in a group work time and were coded according to a classroom behavior analysis schedule. There were 4 experimental conditions: Base line I (prior to the contingency conditions), Modification I (free-choice activity time contingent upon the occurrence of appropriate classroom behavior), Base line II (removal of the contingent activity time), and Modification II (reintroduction of the contingent activity time). In both classroom functions, the average per-

centage of desirable classroom behavior increased during Modification I when compared with Base line I levels. These behaviors decreased when the contingent activity time was removed, but increased again during the reintroduction of the contingency phase. (23 ref.)—*Journal abstract.*

Gifted

2965. Ziv, A. T. **The need to foster gifted children.** *Hachinuch*, 1970(Jun), Vol. 42(5), 332-338.—Reviews the identification, testing, and education of exceptional children. (25 ref.)—*M. Moore.*

Remedial Education

2966. Blau, Harold & Blau, Harriet. (Reading & Tutoring Inst., Jamaica, N.Y.) **A theory of learning to read.** *Reading Teacher*, 1968(Nov), Vol. 22(2), 126-129, 144.—Presents an alternate approach to the multisensory visual-auditory-kinesthetic-tactile (VAKT) method for teaching severely handicapped readers. The corollary to the hypotheses that there is: (a) "no interference or short-circuiting from the visual modality or input system in the learning of speech," and (b) "maximum destructive interference from the visual modality or input system in the learning of reading," is that visual input must be blocked off. The nonvisual AKT method is illustrated by a case report of an 8-yr-old boy of normal intelligence, but with difficulties in visual perception, behavior and motor areas. It is felt that there are a number of children, "classified as reluctant or non-learners, who really suffer from a kind of modality conflict and for whom instruction centering around modality blocking may be required prior to . . . any other program for the amelioration of their difficulties."—*G. Steele.*

2967. Brottman, M. (Ed.) **Language remediation for the disadvantaged preschool child.** *Monographs of the Society for Research in Child Development*, 1968, Vol. 33(8), 83 p.—Contains a selected collection of articles on language remediation, with particular emphasis upon curriculum development.—*A. Barclay.*

2968. Edelstein, Ruth R. (Syracuse U.) **Use of group processes in teaching retarded readers.** *Reading Teacher*, 1970(Jan), Vol. 23(4), 318-324, 393.—Compared and contrasted observations on: (a) small educational groups conducted twice a wk. for 4th graders of average intelligence who were 1-1½ yr. retarded in reading, and (b) therapy groups for children with emotional problems not manageable in the educational groups. Educational groups were characterized by cooperative group norms determined by the teacher, rapid establishment of instrumental goals, and students who saw the structure of the group in a variety of ways. Therapy groups were characterized by competitive group norms established by the students, slower establishment of expressive goals, and students who saw the group as a club or family. In both groups adult emulation contributed to the development of leaders. Group cohesiveness was found to be more predominant in schools which had educational groups but no therapy groups. Implications for combined therapy and instruction groups are discussed.—*R. Wiltz.*

2969. Lindquist, Mary L. (U. Wisconsin) **Teaching specific skills in language and cognition to disad-**

vantaged preschoolers. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5289-5290.

2970. Lipton, Aaron. (State U. New York, Stony Brook) **Relating remedial strategies to diagnostic considerations.** *Reading Teacher*, 1970(Jan), Vol. 23(4), 353-359.—Suggests that remedial reading programs can utilize information gained from exploration of the underlying language, emotional, socioeconomic, physiological, and neurological factors that produce reading disabilities. Case studies of an 8-yr-old and a 9-yr-old boy are discussed "in reference to diagnostic considerations as they related to strategies of remediation." It is concluded that the uniqueness of individuals and the strategies for remediation can be brought into focus by "initial and on-going diagnosis of each child in reference to his position in the family constellation, his intrapsychic dynamics, his learning styles, his attitudes towards learning, his feelings about himself and adults, and his perception of his place in the school setting."—*R. Wiltz.*

2971. Mann, Lester. **Perceptual training: Misdirections and redirections.** *American Journal of Orthopsychiatry*, 1970(Jan), Vol. 40(1), 30-38.—Examines perceptual-motor training as an educational fad. Perceptual-motor training is of value in traditional adapted educational and therapeutic approaches directed toward functional and relevant behavioral objectives, rather than toward isolated perceptual improvements. (22 ref.)—*Journal abstract.*

2972. Reed, James C. (Tufts U., Medical School) **The deficits of retarded readers: Fact or artifact?** *Reading Teacher*, 1970(Jan), Vol. 23(4), 347-352, 393.—Attempts to show "that the pattern of deficits found among retarded readers will depend upon the index used to estimate reading potential . . ." 69 5th graders scoring in the bottom 3rd of the class on the Iowa Silent Reading Test (ISRT) and Gates Diagnostic Survey Test (GDST) were assigned to 1 or more of 3 groups containing Ss with: (a) WISC Full Scale (FS) IQs above 90, (b) WISC Verbal (V) IQs above 90, or (c) WISC Performance (P) IQs above 90. Ss were paired on the basis of the identifying group factor (FSIQ, VIQ, or PIQ) to a "good reader" scoring in the upper 2½ of the class on the ISRT and GDST. Results indicate that: (a) Ss matched for FSIQ significantly differed in VIQ and PIQ, (b) Ss matched for VIQ did not differ in FSIQ or PIQ, and (c) Ss matched for PIQ significantly differed in FSIQ and VIQ. Administration of a battery of neuropsychological tests to all Ss revealed that "the frequency with which the good and poor readers scored below the 25th percentile rank depended on how they were paired." It is concluded that the "modality deficiencies, the cognitive deficits, the aptitude weaknesses, and the relation of verbal to performance abilities will vary according to the method of identifying the retarded reader."—*R. Wiltz.*

2973. Waldman, Marvin. (Hahnemann Medical Coll. & Hosp., Philadelphia, Pa.) **Psychodynamics and educational orientation in the special school.** *Reading Teacher*, 1970(Jan), Vol. 23(4), 325-330, 359.—Focuses on approaches that could make teaching of children with severe reading disabilities more effective. A disadvantage of special schools is the lack of attention paid to psychodynamic factors. A psychotherapist within the school setting can aid the children in crisis states and assist the teacher in developing stratagems of coping with specific problems. The teacher, in the role of a "learning therapist," can learn to aid the children by teaching them

to label their feelings and by communicating to the child an "empathic awareness of his role in relation to others."—R. Wiltz.

Sensory & Physical Handicaps

2974. Apraushev, A. V. & Leonova, R. A. (Children's Home for the Blind Deaf-Mute, Zagorsk, USSR) **Opyt programmirovannogo obucheniya slepoglukhikh detei slovesnomu udaren'yu.** [Experience with programmed teaching of verbal stress to blind-deaf children.] *Defektologiya*, 1970, Vol. 2(1), 53-57.—Presents results of research on teaching syllabic accent to blind-deaf children, making use of a teaching machine.—I. D. London.

2975. Apraushev, A. V. & Leonova, R. A. (Children's Home for the Blind Deaf-Mute, Zagorsk, USSR) **Opyt programmirovannogo obucheniya slepoglukhikh detei slovesnomu udaren'yu.** [Experience with programmed teaching of verbal stress to blind-deaf children.] *Defektologiya*, 1970, Vol. 2(1), 53-57.—Presents results of research on teaching syllabic accent to blind-deaf children, making use of a teaching machine.—I. D. London.

2976. Boskis, R. M. **Amerikanskije surdopedagogi daktilologii.** [American surdopedagogues on dactylology.] *Defektologiya*, 1970, Vol. 2(1), 63-69.—Presents summaries of 2 papers by J. H. Galloway and E. L. Scouten, respectively, on the Rochester method of finger spelling in teaching speech to deaf children, and the full Russian translation of these papers which were read at the 1963 International Congress on Education of the Deaf, held in Washington, D.C.—I. D. London.

2977. Grebel'naya, N. A. (Leningrad State Pedagogical Inst., USSR) **Pervye rezul'taty obucheniya slepykh detei po eksperimental'noi programme na urokakh matematiki.** [First results of teaching blind children by utilizing an experimental program in mathematics lessons.] *Defektologiya*, 1970, Vol. 2(1), 34-39.—Reports the findings of research on the teaching of arithmetic to blind children in the 1st 4 grades of the special school, making use of an experimental program reflecting the new program of mathematics introduced into the regular Soviet school.—I. D. London.

2978. Morin, Edward A. (Portland State U.) **Programmed instruction: Today's challenge in educating visually handicapped.** *Education of the Visually Handicapped*, 1970(Mar), Vol. 2(1), 8-11.—As a result of the lack of sufficient personnel trained to teach the visually handicapped, new and more efficient methods of teaching have been sought. The contributions of the programmed instruction method of teaching and learning are related to the fact that "it is a systematic method of teaching which is based on a rational theory of learning." A definite method of information presentation and for skill development is available, thereby facilitating a more accurate objective measurement and evaluation of performance. Predictable results of programmed instruction appear to be consistent, and these methods are deemed as being one of the most favorable prospects.—P. R. Shibelski.

2979. Tobin, M. J., Clarke, D., Lane, I., & Pittam, V. G. (U. Birmingham, School of Education, England) **Programmed learning for the blind: Some exploratory studies.** *Education of the Visually Handicapped*, 1970(Mar), Vol. 2(1), 11-23.—Attempted to ascertain the value of programmed learning for the visually handicapped. 6 experimental programs covering 2

areas—Braille teaching and science, and social teaching—were tested on varied groups of visually handicapped and blindfolded Ss. Results of the 1st experimental program, teaching Braille words, showed that the programed Ss scored higher than did those Ss who were taught by conventional methods. 2 other programs concerned with learning comprehension achieved similar success with the program method. 2 programs (dealing with a social problem and basic scientific experimentation) similarly showed decisive success. Programed learning can be administered effectively at a teacher-paced and individual-paced level with a high degree of success in a variety of subject matters.—P. R. Shibelski.

2980. Zudova, V. F., Koryakin, B. T., & Khmyrov, S. B. **Sel'skokhozyaistvennyi trud v shkole-internate diya slabovidyashchikh.** [Farm labor in the boarding-school for the visually handicapped.] *Defektologiya*, 1970, Vol. 2(1), 39-46.—Discusses an experimental program in differentiated teaching of farming skills to visually handicapped children in the 5th-8th grades of the special school.—I. D. London.

Mental Retardation & Learning Disorder

2981. Abrams, Jules C. (Hahnemann Medical Coll. & Hosp., Philadelphia, Pa.) **Learning disabilities: A complex phenomenon.** *Reading Teacher*, 1970(Jan), Vol. 23(4), 299-303, 367.—Argues that since many different factors are associated with learning disabilities, the teacher must focus upon the whole child. To do this, the teacher can "evaluate the ego status of the child . . ." Diagnoses of the ego functioning of children with: (a) brain damage, (b) dyslexia, (c) environmental and reactive problems, and (d) neurotic factors, are presented and discussed.—R. Wiltz.

2982. Abrams, Jules C. (Hahnemann Medical Coll. & Hosp., Philadelphia, Pa.) **Parental dynamics: Their role in learning disabilities.** *Reading Teacher*, 1970(May), Vol. 23(8), 751-755, 760.—Suggests that it is advantageous to consider the learning disabled child within the context of family relationships. A description of a 9-yr-old boy with an overprotective mother is used to illustrate the contention that parents of brain-damaged children often erect defenses, in the form of overprotection, against anger and hostility impulses produced by guilt feelings. In another illustration, it is demonstrated that parents of dyslexic children often find it difficult to accept the fact that the child has a problem. In both cases the child develops severe feelings of inadequacy. The necessity of informing the parents of the nature and emotional ramifications of the child's difficulty is emphasized. It is concluded that "parental dynamics play a very important role in the formulation or exacerbation of any learning disability."—R. Wiltz.

2983. Barham, Jimmie F. (East Texas State U.) **A study of the Troth-Walker PCR form as a predictive instrument for identification of elementary pupils with learning disabilities.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5276.

2984. Bricklin, Patricia M. (Hahnemann Medical Coll. & Hosp., Philadelphia, Pa.) **Counseling parents of children with learning disabilities.** *Reading Teacher*, 1970(Jan), Vol. 23(4), 331-338.—Describes a program of parent-counseling sessions conducted with parents of children with learning disabilities. The program is designed to: (a) provide information concerning disabilities, (b) provide a liaison between home and school,

(c) aid parents in understanding their children's feelings and behavior, (d) aid parents in developing a total approach to the child's behavior, and (e) provide parents with the opportunity to determine whether or not they themselves wish to seek psychotherapy. Independent discussions with parents and teachers involved in such a program indicate that both groups felt they had increased their ability to: (a) see the children from different perspectives, (b) know that everyone is struggling with the same things, (c) understand the sources of daily stress, (d) know the extent of responsibility for the child's behavior, (e) evaluate the truth of the child's statements, and (f) set more effective limits.—*R. Wiltz.*

2985. **Dul'nev, G. M.** (Inst. of Defectology, Moscow, USSR) *K voprosu o differentsiatsii obucheniya uchashchikhhsya vspomogatel'noi shkoly.* [On the problem of differentiation of the teaching of pupils in the auxiliary school.] *Defektologiya*, 1970, Vol. 2(1), 8-13.—Attempts to show that, regardless of the measures taken to ensure the best selection of pupils for proper placement in schools for the mentally retarded, student composition will remain heterogeneous and the problem of a differentiated approach to teaching will continue to be one of "unusual acuteness."—*J. D. London.*

2986. **Gaddes, William H.** (U. Victoria, British Columbia, Canada) *A neuropsychological approach to learning disorders.* *Journal of Learning Disabilities*, 1968(Sep), Vol. 1(9), 523-534.—Presents a proposal to integrate neurological, psychological, and educational knowledge in the diagnostic understanding and educational planning of children with learning disorders. It is argued that teachers of special classes can no longer ignore or avoid an understanding of the neurological aspects of the children they teach with the claim that this knowledge is irrelevant or unimportant to their task. A brief description of how this proposed method operates in a university neuropsychology laboratory is presented.—*Journal abstract.*

2987. **Gever, Benson E.** (Hahemann Medical Coll. & Hosp., Philadelphia, Pa.) *Failure and learning disability.* *Reading Teacher*, 1970(Jan), Vol. 23(4), 311-317.—Suggests that learning disabilities are maintained by an ever increasing ratio of failure to success. Examples are cited to illustrate that repeated failures produce an emotional state, consisting of discomfort, tension, and anxiety, which in turn produces further failures. Other reactions to failure, including aggression, masochism, and withdrawal, are discussed, and it is suggested that they contribute to the overall negative effect on academic achievement.—*R. Wiltz.*

2988. **Golick, Margaret.** (Montreal Children's Hosp., Quebec, Canada) *A parents' guide to learning problems.* *Journal of Learning Disabilities*, 1968(Jun), Vol. 1(6), 366-377.—The parents of children with learning disabilities must provide meaningful and exciting experiences and responsibilities, opportunities to learn and use "the common devices of our society," and the opportunity to learn games and to participate with other children.—*D. Hall.*

2989. **Hirt, Dorothy M.** (Hahemann Medical Coll. & Hosp., Philadelphia, Pa.) *Teaching children with severe learning disabilities.* *Reading Teacher*, 1970(Jan), Vol. 23(4), 304-310.—Suggests that a child's learning disabilities may be revealed in the areas of inadequate impulse control, poor perceptual and conceptual integration, and a defective self-concept. Examples of problems in each of these areas are presented

and discussed in relation to the conclusion that the "interpersonal relationship established between teacher and child is the most essential quality in educational therapy. The learning therapist must convey to the child a feeling of warmth and strength."—*R. Wiltz.*

2990. **Huizinga, Raleigh J. & Smalligan, Donald H.** *The area learning center: A regional program for school children with learning disabilities.* *Journal of Learning Disabilities*, 1968(Sep), Vol. 1(9), 502-506.—Discusses total educational-medical research done in regional learning centers, demonstrating that the idea of an area learning center which encompasses social, medical, and educational aspects of learning disabilities is viable and valid. Points critical to the effective functioning of 1 such center, conclusions drawn at the end of its 1st yr. of functioning, results of research to assess its effectiveness, and attitudes of constituents toward the center are summarized.—*M. Maney.*

2991. **Pavlovkin, Michal.** *K problému diferenciácie na osobitných školách.* [A contribution to the problem of differentiation in special schools.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(1), 51-60.—Suggests that the present monolithic system of educating and training mentally handicapped children is inadequate in view of the increasing number of children in need of special care. It is pointed out that there is a lack of uniformity of criteria in selection and placement procedures in special schools. Consequently, full use of intellectual capacity is not being made in all children. It is suggested that criteria be established for a definition of mental retardation. (Russian summary)—*English summary.*

2992. **Wright, Lance & McKenzie, Clancy.** (Hahemann Medical Coll. & Hosp., Philadelphia, Pa.) *"Talking" group therapy for learning-disabled children.* *Reading Teacher*, 1970(Jan), Vol. 23(4), 339-346, 385.—Hypothesizes that activities groups may overstimulate children with learning disabilities, and describes an alternative program in which talking groups were established with 5 hyperactive 11-yr-old boys. Descriptions of the children and their progress, and a narrative account of the group dynamics are presented. Various ways in which the children reacted to separation anxiety are discussed. It is concluded that such a group can be formed with hyperactive children, and that it has the advantage of being less likely to overstimulate the children, thus making it possible to place more emphasis on interpretation of group feelings and processes.—*R. Wiltz.*

Emotional Disorder

2993. **Allen, Thomas W.** (Washington U., Student Counseling Service) *The evaluation of a program of special classes for "disruptive children" in an urban school system.* *Community Mental Health Journal*, 1970(Aug), Vol. 6(4), 276-284.—Discusses the problems encountered by urban schools in "reclaiming" disruptive children. Although it is usually concluded that these children are "suffering from psychiatric illnesses" and are therefore beyond the scope of the school, recent evidence suggests that the "untoward behavior" of these children may be a response to the frustration and humiliation generated by their academic disabilities which are caused by physical problems or differences in the child's values and those of the school. "A multi-discipline-center organized within an urban school

system" to help such children is described. 53 elementary and secondary school Ss were placed in special class programs which presented opportunities, controls, and limits in a nonpunitive manner, and which were based on "continuous psychosocial-educational diagnosis of each child's strengths and shortcomings." Results indicate strong academic gains by experimental Ss. Controls, who had remained in regular classes, showed "a decelerating growth curve." It is concluded that many disruptive children can be educated without recourse to psychiatric treatment if placed in the right teaching surroundings. (21 ref.)—P. McMillan.

COUNSELING & GUIDANCE

2994. **Banducci, Raymond.** (Sacramento State Coll.) **Accuracy of occupational stereotypes of grade-twelve boys.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 534-539.—Examined the accuracy of occupational stereotypes of 679 high school senior boys in relation to socioeconomic status, academic development, crystallization of plans, vocational interests, and range of experience. Ss rated 12 occupations in terms of selected worker trait requirements needed for successful performance of a job. Responses were compared with *Dictionary of Occupational Titles* job qualification profile ratings of the jobs studied, and discrepancy (accuracy) scores were computed. Results indicate that Ss with high academic development had more accurate stereotypes of high rather than low level jobs, and Ss with low academic development and low socioeconomic status had more accurate stereotypes of low level jobs. Ss with crystallized plans and those of the realistic, intellectual, and enterprising Vocational Preference Inventory types also were found to have the most accurate stereotypes of occupations. (17 ref.)—*Journal abstract*.

2995. **Battin, R. & Kraft, Irvin A.** (Baylor U.) **Psycholinguistic evaluation of children referred for private consultation to a child psychiatrist.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 600-605.—From 446 children referred to a psychiatrist for behavior and school performance problems and tested for achievement and reading levels, 33 5-13 yr. olds were selected and studied by psycholinguistic techniques to determine whether such an evaluation should be a routine part of the child's work-up. Ss were tested with the WISC, the Illinois Test of Psycholinguistic Abilities (ITPA), the Frostig Test of Visual Perception, and the Goodenough-Harris Drawing Test. As many Ss were above the test age ceiling, language ages were used for comparisons for the ITPA. Support for previously held clinical impressions led to the conclusion that these tests and subtests are particularly sensitive to the problems of perceptually handicapped children. Definite test patterns were obtained on the ITPA, especially on the subtest for visual sequencing. Strong correlations appeared among certain subtests of the ITPA, Frostig, and WISC; and performance on the Goodenough-Harris proved interesting.—M. Maney.

2996. **Bauer, Roger E.** (Michigan State U.) **The effects of cognitive structuring on the outcomes of group counseling.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5227.

2997. **Dua, P. S.** (Clarendon Lab., Oxford, England) **Comparison of the effects of behaviorally oriented action and psychotherapy reeducation on introversion-extraversion, emotionality, and internal-ex-**

ternal control. *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 567-572.—Based on the assumption that 60 female undergraduates with expressed concern about their ability to interact and relate in interpersonal situations combine such anxiety with high degrees of introversion, emotionality, and externality as reflected in self-ratings and self-evaluative statements of beliefs, 2 experimental groups, 1 exposed to behaviorally oriented action programs and the other to psychotherapy reeducation programs, were contrasted with a no treatment control group. The relationship between treatment conditions and changes in attitudes and beliefs along the dimensions of the 3 personality variables of extraversion, emotionality, and externality was examined. After 8 wk., the action program procedures designed to create new behaviors for dealing with situations of interpersonal anxiety were more effective than reeducation programs in inducing attitudinal changes. Implications for counseling practice and behavioral theory are discussed. (17 ref.)—*Journal abstract*.

2998. **Geist, Harold.** **A comparison of vocational interests at different levels in schools in Japan and a comparison with United States counterparts.** *Psychologia: An International Journal of Psychology in the Orient*, 1969(Dec), Vol. 12(3-4), 227-231.—Inspection of most and least popular interest areas at high school and college levels in both countries indicates very little difference at the respective educational levels. For high school males, computational and scientific interests were high. For high school females, persuasive and clerical interests were high. For college level males, computational and literary interests were high. College females differed somewhat in the 2 countries.—R. D. Nance.

2999. **Haettenschwiler, Dunstan L.** (State U. New York, Buffalo) **Control of the counselor's role.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 437-442.—Assesses from an organizational point of view, the forces at work in determining the counselor's role, showing why those occupying counterpositions to that of the counselor may wish to prescribe his role and how this is accomplished through control of positive and negative sanctions. Also, certain organizational problems arise for the counselor by virtue of occupancy of a boundary position. A proposal is made regarding direction and strategy for bringing about a desired change. (22 ref.)—*Journal abstract*.

3000. **Hart, Joseph L.** (St. Michael's Coll., Winooski, Vt.) **Steve: A case study using Adlerian concepts in college counseling.** *Individual Psychologist*, 1969(Nov), Vol. 6(2), 39-41.—Presents an account of the successful counseling of a college freshman.—A. R. Howard.

3001. **Ho, Man K.** (Florida State U.) **The effect of group counseling on the academic performance, study habits and attitudes, and the interpersonal adjustment of foreign students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5237-5238.

3002. **Jacobs, James R.** (U. Wisconsin) **Characteristics of students who seek counseling.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5238.

3003. **Johansson, Charles B.** (Macalester Coll., Office of Education Research) **Strong Vocational Interest Blank Introversion-extraversion and occupational membership.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 451-455.—Contrasted item responses for the SVIB for a group of introverted and extraverted undergraduates. A scale was constructed for the SVIB to measure a dimension of occupational introversion-extraversion (OIE). The test-retest reliability

of the OIE was of the same magnitude as the other SVIB scales; item content of the scale indicated that extraverts liked those items dealing with people and social situations and introverts liked those items that indicated a sense of being alone. Construct validity of the OIE scale involved scoring 129 male occupational samples on the scale; the ranking of the occupations indicated a dimension of interpersonal contact where the introverted end of the scale was represented by physicists, farmers, and astronomers, and the extraverted end by occupations, i.e., sales groups, governors, and chamber of commerce executives.—*Journal abstract.*

3004. Madanes Sojit, Cloë. **Modelo para la organización y evaluación de un servicio de prevención primaria para niños en edad escolar.** [A model for the organization and evaluation of a service of primary prevention for elementary school children.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 356-359.—Based on Gerald Caplan's concept that teachers are important intermediaries between mental health specialists and children, the teachers of 6 schools were interviewed at the beginning and at the end of a school year. Caplan's technique of consultation on mental health was used in 2 schools, a contrasting technique, education, was used in 2 other schools, and the other 2 schools were controls. A comparison between 1st and last interviews by the consultation technique revealed a greater understanding of student behavioral problems by teachers than was evidenced where the other techniques were used. Consultation appeared to be an effective preventative measure against mental disorders. Further analysis is being conducted to evaluate the long-range effectiveness of the consulting service. (English summary)—*P. Hertzberg.*

3005. Maynard, Peter E. & Hansen, James C. (Teachers Coll., Columbia U.) **Vocational maturity among inner-city youths.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 400-404.—Investigates the efficacy of the Vocational Development Inventory (VDI) in measuring the vocational maturity of inner-city boys. The VDI was administered to 180 white and 180 black inner-city boys and 90 white suburban boys. Intelligence test results were obtained and converted to standardized T scores. The mean vocational maturity scores indicate large differences among the samples. However, when intelligence was controlled by analysis of covariance, the differences were erased. It is concluded that researchers and counselors account for a variety of intellectual and social variables when working with the vocational maturity of inner-city youth. (20 ref.)—*Journal abstract.*

3006. Pallone, Nathaniel J., Richard, Fred S., & Hurley, Robert B. (New York U., School of Education) **Key influences of occupational preference among black youth.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 498-501.—Assessed the relative frequency with which each of 9 specific key figures was self-reported by 161 black and 218 white adolescents from working class families as having exercised a principal influence over them in their selections of occupations they aspired to enter. In order of descending frequency, black males cited as key figures persons holding the preferred occupation, parent, teacher, peer or sister or brother, relative not of the immediate family or counselor, and neighbor; black females cited, in order, mother, persons in the preferred occupation, peer, brother or sister, relative not of the immediate family or teacher, father, counselor, and neighbor. Rank-order

coefficients reveal the greatest similarity in key figure influence between black and white males ($r' = .82$), the least similarity between male and female whites ($r' = .48$), and greater similarity between male and female blacks ($r' = .68$) than between black and white females ($r' = .59$).—*Journal abstract.*

3007. Prediger, Dale J. & Baumann, Reemt R. (American College Testing Program, Iowa City, Ia.) *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 527-533.—Provided developmental group counseling to 30 groups of randomly selected vocational high school students for a minimum of 1 academic yr. The groups included 6-8 members and met for 1 40-min period/wk. 2 types of control groups, inactive and placebo, were available. Outcome was evaluated on each of 30 measures, many of which could be described as socially valued, external, and objective. No experimental-control group differences of practical significance were observed on these measures despite substantial differences between counseling group and placebo control group students in perception of personal benefit. (16 ref.)—*Journal abstract.*

3008. Resnick, Harvey; Fauble, Marianne L., & Osipow, Samuel H. (Ohio State U.) **Vocational crystallization and self-esteem in college students.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 465-467.—A positive relationship between vocational crystallization and self-esteem in 216 undergraduates was assessed by observing differences on 2 measures of vocational crystallization in students high and low in self-esteem scores on the Tennessee Self-Concept Scale. No differences according to self-esteem were observed on 1 criterion measure, the number of Kuder Preference Record scores greater than the 75th percentile. However, differences were observed in the certainty of high- and low-self-esteem Ss. The relationship between self-esteem and vocational crystallization was the same for both sexes.—*Journal abstract.*

3009. Southworth, J. Alfred & Morningstar, Mona E. (U. Massachusetts, Counseling Center) **Persistence of occupational choice and personality congruence.** *Journal of Counseling Psychology*, 1970(Sep), Vol. 17(5, Pt. 1), 409-412.—To examine the predictive value of the Holland Vocational Preference Inventory (VPI) in determining perseverance in engineering, the VPI was administered to 102 freshmen engineering students. Ss were later divided into 3 groups as determined by their status at the beginning of their junior yr.: (a) Ss who were still majoring in engineering ($N = 43$), (b) Ss who had left engineering but were still attending the university ($N = 33$), and (c) Ss who had left the university ($N = 26$). A multivariate analysis performed on the VPI scale scores for each S was significant ($D^2 = 28.26$, $p < .01$) showing that the scales were sufficient to differentiate among the 3 groups. Maximum differentiation occurred on the Social and Artistic scales.—*Journal abstract.*

3010. White, Isadore H. (U. Southern California) **Counseling the children of the urban poor.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5250-5251.

PERSONNEL

3011. Carkhuff, Robert R. & Griffin, Andrew H. (American International Coll., Center for Human Relations & Community Affairs) **The selection and training of human relations specialists.** *Journal of Coun-*

seling Psychology, 1970(Sep), Vol. 17(5, Pt. 1), 443-450.—To meet the needs of young black students in integrated junior high schools, adult black human relations specialists were systematically selected, trained, and assigned within the school system. Assessments of their effectiveness indicate that the specialists were functioning in the helping role above levels determined to be minimally effective and were generally highly rated by students, principals and administrative staff, teachers, and counselors.—*Journal abstract*.

3012. Grimsley, William G. (U. Missouri) **The relationship between creativity and leader behavior of school superintendents.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5193.

3013. Picerno, Vincent J. (State University Coll. New York, Cortland) **The role of the elementary classroom teacher and the music specialist: Opinions of the music supervisor.** *Journal of Research in Music Education*, 1970(Sum), Vol. 18(2), 99-111.—Questionnaires were sent to music supervisors in 1/2 (355) of the local school systems in New York State having elementary schools and 274 (74%) responded. Results indicate: (a) less time (50.91 hr/wk) is devoted to the teaching of music than is desirable; (b) music specialists do 87% of the teaching; (c) 39% of the classroom teachers have some responsibility for teaching music in the classrooms (in singing and follow-up work), although 71% of the music supervisors favored having the classroom teachers teach part of the music; and (d) 90% of the supervisors indicated that elementary classroom teachers had limited preparation, and 93% felt that they were not interested in teaching music.—*D. Higbee*.

Teachers & Teacher Training

3014. Abramson, Theodore. (Fordham U.) **Development and application of analysis of variance techniques to the reliability of observation schedules.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5274-5275.

3015. Anderson, James. (Michigan State U.) **The relationship of teacher belief systems to teacher and pupil factors related to school goals cathexis.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5275-5276.

3016. Apt, Madeline H. & Fahey, George L. (Wright State U., Dayton, O.) **A measurement of college instructor behavior.** *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 32-41.—Examines the usefulness of a graphic rating scale based on the Osgood semantic differential scale and the Classroom Observation Record in measuring college instructor behavior and in yielding clusters of traits which would identify subgroups of college instructors. In the pilot study, 116 undergraduates rated 3 instructors; in the 1st phase of the experiment 4916 Ss rated 112 liberal arts instructors and in the 2nd phase 2967 Ss rated 59 instructors from the sample in the 1st phase. Results show that "the instrument cannot be used appropriately as a measure of behavior," and that "student ideas of effective instruction were unrelated to subject matter and the traditional divisions of academia but were based upon the instructor's ability to convey the subject." (French summary)—*G. Steele*.

3017. Brophy, Jere E. & Good, Thomas L. (U. Texas) **Teachers' communication of differential expectations for children's classroom performance: Some**

behavioral data. *Journal of Educational Psychology*, 1970, Vol. 61(5), 365-374.—Investigated the processes by which teachers communicate differential performance expectations to different children through observational study of dyadic contacts between teachers and individual students in 4 1st grade classrooms. Differential teacher expectations for different children were associated with a variety of interaction measures, although many of these relationships are attributable to objective differences. However, other differential teacher behavior was observed which is not attributable to objective differences among the children and which is consistent with the hypothesis that differential teacher expectations function as self-fulfilling prophecies. Teachers demanded better performance from those children for whom they had higher expectations and were more likely to praise such performance when it was elicited. In contrast, they were more likely to accept poor performance from students for whom they held low expectations and were less likely to praise good performance from these students when it occurred, even though it occurred less frequently. Findings support the hypotheses of R. Rosenthal and L. Jacobson concerning teacher-expectation effects and as indicative of the behavioral mechanisms involved when teacher expectations function as self-fulfilling prophecies.—*Journal abstract*.

3018. Charlton, Larry H. (Utah State U.) **Teacher personality and acceptance of team teaching.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5280.

3019. Frank, Ruth E. (Bucks County Community Coll., Newtown, Pa.) **Can changes in professional attitudes be catalyzed by coursework in social foundations of education?** *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 68-75.—Administered the Minnesota Teacher Attitude Inventory to 23 undergraduates without teaching experience and 9 practicing teachers before and after they had attended a course in social foundations of education. The average score change of the teaching group was 2 points while the average score was higher by about 1 point during the 2nd test. However, for the nonteacher group the average score change was 13 points and the 2nd test score average was 12 points higher. Thus the nonteaching group not only changed a great deal more, but they changed far more uniformly in the desirable direction. It is suggested that these findings be applied in the scheduling of social foundations courses early in the professional preparation of the student. (German summary)—*Journal summary*.

3020. Horner, Lucie T. (Northern Illinois U.) **Broadener participation in foreign language teacher training.** *Modern Language Journal*, 1970(Apr), Vol. 54(4), 250-252.—Describes 3 areas of concentration which could improve the preparation of prospective foreign language instructors. An advanced grammar course would provide an intensive grammar review which would enhance the teacher's ability to explain and demonstrate grammatical phenomena. Advanced conversation would enable the future teacher to gain practice and confidence in conveying the gist of a dialogue or in summarizing a narrative. An introduction to literature course would prepare the student teacher for conveying the aura and philosophical background of foreign language literature. It is argued that adequate background is not supplied by a "methods" course, and a revision of curriculum for the future teacher is suggested.—*C. O'Donnell*.

3021. Howie, George. **The art of the teacher.** In G. Howie, *Educational theory and practice of St. Augustine.* (See PA, Vol. 45:Issue 2) 139-181.

3022. Kapruan, S. (Moscow State Pedagogical Inst., USSR) **Podgotovka uchitelei—odna iz glavnykh problem.** [The training of teachers is one of the chief problems.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(1), 85-87.—Presents programs for training teachers in India.—I. D. London.

3023. Minter, Joseph R. (East Texas State U.) **The effects of sensitivity training on self concept and attitudes of student teachers.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5323-5324.

3024. Moore, Raymond. (Drake U.) **Structure of faculty attitudes toward the university teachers' role: A factor analytic study.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 20(2), 293-299.—University faculty members were asked to state their preferences for statements pertaining to learning, teaching, etc., on a 10-point certainty scale. The responses of 111 faculty members who returned the 46-item questionnaire were factor analyzed. 2 bipolar factors emerged: conservative-liberal and attention to student needs as a person. Factor 3, explaining a small proportion of the variance, refers to an ivory tower orientation.—N. M. Chansky.

3025. Moses, H. A. & Delaney, D. J. (U. Illinois) **Dimensions of pressures faced by teachers: A factor analytic study.** *SPATE Journal*, 1970, Vol. 8(4), 122-128.—A scale was constructed that yielded 69 Likert-type items from a pool of some 700 statements that graduate education students felt expressed the greatest pressures of teachers. The Pressures of Teachers Scale (POT) was administered to another group of 63 graduate students of education who rated each item on a 4-point scale. Analysis of the POT Scale yielded 18 rotated factors that accounted for 100% of the common factor variance. Each factor had at least 1 variable with a loading greater than .60. A complete summary of factor patterns for each factor is presented.—S. M. Amatora.

3026. Pate, R. T. & Dumas, W. (Wichita State U.) **Self-concept change in elementary student teachers.** *SPATE Journal*, 1970, Vol. 8(4), 115-121.—To determine the nature and extent of student teachers' changes in self-concept in each of 20 subcategories of the Student Teaching Experience, the Fiedler Perception Scale adapted by McCallon was administered to 64 prospective elementary school teachers at the beginning and at the end of their student teaching. No statistically significant negative changes occurred for any category. Positive change was most pronounced for those who worked with slow or otherwise disadvantaged children, but statistically significant positive changes were apparent for several experience categories.—S. M. Amatora.

3027. Woike, Kay. **Responding to children's feelings.** *Religious Education*, 1970(May), Vol. 65(3), 265-271.—Case study of a group of 8 3rd grade girls from a racially mixed, middle-class New England neighborhood revealed the importance of recognizing and dealing with both positive and negative emotions in nondestructive ways. The manner in which a teacher handles conflicts and occasions in which he must limit behavior or provide group direction can be crucial to the group and to individuals in it. Media that can promote feelings of personal worth include: warm relationships between leader and members; relationships between group members; verbal communication; and nonverbal com-

munication through such media as games, crafts, and play activities.—S. E. Gavin.

SCHOOL LEARNING & ACHIEVEMENT

3028. Allen, D. Ian. (Simon Fraser U., Burnaby, British Columbia, Canada) **Some effects of advance organizers and level of question on the learning and retention of written social studies material.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 333-339.—Used 1-way analysis of variance with post hoc comparisons to study the effects on learning and retention of advance organizers and memory level or higher order questions for 212 9th graders in 12 classes in 2 junior high schools. Tests measuring retention of question-specific learning and generalized higher order learning of narrative and descriptive material were administered the day following the completion of 4 learning sessions and equivalent forms were administered 3 wk. later. Ss at or above the 60th IQ percentile were compared, as were those between the 20th and 59th percentiles. On the 1st test there were differences between the groups at both ability levels which were attributable to the effects of specific questions but there appeared to be no differences due to advance organizers. On the 2nd test question-specific facilitation was apparent for lower ability Ss who had received advance organizers. On this test, advance organizers resulted in general facilitation for higher ability Ss only. (17 ref.)—*Journal abstract.*

3029. Ames, Louise B. (Gesell Inst. of Child Development, New Haven, Conn.) **Academic promise in Negro primary school pupils.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 570-577.—Compared responses of 388 kindergarten-5th grade children with those of white children of similar age and socioeconomic level to determine whether behavior patterns for Negro Ss develop in the same manner and rate as do those of children from other groups, and to identify those Negro Ss who show academic promise (ability to finish high school with creditable performance and perhaps to continue beyond). Results based on the Rorschach, the Lowenfeld Mosaic, the Gesell School Readiness Test, and the Slossen Intelligence Test for Children show that: (a) 18-39% of Ss/grade and 33% of all Ss show special promise; (b) for most aspects of behavior studied, the response of Negro Ss falls short of that of white Ss; (c) performance of the 2 groups comes closest on simple maturity level tests and writing name and numbers; (d) behavior changes with age are similar in the 2 groups, however, white Ss tend to reach any given state of development somewhat sooner; (e) for most tests, Negro Ss develop in the same way but at a lower level and slower rate than do white Ss, except for the Rorschach where Ss are most alike at 5 yr. of age after which Negro Ss do not improve with age; and (f) performance of Negro Ss falls on a rectilinear rather than along a normal curve, with an abnormally wide distribution and a marked bunching at the lower end of any scoring scale.—*Journal summary.*

3030. Baird, Leonard L. (American Coll. Testing Program, Iowa City, Ia.) **Patterns of educational aspiration.** *ACT Research Report*, 1969(Dec), No. 32, 22 p.—Studied undergraduates whose degree aspirations were discrepant with their ability or incomes. The 1st study was concerned with Ss whose degree goals appeared to be either unrealistically high or markedly

lower than others with their measured academic aptitude. The 2nd study was concerned with Ss whose family incomes seemed inappropriate to their degree goals. These subgroups were compared with Ss whose goals were more appropriate using a broad range of demographic and educational information. Ss in the subgroups proved quite similar to typical students except in degree of nonacademic achievement. (24 ref.)—*Journal abstract*.

3031. Bottenberg, E. H. & Wehner, E. G. (U. Würzburg, Psychologisches Inst. 1, W. Germany) **Schulleistungen in Abhängigkeit von Intelligenz und kognitiven Einzelfunktionen.** [School performance in relation to intelligence and specific cognitive functions.] *Schule und Psychologie*, 1970, Vol. 17(1), 19-23.—Demonstrated through a factor analytic study that performance in a wide spectrum of 13th grade Ss is systematically influenced by intelligence as well as specific cognitive functions.—*Author abstract*.

3032. Cohen, David K. (Harvard U.) **Immigrants and the schools.** *Review of Educational Research*, 1970(Feb), Vol. 40(1), 13-27.—Considers the effect of immigrant influx and culture as this has effected the public schools. The conclusions are based upon children of 1st-generation immigrants, and a comparison is made between the achievement of these children and native-born whites. The problems of IQ, retardation, and social mobility of some immigrant classes are reviewed in terms of research to date. (29 ref.)—P. D. Leedy.

3033. Crewe, James C. (U. Minnesota) **The effect of study strategies on the retention of college text material.** *Journal of Reading Behavior*, 1969(Spr), Vol. 1(2), 45-52.—113 undergraduates were randomly assigned to either a control group which took a multiple-choice test without studying, a cramming group which studied the material for 2 hr. the day before testing, or 1 of the following treatment groups which took the test 5 wk. after the 1st review: (a) no-review, in which Ss studied the material for 2 consecutive hours; (b) 1-review, in which Ss studied for 1 hr. 45 min. and reviewed for 15 min. the day before testing; or (c) 2-review, in which Ss studied for 1 hr. 30 min., reviewed for 15 min. 2 wk. later, and reviewed for 15 min. the day before testing. All Ss studied a 13-page chapter from a college level history book by the underlining method. Results based on the 87 Ss who completed the project indicate the following: (a) the control group performed no better than chance on the test, (b) the cramming group scored significantly higher than any other group, and (c) both review groups scored significantly higher than the no-review group. It is concluded that retention score is higher when more study time is close to test time, and that even relatively short reviews facilitate retention.—R. Wiltz.

3034. Galocy, Joseph C. (U. Georgia) **The effects of pretraining in transfer and letter naming on the rate children learn.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5339-5340.

3035. Gulice, Billy M. (Florida State U.) **The use of the cloze procedure for improving reading comprehension of college students.** *Journal of Reading Behavior*, 1969(Sum), Vol. 1(3), 81-92.—76 college Ss enrolled in a reading improvement course were randomly assigned to morning or afternoon sections, and those in each section were randomly assigned to either an experimental group which received instruction and practice in the cloze procedure in addition to regular

instruction in reading comprehension, or a control group receiving only the latter training. Results indicate no significant difference between groups in improvement in reading comprehension as measured by difference in pre-posttest scores on alternate forms of the Cooperative English Test Reading Comprehension. Further analysis revealed significant gains in posttest scores by both groups, and a significant difference in improvement of afternoon over morning groups. Significant correlations were also found between cloze or comprehension and various measures of intelligence and creativity. The insignificant finding was suggested to be a result of any of the following: small number of Ss, high level of control group improvement, and/or high level of concentration required by the cloze exercises. (16 ref.)—R. Wiltz.

3036. Hanson, Gary R. & Taylor, Ronald G. (American Coll. Testing Program, Iowa City, Ia.) **Interaction of ability and personality: Another look at the drop-out problem in an institute of technology.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 540-545.—Examined the interaction of ability and personality in discriminating between 4 groups of 408 engineering students differing in academic success and persistence. Multiple discriminant analysis was used to determine the number and nature of the dimensions related to academic success and persistence in an institute of technology. 2 dimensions discriminated between the 4 groups. 1 dimension was described in terms of previous high school achievement and separated academically successful from unsuccessful students. The 2nd dimension, described in terms of personality characteristics, discriminated between students who withdrew and those who persisted.—*Journal abstract*.

3037. Hountras, Peter T., Grady, William E., & Vraa, Calvin W. (U. North Dakota) **Manifest anxiety and academic achievement of American and Canadian college freshmen.** *Journal of Psychology*, 1970(Sep), Vol. 76(1), 3-8.—Investigated whether significant differences existed between American and Canadian college freshmen with different levels of manifest anxiety in academic achievement. 23 American and 25 Canadian male undergraduates were administered a forced choice form of the MA Scale. Scores on the American College Test administered prior to admission were also available. It is concluded that manifest anxiety was not related to the observed differences in the 1st-yr achievement of American and Canadian students when academic aptitude was held constant.—*Journal summary*.

3038. Johnson, Terry D. (U. British Columbia, Vancouver, Canada) **The relationship between connotative meaning and reading achievement of boys and girls in the second grade.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5287.

3039. Leifer, Anna. (Yeshiva U.) **Relation of mosaic patterns to spelling and reading in low achievers.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 463-467.—The Lowenfeld Mosaic Test (LMT) and the Wide Range Achievement Test were administered to 68 7-10 yr. old slow learning children. At ages 7 and 8, LMT correlated .7 with spelling and .5 with reading.—N. M. Chansky.

3040. Masek, Richard M. (Utah State U.) **The effects of teacher applied social reinforcement on arithmetic performance and task-orientation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5345-5346.

3041. Moon, Peter E. (Purdue U.) **The use of life history data in the classification of college freshmen by major areas.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5694-5695.

3042. Rim, Y. & Kurzweil, Z. E. (Israel Inst. of Technology, Haifa) **Reward and punishment in education.** *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 101-107.—Presents an historical review and examines 35 psychological studies "on the effects of praise and blame on the performance of school children." It is concluded that: (a) "praise and blame are relevant to education" when "they help to improve pupils' performance," (b) personality structure must be considered in determining whether to use praise or blame as incentives, (c) punishment has harmful effects, and (d) H. Pestalozzi's observations are in accord with modern findings. (German summary)—G. Steele.

3043. Ryals, Kelvin R. (Washington U.) **An experimental study of achievement motivation training as a function of the moral maturity of trainees.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5302.

3044. Savicki, Victor; Schumer, Harry, & Stanfield, Robert E. (U. Massachusetts) **Student role orientations and college dropouts.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 559-566.—Compared 3 withdrawal groups (dismissals, defaulters, and dropouts) and 2 persister groups (successful persisters and probation persisters) on a factor-analyzed scale of student's role orientations toward college (vocational, academic, intellectual, social development, consummatory collegiate, instrumental collegiate, ritualistic, and greek). The Role Orientations Scale (Student Preference Schedule) was administered just prior to entering the university and the criterion groups were formed after 1 full academic yr. A multiple discriminate analysis yielded a significant function which indicated that defaulters and successful persisters as distinguished from probation persisters and dismissals have stronger preferences for social development and vocational behaviors, moderate interest in academic, intellectual, and ritualistic activities, and a moderate dislike for collegiate behavior. (22 ref.)—*Journal abstract.*

3045. Shearson, Gilbert F. (U. Georgia) **Color deficiency and reading achievement in primary school boys.** *Reading Teacher*, 1969(Mar), Vol. 22(6), 510-512, 577.—Compared 35 white 1st, 2nd, and 3rd grade color deficient boys as a group and as subgroups based on degree of deficiency (10 mild, 14 medium, and 11 strong) with 35 white noncolor deficient boys matched for grade in school. Results based on Metropolitan Achievement Test scores indicate no significant differences between the 2 main groups; however, the noncolor deficient subgroup scored significantly higher than the mild color deficient subgroup. It is concluded that "there is no relationship between color deficiency and success in reading as measured by the Metropolitan Achievement Test." However, since 7 of the 9 color deficient Ss who could not be classified as to type of deficiency were in the mild group, it is suggested that color perception follows a developmental pattern, i.e., slow development of color perception might parallel slow development of other physical capabilities that could affect reading skills.—R. Wiltz.

3046. Shinedling, Martin M. & Pedersen, Darhl M. (Brigham Young U.) **Effects of sex of teacher and student on children's gain in quantitative and verbal**

performance. *Journal of Psychology*, 1970(Sep), Vol. 76(1), 79-84.—4th grade classes of 4 male and 4 female teachers were tested at the beginning and end of the school yr. using the California Achievement Test (CAT). The classes were subdivided into males and females and the CAT was subdivided into quantitative and verbal areas. Male students did best under male teachers in quantitative areas, and male students did worse under female teachers in verbal areas. It is postulated that the results were produced by natural cultural expectancies.—*Journal summary.*

3047. Shrager, Morris I. (U. Kansas) **The effect of approving teacher comments on pupil achievement and attitude.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5302-5303.

3048. St. John, Nancy H. (Harvard U.) **Desegregation and minority group performance.** *Review of Educational Research*, 1970(Feb), Vol. 40(1), 111-133.—The topic was considered under several headings: choice of research design, longitudinal 1-group studies, cross-sectional studies, Coleman and commission reports, 4-celled studies, and the author's conclusion that the literature reviewed offered some evidence as to the relation between the racial composition of the school and academic achievement, but much more evident was the difficulty of research in the area. Societal experimentation with desegregation must precede research evaluation of it. (5 p. ref.)—P. D. Leedy.

3049. Svedman, Shirley. (Lincoln Junior High School, Ft. Collins, Colo.) **Semantic sensitivity and reading achievement.** *Reading Teacher*, 1970(Apr), Vol. 23(7), 640-646, 648.—Developed and administered the Semantic Sensitivity Test (SST) to 102 11 and 12 yr. olds. The test consisted of objective questions involving homonyms, multiple meanings of words, colloquialisms, and slang expressions designed to measure S's awareness that words have more than 1 meaning, and that meaning varies with content. Ss' scores on the Reading subtest of the California Achievement Test and the Gates MacGinitie Survey were also obtained. Results show a correlation of .72 between the SST and each of the standardized tests, which correlated .78 with each other. A significant t value of the correlation coefficient of the SST "suggests that the better the semantic sensitivity, the higher the reading achievement tends to be." It is suggested that this test, which is easy to administer and grade, is a "beneficial tool for the teacher to use at the beginning of the year or at other times when a quick approximation of a student's reading achievement or language understanding is needed."—R. Wiltz.

3050. Swafford, Jane O. (U. Georgia) **A study of the relationship between personality and achievement in mathematics.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5353.

3051. Taylor, Ronald G. & Hanson, Gary R. (U. Minnesota, Student Counseling Bureau) **Interest and persistence.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 506-509.—Investigated whether persistors and nonpersistors differed in inventoried occupational interests. 485 engineering students after their freshmen yr. were divided into successful persistors, successful transfers, unsuccessful dropouts, and unsuccessful persistors groups. The SVIB for men was used to compare the Ss in the 2 persister and 2 nonpersister groups. Analysis of variance was the basic statistical treatment followed by selected post hoc comparisons of significant scales. Results indicate that: (a) successful

persistors have engineering-related interest and reject social service interest; (b) successful transfers have verbally expressive and leadership interest and reject technical interest; (c) unsuccessful engineering students reflect unclear and undifferentiated interest; and (d) unsuccessful persistors have technical, physically active interest and less engineering-related interest.—*Journal abstract.*

Prediction

3052. Akeju, Simeon S. & Michael, William B. **Predicting success in the Federal School of Science, Lagos, Nigeria.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 483-486.—The West African School Certificate Examination (WASCE) is a 6-essay achievement test yielding English language, mathematics, and science scores. This is administered as a screening device. These areas are incorporated within the General Certificate of Education Examination, a test given at the program completion. Students also receive achievement tests which parallel areas tapped by the WASCE. Correlations between the predictor and criteria varied from .02 to .5. Multiple correlations ranged from .43 to .70. Most predictable was achievement in physics. —N. M. Chansky.

3053. Caldwell, James R., Schrader, Donald R., Michael, William B., & Meyers, C. E. **Structure-of-Intellect measures and other tests as predictors of success in tenth-grade modern geometry.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 437-441.—Students in 2 participating high schools had been administered 11 Structure-of-Intellect (SI) tests. The criterion was the Geometry test of the Cooperative Mathematics Tests which was administered 2 wk. before the end of the term. The most valid SI test correlated .60 with Geometry scores. When the 9th grade algebra grade was included, R increased to .65 in 1 school and to .70 in the other.—N. M. Chansky.

3054. Cauwelier, I. (U. Louvain, Belgium) **Motivatie als predictor van studiesucces.** [Motivation as a predictor of study success.] *PMS: Tijdschrift voor Psycho-Medisch-Sociaal Werk*, 1970, Vol. 16(1), 22-26.—Plates 1, 2, 3BM, 6BM, 7BM, 8BM, 10, 11, 14, and 20 of the TAT were used with 300 high school seniors. The protocols were analyzed according to Arnold's method. $\frac{1}{3}$ of the Ss received instructions which emphasized fantasy, $\frac{1}{3}$ neutral instructions, and $\frac{1}{3}$ received instructions which stressed achievement. The correlation with Amthauer-Mon's Intelligence Structure Test (IST) was .17. The correlation between school results and the IST was .25 and the correlation between the TAT motivation index and school success was .57 (for the fantasy condition, .61; for the neutral condition, .45; and for the achievement condition, .65). In a multiple regression equation to predict school results, the weight for the motivation index was .543 and for the IST, .157.—S. G. Vandenberg.

3055. Dunsing, Jack D. (Purdue U.) **Perceptual-motor factors in the development of school readiness: An analysis of the Purdue Perceptual-Motor Survey.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Oct), Vol. 46(10), 760-765.—Examined 50 1st-4th grade children with the Purdue Perceptual-Motor Survey (PPMS). A series of statistical analyses is presented using data from the standardization. A factor analysis was performed and 6

rotated factors emerged which were traced developmentally through the grades. In general, data support the rationale developed by N. C. Kephart (see PA, Vol. 35:2747) as the basis for the PPMS, but with modifications. The interaction of the stress of the school situation with development of ocular control and organization of movements in space is especially crucial. The predictive usefulness of the factors is variable, but the organization of movements in space and dynamic balance factors were the best predictors of reading and arithmetic grades. Rhythmic writing and postural stability were also predictors of the arithmetic grade. —*Journal abstract.*

3056. Egeland, Byron; Di Nello, Mario, & Carr, Donald. (Syracuse U.) **The relationship of intelligence, visual-motor, psycholinguistic and reading-readiness skills with achievement.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 451-458.—The WISC, the Illinois Test of Psycholinguistic Abilities, the Harrison-Stroud Reading Readiness Test, and the Bender Gestalt were administered to 125 1st graders. The Grades 1 and 3 Metropolitan Achievement Test (MAT) scores of the 82 Ss remaining in Grade 3 were correlated with the predictors. Correlations of the mental tests with achievement were approximately .2 in Grade 1 and .3 in Grade 3. Harrison-Stroud scores correlated with MAT higher in Grade 1 than in Grade 3. Multiple R in Grade 1 of .69 was produced by 2 Harrison-Stroud subtests and the Bender Gestalt. In Grade 3 2 Harrison-Stroud subtests and the WISC Full Scale IQ produced a similar R.—N. M. Chansky.

3057. Egeland, Byron; Hunt, David E., & Hardt, Robert H. (Syracuse U.) **College enrollment of Upward Bound students as a function of attitude and motivation.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 375-379.—Studied the relation of Upward Bound students' scores on a variety of attitude, motivational, and demographic measures to the likelihood of their enrolling in college by forming a college (N = 304) and noncollege (N = 108) group, individually matched on GPA, high school curriculum, and Upward Bound program attended. The Upward Bound Ss who later went on to college were superior to a noncollege group on the following measures: interpersonal flexibility, self-evaluated intelligence, possibility of college graduation, and importance of college graduation. Comparisons on demographic measures indicate a relationship between peer groups and students post high school interests. A large proportion of the college group came from larger high schools, did not fall in the lowest income level, and had mothers who remained at home.—*Journal abstract.*

3058. Elton, Charles F. & Shevel, Linda R. (American Coll. Testing Program, Iowa City, Ia.) **Who is talented? An analysis of achievement.** *ACT Research Report*, 1969(Sep), No. 31, 13 p.—Compared undergraduates who scored very high, very low, and average on the American College Testing Program on their responses to 48 items of 6 nonacademic achievement scales. Significant relationships were found between academic ability and several specific nonacademic achievements. Some items within single scales were positively related to academic ability; others in the same scale were negatively related or not related. Some significant relationships for 1 sex were not significant for the other. Results imply that the relationship between academic talent and any nonacademic talent depends on the

specific achievements chosen to define the talent. —*Journal abstract.*

3059. **Faterson, Hanna F., Moldowski, Edward W., & Moldowski, Leslie H.** (State U. New York, Downstate Medical Center, Brooklyn) **The human figure drawing test and academic outcome in medical school.** *Journal of Medical Education*, 1969(Oct), Vol. 44(10), 929-933.—Obtained human figure drawings from 125 male students at the time of their application to medical school, but did not use them in the admissions process. The drawings could be reliably dichotomized as being suggestive of either potential academic success or failure on the basis of specific graphic criteria. Success or failure, defined as graduation or nongraduation with the class 4 yr. later, was found to be related well above chance ($p < .001$) to ratings of drawings. The potential use of the human figure drawings as an adjunct to the selection process is discussed.—*Journal summary.*

3060. **Hackman, J. Richard; Wiggins, Nancy, & Bass, Alan R.** (Yale U.) **Prediction of long-term success in doctoral work in psychology.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 365-374.—Examined 4 sets of predictors in a study of the classroom performance, PhD progress and status 6 yr. after enrollment in the program of 42 doctoral candidates. Undergraduate GPA in psychology was correlated .3 with end of year GPA but not with long-term criteria. Graduate Record Examination scores were correlated with short- and long-term criteria. Hours of undergraduate language courses were negatively correlated with long-term criteria. Rated quality of undergraduate college was correlated .3 with perceived progress toward PhD as well as adjudged success 6 yr. after enrollment.—*N. M. Chansky.*

3061. **Jacobs, Paul D., Munz, David C., Barrett, Lois, & Everett, Frances.** (U. Oklahoma) **Academic survival: Success indicators in introductory psychology.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 231-233.—To identify and assess the importance of attitudinal factors as determinants of academic success, 12 motivational concepts were rated on a 9-scale semantic differential by 121 undergraduates in 2 studies. The 1st study identified 3 possible predictive concepts: test, studying, and marriage. The 2nd study cross-validated and assessed the stability of these concepts during the course duration. Only the concept test was found to be a stable and persistent predictor of academic success.—*Journal abstract.*

3062. **Jefferson, George L.** (U. Georgia) **Lexical and structural items as predictors of readability for high and low ability readers.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5287.

3063. **Loeb, Jan W. & Mueller, Daniel J.** (U. Illinois) **The use of a scale of high schools in predicting college grades.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 381-386.—Index of academic quality in a high school was determined by the average discrepancy and actual and predicted GPA of the college students who had attended that high school. When this index was combined linearly with the American College Test Composite score and high school percentile rank, correlation with college GPA rose from .39 to .47.—*N. M. Chansky.*

3064. **Lunneborg, Patricia W.** (U. Washington) **EPPS patterns and academic achievement in counseling clients.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 393-398.—Frequently recurring

2-variable EPPS patterns were noted in 1 sample of counseling clients. In a 2nd sample these patterns were correlated with EPPS scores, Washington Pre-College Test Battery scores, and college GPA. The findings indicate that in that sample high school grades correlated highest with college GPA. Neither EPPS patterns nor subtest scores correlated with grades.—*N. M. Chansky.*

3065. **Lunneborg, Patricia W., Lunneborg, Clifford E., & Greenmun, Renny.** (U. Washington) **An attempt at predicting long term nonintellective indices of community college study.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 399-403.—Intellective data were found in school records of performance on the Washington Pre-College Test Battery, high school and college grades. A mailed survey (24% return) to community college graduates produced 15 nonintellective measures. Intellective predictors correlated with grades but not with satisfaction with studies or usefulness of curriculum.—*N. M. Chansky.*

3066. **McCullah, Robert D.** (U. Maryland) **Prediction of academic performance in the U.S. Navy Hospital Corps School vocational training programs.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5677.

3067. **Moore, Gary T.** (Clark U.) **Creativity and the prediction of success in architecture.** *Journal of Architectural Education*, 1970(Apr), Vol. 24(2), 28-32.—Discusses the prediction of academic success in the selection of students in the design and planning disciplines. An 8-part battery of tests of creativity was developed and administered to 94 undergraduate and graduate architecture students. Results indicate that 3 of the tests are highly related to success in architecture and are a better predictor of success than either high school record and precollege examinations or the Architectural School Aptitude Test. From mathematical analysis of the tests (the Creative Problem Solving battery), it is suggested that the combination of creative problem solving tests and traditional tests may be an excellent overall predictor of an applicant's potential for success in architecture.—*Author abstract.*

3068. **Reed, Robert L.** (U. Kansas) **An application of the joint multiple regression model to the prediction of academic success from personality variables.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5300.

3069. **Scott, Ralph.** (U. Northern Iowa) **Perceptual skills, general intellectual ability, race, and later reading achievement.** *Reading Teacher*, 1970(Apr), Vol. 23(7), 660-668.—Extends previous findings concerning the predictive ability of the Seriation Test (ST), a test consisting of "varied and sequential tasks" designed to measure perceptual abilities. The Iowa Test of Basic Skills (ITBS) was administered to 151 3rd graders who were part of a previous population of 356 kindergartners from whom data had been obtained on the ST, Metropolitan Reading Readiness Test, and teachers' ratings. Correlation coefficients between the ITBS and various kindergarten measures indicate that: (a) there is a significant relationship between ST scores and 3rd grade reading success; (b) there is a lower predictive power of the ST for Negro than for Caucasian children; (c) "regardless of race, kindergarten children with an inadequate base of perceptual experiences are more likely to encounter reading difficulties"; (d) it is more difficult to predict reading achievement of Negro children, particularly girls, on almost all kindergarten

measures; and (e) teacher ratings, as opposed to objective tests, are more effective predictors of reading success for Negro girls and Caucasian boys, while the reverse is true for Negro boys and Caucasian girls.—R. Wiltz.

3070. Ward, Byron J. (Syracuse State School, N.Y.) **Two measures of reading readiness and first grade reading achievement.** *Reading Teacher*, 1970(Apr), Vol. 23(7), 637-639.—Correlated 278 kindergartners' scores on the WISC Coding subtest and the Murphy-Durrel Reading Readiness Test with their scores on the Stanford Achievement Test administered at the end of the 1st grade. Results indicate that the Murphy-Durrel Test scores were significantly more highly correlated with all but the Vocabulary subtest of the Stanford Achievement Test than were the WISC Coding subtest scores. Correlations between Murphy-Durrel Test scores and the Standard Achievement subtests ranged from .41-.55, while those between the WISC Coding subtest and Stanford Achievement subtests ranged from .28-.34. It is concluded that "the use of the Coding subtest as a predictor of reading achievement or reading success would appear to be severely limited."—R. Wiltz.

3071. Webb, Warren W. & Pate, John E. (Vanderbilt U.) **Predicting failure in the primary grades.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 459-462.—Early predictions of school difficulties over a long term could enhance educational and guidance programs. To study predictive accuracy over time, a paper-and-pencil group screening, the First Grade Screening Test (FGST), was administered to all beginning 1st graders in 1 school system. 3 yr. later, as they completed the 3rd grade, ratings by their teachers and their achievement test scores were grouped according to FGST scores obtained in the 1st grade. An FGST cutting score of 19 identified 84% of children who failed during the primary grades, and median achievement for those above the cutting score was 1.1 grade level higher than those below the cutting score. Results indicate that school difficulties over a 3-yr period can be predicted with some accuracy by this testing procedure during the beginning weeks of 1st grade.—*Journal summary*.

Overachievement & Underachievement

3072. Hollon, Thomas H. (Children's Development Center, Rockford, Ill.) **Poor school performance as a symptom of masked depression in children and adolescents.** *American Journal of Psychotherapy*, 1970(Apr), Vol. 25(2), 258-263.—Reported 4 cases which demonstrate that poor school performance (including lack of adequate study habits, poor attitudes, and unruly behavior) may possibly have its roots in depression which has become masked, and therefore misunderstood, by parents and school teachers. The depression may at times be caused by obvious reasons or may be more general and nebulous (i.e., depressive attitudes caused by feelings of inadequacy or inferiority). In all cases presented, this situation was rectified by a change in attitude on the part of the parents and school teachers and by referral for psychiatric treatment.—P. R. Shibleski.

3073. Mumpower, D. L. & Riggs, Sharon. (U. Southern Louisiana) **Overachievement in word accuracy as a result of parental pressure.** *Reading Teacher*, 1970(May), Vol. 23(8), 741-747.—Suggests that some children may respond to pressure by overachieving

in areas of rote learning, e.g., word accuracy, while failing to do as well in areas requiring a higher level of mental maturity, e.g., comprehension. Case studies of 33 children showing overachievement in Word Accuracy on the Gilmore Oral Reading Test were paired with case studies of 33 children showing no overachievement. Pairs were matched for age, sex, grade, IQ, MA, and race, and all Ss had achieved normal Comprehension scores. Case data relating to overachievement were categorized independently by 2 Es and were subjected to statistical analysis. It was found that overachievers were significantly more likely to be categorized as having parents who exert pressure for good grades, and as exerting much effort in school. 3 other factors approached significance, with overachievers more likely to be categorized as: (a) needing less pressure for school progress and less emphasis on grades, (b) showing signs of emotional disturbance related to school, and (c) having parents who don't understand or accept the child's limitations.—R. Wiltz.

CURRICULUM & PROGRAMS

3074. Avital, Shmuel M. & Shettleworth, Sara J. (Ontario Inst. for Studies in Education, Toronto, Canada) **Objectives for mathematics learning: Some ideas for the teacher.** *Ontario Institute for Studies in Education Bulletin*, 1968, No. 3, 57 p.—Discusses the belief that the central goal of mathematics instruction is ultimately "the development of the ability to utilize mathematical thinking in the solution of problems." A method is described of categorizing mathematics teaching objectives, based on the major levels (knowledge, comprehension, application, analysis, synthesis, and evaluation) of B. S. Bloom's classification of educational objectives. This method is adapted to describe the levels of mathematical performance more precisely.—P. McMillan.

3075. Avders, Z. & Krotova, T. **Na vysokom nauchno-professional'nom urovne.** [On a high scientific-professional level.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(2), 30-33.—Presents an account of the 1969 All-Union Interuniversity Scientific-Technical Conference on Problems of Scientific Organization of Work in Universities, held in Moscow. Titles and occasional brief summaries of a number of the papers read are included.—I. D. London.

3076. Bogolyubov, L. S. (All-Union Extramural Polytechnical Inst., Moscow, USSR) **Pervye shagi zaachnogo obrazovaniya.** [The first steps of extramural education.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(1), 88-89.—Presents recent developments in education through correspondence schools in India.—I. D. London.

3077. Clark, Ann D. (U. Wisconsin) **A longitudinal investigation of selected characteristics in an economically disadvantaged and nondisadvantaged Headstart population.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5310.

3078. Deskins, L. R. **Need/drive plus a system equals general educational development.** *Training & Development Journal*, 1970(Mar), Vol. 24(3), 30-32.—A company and a college developed a program to provide high school equivalency education to industrial workers. Each "participant attended 1 3-hr classroom session per wk. for 15 wk. in addition to 8-10 hr. of home study per wk. . . . The Stanford Achievement Test was adminis-

tered.... The instructors concentrated their efforts on increasing reading effectiveness, vocabulary, grammar, basic mathematics and an understanding of numerical concepts.... Of 45 enrollers, 7 qualified for high school equivalency without the course, 29 at the end of the course, and 8 failed.—C. A. Bennett.

3079. Goolsby, Thomas M. (U. Georgia) **Culturally deprived Head Start subjects' reading readiness after training in listening.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 561-564.—Presents evidence of reading readiness for 3 groups of 17, 18, and 13 nonreading, preschool, culturally deprived Head Start children after they received 3 types of training in listening. Pretreatment scores were established by playing 2 stories to each S, then questioning them. During training, Ss heard stories and then were either: questioned and told whether their responses were right or wrong, questioned with no feedback, or asked no questions. Posttreatment scores were determined in the same way that pretreatment scores were established. 5 wk. after the end of the experiment all Ss were administered the Metropolitan Readiness Test (MRT). Results show that differential treatment made no difference in mean performance in reading readiness as measured by the MRT. However, intercorrelations of treatment through the various phases of the group receiving both questions and feedback indicate that this type of treatment for culturally deprived children is more appropriate to what the MRT measures as reading and number readiness.—M. Maney.

3080. Greenberg, Herbert M., Rosmer, Lillian, & Slenta, Roland A. **The valuable legacy of failure.** *New York State Education*, 1967(Feb), Vol. 54(4), 29-31.—Reports on the Work, Education, Training Program in Rochester, New York, which capitalizes on the valuable background of "indigenous adults" as coworkers with conventional professionals in nursery school centers.—L. D. Summers.

3081. Jacobson, Edward S. (Drum Hill Junior High School, Peekskill, N.Y.) **Frontal attack on reading.** *New York State Education*, 1967(Feb), Vol. 54(4), 18-19.—Briefly describes and reports gains of 9 mo. or greater over a 7-mo period of intensified efforts in a developmental reading program.—L. D. Summers.

3082. Johnston, Bower L. (Florida State U.) **A study of the relationships among self-concept, movement concept, and physical fitness, and the effects of a physical conditioning program and a sports-skill program upon self-concept and movement concept.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5270-5271.

3083. Kendrick, S. A. & Thomas, Charles L. (College Entrance Examination Board, New York, N.Y.) **Transition from school to college.** *Review of Educational Research*, 1970(Feb), Vol. 40(1), 151-179.—Reviews the disadvantaged and the compensatory programs in higher education which are assisting this up-to-now overlooked population. The review is along broad lines of consideration of educational attainment and college attendance, guidance and search for talent, admission practices, and specific college programs for the disadvantaged. Research in the area has largely been found to be atomistic, slow, and exhibiting a painfully wide gap between practice and basic research approaches. (6 p. ref.)—P. D. Leedy.

3084. Lopate, Carol; Flaxman, Erwin; Bynum, Effie M., & Gordon, Edmund W. (Columbia U.) **Decentraliza-**

tion and community participation in public education. *Review of Educational Research*, 1970(Feb), Vol. 40(1), 135-150.—Contrary to the supposition of the democratic tradition that citizens will actively participate in governmental decision-making, the fact is that trend is toward more centralization. Research indicates, however, that where parents are actively concerned in the process of education, their children are likely to achieve better. Where there has been found to be heightened community integrity and ethnic group self-esteem which is reflected in parent and community groups effecting educational change, the child will have a greater sense of his own worth which is apparently an essential ingredient for achievement. (2 p. ref.)—P. D. Leedy.

3085. Lutsenko, I. S. (Popov Electrotechnical Inst. of Communication, Odessa, USSR) **Inostrannyi yazyk v vuzе: Metodika obucheniya i spetsial'nost'.** [Foreign language in the higher institution of learning: Teaching methods and specialty.] *Vesnik Vysheï Shkoly*, 1970, Vol. 28(1), 38-41.—Discusses the teaching of foreign language as it relates to vocational training at the level of the higher institutions.—I. D. London.

3086. Meeker, David L. (Kent State U.) **Measuring attitude and value changes in selected humanities and human relations programs.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5292.

3087. Millar, Dan P. (Michigan State U.) **An exploratory study of the effect of varying modes of positive reinforcement on student animation in the beginning speech class.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5552-5553.

3088. Morgan, Robert F. & Toy, Thomas B. (Acadia U., Wolfville, Nova Scotia, Canada) **Learning by teaching: A student-to-student compensatory tutoring program in a rural school system and its relevance to the educational cooperative.** *Psychological Record*, 1970(Spr), Vol. 20(2), 159-169.—Before and after testing on the Wide Range Achievement Test (WRAT) over a 4-mo period assessed gains for student tutors and their pupils in a rural school system. 13 tutored 2nd-5th graders showed a mean net growth advantage of from 3-5 mo. on WRAT subtests over 14 controls. 10 8th-12th grade student tutors showed a mean 9 mo. edge over controls, a gain of 13 mo. over 10 controls. On the 3 WRAT subtests all experimental means exceeded control means, but only the reading subtest was significant at the 5% level. Implications discussed include suggesting a much more institutionalized role reversal between teacher and student, student tutoring, and an educational cooperative with graduated salaries and personal involvement for all participants. (18 ref.)—Journal abstract.

3089. Mosher, Ralph L. & Sprinthall, Norman A. (Harvard U., Graduate School of Education) **Psychological education in secondary schools: A program to promote individual and human development.** *American Psychologist*, 1970(Oct), Vol. 25(10), 911-924.—Presents a rationale for a new focus for curriculum. Recent studies have shown that the "hidden agenda" of schooling educates students' attitudes, values, and perceptions, and that personal/psychological education is taking place. Indirectly the student is learning to see himself, recognize his competence, and develop a sense of worth. It is suggested that, at minimum, the school reinforces the child in the psychological advantage or disadvantage with which he enters it. A new program of psychological education is outlined which

includes experience-based learning laboratories, peer counseling, cross-age teaching, improvisational drama, film and communication, and self-analytic groups. Such procedures call for a different approach to the problems of secondary schooling by direct focus on the personal education of the pupil as a curriculum objective. (28 ref.)—*Author abstract.*

3090. Pashin, N. F. (School Methods Administration for Secondary Institutions, Moscow, USSR) **Uluchshat' zaochnoe obuchenie.** [Improve extramural teaching.] *Doshkol'noe Obrazovanie*, 1970, Vol. 17(2), 21-24.—Presents an analysis of the weaknesses of secondary agricultural correspondence schools, and suggests corrective measures.—*J. D. London.*

3091. Sandvoss, Joachim. (U. British Columbia, Vancouver, Canada) **A study of the musical preferences, interests, and activities of parents as factors in their attitude toward the musical education of their children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5474-5475.

3092. Shuvalov, F. (Lesgaft Inst. of Physical Culture, Leningrad, USSR) **O P. F. Lesgafta.** [On P. F. Lesgaft.] *Doshkol'noe Vospitanie*, 1970, Vol. 43(3), 41-45.—Presents the origin and development of the system of physical education, as undertaken by Petr Frantsevich Lesgaft (1837-1909), and recounts the early history of the All-Russian Society for the Promotion of Physical Development of Children and Youth, founded in 1893.—*J. D. London.*

3093. Southern, Mara L. (Stanford U.) **Language-cognitive enhancement of disadvantaged preschool children through modeling procedures.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5303.

3094. Swift, Marshall S. (Hahnemann Medical Coll. & Hosp., Philadelphia, Pa.) **Training poverty mothers in communication skills.** *Reading Teacher*, 1970(Jan), Vol. 23(4), 360-367.—Describes a program designed to facilitate communication and story telling skills in 7 mothers, the majority of whom had an 8th grade education and were receiving welfare assistance. Using group leaders as models, techniques were developed to aid the mothers in choosing and telling stories from appropriate preschool level books. Individual attention and "huge amounts of verbal praise" were used to reward the mothers for story telling at home as well as within the program situation. Mothers were found to develop in their ability to tell stories and in their perception of the mother's role in the life of their children.—*R. Wiltz.*

3095. Vorob'ev, A. A. & Yampol'skii, V. Z. (Kirov Polytechnical Inst., Tomsk, USSR) **Planirovanie i analiz deyatel'nosti vysshego uchebnogo zavedeniya.** [Planning and analysis of activity in the higher educational institution.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(2), 62-68.—Presents a mathematical discussion of a system of administrative control and planning, utilizing "quantitative indices intended for analysis of the effectiveness of university performance" as an educational institution.—*J. D. London.*

Teaching Methods & Teaching Aids

3096. Asher, J. William. (Purdue U.) **Comment on "Spelling achievement following I.T.A. Instruction."** *Reading Teacher*, 1968(Nov), Vol. 22(2), 153-156, 169.—Critically examines A. J. Mazurkiewicz and P. A. Lamana's study which deals with the residual effects of

initial teaching alphabet (ITA) on spelling, once children have made the transition into traditional orthography (TO). It is demonstrated that firm conclusions, from this study, about ITA and TO teaching methods are prevented by: (a) errors in experimental design and statistical testing, (b) inadequate definition of populations and sampling methods, (c) inadequate description of the teaching methods and procedures that define the initial ITA and the TO methods, and (d) the unexplained variability in the data over time.—*G. Steele.*

3097. Bobbitt, Richard. **The development of music reading skills.** *Journal of Research in Music Education*, 1970(Sum), Vol. 18(2), 143-156.—"During the school year 1965-66, an experimental program to develop music reading skills in the elementary grades was begun in Brookline, Massachusetts . . . 1 35-min period of instruction per wk." was given to the about 20 Ss who "were selected after preliminary testing from members of 2 6th-grade homerooms in 1 school. The marked improvement in awareness of melodic structure encouraged the administration to expand the activity during the school year 1966-67. . . . The program terminated at the spring semester of 1967." Programed procedures are described, but no information on evaluation procedures or results is given.—*D. Higbee.*

3098. Breard, Claudine. (U. Rennes, France) **Psycho-pedagogie du calcul moderne au cours préparatoire.** [Modern mathematics in the first few grades.] *Information Psychologique*, 1968(Jul), No. 31-32, 5-34.—Presents several aids to teaching sets, unions and multiplication.—*S. G. Vandenberg.*

3099. Chastain, Kenneth D. (Purdue U.) **A methodological study comparing the audio-lingual habit theory and the cognitive code-learning theory: A continuation.** *Modern Language Journal*, 1970(Apr), Vol. 54(4), 257-266.—Reports a follow-up study which examined the effect of audio-lingual and cognitive language instruction in the 1st yr. on achievement in the 2nd yr. to determine if the trend favoring the cognitive method would be maintained or strengthened. Data were based on the Modern Language Aptitude Cooperative Test, Form MA scores for 31 of 48 audio-lingual students and 35 of 51 cognitive students who continued the courses in the 2nd yr. Grades in the 3rd and 4th semesters, which stressed reading and listening comprehension, were compared, and achievement scores in listening, speaking, reading, and writing were statistically analyzed with regard to variables of: previous language experience, instructor, sex, modality preference, aptitude, and motivation. Overall results show very little difference between the 2 methods at the end of the 2nd yr., although the direction of difference in reading continued to favor the cognitive group. In spite of a high drop-out rate, it is concluded that: (a) differences in achievement based on varying emphases in the 1st yr. tend to disappear as the stress is changed in the succeeding semesters; (b) as course objectives and teaching procedures change, the student ability factors affecting achievement also change, with motivation becoming a more significant variable; and (c) neither method is uniformly better for all students in language skills.—*C. O'Donnell.*

3100. Coop, Richard H. & Brown, Laurence D. (U. North Carolina) **Effects of cognitive style and teaching method on categories of achievement.** *Journal of Educational Psychology*, 1970, Vol. 61(5), 400-405.—Used a 2 x 2 factorial design to determine the effect

of cognitive style and teaching method on 3 different aspects of subject matter achievement—factual content, conceptual-generalization content, and total content. Data from 80 undergraduates indicate that a teacher-structured-presentation method of instruction was significantly superior to an independent-problem-solving method of instruction on all 3 dependent measures. There was no significant difference between Ss with an analytic cognitive style and Ss with a nonanalytic cognitive style on any of the dependent measures nor was there a significant interaction between cognitive style and teaching method. (19 ref.)—*Journal abstract.*

3101. Correll, Werner. (Ed.) *Zur Theorie und Praxis des Programmierten Lernens.* [Theory and application of programmed learning.] Darmstadt, W. Germany: Wissenschaftliche Buchgesellschaft, 1969. vi, 325 p.

3102. Foster, Bruce H. (Florida State U.) *A comparison of the effectiveness of programmed vs. non-programmed approaches to spelling in the intermediate grades.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5673-5674.

3103. Giladi, R. *Suggestions for change in the teaching of Hebrew.* *Hachinuch*, 1970(Jun), Vol. 42(5), 345-355.

3104. Hall, Bruce W. (Florida State U.) *Anxiety, stress, task difficulty and achievement via programmed instruction.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5711.

3105. Haskell, Roger W. (Purdue U.) *Effect of personality characteristics upon learning via selected modes of instruction: An experimental investigation.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5355.

3106. Keitel, Helmut A. (Hamilton High School, Sussex, Wis.) *Development and dissemination of materials for the teaching of world history in a foreign language (German).* *Modern Language Journal*, 1970(Feb), Vol. 54(2), 112-115.—Attempted to reinforce newly acquired language skills in high school German. 2 control groups and 1 experimental group were selected on the basis of similar educational characteristics. The experimental group was formed of students who had never had history but had completed German II. Theses Ss took German III and World Cultures (in German). Control Group 1 had completed both courses and went on to German III. Control Group 2 who had had neither, enrolled in World Cultures (in English). The same teacher undertook instruction for all 3 groups. Data indicate that the experimental group achievements were equal to the control group in World Cultures. They were also superior to the control group in German. It is suggested that this method of language instruction has acted as an added incentive for further foreign language study.—C. O'Donnell.

3107. Kubeev, B. V. *Nuzhnye uchebnye fil'my.* [Necessary educational films.] *Vestnik Vysshei Shkoly*, 1970, Vol. 28(2), 44-45.—Describes films for university use on the orienting reflex, biocurrents in research, and localization of cerebral functions.—I. D. London.

3108. Mann, Lester, et al. (Montgomery County Schools, Norristown, Pa.) *Achievement and personality measurements associated with progress in a programmed course in decimals and fractions at a fifth grade level.* *Scientia Paedagogica Experimentalis*, 1968, Vol. 5(1), 76-83.—Administered the Elementary Arithmetic Series Decimal Numbers Self-Tutoring Course to 154 5th graders in addition to regular

arithmetic assignments to investigate the learning processes involved and the "degree and nature of the association between pupil progress and certain measures of achievement and personality style." Results indicate the direct association of IQ, as measured by the Henmon-Nelson Test of Mental Ability, and achievement, measured by a test provided by the course, to success in learning the programed text. General ability factors as opposed to specific ones were predictive of success. (French summary) (33 ref.)—G. Steele.

3109. Meiskin, Milton. (Central Elementary School, Mamaroneck, N.Y.) *Comfortable reading.* *New York State Education*, 1967(Feb), Vol. 54(4), 43.—From experiences in his school where he is principal, the author suggests that a quiet, comfortable corner for reading, furnished with pillows and cushions, is a valuable asset in an elementary classroom.—L. D. Summers.

3110. Mendelsohn, Frances A. (Fordham U.) *The relationship between method of beginning reading instruction and later academic achievement.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5292-5293.

3111. Merrill, M. David. (Brigham Young U.) *Specific review versus repeated presentation in a programed imaginary science.* *Journal of Educational Psychology*, 1970, Vol. 61(5), 392-399.—Gave 45 undergraduates a programed presentation of an Imaginary Science using Autotutor teaching machines attached to a Techni-rite recorder. Ss were randomly divided into 6 experimental conditions as follows: Group 1 received no knowledge of results on criterion frame performance; Group 2 received right-wrong information; Group 3 repeated previous presentation once when performance on criterion frame was incorrect; Group 4 repeated previous presentation as many times as necessary; Group 5 received a specific review once; and Group 6 received specific review until criterion frame performance was correct. Results show Group 6 to be the most efficient procedure, with Group 4 being least efficient. No error differences were observed.—*Journal abstract.*

3112. Milkaberidze, A. A. *Kino kak faktor vospitaniya.* [The motion picture as an educational factor.] *Srednee Spetsial'noe Obrazovanie*, 1970, Vol. 17(2), 49-52.—Presents practical ways in which the motion picture becomes an educational film in and outside of school.—I. D. London.

3113. Nagel, Thomas S. (Michigan State U.) *A descriptive study of cognitive and affective variables associated with achievement in a computer-assisted instruction learning situation.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5295.

3114. Nemeth, Joseph S. (Bowling Green State U.) *A personalized approach to comprehension.* *Journal of the Reading Specialist*, 1969(Mar), Vol. 8(3), 124-127.—Students nominated the most "difficult" textbook: *Life: An Introduction to Biology*. It was found to have a Dale-Chall readability level of Grade 14, while the Ss taking the reading course had a level of about Grade 10. This gap between the textbook and student reading level led to a research which showed that improved vocabulary led to improved comprehension and, consequently, better semester and examination grades. Ss were taught and/or reviewed 3 selected meaning skills—context, structure, and dictionary—which were "1st reinforced with commonly available commercial materials." Following this procedure, Ss were encouraged to apply their

new word meaning to biology reading assignments. As a result a scheme was developed which permitted Ss to select "important" words for further study and remembering. Selection of key words was accomplished by a student analysis of the vocabulary list in the recall and the interpretation level. The procedures and techniques are still being evaluated and refined.—*I. Sirotin.*

3115. Radan, George T. & Zuckowsky, Leo M. (Villanova U.) **Developing a multidimensional slide projector technique.** *Catholic Educator*, 1970, Vol. 40(5), 56-61.—Working within the limits of budgetary considerations, the techniques of psychology and the principles of the fine arts were applied to slide projection in the effort to provide the viewer with the environment stimulating the artist originally. 1 problem reported by viewers—distractions from auxiliary means—was eliminated by panel control and abolition of screens. Proper display of kinetic art was approached through splicing shots taken from different angles. It is concluded that the projection lamp can still serve, even in the presence of many more modern and more expensive mechanical provisions.—*A. M. Cawley.*

3116. Radan, George T. & Zuckowsky, Leo M. (Villanova U.) **Is slide projection dead?** *Catholic Educator*, 1969, Vol. 40(1), 64-69.—Presents the background on mixed media, the problems facing most educational organizations in attempting to make use of the latest aids available, and leads up to an experiment designed to demonstrate more effective utilization of slides.—*A. M. Cawley.*

3117. Rives, James A. (U. Saskatchewan, Regina, Canada) **A comparative study of traditional and programed methods for developing music listening skills in the fifth grade.** *Journal of Research in Music Education*, 1970(Sum), Vol. 18(2), 126-133.—Ss were students at 2 schools in New Mexico, 1 of the Mescalero Apache Indian Reservation (N = 37), the other in Tularosa with an Anglo-American and Spanish-American student body (N = 72). No differences in listening achievement were found between 12 wk. of programed instruction and traditional methods, but Caucasians scored significantly higher than Indians.—*D. Higbee.*

3118. Rogers, Kirby & Almond, Frank. (Brunswick Junior Coll.) **A bibliography of materials on programed instruction in music.** *Journal of Research in Music Education*, 1970(Sum), Vol. 18(2), 178-183.—Entries, dating from January 1957–November 1967, include programed texts and research reports.—*D. Higbee.*

3119. Shull, Howard I. (U. Maryland) **Programed instruction: A comparison of learning and retention of information learned through the use of small step (linear) programed instruction and large step (branching) programed instruction.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5266.

3120. Shuy, Roger W. (Center for Applied Linguistics, Sociolinguistics Programs, Washington, D.C.) **Some considerations for developing beginning reading materials for ghetto children.** *Journal of Reading Behavior*, 1969(Spr), Vol. 1(2), 33-43.—Examines the differences between the written text of beginning reading materials and the oral language of the inner city Negro children, and emphasizes the importance of the child's underlying language structure, which is increasingly relied upon throughout the reading process. It is suggested that 3 principles be considered when developing reading materials for ghetto children: (a) grammatical forms which are not used in the oral language

should be avoided; (b) grammatical forms which are not commonly found in the readers, but which are used in the oral language, should be inserted; and (c) grammatical forms should be in sequences similar to those of the oral language. Consideration of these principles is expected to contribute to the solution of reading problems produced by the behavioral mismatch of reading materials and the cultural position of ghetto children.—*R. Wiltz.*

3121. Standifer, James A. (Temple U.) **Effects of aesthetic sensitivity of developing perception of musical expressiveness.** *Journal of Research in Music Education*, 1970(Sum), Vol. 18(2), 112-125.—1 semester courses in general music taught by persons "well trained in the methods of teaching music courses based on principles of absolute expressionism" were offered in 3 junior (N = 17 in each) and 3 senior (Ns = 17, 23, and 11) high schools "selected to represent the widest available socioeconomic range." Experimental Ss "received pretests, new music instruction, and posttests. The control groups received traditional music instruction (by teachers already employed at the particular schools) and posttest only." Results are interpreted to suggest that "strong interaction effects existed between socioeconomic levels and treatment, the treatment favoring the child of the lower socioeconomic level," perhaps because of "the challenging nature of the new music course" for students who lacked such challenge in other courses, as well as a kind of "Hawthorne effect."—*D. Higbee.*

3122. Treviño, Bertha G. (Laredo Junior Coll.) **Bilingual instruction in the primary grades.** *Modern Language Journal*, 1970(Apr), Vol. 54(4), 255-256.—Discusses a program which attempted to compensate for poor scholastic achievement of Mexican-American children by using bilingual instruction for all students in the 3 primary grades. The project encouraged a self-help program on the part of the students. Raw arithmetic scores on the California Achievement Test for children completing 3 yr. of bilingual instruction were converted into grade placement equivalents. Results show that only 1 Spanish-speaking child fell below the national norm in basic arithmetic. It is suggested that the solution to low achievement for Spanish-speaking children may be found through the use of Spanish in the primary grades. It is also proposed that a 2nd language may be taught in the primary grades without hampering the normal achievement of any child.—*C. O'Donnell.*

3123. Wolff, Edgar. **Pour une révolution radicale dans les méthodes d'enseignement des grandes classes au lycée.** [Towards a radical revolution in the methods of teaching large high school classes.] *Information Psychologique*, 1969(Jan), No. 33, 45-48.—Proposes a system of electives, of optional attendance, more free study, and classes of 30 min. only.—*S. G. Vandenberg.*

3124. Wood, Fred H. **The McCluer Plan: An innovative non-graded foreign language program.** *Modern Language Journal*, 1970(Mar), Vol. 54(3), 184-187.—Describes an experimental French and Spanish program designed to eliminate the exceptionally high drop-out rate and to compensate for the overemphasis on pseudolanguage in current methods. The McCluer curriculum used at a suburban high school stressed individual performance through small group activities and team teaching. 4 basic skills are concentrated on individually in the new audio-lingual approach: comprehension, speaking, reading, and writing. "Each unit is

divided into 3 phases: (a) comprehension, (b) vocalization, and (c) assimilation and consolidation of skills." The change in the role of the teacher and student, the different methods of presenting materials, and changes in facilities and timing are stressed. It is indicated that such unstructured settings may develop problems, but concluded that modification of the "McCluer Plan" may provide the answers for the problems in current foreign language instruction.—C. O'Donnell.

PERSONNEL & INDUSTRIAL PSYCHOLOGY

3125. Benoy, Leroy W. (211 Glendale Ave., Highland Park, Mich.) **Prevention of deafness from industrial noise and acoustic trauma.** *Journal of the American Osteopathic Association*, 1968(Oct), Vol. 68(2), 161-167.—Cites proof that noise does produce high frequency hearing loss. Instruments are currently available for determining whether or not noise in a given industrial plant is at a hazardous level; it is stressed that these should measure the components of different frequencies present in noise. Hearing conservation programs have been established by employers of more than 1/3 of those persons working in hazardous noise areas. Such programs attempt to conserve hearing and prevent hearing loss among workers, prevent economic loss to the company, and gather scientific information. Ideally, they would also involve the removal of noise at its source, by direct treatment of noise-generating machines and devices and by acoustic treatment of work areas. In areas where noise levels cannot be effectively reduced by currently available methods, specially designed ear devices can be worked to protect the hearing of the worker. The medical aspects of these devices are explored with attention to anatomic, physiologic, and psychologic considerations.—*Journal abstract*.

3126. Otto, C. P. & Glaser, R. P. **How to prepare and present a training forecast.** *Training & Development Journal*, 1970(Mar), Vol. 24(3), 24-29.—The "training director must develop a plan of action to direct the resources of his department to assist the institution in reaching its goals. . . ." To do this he must get information from everyone about his organization, identify training needs, evaluate present capabilities, and develop a written, costed forecast. The relationship of programs to organizational objectives should be considered.—C. A. Bennett.

3127. Salas, R. G. (Psychological Research Unit, Albert Park Barracks, Melbourne, Australia) **A survey of attitudes held towards the Royal Australian Army Nursing Corps: I. Regular officer and civilian attitudes.** *Australian Military Forces Research Report*, 1969, No. 3 69, 44p.—Surveyed the opinions of 309 female officers in the nursing corps on topics thought to be of relevance in the formation of attitudes towards conditions of service and the reappointment decision. 254 final year civilian nursing trainees were polled to establish base-line attitudes towards career expectations and needs, and to reveal general attitudes towards nursing in a military setting. Both samples were found to be closely similar in their stated basic career needs, the main requirements being a sense of achieving progressive professional development and one of providing community service. A substantial proportion of both samples

was negatively oriented towards long-term contractual employment, strongly favoring a shorter initial term of service of a probationary nature. In terms of reappointment, data from the officers fell into the pattern observed in studies made on male, other-rank soldiers.—*Journal abstract*.

3128. Schultz, Duane P. (Ed.) (U. North Carolina) **Psychology and industry.** London, England: Macmillan, 1970. x, 513 p.—Contains a series of articles by various authors designed as a text supplement for undergraduate courses dealing with the contribution of psychology to the understanding of man and his job. Focus is given to the daily activities of psychologists in industry, including the techniques they use and the problems they encounter.

VOCATIONAL CHOICE & GUIDANCE

3129. Aldag, Jean C. (Washington U.) **Male nurse interest and personality characteristics.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5672.

3130. Gilbert, Albin R. (West Virginia Wesleyan Coll.) **Superiority of latency-weighted scores over unweighted scores in the assessment of professional interests.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 93-94.—Scores obtained from latency-weighted testing of 66 preministerial Ss correlated significantly with projective incomplete-sentence scores (.55) but not with paper-and-pencil scores (.05) in assessing professional suitability. The latency-weighted scores provided increased diagnostic value in responses to interest-inventory items.—*Journal abstract*.

3131. Harmon, Lenore W. (U. Wisconsin, Milwaukee) **Strong Vocational Interest Blank profiles of disadvantaged women.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(6), 519-521.—Explored the use of the SVIB with disadvantaged women by pattern analysis of the profiles of 25 women participating in 2 special programs. Most of the profiles had identifiable interest patterns but the majority of the women had high scores on the Medical Service and Nonprofessional Occupational groups. At the scale level, considerable diversity was noted among women who had high scores on the Nonprofessional Group of occupations. It is concluded that the SVIB can be useful in recognizing individuality in disadvantaged women and in helping them to choose satisfying job training experiences.—*Journal abstract*.

3132. Holland, John L., Whitney, Douglas R., Cole, Nancy S., & Richards, James M. (American Coll. Testing Program, Iowa City, Ia.) **An empirical occupational classification derived from a theory of personality and intended for practice and research.** *ACT Research Report*, 1969(Apr), No. 29, 22 p.—Presents the origin, development, verification, and revision of an occupational classification. Occupations are organized according to their degree of psychological relatedness following J. Holland's theory of personality. Because of its theoretical simplicity and empirical base, the classification has many potential practical applications for vocational guidance, industrial personnel work, and research in education, psychology, and sociology.—*Journal abstract*.

3133. Silver, Harvey A. & Barnette, W. Leslie. (Dept. of Manpower, Ontario Region, Toronto, Canada) **Predictive and concurrent validity of the Minnesota Vocational Interest Inventory for vocational high school boys.** *Journal of Applied Psychology*, 1970(Oct),

Vol. 54(5), 436-440.—Presents the 2nd and final report on a 4-yr follow-up of vocational high school boys to check on the validity of the Minnesota Vocational Interest Inventory. 438 freshman and senior students were administered the inventory. Multivariate statistical analyses showed excellent classification accuracy in terms of 3 large trade curricula in which distinct inventory patterns emerged for each group. For these Ss a rather remarkable stability of occupational choice was demonstrated.—*Journal abstract.*

SELECTION & PLACEMENT

3134. Amir, Yehuda; Kovarsky, Yacov, & Sharan, Shlomo. (Bar-Ilan U., Ramat-Gan, Israel) **Peer nominations as a predictor of multistage promotions in a ramified organization.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 462-469. Studied the validity of peer nominations (PNs) as a predictor of advancement in rank in the Israel Defense Forces on a population of 125 platoons encompassing 3897 soldiers. Results indicate that PNs obtained at early stages of training predicted promotion at several successive stages in the soldier's military career with a high degree of validity and correlations generally around .6 and .7. Predictions were valid for success within groups of different personnel, and with different purposes, and criteria for achievement. PNs were also found to contribute markedly to the predictive validity of conventional psychological screening measures, suggesting the value of combining psychometric and sociometric procedures for personnel selection. (16 ref.) *Journal abstract.*

3135. Laurent, Harry. (Esso Europe Inc., London, England) **Cross-cultural cross-validation of empirically validated tests.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 417-423.—4 tests, 2 biographical information blanks (BIBs), the management-judgment test, and the Guilford-Zimmerman Temperament Survey, empirically validated on 443 United States managers, were administered to approximately 800 employees in companies in Norway, Denmark, and the Netherlands. All standard deviations were significantly larger and all means except 1 were higher in the United States sample. Correlations between all test scores and a criterion of success were significant at the .01 level for the 4 samples. The management-judgment test correlated significantly higher with the criterion in the United States than in 1 European sample. 1 BIB correlated significantly higher in Denmark and Norway samples than in the United States. None of the other 21 comparisons of correlations showed a significant difference. Possible explanations for the consistency of results are discussed. *Journal abstract.*

3136. Richardson, J. F. **The relationships of some measures of candidate personality to selection or rejection by an OTU selection board.** *Australian Military Forces Research Report*, 1969(Jan), No. 1-69, 26 p.—Examined the relationship between scores on the scales of the 16 PF, Eysenck Personality Inventory (EPI), interpersonal checklist (ICL), Closure Flexibility Test, and selection for officer training by the Officer Training Unit Selection Board. Few significant correlations were found. 84 items, which correlated with the criterion, were identified from the 16 PF, EPI, and ICL. When only these items were scored, correlations of .58, .40, and .43 were found. A correlation of .56 was obtained for all items together.—*Journal abstract.*

3137. Soltys, Michael P. (Lehigh U.) **The relationship of ancillary data and the employment interview to job training performance.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5731.

3138. Stewart, Robert D. **How to manage your injury problem.** *Personnel Journal*, 1970(Jul), Vol. 49(7), 590-592.—Greater utilization of preemployment physical examinations could make it possible for companies to predict, and avoid, workers likely to be subject to injury or illness. 1 company reduced back-injury claims by 93%.—*Journal abstract.*

TRAINING

3139. Jurgensen, C. E. **Personality characteristics of training directors.** *Training & Development Journal*, 1970(Jun), Vol. 24(6), 15-20.—Describes a technique known as "adjective work sort," which consists of 120 adjectives which are sorted by respondents in terms of how they believe ideal or typical members of occupational groups are, are not, or should be. Although "the technique was without value as a test of personality, it did provide insights and data useful for the study of value judgements . . ." Results are described for various target groups, such as executives, as described by various groups, such as psychologists and executives.—C. A. Bennett.

3140. Krag, E. & Van Brunt, R. E. **Training clerical help.** *Training & Development Journal*, 1970(Jul), Vol. 24(7), 36-39.—Programed audiovisual instruction with tutorial support has proven successful in training typists from personnel previously thought unqualified. A "systems approach" to the problem is described. Sets of cassette tapes and published materials are used. Instruction can be given at any time for any duration. Each student works at an individual station. It is stated that almost without exception students have succeeded in a variety of jobs and have liked the instructional program.—C. A. Bennett.

3141. Lanman, Richard W. (Purdue U.) **The construction of a forced-choice test for industrial trainers.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5676.

3142. Maistriau, R. & Besure, J. (Royal Military School, Brussels, Belgium) **Le synergometre, instrument de formation des jeunes officiers: III.** [The synergometer, an instrument for the training of young officers: III.] *Information Psychologique*, 1969(May), No. 34, 5-38.—Presents details about the messages transmitted and their analyses.—S. G. Vandenberg.

3143. Maistriau, R. & Besure, J. (Royal Military School, Brussels, Belgium) **Le synergometre, instrument de formation des jeunes officiers.** [The synergometer, an instrument for the training of young officers.] *Information Psychologique*, 1968(Jul), No. 31-32, 67-122.—Synergometer is the name given to a technique designed to teach improvement in interpersonal communication. Data are reported on its use with military personnel. Also given are the full text of 3 questionnaires dealing with the individual's reactions to the training sessions, as well as 3 interviews with a trainee. No outside criterion was used to establish the value of the technique.—S. G. Vandenberg.

3144. Mann, E. K. **Sensitivity training: Should we use it?** *Training & Development Journal*, 1970(Mar), Vol. 24(3), 44-48.—"There is evidence that sensitivity training modifies interpersonal behavior, and even some evidence

that some changes are personally beneficial, but no evidence of the organizational efficacy of sensitivity training was found... its chances of inducing a desirable change are much reduced for lack of proper reinforcement of learning... the techniques of T-Group training offer little likelihood of inducing a specific desired change in a given individual... Because sensitivity training is a high-cost, low-effectiveness method, other means of improving interpersonal relationships should be given due consideration... sensitivity trainees should not undergo the experience in the company of their normal work group...."—C. A. Bennett.

3145. Papaloizos, A. & Nicholls, J. R. An approach to measuring the effectiveness of participative methods in teaching managerial skills. *Training & Development Journal*, 1970(Jun), Vol. 24(6), 10-14.—Traditional management training emphasized teaching knowledge; today more emphasis is being given to skills and attitudes. 7 skills are described; e.g., formulating solutions. Various ability schemes and tests, e.g., those of Guilford and Torrance, are described and suggested as useful in measuring management skills.—C. A. Bennett.

3146. Plag, John A., Goffman, Jerry M., Murphy, Lester E., & Bowen, George R. The military effectiveness of Navy airmen enlistees. *USN Medical Neuropsychiatric Research Unit Report*, 1969(Jul), No. 69-25, 19 p.—Compared airmen and nonairmen (N = 10,369) on the basis of biographical data, cognitive test scores, recruit training performance, and fleet effectiveness during their 1st enlistments. Formulas were derived for predicting effectiveness for both groups separately in order to ascertain whether occupational assignment might have a moderating effect upon the validities obtained. It was found that: (a) airmen have a significantly higher rate of effectiveness than nonairmen, although the difference between the groups is not large; (b) reenlistment rates and the percentage of Ss attending service schools are approximately the same for the 2 groups; (c) airmen possess higher cognitive abilities than nonairmen and more frequently give a history of prior military service; and (d) assignment to the aviation specialty does not have the effect of moderating predictions of military effectiveness. *Journal abstract*.

3147. Rowland, A. D. Training EDP maintenance and operation personnel. *Training & Development Journal*, 1970(Jun), Vol. 24(6), 32-34.—Data were obtained for 150 students taking 1 of 6 computer maintenance and operation courses. Class grades were correlated with age, family location, extent of formal education, major field of study, and years and nature of digital equipment experience. Of the individual coefficients only, training in electrical engineering or not correlated significantly (.26) with grades. The multiple correlation for 4 variables was .44.—C. A. Bennett.

3148. Shaw, M. E. & Keller, V. F. Syrupy sweet. *Training & Development Journal*, 1970(Mar), Vol. 24(3), 4-8.—Industry is making an attempt to use minority group members and "in doing so, a tradition of conscious and unconscious racism and class distinction has to be dealt with...." Training efforts have focused on supervisors. 3 approaches are described: (a) confrontation which usually involves the creation of a situation where the supervisor comes face to face with a member of a minority group; (b) education tries to teach what it is like to be a minority group member; and (c) an approach dealing with behavior rather than attitudes,

which tries to train the supervisor how to deal with problems which may arise.—C. A. Bennett.

3149. Stapleton, R. N. The trainer in community development: Adult education in three different cultures. *Training & Development Journal*, 1970(Jun), Vol. 24(6), 42-44.—Describes 3 training incidents from experience with the American Field Service. The 1st indicates superior results (in Mexico) where volunteers help communities do whatever the community wants to do. The 2nd describes the renewal of a Hawaiian custom of talking out differences. The 3rd involved the use of a "fishbowl" technique wherein 2 conflicting California community groups—Negroes and Mexicans—were confronted in a special way, to resolve differences.—C. A. Bennett.

3150. Stewart, W. J. Determining first-line supervisory training needs. *Training & Development Journal*, 1970(Apr), Vol. 24(4), 12-19.—To "provide a more effective basis for determining 1st-line supervisory training needs... 717 supervisors... [were administered] a questionnaire consisting of 120 tasks... "High importance tasks included such items as, discuss job related problems with my boss, and involvement in training new employees. Those "tasks concerned with human involvement and understanding emerged as significant areas of 1st-line supervisory training need...."—C. A. Bennett.

TASK & WORK ANALYSIS

3151. Colquhoun, W. P., Blake, M. J., & Edwards, R. S. (Medical Research Council, Cambridge, England) Experimental studies of shift-work: III. Stabilized 12-hour shift systems. *Ergonomics*, 1969(Nov), Vol. 12(6), 865-882.—Attempted to determine whether the relationship between efficiency at mental tasks and the circadian rhythm of body temperature previously observed was affected by an increase in the length of the duty spell from 8-12 hr. using 22 Ss. Ss were assigned either to a control day or night shift and were tested for a period of 12 consecutive days on the same shift. Some signs of fatigue due to the excessive length of the duty-spell were observed, but an underlying relationship between temperature and performance remained in evidence in some scores throughout the trial period. Adaptation of temperature rhythm to work on the night shift was only partial, and less marked than in a previously studied night work situation; the partial adaptation was nevertheless relatively closely reflected in the recorded performance trends. It is concluded that the results demonstrate that, within certain limits, the relationship between temperature and efficiency warrant further research into its generality. (German & French summaries)—*Journal abstract*.

3152. Dean, Robert D. (Purdue U.) The effects of automation on skill requirements: Seven case studies. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5730.

3153. Gilbertová, Sylva & Beneš, Václav. Možnosti stanovení kritérií pro hodnocení práce. [Determination of criteria for assessing monotonous work] *Studia Psychologica*, 1970, Vol. 12(1), 60-68. Developed a personal inventory method, enabling a semiquantitative rating and applied it in production plants involving technology of a related nature. The temporal criterion alone was not reliable enough to classify the degree of work monotony unless it was supplemented with data on

the achievement structure of the operations. Non-technical and organizational factors in production (age, working situation) may be considered as reinforcing but not causal agents in monotony. Subjective aspects of monotony and employees' relation to changes in operations are also analyzed. (Russian summary)—*English summary*.

3154. Tomeković, T., Stajnerberger, I., & Sulejmanović, G. (U. Belgrade, Yugoslavia) **Mutual rating among workers as a measure of their merit to their work group.** *Human Relations*, 1970(Apr), Vol. 23(2), 153-164.—Applies the method of mutual rating to conditions of worker self-government in a lathe operators' shop. Significant differences were found between estimates of independent, mutual rating and payment base lines, and between indices of personal income and the same base lines. Difference between estimates of rating and indices of net personal income were not significant. Independent, mutual rating among workers is a more objective procedure for determining the base line for personal income as a basis for distribution of net income.—*W. W. Meissner*.

3155. Tomeković, Tomislav; Stajnerberger, Ivan, & Sulejmanović, Galib. (U. Belgrade, Yugoslavia) **Mutual rating among workers as a measure of their merit to their working group (unit).** *Studia Psychologica*, 1970, Vol. 12(1), 34-45.—Attempted to verify the efficiency of a mutual rating method for determining base salary among lathe operators. Results indicate (a) a significant difference between the salary determined by independent mutual rating and the existing base salary, (b) a significant difference between wages paid for hr. of labor and base salary, and (c) no significant differences between the rated salary and wages actually received for labor. It is concluded that mutual rating by workers is the most objective procedure in determining the base salary for each position and in turn for the distribution of net income realized by the whole group. (Czech & Russian summaries)—*Journal abstract*.

PERFORMANCE & JOB SATISFACTION

3156. Burke, R. J. **Characteristics of effective performance appraisal interviews: I. Open communication and acceptance of subordinate disagreements.** *Training & Development Journal*, 1970(Mar), Vol. 24(3), 9-12.—Attempted "to determine the influence of 2...attitudinal variables (openness of communication, supervisory reactions to subordinate differences and disagreements) on (1) selected performance review characteristics, and (2) satisfaction with the interview and subsequent job performance improvements.... The data were obtained in a questionnaire survey conducted in 6 offices of a large public utility.... All members of the respondent sample (to a questionnaire) were female telephone operators...." Correlations are presented which suggest that: "Respondents who felt completely open in their communications to their superior, or felt their superior was open in her communication to them, had significantly more favorable responses on the various measures of performance appraisal interview characteristics and outcomes...."—*C. A. Bennett*.

3157. Elizur, Dov. (Bar Ilan U., Ramat Gan, Israel) **Adapting to Innovation: A facet analysis of the case of the computer.** Jerusalem, Israel: Jerusalem Academic Press, 1970. 215 p.

3158. Friedlauder, Frank & Pickle, Hal B. (Case Western Reserve U.) **Employee and societal satisfactions provided by organizations in different industries.** *Personnel Journal*, 1970(Jul), Vol. 49(7), 577-582.—Of 6 types of organizations (food stores, restaurants, personal service organizations, gasoline service stations, wholesale trade organizations, and manufacturing firms) studied, personal service organizations provided the greatest satisfactions to employees. Not easily explained is the lack of differences among the 6 in terms of the fulfillment of societal satisfactions.—*Journal abstract*.

3159. Gruenfeld, Leopold W. & Weissenberg, Peter. (Cornell U.) **Field independence and articulation of sources of job satisfaction.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 424-426.—Hypothesized that analytic (field independent) and global (field dependent) perceivers would differ in their ability to differentiate among intrinsic and extrinsic sources of job satisfaction. Ss were 96 civil service supervisors who completed a Group Embedded Figures Test and the Wernimont job-satisfaction questionnaire. Results show that for global perceivers intrinsic and extrinsic satisfactions correlated substantially with each other and with overall job satisfaction while for analytical perceivers intrinsic and extrinsic satisfactions were independent and, as expected, only intrinsic satisfaction correlated with overall job satisfaction.—*Journal abstract*.

3160. Hall, Douglas T., Schneider, Benjamin, & Nygren, Harold T. (Yale U.) **Personal factors in organizational identification.** *Administrative Science Quarterly*, 1970(Jun), Vol. 15(2), 176-190.—Studied the personal dynamics of the process of organizational identification in the United States Forest Service, an organization noted for the high degree of organizational identification of its members. Questionnaires were completed by 156 (of 200 contacted) foresters. It was hypothesized and found that identification increased as a function of time and commitment to a pivotal organizational goal, public service. Organizational position, with tenure held constant, did not relate to identification. It was further found that several personal characteristics suggestive of a service orientation were related to identification. It was also hypothesized and found that identification is related to the member's higher-order need satisfaction. (70 ref.)—*Journal abstract*.

3161. Jansen, R. **Job enrichment: Challenge of the 70's.** *Training & Development Journal*, 1970(Jun), Vol. 24(6), 7-9.—Numbers of young people employed are increasing, job tenure is decreasing, especially among the young, and past work motivation schemes have failed. It is suggested that "it is the work itself that might be the problem and the key to job satisfaction." Several programs to restructure jobs to make them more challenging and satisfying are mentioned. Aspects of job enrichment include achievement, responsibility growth, and learning.—*C. A. Bennett*.

3162. Klein, Stephen P. (Purdue U.) **Life history and ability correlates of mechanical ingenuity.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5676.

3163. Maher, John R. & Piersol, Darrell T. (IBM, Armonk, N.Y.) **Perceived clarity of individual job objectives and of group mission as correlates of organizational morale.** *Journal of Communication*, 1970(Jun), Vol. 20(2), 125-133.—Lack of clarity on the

part of an employer regarding his own job or the mission of his location, it was assumed, would have significant negative consequences. It was hypothesized that the lack of clarity of (a) job objectives would be negatively related to job satisfaction and overall satisfaction, and (b) location of mission would be negatively related to job satisfaction, overall satisfaction, and perceptions of organizational cohesiveness (both intra- and inter-departmental). All predicted relationships were obtained.—*Journal abstract.*

3164. **Plag, John A., Goffman, Jerry M., & Murphy, Lester M.** The military effectiveness of naval enlistees serving as medical specialists. *USN Medical Neuropsychiatric Research Unit Report*, 1969(Nov.), No. 70-4, 30 p.—10,369 enlistees who entered the naval service and subsequently graduated from recruit training were divided into 2 groups—those assigned to medical specialties and those assigned to other occupational ratings. The 2 groups were compared on the basis of biographical data, cognitive test scores, rate of effectiveness, and rate of reenlistment. Formulas were derived for predicting effectiveness for all enlistees and for the medical specialists alone. These formulas were compared to ascertain whether assignment as a medical specialist might have a moderating effect upon the predictive validities obtained. It was found that: (a) medical specialists have a higher rate of effectiveness than enlistees in other occupational specialties or in general duty billets, (b) the rate of reenlistment is higher for medical specialists than for nonmedical personnel, and (c) the prediction of effectiveness for medical specialists is not enhanced through the use of variables uniquely valid for that group. The most valid prediction of the effectiveness of medical specialists utilizes the same variables which are valid for predicting the military effectiveness of all enlisted personnel.—*Journal abstract.*

3165. **Salas, R. G.** (Psychological Research Unit, Albert Park Barracks, Melbourne, Victoria, Australia) **Scaling the satisfaction of female officer and other-rank members with life in the Royal Australian Army Nursing Corps.** *Australian Military Forces Research Report*, 1969, No. 5-69, 13 p.—The questionnaire successfully discriminated between groups which were either favorably or unfavorably motivated towards continuing service after their present term expired. 2 tentative scales of satisfaction with Army life were derived from the questionnaire items, 1 for officers and 1 for other rank members. Results from 2 other experimental instruments are also analyzed and discussed.—*Journal abstract.*

3166. **Scharinger, D. H.** **Performance appraisal: A means or an end.** *Training & Development Journal*, 1970(Mar), Vol. 24(3), 52-53.—Performance appraisal and merit rating have given rise to more writing and discussion than almost any other area in management development. "Managers today do not fully accept development responsibility of identifying and communicating need through performance appraisal.... The chief criticism of formal appraisal is that it eliminated informal day-to-day appraisal.... It should not have any implications or ramifications of salary or promotion.... Thought should be given to establishing 3 types of appraisal—1 for development purposes, another for salary and a 3rd for promotion...."—C. A. Bennett.

3167. **Soliman, Hanafi M.** (Bradley U.) **Motivation-hygiene theory of job attitudes: An empirical inves-**

tigation and an attempt to reconcile both the one- and the two-factor theories of job attitudes. *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 452-461.—Tested methodological issues of the motivation-hygiene theory of job attitudes and attempted to reconcile this theory with traditional theories of job attitudes. 98 adult Ss responded to the Herzberg method of questioning, and completed the Job Description Index (JDI). Correlation of responses provided no support for the motivation-hygiene theory. Responses from same Ss to Porter's technique of measuring need-fulfillment deficiency (as a measure of the environment), and the Brayfield and Rothe index of job satisfaction (as a measure of overall job satisfaction) were also collected. Results partially support the hypothesis that 1- and 2-factor theories of job attitudes can be reconciled. When the environment (organization) provides adequately for the satisfaction of all kinds of needs, the motivators become more powerful sources of satisfaction than hygiene factors. If the environment deprives people of all kinds of needs, hygiene factors become more powerful sources of dissatisfaction than motivators. (53 ref.)—*Journal abstract.*

3168. **Tupes, Ernest C. & Madden, Howard L.** (U.S. Air Force Human Resource Lab., Lackland Air Force Base, Tex.) **Relationships between college characteristics and later performance of college graduates.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 273-282. Examined relationships between 36 college characteristics and the performance of 9000 Air Force ROTC graduates on 7 criteria. Among these criteria were retention and graduation rates. A series of multiple correlation analyses revealed Astin's college variables to be related to all 7 criteria; college type and control, to 4 criteria; and geographical area, to 1 criterion. Air Force ROTC graduates from colleges with less selectivity and lower aptitudes tended to be more successful as pilots or navigators ($r = -.77$).—N. M. Chansky.

3169. **Ypma, Edward G.** (Purdue U.) **Prediction of the industrial creativity of research scientists from biographical information.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5731-5732.

MANAGEMENT & ORGANIZATION

3170. **Bureš, Zbyněk.** (Charles U. Inst. of Psychology, Prague, Czechoslovakia) **Psychologické přístupy k rozboru práce vedoucího pracovníka.** [Psychological approach to the analysis of the manager's work.] *Psychologie v Ekonomické Praxi*, 1968, No. 3-4, 123-135.—Considers 3 psychological approaches to the analyses of a manager's work: (a) research of desirable traits, (b) analysis of social relations at the working place, and (c) analysis of manager's performance. The 3rd approach, which is divided into a direct and indirect one is emphasized. The indirect approach concerns the analysis of the industrial systems within which the manager fulfills his tasks, especially his participation in the complex management process, the manager's role in a certain system of working with people, and the creation of organizational prerequisites for successful management of his own section. The direct approach includes various types of job analyses and studies, and the evaluation of managers by the critical incident method. The exacting nature of any psychological study of the manager's performance, and the fact that the methods of

study so far have not been finalized are stressed. (German & Russian summaries) (22 ref.)—*English summary*.

3171 Gerson, Michael J. (Illinois Inst of Technology) **Need-pressure interaction as related to relevant industrial criteria.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5674.

3172 Hilgert, Raymond L. (Washington U.) **The role of environment and sentiments in inter-union behavior patterns.** In W. J. Wasmuth, R. H. Simonds, R. L. Hilgert, & H. C. Lee, *Human resources administration. Problems of growth and change*. (See PA, Vol. 45 Issue 2) 252-267.

3173 Peter, M. W. (State U. New York, School of Management, Buffalo) **Management styles in a multinational oil company.** *Personnel Practice Bulletin*, 1969(Jun), Vol. 25(2), 88-99—A study in a large international company found there was a clear divergence between the actual managerial styles and the approach managers regarded as ideal. The consultative participative style was found to be the most effective regardless of nationality, age, length of service, or field of specialization. A. De Palma.

3174 Wasmuth, William J., Simonds, Rolf H., Hilgert, Raymond L., & Lee, Hak C. (Cornell U.) **Human resources administration: Problems of growth and change.** Boston, Mass.: Houghton Mifflin, 1970. x, 426 p. \$5.50(paper).

SPECIAL ENVIRONMENTS

3175 Clarke, Neville P., Wolff, Walter M., Gokelman, John J., & von Gierke, Henning L. (Aerospace Medical Research Lab., Wright-Patterson Air Force Base, O.) **Simulation of aerospace flight acceleration and dynamic pressure environments for biodynamics research.** *Journal of Spacecraft & Rockets*, 1967(Jun), Vol. 4(6), 751-757—Describes a 6-degree-of-freedom motion device, operating in the 0-30 cps range to produce complex vibrations with peak loads up to ± 15 g; a dynamic pressure chamber (that will create wind pressure fluctuations of up to 172 db in the 0-100 cps frequency range) and a dynamic escape simulator (a sophisticated centrifuge) that will permit superpositioning of sustained acceleration of up to 20 g's with high-magnitude complex angular and linear motion and a wide range of atmospheric pressures and temperatures which are now under construction. A design study on a horizontal impact research device has been completed. The specific design characteristics and performance range of these devices are compared to the environments produced by operational conditions and to existing laboratory simulation facilities. (22 ref.)—*Journal abstract*.

3176 Larry, Clarence. (Boeing Co., Seattle, Wash.) **Effects of prismatic characteristics of aircraft windshields on pilot performance.** *Journal of Optometry & Archives of American Academy of Optometry*, 1968(Dec), Vol. 46(12), 921-929—Flight tested 2 windshields with exaggerated prismatic characteristics to determine their effect on a pilot's ability to land a 4-engine jet aircraft while flying under visual flight rules. 1 windshield contained a wedge of approximately 2.25 Wedginess in the 2nd windshield varied in direction and magnitude from approximately .1-1A. Generally, both windshields caused visual scenery to be displaced downward and to the left. Subjective and objective measures were used to

record the performance of 2 senior test pilots during the approach and landing phase of flight. Analysis indicates that the variable prismatic windshield (1-1A) had greater negative effect on pilot performance than the linear prismatic one (2.2A).—*Journal abstract*.

3177 Naitoh, P., Townsend, R., & Greenwood M. **Sleep requirements of man-in-the-sea.** *USA Medical Neuropsychiatric Research Unit Report*, 1969(Aug), No. 68-22, 30 p. Examines the singular lack of research data on defining the sleep requirements of man-in-the-sea. If man exhibited little or no disturbances of sleep during his stay in unusual or hostile environments, such a lack of research interest would be understandable. Sleep disturbances and sleep loss are, however, an almost inevitable consequence of living in unfamiliar and hostile environments. Behaviorally, sleep loss and sleep disturbances produce lapses in performance and impairment of short-term memory, either of which may endanger the mission or the life of the entire crew of an ocean floor habitat. Interpersonal difficulties may also arise as a result of undesirable personality changes caused by sleep disturbances. Research efforts should examine (a) whether man as an aquanaut may develop new kinds of sleep requirements which differ from those of land-based man, (b) whether man may also develop serious sleep disturbances during his attempts to adapt to the ocean floor environment, and (c) whether we can specify the optimal physical and psychological conditions for man's recuperation from fatigue by adequate sleep in the underwater habitat. 1E-K111F:1, a nitrogen saturation diving experiment illustrates an attempt to obtain the data necessary to define sleep requirements of man-in-the-sea. (59 ref.)—*Journal abstract*.

3178 Stang, Paul R., & Wiener, Earl L. (US Navy Deep Submergence Systems Project, Chevy Chase, Md.) **Diver performance in cold water.** *Human Factors*, 1970(Aug), Vol. 12(4), 391-399—12 experienced divers repeatedly performed several representative underwater work tasks for 90-min sessions at water temperatures of 50°, 60°, and 70° F. Time to complete the task was the primary performance measure, choice RT, with mental arithmetic as loading task, and 4 physiological measurements were also recorded. SA worked in 6', 11' of water wearing full 3 lb-in-thick wet suits and scuba equipment. Performance on all tasks except mental arithmetic tended to decrease as water temperature decreased. Most performance measures also showed a significant decrement over time and a significant Time x Temperature interaction. The general trend in performance measures was also reflected in several of the physiological measurements. (31 ref.)—*Journal abstract*.

ADVERTISING & CONSUMER PSYCHOLOGY

3179 Bauer, Raymond A., & Cunningham, Scott M. **The Negro market.** *Journal of Advertising Research*, 1970(Apr), Vol. 10(2), 3-13—Presents an overview including (a) basic data on Negro status in the 1960s, (b) development of interest in the Negro market, (c) the general pattern of Negro spending, and (d) circumstances offsetting when, where, how, and what Negroes buy. (27 ref.)—J. C. Franklin.

3180 Berger, Philip K., Fralry, George W., & Tarpey, St. Lawrence. (U. Kentucky) **The effect of advertising on the use of a train's diner.** *Journal of Advertising Research*, 1969(Dec), Vol. 9(4), 25-29—Placement of

menu cards in passenger railroad cars significantly increased the number of passengers using the diner. However, "the data did not support the expected relationship between menu placement, passenger weight and use of the diner."—J. C. Franklin

3181 Cagley, James W. & Cardozo, Richard S. **White response to integrated advertising.** *Journal of Advertising Research*, 1970(Apr) Vol. 10(2) 35-39—Reactions of high and low prejudiced college seniors were obtained to the same 3 ads with illustrations using whites and Negroes (integrated), whites only, and Negroes only. Results of analysis "imply that an advertiser who uses integrated advertising may incur an unfavorable reaction from more highly prejudiced consumers, but is unlikely to obtain an offsetting reaction from 'white liberal' consumers. There is no evidence... less prejudiced. So rate ads which pictured Negroes more favorably than those which pictured only whites." Moreover, the "less prejudiced... evaluated integrated and Negro ads about the same as white ads."—J. C. Franklin

3182 Cox, Keith K. **Social effects of integrated advertising.** *Journal of Advertising Research*, 1970(Apr) Vol. 10(2) 41-44—The same 5 mass magazines in 1967-1968 had 2% of all ads integrated as compared with 1% of 1% in 1949-1950. And, "whereas Negroes were predominantly stereotyped as lower skilled laborers in 1949-50 this rarely exists in 1967-68."—J. C. Franklin

3183 Frank, Ronald F., Mow, William P., & Lendell, Thomas M. (Pennsylvania) **Purchasing behavior and personal attributes.** *Journal of Advertising Research*, 1969(Dec) Vol. 9(4) 15-24—2,018(19) purchase transactions for beer, coffee, and tea combined from monthly diaries of about 5000 households were analyzed according to household socioeconomic and personality information. "The degree of association between socio-economic, demographic and personality variables with household purchasing is extremely modest. In addition, the incremental contribution of personality variables to prediction of knowledge of socio-economic and demographic characteristics is extremely small."—J. C. Franklin

3184 Hama, B. Curtis; Perry, Michael, & Wynn, Hugh F. (Oklahoma State U.) **The effect of a free sample on image and attitude.** *Journal of Advertising Research*, 1969(Dec) Vol. 9(4) 35-37—In a field study using hair spray, results show that exposure to a free sample changed the prior feminine image of the product among men and significantly increased their reported intentions to buy the product.—J. C. Franklin

3185 Leavitt, Clark. (Leo Burnett Co., Chicago, Ill.) **A multidimensional set of rating scales for television commercials.** *Journal of Applied Psychology*, 1970(Oct) Vol. 54(5) 427-429—1 set attribute ratings and factor analysis as a method of multidimensional scaling to determine on what dimensions viewers can rate TV commercials. An initial pool of 525 words was reduced to a final set of 45 words by a series of steps designed to eliminate words that (a) do not spontaneously use, (b) do not discriminate among commercials, and (c) do not represent a basic dimension emerging from a factor analysis. The final analysis resulted in 7 factors. The 3 main ones were overall level of energy or stimulation, personal relevance, and familiarity. 4 other factors also emerged at a lower level of explanatory power: sensual, novel, authoritative, and disliked. Results are surprising in that there is no positive evaluative factor. It is

suggested that positive evaluation is expressed in more specific ways.—Journal abstract

3186 Shimp, Terence A., Dunneally, James H., & Ivancovich, John M. (Maryland) **Study of consumer political orientations and store patronage.** *Journal of Applied Psychology*, 1970(Oct) Vol. 54(5) 430-432—A myriad of factors have been discussed and researched in analyzing the attitudes of customers toward a particular store and patronage of the institution. It is suggested that the political orientation of consumers should be considered when image and patronage decisions are being researched. 100 consumers completed the McClosky Conservative-Liberal scale and it was found that the political orientations of the participants and patronage of stores were significantly related.—Journal abstract

3187 Stafford, James E., Birdwell, Al, & Von Lintel, Charles E. **Integrated advertising—white backlash?** *Journal of Advertising Research*, 1970(Apr) Vol. 10(2) 15-20—Results of an experimental study measuring verbal and eye camera pupillary responses to each of 2 ads using racially integrated and all white models were largely inconclusive since product, individual differences, and creative aspects of the ads were operative extraracial variables.—J. C. Franklin

ENGINEERING PSYCHOLOGY

3188 Benjamin, Peter (Bellcomm, Inc., Washington, D.C.) **A hierarchical model of a helicopter pilot.** *Human Factors*, 1970(Aug) Vol. 12(4) 361-374—Develops and mechanizes a hierarchical model of a helicopter pilot by means of computer simulation. The basic element is a decision hierarchy which determines the multiple closure and tracking characteristics of the man-vehicle system. Pilot model input is quantized and used by the hierarchy to determine the specific loop to be closed and the particular transfer function to apply to that loop. The pilot model and vehicle dynamics are implemented on a digital computer. Model validation is provided by comparison of tracking records obtained from this simulation of the vehicle with a human operator. Although developed for a vehicle with only the 2 lateral degrees of freedom, the pilot model may be extended to 6 degrees of freedom. As a 4th-order system, it is applicable to the control of all vertical take off and landing maneuvers. The restriction of higher-order inputs to 0 permits application to vehicles with lower-order dynamics. Its form is independent of the input function. (28 ref.)—Journal abstract

3189 Burger, G. C. (Amsterdam, Coronel Lab. of Occupational Hygiene, Netherlands) **Heart rate and the concept of circulatory load.** *Ergonomics*, 1970(Nov) Vol. 13(11) 1571-1584—Discusses the functional demands of different types of work load. The need for absolute and comparative or relative measurement of estimation of these functional physiological demands in different work situations are considered. The validity of oxygen consumption of the body and of heart rate as an integrative ergonomics measure are critically discussed. It is pointed out that these measures have only a high validity when dynamic muscular work is considered. However, in muscular work of a static type and in the other types of work load there are many restrictions on their validity. Therefore, the concept of circulatory load is presented and its value as an ergonomics measure is discussed. The use of heart rate alone as a measure of circulatory load has a rather restricted value. It is shown that the intrinsic value of each heart beat as a measure of

circulatory load differs greatly in different types of work-load, since apart from heart rate stroke-volume and mean blood pressure show various patterns of reaction in these conditions. The possibilities of exact measurement in the practical work situation, are rather limited. Nevertheless, when using heart rate as an ergonomics measure, these additional quantitative data determining the circulatory load and their reactions on different types of work-load should be carefully estimated and taken into account. (German & French summaries) (21 ref.)—*Journal abstract*.

3190. Lewin T. (U. Göteborg, Inst. of Anatomy, Sweden) **Anthropometric studies on Swedish industrial workers when standing and sitting.** *Ergonomics*, 1969(Nov), Vol. 12(6), 883-902.—Studied anthropometry of standing and sitting positions for men and women aged 25-49 yr. selected at random from a major industry. Important ergonomics body dimensions were investigated. The means and standard deviations are presented for these measurements and correlation coefficients and regression equations for their relationships. The biological implications of differences demonstrated between different body measurements are considered. An important observation is that details within the working space should be correctly adjusted to the individual unless they disturb an already correct ergonomic design. (German & French summaries)—*Journal abstract*.

3191. Tarrière, C. & Rebliffé, R. **Etude d'une épreuve d'effort sur ergomètre adaptée aux conditions réelles de travail rencontrées en atelier.** [Study of an ergonomic fatigue test adapted to the actual work conditions found in a workshop.]—Investigated the different elements of fatigue in workers by means of trials on a bicycle ergometer capable of being used in a workshop which did not involve extra fatigue and could be used without too great an interruption in the work pattern. 10 Ss were used and compared on 5 tests of increasing difficulty. The test was found to be useful in a workshop and to be capable of evaluating the physical capacity of Ss with cardiac disorders. (German summary)—*English summary*.

Displays & Controls

3192. Huddleston, Jo H. (Royal Air Force Inst. of Aviation Medicine, Farnborough, England) **Tracking performance on a visual display apparently vibrating at one to ten Hertz.** *Journal of Applied Psychology*, 1970(Oct), Vol. 54(5), 401-408.—20 20-34 yr. old males performed compensatory 2-dimensional tracking on a visual display. This was viewed through a periscope, the lower mirror of which was oscillated about an axis so as to impose apparent vertical vibration on the display. The vibration frequency range 1-10 Hz. was explored, at (double) amplitudes of 2 and 4°. The decrement due to apparent vibration was frequency dependent, being greatest at those frequencies (3-5 Hz.) where a change-over in viewing technique was taking place. Over this range, progressively, reflexive eye pursuit is abolished and a virtual image at the limit of vibration excursion becomes usable. Data from eye movement studies on an additional group of 6 Ss corroborate this. (27 ref.)—*Journal abstract*.

3193. Rebliffé, R., Zayana, O., & Tarrière, C. **Détermination des zones optimales pour l'emplacement des commandes manuelles dans l'espace de travail.** [Determination of optimal zones for the site of manual

commands in the work space.] *Ergonomics*, 1969(Nov), Vol. 12(6), 913-924.—Presents a method of study of the dimensional arrangement of a work-place, in which the dimensional requirements are presented in a synthetic form. The boundaries of the maximum reach inside which controls should be located are determined. A volume of comfort is then defined, which is the geometrical locus of the hand positions, when the articulation angles are included inside predetermined limits. These data are integrated to present a work map. Each plane gives the maximum reach, comfort and effort zones. The common zones for tall and small Ss are defined; the influence of seat adjustment is shown. Each point of these zones is located in a system of coordinates centered on the shoulder or on the seat. (German summary) (16 ref.)—*English summary*.

3194. Stave, A.M. (Sikorsky Aircraft, Stratford, Conn.) **Criteria for the design of helicopter collective controls.** *Human Factors*, 1970(Aug), Vol. 12(4), 387-390.—Independent judgments by 7 engineers indicate that the angle at which a man's thumb rests most comfortably when operating a helicopter collective control is represented by a plane extending from the end of the collective. This comfort plane is tilted downward at an angle of 28° and rotated toward the pilot at an angle of 21°. For convenient operation all switches should be placed so that their upper surface lies on or near the surface of the comfort plane. A mock-up was built and received a positive evaluation by test pilots.—*Journal abstract*.

3195. Stowell, Harry R., Florip, David J., & Bauer, Robert W. **FP-50 flight display effects on vision.** *U.S. Army Human Engineering Laboratories Technical Note*, 1970(Mar), No. 2-70, 20 p.—It was hypothesized that the FP-50 display lighting in the cockpit would affect the pilot's outside visual performance during night flight. Both photometric measures and human factors experiments on the FP-50 with 12 pilots are summarized. Results indicate that the white light of the display had negligible effects on dark adaptation and visual acuity when operated at suitable low-level brightness for night flight. It was discovered, however, filters enhanced contrast of the display by 3 or 4 times at these low luminances.—*Journal abstract*.

DRIVING & SAFETY

3196. Currie, L. (Medical Research Council, London, England) **The perception of danger in a simulated driving task.** *Ergonomics*, 1969(Nov), Vol. 12(6), 841-849.—Investigates the relation between the perception of danger and avoidance of accidents. A method of simulating danger is described; and the relation between simple RT and perception of danger in the task is examined. No connection was found between simple RT and the accident records of the Ss or the nature of the task performed. A relation was found between accident records and the perception of danger. (German & French summaries)—*Journal abstract*.

3197. Mathieu, M. **Préables à une compréhension psychologique de l'accident aérien.** [Beginnings of a psychological understanding of the airplane accident.] *Information Psychologique*, 1969(Jan), No. 33, 23-44.—Accidents in the air may be due to inadequate training, lack of aptitude, accident proneness, fatigue, etc. A theory of inadaptation is proposed. (47 ref.)—S. G. Vandenberg.

Brief Subject Index

This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

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PA is published in two volumes per year (effective January 1971), six issues per volume. A cumulative index is published for each six-month volume.

A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

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Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

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The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.).—(10) *Journal abstract*.

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., (*Parapsychology*).

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA—*Psychological Abstracts*.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA—*Psychological Abstracts*.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement (e.g., in. = inch, wk. = week, hr. = hour, etc.);

AA	= Alcoholics Anonymous	PM	= post meridiem
AC	= alternating current	pps	= pulses per second
ACTH	= adrenocorticotrophic hormone	PRE	= partial reinforcement effect
AM	= ante meridiem	PSI	= point of subjective equality
amp.	= ampere	psi	= pounds per sq. in.
bpm	= beats per minute	r	= product-moment correlation
C	= centigrade	r	= roentgen
c	= cents	REM	= rapid eye movement
CA	= chronological age	rms	= root mean square
cc	= cubic centimeter	RNA	= ribonucleic acid
CER	= conditioned emotional response	rpm	= revolutions per minute
CF	= critical flicker frequency	RT	= reaction time
CNS	= central nervous system	S	= subject
cps	= cycles per second	SEU	= subjectively expected utility
CR	= conditioned response (or reflex)	SPL	= sound pressure level
CRF	= continuous reinforcement	TV	= television
CRT	= cathode ray tube	UCR	= unconditioned response
CS	= conditioned stimulus	UCS	= unconditioned stimulus
CVC	= consonant-vowel-consonant	UHF	= ultrahigh frequency
db	= decibel	V	= volt
DC	= direct current	VHF	= very high frequency
DL	= differential limen	vs.	= versus
DNA	= deoxyribonucleic acid	YMCA	= Young Men's Christian Association
DRL	= differential reinforcement of low rates	YWCA	= Young Women's Christian Association
E	= experimenter		
ECS	= electroconvulsive shock		
EEG	= electroencephalogram (or -graphy)		
EKG	= electrocardiogram		
EMG	= electromyogram		
ESP	= extrasensory perception		
Exp.	= experiment		
F	= Fahrenheit		
ft-c	= foot-candle		
ft-l	= foot-lambert		
g	= gravity		
gm.	= gram(s)		
GPA	= grade-point average		
GSR	= galvanic skin response		
Hz.	= Hertz		
ICS	= intracranial stimulation		
im	= intramuscularly		
ip	= intraperitoneally		
IQ(s)	= intelligence quotient(s)		
ITI	= intertrial interval		
iv	= intravenously		
kc.	= kilocycle		
kg.	= kilogram		
kg/m	= kilogram per meter		
kHz.	= kilo-Hertz		
LD	= lethal dose		
LSD	= lysergic acid diethylamide		
m.	= meter		
M	= mean		
M	= mole or molar		
ma.	= milliampere		
MA	= mental age		
MAO	= monoaminooxidase		
mL.	= millilambert		
mm.	= millimeter		
mph	= miles per hour		
msec.	= millisecond(s)		
N	= number		
NREM	= nonrapid eye movement		
O	= observer		
p	= probability		
%	= percent		

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GENERAL

3198. Craig, Robert J. (Chicago State Hosp., Ill.) **A paradigm for evaluative research reviews.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 366-368.—Presents satirical advice for writers of research reviews to demonstrate that "consulting editors have been conditioned to a style of presentation and any deviation from it may result in manuscript rejection."

OBITUARIES

3199. ———. **Pamyati Dmitriya Andreevicha Biryukova.** [To the memory of Dmitrii Andreevich Biryukov.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 901-903.—Recounts the scientific life and work of D. A. Biryukov (1904-1969), known for his contributions to evolutionary physiology and to the ecological physiology of nervous activity.—I. D. London.

HISTORY

3200. Banshchikov, V. M. S. **S. S. Korsakov (1854-1900): Zhizn' i tvorchestvo.** [S. S. Korsakov (1854-1900): Life and creativity.] Moscow, USSR: Meditsina, 1967, 340 p.—Recounts the life and work of 1 of the founders of Russian psychiatry, "reflecting the many facets of his personality, his role and significance in science, [and] his creativity." There are chapters devoted to the sources of his Weltanschauung and creative activity, his philosophical and psychological views, and his relationship with Leo Tolstoy.—I. D. London.

3201. Faber, M. D. **Allport's visit with Freud.** *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 60-64.—Discusses Allport's misinterpretation of Freud's words derived from his unfortunate preconceptions of Freud and Freudian psychology as well as from his need to suppress from consciousness the fact that he had been caught in a foolish, deceptive posture.—D. Prager.

PHILOSOPHY

3202. Wiatr, E. **Szkice o materializmie historycznym i socjologii.** [An essay on historical materialism and sociology.] Warsaw, Poland: Książka i Wiedza, 1967, 242 p.—Includes a Marxist analysis of the sociology and psychology of political behavior.—I. D. London.

PARAPSYCHOLOGY

3203. Honorton, C. **Effects of feedback on discrimination between correct and incorrect ESP responses.** *Journal of the American Society for Psychical Research*, 1970(Oct), Vol. 64(4), 404-410.—Tested the effects of feedback (knowledge of results) on Ss' ability to discriminate between correct and incorrect ESP

responses. 20 Ss were randomly assigned to an experimental or control group. The 10 experimental Ss completed 3 ESP card-guessing runs in which they made confidence calls (indicating responses they felt relatively confident were correct), followed by 3 runs with feedback and an additional 3 runs with confidence calls. The same procedure was followed for the 10 controls except that they received false feedback (they were told their responses were correct when they were not). The hypothesis that the proportion of correct confidence calls would increase following feedback was confirmed ($p = .02$, 2-tailed). Overall run scores were also significantly higher following feedback ($p = .02$, 2-tailed).—R. A. White.

3204. Moss, Thelma; Chang, Alice F., & Levitt, Marc. (U. California, Neuropsychiatric Inst., Los Angeles) **Long-distance ESP: A controlled study.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 288-294.—Using a group of 22 transmitters (Ts) in Los Angeles, and 3 groups of receivers (Rs) in Los Angeles (N = 28), New York (N = 15), and Sussex, England (N = 14), a long-distance ESP study was conducted in which a series of 3 emotional episodes and 3 control episodes were shown Ts in Los Angeles. After each episode, Ts wrote their reactions, while at the same (local) time, Rs wrote their free associations. After writing these impressions, Rs were shown a pair of slides and chose the 1 slide which best matched their impressions. Results show that the 57 Rs scored significantly beyond chance expectations ($p < .003$) for the experimental episodes but only at chance for the controls. Qualitative results are reviewed, and a few striking parallels between T and R protocols are noted.—Journal abstract.

3205. Nash, C. B. **Cutaneous perception of color with a head box.** *Journal of the American Society for Psychical Research*, 1971(Jan), Vol. 65(1), 83-87.—Ss who wore a head box to preclude visual cues could distinguish the color of red or black paper when it was uncovered or covered by thin clear plastic .03-mm thick, but not when it was covered with picture glass $\frac{1}{8}$ in. in thickness. Greater infrared radiation was transmitted by the plastic than by the glass. Presumably neither the plastic nor the glass would produce a differential between the 2 colors of paper with respect to touch or ESP. These facts suggest that nonvisual identification of color was accomplished by cutaneous perception of infrared radiation and not by touch or ESP. The results are in accord with the hypothesis that the different infrared emissivities of different colors would differ in the skin temperatures they induce.—Journal abstract.

3206. Osis, K. & Bokert, E. **ESP and changed states of consciousness induced by meditation.** *Journal of the American Society for Psychical Research*, 1971(Jan), Vol. 65(1), 17-65.—An experiment based upon a theoretical model was designed to explore the relationship between ESP processes and changed states of consciousness induced by meditation. A pilot study and 2 experiments were performed over a 3-yr period. The

changed states at each session were ascertained by means of scaled item questionnaires and free tape-recorded descriptions. 2 tests were used: a closed circuit TV version of Brugmans' test and a slide test. The questionnaire responses were factor analyzed and 3 stable replicated factors obtained; 1 additional factor was partially replicated. Factor scores of the stable factors, self-transcendence and openness in particular, were found to be associated with ESP. However, the "gating" of ESP to consciousness often was not swayed by the changed states processes and followed individual patterns.—*Journal abstract.*

3207. Parker, A. & Beloff, J. (U. Edinburgh, Scotland) **Hypnotically-induced clairvoyant dreams: A partial replication and attempted confirmation.** *Journal of the American Society for Psychical Research*, 1970(Oct), Vol. 64(4), 432-442.—A replication of a method previously used by Honorton and Stump involving a hypnotic dream technique, art-card targets, and blind matching of dream reports to targets by S and judge was partially successful at the .02 level. A decline between the 2 sessions of the experiment was significant at almost the .01 level. A follow-up attempt at confirmation, however, was unsuccessful and analyses carried out to see whether scores were related to the Ss' estimates of hypnotic depth and type of dream also yielded null results.—*Journal abstract.*

3208. Stanford, R. G. & Lovin, C. (U. Virginia) **EEG alpha activity and ESP performance.** *Journal of the American Society for Psychical Research*, 1970(Oct), Vol. 64(4), 375-384.—30 male college-age students were each given 2 precognition runs using standard ESP symbols. For several minutes before ESP testing and throughout it, monopolar right occipital EEG was recorded. The frequency (Hz.) of alpha rhythms during the pretest (relaxation) period correlated -.41 with the total ESP score ($p < .04$, 2-tailed). The frequency of alpha during ESP testing did not correlate significantly with ESP scoring. Change in alpha frequency from pretest period to the ESP testing correlated +.51 with total ESP score ($p < .01$, 2-tailed). Additionally, correlations are reported between the percentage of time alpha was present in the record and ESP performance. These latter correlations, however, are regarded as inconclusive and reasons are discussed.—R. A. White.

3209. Stump, J. P., Roll, W. G., & Roll, M. **Some exploratory forced-choice ESP experiments with Lalsingh Harribance.** *Journal of the American Society for Psychical Research*, 1970(Oct), Vol. 64(4), 421-431.—7 series of forced-choice ESP experiments were performed with a single, selected S. In each series, S attempted to guess the sex of persons shown in concealed photographs. 3 of the series yielded statistically significant results, including Series 7 in which a 2-E design was employed. The 50 runs (500 trials) in this series produced a critical ratio of 5.45 ($p < 10^{-7}$). The results also suggest that conscious deliberation, as in the attempt to balance calls, suppressed this S's ESP.—*Journal abstract.*

THEORY & SYSTEMS

3210. Jones, Jack. **Herbert Marcuse and the cunning of revolution.** *Michigan Quarterly Review*, 1970(Apr), Vol. 9(2), 71-84.—Discusses the ideas of Herbert Marcuse, considered by many to be the foremost surviving Marxist philosopher, and attempts to apply depth-psychological concepts to sociopolitical concerns.

3211. Siomopoulos, V. (U. Illinois) **Formal mechanisms of affective experience: Outline for a formal theory of affect.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 306-314.—Expands on Piaget's basic ideas and outlines a formal theory of affect applying to normality as well as psychopathology. Affect as form, primary and secondary affect, and formal affect disturbances are discussed.—D. Prager.

EDUCATION & TRAINING

PROFESSIONAL DEVELOPMENTS

3212. Brackbill, Yvonne & Korten, Frances. (Georgetown U., Medical School) **Journal reviewing practices: Authors' and APA members' suggestions for revision.** *American Psychologist*, 1970(Oct), Vol. 25(10), 937-940.—Reports results of a survey designed to determine ways to improve the review of manuscripts submitted to psychological journals. A 22-item questionnaire, derived from results of an earlier pilot survey, was sent to 247 authors of articles recently published in 84 United States psychological journals, and 321 persons selected randomly from the 1966 *American Psychological Association Directory*. 311 respondents provided ratings on a 5-point scale to each questionnaire item. Results (represented by mean ratings for each of the 22 suggestions) indicate that respondents' main concerns involve: (a) publication lag, (b) characteristics of the manuscript reviewers (i.e., their goals, values, and knowledge of the topic), and (c) the relative status of author and reviewer (i.e., who should be anonymous and who should not). Respondents expressed a preference for the anonymity of both author and reviewer.—P. McMillan.

3213. Fadiman, James. **The Council Grove Conference on Altered States of Consciousness.** *Journal of Humanistic Psychology*, 1969(Fal), Vol. 9(2), 135-137.

3214. Kinkade, R. G. (American Psychological Assn., Washington, D.C.) **The Experimental Publication System: An aid to information system planning.** *American Psychologist*, 1970(Oct), Vol. 25(10), 925-936.—Examines the rationale, implementation, and evaluation of Experimental Publication System (EPS) characteristics. During its 1st yr. of operation, EPS distributed bimonthly separates, accompanied by evaluative questionnaires on specific aspects of the system. Questionnaire data show that respondents ranked EPS characteristics as follows: prompt dissemination, most desirable; focused distribution, 2nd; diversity of content and catalog of abstracts, 3rd; and articles printed separately and low acceptance criteria, least desirable. Subscriber, manuscript, author, and reprint ordering characteristics of the system are analyzed for the 1st yr. Innovations which have been added include active solicitation of different types of manuscripts, improvements to the catalog of abstracts, and modification and expansion of subject matter categories.—*Author abstract.*

3215. Kubie, Lawrence S. (Wheeler Lane, Sparks, Md.) **Problems of multidisciplinary conferences, research teams, and journals.** *Perspectives in Biology & Medicine*, 1970(Spr), Vol. 13(3), 405-427.—Postulates the increasing necessity of multidisciplinary efforts for solution of scientific problems, and discusses dynamics of personal relationships among scientists from different fields as they relate to impairment of group efficiency. Some concepts discussed are reluctance to change,

communication barriers, and personal psychological difficulties such as gender identity uncertainties. It is concluded that some form of psychotherapeutic sensitization to self and group problems should be a requisite for participation in multidisciplinary efforts. (18 ref.)—*J. Crabbe*.

3216. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Social responsibility and the results of experiments.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 139-141.—Discusses the dangers inherent in the premature publication of research findings. The tendency of news media to focus on remarkable findings and to ignore any failures to replicate these findings serves to create myths among the general public which may necessitate extensive programs of reeducation.—*Author abstract*.

INTERNATIONAL PSYCHOLOGY

3217. Bانشchikov, V. M. **Vsesoyuznoe nauchnoe meditsinskoe obshchestvo nevropatologov i psikhiatrov.** [The All-Union Scientific Medical Society of Neuropathologists and Psychiatrists.] Moscow, USSR: Meditsina, 1967. 236 p.—Presents the history and activities of the Society from the time of its founding in 1878 as the Moscow Society of Neuropathologists and Psychiatrists, later also called the Russian Union of Neuropathologists and Psychiatrists.—*I. D. London*.

3218. Moreno, J. L. (Moreno Inst., Beacon, N.Y.) **Open letter to the members of the International Council of Group Psychotherapy.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 89-90.—Presents a brief summary of the activities of the 4th International Congress of Group Psychotherapy, held in Vienna in 1968.—*A. Krichev*.

3219. Robinson, R. J. (Ed.) (London U., Inst. of Child Health, England) **Brain and early behaviour: Development in the fetus and infant.** London, England: Academic Press, 1969. xvi, 374 p. \$15.

GENERAL BOOKS & REFERENCE WORKS

3220. Bartz, Wayne H. (Ed.) (Iowa State U.) **Readings in general psychology.** Boston, Mass.: Allyn & Bacon, 1968. vii, 680 p. —Contains a collection of articles designed to supplement the volume. *General Psychology*, by James Deese. The book includes a representative sample of contemporary scientific psychological publications by various authors, including presidential addresses, short notes, research reports, and review papers.

3221. Krimmerman, Leonard I. (Ed.) (U. Connecticut) **Nature and scope of social science: A critical anthology.** New York, N.Y.: Appleton-Century-Crofts, 1969. xi, 796 p. \$12.—Attempts to identify the proper aims, methods, and concepts of the social sciences to determine how the scientific community can best investigate human conduct, and how much of the latter can be understood, measured, explained, and predicted by the former.

METHODOLOGY & RESEARCH TECHNOLOGY

3222. Haycraft, Sarah L. (U. Kentucky) **A comparison of three psychophysical techniques in the**

measurement of cognitive reinforcing values. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 395.

MODELS & MATHEMATICAL MODELS

3223. Evans, Selby H. (Texas Christian U., Inst. for the Study of Cognitive Systems) **The random adaptive module (RAM): A formal system for S-R modeling, with applications to schema theory.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1969(Dec), No. 24-69, 18 p.—Proposes a method of model construction to facilitate the achievement of relatively complex processes by combinations of basic stimulus-response units. A basic process resembling stimulus-response learning is used to construct a model capable of learning to recognize and reproduce a pattern or schema. In the context of schema theory, this model is further developed to simulate the process of learning to distinguish 1 schema from another (schematic concept formation). Results of a computer simulation and comparison with human performance are reported; substantial correspondence is demonstrated between the human performance and that of the model. (20 ref.)—*Journal abstract*.

3224. Nakatani, Lloyd H. (Bell Telephone Lab., Murray Hill, N.J.) **Comments on Broadbent's response bias model for stimulus recognition.** *Psychological Review*, 1970(Nov), Vol. 77(6), 574-576.—A theoretical analysis of D. E. Broadbent's (see PA, Vol. 41:4542) stimulus recognition models for the word-frequency effect reveals that his general response bias model (Model 4) is mathematically equivalent to the general pure guessing model (Model 1). It is also proven that Model 4 cannot predict the pattern of errors which results from recognition experiments.—*Journal abstract*.

MATHEMATICS & STATISTICS

3225. Brewer, James K. & Hills, John R. (Florida State U.) **Univariate selection: The effects of size of correlation, degree of skew, and degree of restriction.** *Psychometrika*, 1969(Sep), Vol. 34(3), 347-361.—Examined the influence of skew upon estimates from Pearson's formula under certain conditions. It was found that even with essentially symmetric distributions, a large proportion of the data was necessary to obtain reasonably precise estimates of low correlations. With increasing skew, estimates became increasingly erroneous, the direction of the error dependent upon which tail of the distribution was the basis of the estimates. Difficulties in applying correction for univariate selection in several studies of the predictability of college grades for Negroes from scores on standard aptitude tests are discussed.—*Journal abstract*.

3226. Burton, Roger V. (National Inst. of Mental Health, Lab. of Socio-Environmental Studies, Bethesda, Md.) **Validity of retrospective reports assessed by the multitrait-multimethod analysis.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 2), 15 p.—Nursery school records of 190 children, a retrospective interview with 224 mothers, and a retrospective questionnaire administered to the child served as 3 sets of related data with 50 matched measures in each set. Convergent and discriminant validity was assessed by the multitrait-multimethod procedure. Directly observable, objective measures, e.g., height, weight, showed satisfactory validity; variables relevant for personality theory, e.g.,

child personality, and parental rearing, consistently demonstrated low validity. The children's measures proved most productive of significant, monomethod correlations. It is suggested that the child learned not only information about his early childhood from his mother, but also her beliefs about child rearing. The more latitude the respondent had in estimating a rating, the more he imposed his own implicit psychological notions on his answers. An assessment of the multitrait-multimethod procedure emphasized 4 issues: (a) the most appropriate time to apply such a procedure; (b) the potentially inappropriate application to sets of data whose suitability for this procedure should be rejected on other grounds; (c) the weakness of not having more objective standards for establishing required levels of evidence for meeting the criteria; and (d) the inability of the method to assess some aspects of noncorrespondence among measures.—*Journal abstract.*

3227. Chakrapani, T. K. (Advertising & Sales Promotion Co., Bombay, India) **On the rationale of the criterion based on binomial distribution.** *Journal of Psychological Researches*, 1969, Vol. 13(1), 59-62.—Questions the assumption of binomial distribution of chance probabilities as a criterion to test the null hypothesis in psychological experiments (such as in a continuous learning situation where the chances of success increase from trial to trial).—*U. Pareek.*

3228. Dudycha, Arthur L. (Purdue U.) **A Monte Carlo evaluation of JAN: A technique for capturing and clustering raters' policies.** *Organizational Behavior & Human Performance*, 1970(Sep), Vol. 5(5), 501-516.—Tested the efficiency of the Judgment Analysis (JAN) technique for grouping raters' strategies according to the similarity of their regression equations under a variety of experimental conditions. 2 groups of 25 hypothetical raters each were simulated, where the n raters in each group all had the same basic strategy (equation) and differed only as a function of a specified random error term in the basic equation. Variables manipulated were: the predictor variance-covariance matrix, the number of stimulus dimensions, the number of stimuli evaluated, the rater predictability, and the degree of strategy similarity between groups. Results show that as cue redundancy increased, it became more difficult for JAN to discriminate properly the members of 1 group from those of the other. The difficulty was somewhat compounded when data were based on fewer than 200 observations, only 5 predictors, and 2 highly similar basic policy groups whose members were rather inconsistent in their profile evaluations. (27 ref.)—*Journal abstract.*

3229. Feldt, Leonard S. (U. Iowa) **A test of the hypothesis that Cronbach's alpha or Kuder-Richardson coefficient twenty is the same for two tests.** *Psychometrika*, 1969(Sep), Vol. 34(3), 363-373.—Derived an approximate statistical test for the hypothesis that the reliability coefficients (L. J. Cronbach's α) associated with 2 measurement procedures are equal. Control of Type 1 error was investigated by comparing empirical sampling distributions of the test statistic with the theoretical model derived for it. The effect of platykurtosis in the test-score distribution on the test statistic was also considered.—*Journal abstract.*

3230. Green, Bert F. (Johns Hopkins U.) **Best linear composites with a specified structure.** *Psychometrika*, 1969(Sep), Vol. 34(3), 301-318.—Derived least squares linear composites of predictors for estimating several

criteria, satisfying the restriction that the composites have an arbitrary specified intercorrelation matrix. These composites were compared with the usual unrestricted regression composites. An illustrative example is provided. The derivation depends on a general result, given in an appendix, about best-fitting orthonormal transformations. (20 ref.)—*Journal abstract.*

3231. Hendel, Darwin D. & Weiss, David J. (U. Minnesota) **Individual inconsistency and reliability of measurement.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 579-593.—The standard error of measurement from group data ignores individual differences in reliability. To assess the prominence of individual factors, 9 groups of undergraduates were administered a 20-statement paired-comparison questionnaire. Groups differed in the test-retest intervals which varied from immediate to 10 mo. Ss were then divided on the basis of internal consistency across the 20 scales. Total circular triads (TCT) were also found. The size of the test-retest coefficients decreased rapidly among low rather than high stable individuals. Within time periods, test-retest coefficients among low TCT individuals tended to be higher than among high TCT Ss. Individual response consistency acts as a moderator variable.—*N. M. Chansky.*

3232. Klahr, David. (U. Chicago) **A Monte Carlo investigation of the statistical significance of Kruskal's nonmetric scaling procedure.** *Psychometrika*, 1969(Sep), Vol. 34(3), 319-330.—Provides estimates of the statistical significance of results yielded by J. B. Kruskal's nonmetric multidimensional scaling. The estimates, obtained from attempts to scale many randomly generated sets of data, reveal the relative frequency with which apparent structure is erroneously found in unstructured data. For 6 or 7 points it is very likely that a good fit will be obtained in 2 or more dimensions when the data are generated by a random process. The estimates presented can be used as a benchmark against which to evaluate the significance of the results obtained from empirically based nonmetric multidimensional scaling.—*Journal abstract.*

3233. McGuire, Timothy W. (Carnegie-Mellon U.) **More on least squares estimation of the transition matrix on a stationary first-order Markov Process from sample proportions data.** *Psychometrika*, 1969(Sep), Vol. 34(3), 335-345.—Derived an efficient generalized least squares estimator which utilizes the entire covariance matrix of the disturbances. This estimator satisfies the condition that each row of the transition matrix must sum to unity. A. Madansky noted that estimates of the variances could be negative and suggested a method for obtaining consistent nonnegative estimates of the variances. The technique was applied to the hypothetical sample data used by G. A. Miller and A. Madansky.—*Journal abstract.*

3234. McQuitty, Louis L. (U. Miami) **Hierarchical classification by multi-level reciprocity.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 227-239.—2 objects are reciprocal if i is highest with j and j is highest with i . This principle of reciprocity is relaxed using 2 methods: successive linkages and core assignments. The redefined concept requires i and j to be reciprocal if i is highest, 2nd, 3rd, or n th with j and j is highest, 2nd, 3rd, or n th with i . Provisions are made for tied classifications, and the concept "misfit" for sets of data whose reciprocities levels are large is introduced. "Results indicate that some previous disagreements in

classification by other methods are attributable to unique characteristics of other methods which force them to make arbitrary decisions based on chance differences in data."—*N. M. Chansky.*

3235. **McQuitty, Louis L.** (U. Miami) **Hierarchical classification by nominee-selectee analysis.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 509-523.—Describes a method which isolates types within a matrix. A pure solution contains submatrices in which no element has a larger rank than the number of elements in its submatrix. When a pure solution does not obtain, a real solution requires the "sum of the average deviation of members from their respective central tendencies" be minimized. The selected solution minimizes the "sum of the average deviation of the 2 submatrices of all possible sizes." Illustrations of solutions are given.—*N. M. Chansky.*

3236. **Miller, Howard L. & Koehler, John.** (U. Alabama) **A negative reaction.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 9-10.—Points out that the psychological terminology describing monotonic curves is ambiguous and inaccurate. An alternative set of terms which accurately describes both the direction of slope and the acceleration is suggested.—*Journal abstract.*

3237. **Minium, Edward W.** (San Jose State Coll.) **Statistical reasoning in psychology and education.** New York, N.Y.: John Wiley, 1970. xx, 465 p. \$9.95.

3238. **Mintz, Jim.** (U. Pennsylvania) **A correlational method for the investigation of systematic trends in serial data.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 575-578.—Including polynomial coefficients as scores with serial data, correlation analysis will then reveal the trend of those data. Coefficients may be tested for significance in the usual manner. Function rules are given for determining coefficients of orthogonal polynomials. An example involving P technique factor analysis is given.—*N. M. Chansky.*

3239. **Read, Campbell B.** (U. North Carolina) **On minimizing the risk in certain sequential tests, for known or unknown cost.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 440-441.

3240. **Ross, John.** (U. Western Australia, Nedlands) **The verbal loop hypothesis: A statistical audit.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 233-235.—T. L. Kelley's formula for the correlation between averages shows that the method used in previous studies to test the verbal-loop hypothesis is almost guaranteed to give an inflated correlation value. It is recommended that methods be used which eliminate the source of inflation.—*Journal abstract.*

3241. **Shaw, David O. & Osburn, H. G.** (Slippery Rock State Coll.) **Comparison of methods for combining incomplete sets of rank-order data.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 526-532.—Explores method accuracy in combining incomplete rankings randomly sampled from various computer-generated populations with known assumptions and parameter settings. Contrary to findings of earlier studies, very significant differences between methods were observed under widely varying conditions. The relationships observed between method performance and experimental variables are shown to be far more complex than previous studies had indicated. Results suggest a decision strategy for the selection of an appropriate method to use with various types of data. (15 ref.)—*Journal abstract.*

3242. **Silverstein, A. B.** (Pacific State Hosp., Pomona, Calif.) **Reliability of a composite in the case of ranked data.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 67-69.—Derives formulas for the reliability of a composite in the case of ranked data, making use of the special formulas for the mean, variance, and correlation coefficient that are available. The formulas derived are identities, differing not in answers they give but in certain statistics which the investigator may prefer to use.—*Journal abstract.*

3243. **Stone, LeRoy A., Coles, Gary J., & Linscheid, Thomas R.** (U. North Dakota) **An estimation of r based on subjective similarity evaluations.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 307-310.—Using linear regression information presented by G. Ekman and his associates, a model which allows the prediction of correlation coefficients (r_p) from similarity estimations (s_p) was devised and used to build a conversion table. An argument favoring possible use of such r_p s was made. The association of s_p to r_p is discussed.—*Journal abstract.*

3244. **Winkler, Robert L.** (Indiana U.) **Intuitive Bayesian point estimation.** *Organizational Behavior & Human Performance*, 1970(Sep), Vol. 5(5), 417-429.—Presents results of an experiment investigating the relationship between intuitive and theoretically optimal Bayesian point estimates for various probability distributions (normal) and loss functions (linear and quadratic). Ss were 47 graduate students in a statistics course which had not yet covered Bayesian inference and decision theory. Results indicate that this relationship depends somewhat on the parameters of the distribution and loss function. Overall, however, Ss performed the task of intuitive estimation and prediction very well. On the average, intuitive estimates were quite close to the optimal estimates despite the complexity of the decision-making problem.—*Journal abstract.*

Factor Analysis

3245. **Bailey, John P. & Guertin, Wilson H.** (U. Florida, Inst. for Development of Human Resources) **Test item dependence of several oblique factor solutions.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 611-619.—Varimax, oblimax, oblimin (biquartimin), binormamin, maxplane, and simple loadings procedures were used to factor analyze 20 of the Twenty-Four Psychological Tests. Each rotation was carried out on 9 variations of strong and weak tests in strong and weak factors. Analysis of variances revealed that rotations were significantly different from one another in factorial stability. Varimax was most stable; oblimin, least stable. The oblimin procedure was least receptive to the battery which included strong tests of the weak factors. (17 ref.)—*N. M. Chansky.*

3246. **Browne, Michael W.** (National Inst. for Personnel Research, Johannesburg, South Africa) **Fitting the factor analysis model.** *Psychometrika*, 1969(Sep), Vol. 34(3), 375-394.—When the covariance matrix $\Sigma(p \times p)$ does not satisfy the formal factor analysis model for m factors, there will be no factor matrix $\Lambda(p \times m)$ such that $T = (\Sigma - \Lambda\Lambda')$ is diagonal. The factor analysis model may then be replaced by a tautology where T is regarded as the covariance matrix of a set of "residual variates," which are linear combinations of "discarded" common factors and unique factors and are correlated. Maximum likelihood, alpha and iterated

principal factor analysis were compared in terms of the manner in which T is defined, a "maximum determinant" derivation for alpha factor analysis being given. Weighted least squares solutions using residual variances and common variances as weights were derived for comparison with the maximum likelihood and alpha solutions. It is shown that the covariance matrix T defined by maximum likelihood factor analysis is Gramian, provided that all diagonal elements are nonnegative. Other methods can define a T which is non-Gramian even when all diagonal elements are nonnegative. (21 ref.)—*Journal abstract*.

3247. Fittkau, Bernd. (U. Hamburg, Psychologische Inst., W. Germany) **Die Mehrdeutigkeit der Varimax-Rotation und einige sich daraus ergebende Folgerungen.** [The ambiguity of varimax-rotation and several resulting conclusions.] *Archiv für die gesamte Psychologie*, 1968(Aug), Vol. 120(1), 106-114.—Demonstrated by an example, that the varimax-rotation of a fixed point-configuration can result in very different varimax-solutions, in case the orthogonal system of reference-axes has been rotated by chance before varimax-rotation. This fact makes a comparison of results in factor-analysis more difficult. It is concluded that in the future it will be necessary in factor-analysis research to rotate by hypotheses. This way is demonstrated by an example and discussed. (French summary)—*English summary*.

COMPUTERS & PROGRAMING

3248. Berg, A. I., Zakharov, A. N., & Matyushkin, A. M. (Eds.) **Kibernetika i problemy obucheniya.** [Cybernetics and instruction problems.] Moscow, USSR: Progress, 1970. 390 p. 1 R. 47 K.

3249. Bratko, A. A. **Psikhologiya i kibernetika.** [Psychology and cybernetics.] Kiev, USSR: Radyans'ka Shkola, 1968. 144 p.—Examines the possibilities offered by the joint endeavors of psychology and cybernetics.—*I. D. London*.

3250. Haber, Ralph N., Barry, Steven H., & Uhlman, Thomas. (U. Rochester) **On-line FORTRAN for the PDP-8. Behavior Research Methods & Instrumentation**, 1970(Sep), Vol. 2(5), 248-252.—In part, the difficulty of writing programs for small data acquisition computers has been due to the unavailability of interpretive languages, since they have been unusable when many special input-output operations are needed. Recent changes in the PDP-8 family FORTRAN compiler permit such experiments now to be written in FORTRAN, at a great saving of programing and debugging time, while gaining substantial power in terms of logical control. A typical experiment is described in some detail, with an event-time flowchart of its operation. A flowchart of a FORTRAN program and the program itself are presented to illustrate how the system accomplishes tasks necessary for the design. The interface components needed for the experiment are briefly described.—*Journal abstract*.

3251. Hakstian, A. Ralph. (U. Alberta, Edmonton, Canada) **A computer program for orthogonal factor rotation using the generalized "orthomax" criterion.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 699-701.

3252. Kalikow, Daniel N. (Brown U.) **A group of computer programs for the analysis of direct psychophysical scaling data: Its development and**

application to a problem in vibration perception. *Disseration Abstracts International*, 1970(Jul), Vol. 31(1-B), 415.

3253. Kleinke, David J. (Syracuse U.) **A program for generating a negative hypergeometric distribution for test score data.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 745-746.

3254. Omel'yanovskii, M. E. (Ed.) **Materialisticheskaya dialektika i metody estestvennykh nauk.** [Materialist dialectics and the methods of the natural sciences.] Moscow, USSR: Nauka, 1968. 608 p.—In this collection of articles, a number of them are devoted to the methodological aspects of cybernetics in the sciences, including 1 article by the physiologist, P. K. Anokhin, on the methodological significance of cybernetic principles for comprehension of the role of the "functional system" as an adaptive integrator, operative within a whole organism.—*I. D. London*.

3255. Roberge, James J. (Temple U.) **A computer program for the analysis of covariance in a two-factor experiment with repeated measures on the second factor.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 727-729.

3256. Roberge, James J. (Temple U.) **A computer program for nonparametric analyses of variance.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 731-733.

3257. Smith, Robert A., Lee, Young B., & Michael, William B. (U. Southern California) **FORTAN IV program to compute the Kruskal-Wallis statistic.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 735-736.

TESTING

3258. Frary, Robert B. & Zimmerman, Donald W. (Regional Education Lab. for the Carolinas & Virginia, Durham, N.C.) **Effect of variation in probability of guessing correctly on reliability of multiple-choice tests.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 595-605.—Illustrates a reliability coefficient formula free of assumptions about the distribution of the probability of guessing correctly when an answer is known. Formulae are presented for the following conditions: probability of guessing varying among choices including the correct answer, probability varying over examinees only, probability varying over items, and probability varying among items and examinees. The average probability of a correct guess is estimable. The attenuating effect of guessing on test validity is discussed. The standard error of measurement is inappropriate with the present formula.—*N. M. Chansky*.

Construction & Validation

3259. Bower, A. C. & Anderson, C. C. (U. Alberta, Edmonton, Canada) **A study of the construct validity of the Conceptual Systems Test.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 279-293.—Examined the construct validity of Harvey's content-based Conceptual Systems Test. 540 members of the 4 conceptual systems completed a group of tests predicted to relate differentially to the conceptual groupings. Analyses of variance revealed some theoretically consistent system differences for the variables of internal-external control, religious orientation, naysaying, intro-

version, tender-mindedness, openness to input, and ability. Chi square tests indicate differences among the systems in sex membership, a disproportionately larger number of females appearing in the lowest conceptual system. Findings are related to child rearing practices. (French summary) (24 ref.)—*Journal abstract*.

3260. Tsai, Loh Seng & Newbold, Jeanie. (California State Coll., Fullerton) **Nature, reliability and administration of the Tsai Number-joining Test.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 3-9.—Administered the Tsai Number-joining Test to 481 undergraduates. Product-moment correlations of B-form with a motor, a perceptual, and a coding test were .33, .47, and .58, respectively, indicating that the test involves more central than peripheral functions. Test reliability is evidenced by r of .71 between alternate forms, of .93 between 4- and 6-min segments, and practically identical mean scores for alternate forms. Group testing is just as reliable as individual testing; however, male Ss perform significantly better in a group than when tested individually. (18 ref.)—*Journal abstract*.

EXPERIMENTATION & OBSERVATION

3261. Haber, Ralph N. (U. Rochester) **Note on how to choose a visual noise mask.** *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 373-376.—Presents a methodological plea to investigators of visual masking: Investigators should think carefully about the purposes for which they use a mask, so that they can maximize the selection of an appropriate one and use it in an appropriate design. Several specific rules are offered: (a) to measure the process-stopping potential of a mask, a mask should be chosen that has some chance to interfere with or prevent processing when superimposed over the target; (b) to control the masking effects of poststimulus indicators, adjacency should be avoided as much as possible, or perhaps a different sensory system should be used, and control and base-line data should be collected; and (c) to study the perceptual effects of masking, the S should be asked what he sees, in addition to merely demanding a recognition response or a guess. Other such rules are potentially available, though not elaborated in this brief note. Without care in the selection of masks, and the experimental designs in which they are presented, however, the analysis of perceptual masking effects is far more difficult. (24 ref.)—*Journal abstract*.

3262. Hodos, William. (Walter Reed Army Medical Center, Washington, D.C.) **Nonparametric index of response bias for use in detection and recognition experiments.** *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 351-354.—Describes a simple graphical method for the determination of response bias or criterion in detection and recognition experiments. The method is based only on the geometry of the unit square and makes no assumptions about the statistical properties of sensory events associated with the occurrence of signal and nonsignal conditions. Examples of some applications of this technique are presented.—*Journal abstract*.

3263. Krejcie, Robert V. & Morgan, Daryle W. (U. Minnesota, Duluth) **Determining sample size for research activities.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 607-610.—Presents a table which may be used to find sample size when the population size is known, the population proportion is .5, and the degree of accuracy is .05.—*N. M. Chansky*.

APPARATUS

3264. Bagshaw, Muriel H., Mackworth, Norman H., & Pribram, Karl H. (Stanford U.) **Method for recording and analyzing visual fixations in the unrestrained monkey.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 219-222.—Describes adaptation of the N. H. Mackworth wide-angle reflection eye camera for the collection and analysis of visual scanning behavior in the relatively unrestrained rhesus monkey. Crucial changes involved the addition of local fibre optic cable incident light, training the animal to view from a port by rewarding short trials, and computer-assisted data analysis for data reduction.—*Journal abstract*.

3265. Chisholm, B. & Singer, G. (Macquarie U., North Ryde, New South Wales, Australia) **A new type of cannula for central administration of drugs in rats.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1069-1070.—Describes a new type of cannula for chemical stimulation of the rat brain. Because of its smallness, it allows the use of up to 4 cannulae with little damage to tissue. A plunger makes delivery of the injected fluid to the site more reliable.—*Journal abstract*.

3266. Evans, Ian M. (Belmont Hosp., Surrey, England) **A modular teaching unit for research and therapy with children.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(May), Vol. 11(1), 63-67.—Describes a relatively inexpensive and easily operated teaching unit, applicable in clinical settings, thereby bridging the gap between clinical work and the technical advances in child learning laboratories. By making the 4 systems of stimulus presentation, response measurement, behavior reinforcement, and equipment control (programming) fully modular, there is unlimited choice in the type of tests or problems which can be presented to the children.—*Journal summary*.

3267. Hauser, G. K., Levine, W. J., Taylor, R., & Van Oot, L. L. (IBM Corp., Advanced Systems & Development Div., Yorktown Heights, N.Y.) **Use of a voice-response computer terminal to generate verbal auditory-stimulus materials.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 304-306.—High-quality auditory-stimulus materials for use in perceptual or human learning experiments can be produced with relative ease by recording on tape the output from an audio response unit connected to a computer. The technique gives E a high degree of control over the nuisance variables typical of verbal stimulus materials.—*Journal abstract*.

3268. Jackman, Kenneth L. & Cowgill, R. C. (Casper Coll.) **Design and laboratory tests of a long-life FM transmitter for tagging small mammals.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 230-231.—Describes problems involved in developing a long-life FM telemetry transmitter for tagging small mammals.—*Journal abstract*.

3269. Krausman, David T. (Johns Hopkins U., Medical School) **A solid-state cumulative recorder for an analog registry of accumulative events.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 228-229.—Describes a solid-state device for providing graphic records of various behavioral and physiological events in much the same manner as does the electromechanical cumulative recorder. This transistorized version of the cumulative recorder produces a noise-free (electrical and acoustical) analog cumulative

record on analog recorders. The circuit provides for such features as: built-in calibrator; internal-reset oscillator; variable-incremental step amplitude; and a FET op-amp to provide a constant, drift-free output level over long and extended reset periods. The output of the device can be displayed on 1 channel of a polygraph recorder with adjacent channels providing physiological and behavioral data to produce a real time correlation of analog and event signals.—*Journal abstract.*

3270. Razumov, S. A. & Menyalin, A. Ya. (Lesgaft Inst. of Physical Culture, Leningrad, USSR) **Parnaya veloergometricheskaya ustanovka dlya modelirovaniya sorevnovatel'noi deyatelnosti.** [Twin veloergometric apparatus for simulating competitive activity.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1293-1296.—Gives a detailed presentation of a design for a twin veloergometer capable of simulating "efforts of a competitive character" in "emotional-stressful situations." Illustrative data are adduced.—*I. D. London.*

3271. Sidowki, Joseph B. & Spears, Carl. (U. South Florida) **A versatile apparatus for measuring the frequencies and durations of animal and human responses.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 235-238.—Describes a sensitive relay apparatus which is a highly sensitive solid-state device with numerous applications for counting and timing animal and human responses. The instrument has 4 channels which allow the choice of recording frequency and duration of a particular response made by 4 separated Ss, the reactions made by a single S to 4 different stimuli, or counting and timing the number of responses sensed by 4 measurement devices.—*Journal abstract.*

3272. Stewart, Robert A. & Campbell, Sam L. (Tel-Gard Corp., Los Angeles, Calif.) **A constant-current shock source for providing direct or alternating current output.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 224-226.—Describes a vacuum-tube constant-current shock source, providing AC, smooth DC, and pulsating DC output. In addition to output flexibility, the shock source is compact, inexpensive to construct, and has undergone 4 yr. of testing and laboratory use. Operating instructions, theory of operation, and suggested modifications are included along with performance specifications.—*Journal abstract.*

3273. Volkov, V. G. & Skritskaya, A. A. **Tranzistornyi fotofonostimulyator FFS-64.** [The transistor photophonostimulator FFS-64.] In E. B. Babitskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 295-301.—Describes a stimulator capable of the continuous generation of photic and acoustic impulses in the frequency range of .3-30 cps.—*I. D. London.*

3274. Winfield, A. H. & Jeeves, M. A. (U. Adelaide, South Australia) **The circular maze: An apparatus for studying simultaneous discrimination learning in the rat.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 71-74.—The apparatus is designed to eliminate visual cues—visual extrinsic, visual intrinsic, nonvisual extrinsic, and nonvisual intrinsic—to spatial position. Results from a series of experiments are noted as encouraging.—*Journal abstract.*

EXPERIMENTAL PSYCHOLOGY

3275. Frederickson, Edward W. & Donohue, Robert A. **Auditory and visual tracking of a moving target.**

HumRRO Technical Report, 1970(Mar), No. 70-4, 19 p.—Conducted a test of target tracking accuracy, comparing the auditory and visual tracking performances of 12 22-26 yr. old enlisted men. Aiming and pointing responses were compared for tracking modalities and approaching vs. departing target aspects. Comparison of mean auditory tracking location errors corrected (for acoustic lag) with mean visual tracking location errors showed that the mean auditory errors increased as the target-to-O distance increased, whereas mean visual errors remained constant. When both constant and variable errors were combined into a measure of total human error, the Dispersion Index, total auditory tracking error was greater than total visual tracking error across all treatment conditions. There were no significant differences between mean aiming vs. pointing performances. Direction (incoming vs. outgoing and left-to-right vs. right-to-left) also did not influence tracking accuracy. (22 ref.)—*HumRRO.*

3276. Matheson, Douglas W., Bruce, Richard L., & Beauchamp, Kenneth L. (U. Pacific) **Introduction to experimental psychology.** New York, N.Y.: Holt, Rinehart, & Winston, 1970. xiv, 347 p.

3277. Postman, Leo & Keppel, Geoffrey. (Eds.) (U. California, Berkeley) **Verbal learning and memory: Selected readings.** Baltimore, Md.: Penguin Books, 1969. 501 p. \$2.95(paper).—Contains a collection of papers sampling recent developments in the field of verbal learning and memory by a variety of contributors. Topics covered include acquisition, organization in recall, transfer, short-term memory, interference, and measurement of retention.

PERCEPTION

3278. Baird, John C. (Dartmouth Coll.) **A cognitive theory of psychophysics: I. Information transmission, partitioning, and Weber's law.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 35-46.—Discusses the premise that Ss deal with stimulus information when performing psychophysical judgments. The coding strategy employed to manipulate this information depends upon the particular experimental procedure, which leads to unique psychophysical functions. Different methods impose different memory constraints upon the Ss, thus producing a variety of sensitivity measures for the same stimulus attribute. (30 ref.)—*Journal abstract.*

3279. Brebner, John. (U. Adelaide, South Australia) **Signal discrimination with bisensory presentations.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 59-61.—Previous work has shown that detection of near-threshold signals is improved when simultaneous bisensory presentations of signals are used rather than single presentations. An experiment with 10 male 20-23 yr. old Ss extended this result to discrimination situations, showing that bisensory presentations of the same information improve discriminability and do so even over some situations where a signal is duplicated in the same modality.—*Journal abstract.*

3280. Efron, Robert. (Veterans Administration Hosp., Boston, Mass.) **Effect of stimulus duration on perceptual onset and offset latencies.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 231-234.—Compared the effects of stimulus duration on perceptual onset and offset latency in vision and audition. Ss were 2 adults. It was found that perceptual onset latency was independent of stimulus duration but that the perceptual offset latency was longer for brief stimuli than for stimuli

that exceeded a critical duration. For stimuli longer than the critical duration, the perceptual onset and offset latencies were equal. The same temporal relationships were found in both modalities. Results indicate that for any specific stimulus parameters, reduction of stimulus duration results, ultimately, in a perception of fixed duration.—*Journal abstract.*

3281. Francis, R. D. & Kelly, M. R. (University Coll., Wollongong, New South Wales, Australia) **An investigation of the relationship between word stimuli and optical pupil size.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 117-125.—Investigated pupillary reactions to word stimuli presented both visually and auditorily. 48 undergraduates served as Ss. The ability to discriminate between groups on this basis was explored, together with the relationships between pupil reactivity and neuroticism scores. It was found that: (a) repetition results in diminution of response, (b) choice of words is critical but it does appear possible to discriminate between groups, (c) neuroticism seems to bear some relationship to response manner, and (d) serial order of visual/auditory presentation of stimuli does not appear to affect the direction of the response. (19 ref.)—*Journal abstract.*

3282. Handel, Stephen & Buffardi, Louis. (Kansas State U.) **Pattern perception: Integrating information presented in two modalities.** *Science*, 1968(Nov), Vol. 162(3857), 1026-1028.—Required 54 Ss to organize and identify temporal patterns composed of either (a) 2 stimuli in 1 modality; (b) 2 stimuli in each of 2 modalities, with the pattern alternately presented in the 2 modalities; or (c) 1 stimulus in each of 2 modalities. Patterns a and c are organized as structured patterns, but b is organized by modality, not by pattern structure. When elements of a pattern appear in 2 modalities, the auditory-tactual combination produces the poorest performance.—*Journal abstract.*

3283. Poock, G. K. & Backus, L. A. **Effect of color on apparent speed of a moving object.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 233-234.—Tested 10 members of a highway patrol and 10 military pilots to determine if the color of an object has an effect on the estimated speed of the object. Using red, blue, green, and amber moving lights in a laboratory apparatus, no significant effect was produced by colors nor was there a difference between the 2 groups of Ss.—*Journal abstract.*

3284. Rose, Richard M., Teller, Davida Y., & Rendleman, Paula. (U. Washington) **Statistical properties of staircase estimates.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 199-204.—Studied the bias and variability of staircase estimators by means of repeated computer simulations of staircase runs. Both forced-choice and yes-no staircases were simulated. The influence of the shape of the psychometric function, the location and spacing of the stimuli, the number of trials in a run, and the method of deriving the estimate from the data are discussed. The forced-choice staircase is compared to the yes-no staircase, and the limitations of the simulation procedure are outlined. (21 ref.)—*Journal abstract.*

3285. Stevens, Joseph C. & Cain, William S. (John B. Pierce Foundation Lab., New Haven, Conn.) **Effort in isometric muscular contractions related to force level and duration.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 240-244.—Demonstrates that the degree of perceived force involved in squeezing a handgrip dynamometer grows as a power function of the force of isometric contraction and also as a power

function of the duration of the squeeze. Ss were 18 males. The exponent for force is more than twice that for duration. These 2 power functions can predict measurements of muscle endurance, i.e., of the maximum length of time that contraction of any constant level of force can be sustained.—*Journal abstract.*

Illusion

3286. Andersson, Alf L., Fries, Ingrid, & Smith, Gudmund J. (Lund U., Psychological Lab., Sweden) **Change in afterimage and spiral aftereffect serials due to anxiety caused by subliminal threat.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 7-16.—Experiments with projected negative afterimages and with the aftereffects of a rotating spiral were performed serially (repeated stimulus presentation) employing 76 21-31 yr. old Ss. In the middle of the sequences, experimental Ss were subjected to subliminal threat by means of a metacontrast technique. The effects of threat on the latter part of the sequences were according to predictions and differed markedly from the results in control groups.—*Journal abstract.*

3287. Blakemore, Colin & Sutton, Peter. (U. Cambridge, Physiological Lab., England) **Size adaptation: A new aftereffect.** *Science*, 1969(Oct), Vol. 166(3902), 245-247.—Reports that if after prolonged observation of a striped pattern, a grating of the same orientation with somewhat narrower bars is viewed, then the bars seem even thinner than they are. Broader bars seem broader still. This finding implies a system of size-detecting channels in human vision. The phenomenon may underlie many of the classical figural aftereffects.—*Journal abstract.*

3288. Collins, John K. (Macquarie U., North Ryde, New South Wales, Australia) **The duration of after-effects of seen movement.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 55-57.—Investigated the duration of the aftereffect of seen movement using a sectorized disc, a spiral, and the "waterfall illusion" as stimulus objects. Using 30 undergraduates, the relationships between these stimuli were examined. No significant differences were found in the duration of the respective aftereffects. It is concluded that in future experimentation the spiral should not be used because of the complexity of the aftereffects following stimulation, particularly if objective methods of measurement are to be sought.—*Journal abstract.*

3289. Eriksson, E. Sture. (U. Uppsala, Sweden) **A field theory of visual illusions.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 451-466.—Proposes an outline of a field theory for visual illusions. The main components of the theory are 2 kinds of interaction functions: an attraction function, effective over empty distance, and an attraction-repulsion function, effective within filled distance. The theory is tested in some experiments and is discussed in the context of some well-known illusions. (54 ref.)—*Journal abstract.*

3290. Holt-Hansen, Kristian. (Copenhagen U., Psychological Lab., Denmark) **Perception of a straight line briefly exposed.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 59-69.—Projected a vertical, straight, red line, 17 cm. long and about 2 mm. wide, for 60 msec. onto a medium grey screen 2 m. from S. Ss were 41 adults. Fixating on the nethermost point of the line, S experienced that the line grew from the point of fixation to full length in order and then decreased in length to the point of fixation. The experienced time of lengthening-

shortening, which on an average was about 570 msec. for 37 Ss, was measured by means of a special methodology. At measurable time of lengthening-shortening of Ss' experiences of the line were a regular oscillating phenomenon of perception. A functional relation between the oscillating phenomenon of perception mentioned and the oscillating processes of the brain was sought.—*Journal abstract.*

3291. Leibowitz, H., Brislin, R., Perlmutter, L., & Hennessy, R. (Pennsylvania State U.) **Ponzo perspective illusion as a manifestation of space perception.** *Science*, 1969(Nov), Vol. 166(3909), 1174-1176.—Investigated the observation that the Ponzo perspective illusion is a special case of space perception, and is influenced by contextual factors, texture, stereopsis, and familiarity in addition to perspective cues. 96 American undergraduates and 20 students native to Guam (of the same age and educational level, but who had spent their entire lives on the island) took part in a 3-part study. Empirical evidence in support of the observation is presented, including the importance of familiarity, which was demonstrated by cultural differences obtained with photographs of natural settings which emphasize depth cues.—*Journal abstract.*

3292. Over, Ray. (Dalhousie U., Halifax, Nova Scotia, Canada) **The effect of instructions on visual and haptic judgment of the Müller-Lyer illusion.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 161-164.—In an experiment with the Müller-Lyer figure, instructions to 48 undergraduates to judge apparent size-equality resulted in a larger visual illusion than instructions to judge objective size-equality. The 2 sets of instructions did not, however, have a differential effect on the amount of haptic illusion. 1 reason for this difference may be that visual inspection permitted S to perceive the illusion figure in relation to its background while haptic inspection did not. Data may also reflect differences in the way spatial information is sampled within the 2 modalities. Haptic inspection entails widespread sampling from the figure under both instruction conditions. With visual inspection it is possible that widespread sampling occurs with 1 set of instructions only.—*Journal abstract.*

3293. Power, R. P. (Queen's U., Belfast, Ireland) **Interaction between treatments and order of treatments in studies of the apparent reversal of rotary motion in depth.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 35-40.—In many experiments concerned with the apparent reversal of rotary motion in depth (AR) the same Ss have been used under a number of conditions, but there has been no attempt to establish whether there is interaction between type of stimulus object and order of presentation. 2 experiments with 20 undergraduates each were carried out, and since a significant interaction occurred in 1 experiment it is concluded that independent groups of Ss should be used in experiments on AR, and that the results of experiments where no such test has been made should be interpreted with caution. It is also claimed that in any experiment in which Ss are used under more than 1 condition it should be established whether or not such interaction occurs. (17 ref.)—*Journal abstract.*

3294. Thorson, John; Lange, G. David, & Biederman-Thorson, Marguerite. (U. California, Medical School, San Diego) **Objective measure of the dynamics of a visual movement illusion.** *Science*, 1969(May), Vol. 164(3883), 1087-1088.—Apparent movement in periph-

eral vision can be induced by sequential flashing of 2 dots that are spatially unresolved. Ss used this illusion to make forced-choice estimates of the directional sequence of the dots. Performance at this task defines spatio-temporal conditions that induce the illusion without reliance upon subjective distinctions of movement from successivity and simultaneity. The dynamics of the illusion, defined in this way, are measured and compared with those for after-flash inhibition and the perception of real movement.—*Journal abstract.*

Time

3295. McConchie, Richard D. & Rutschmann, Jacques. (New York State Psychiatric Inst., New York) **Reliability of time estimation: Effect of a preceding reproduction series on the reliability of subsequent verbal estimates of the same standard stimuli.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 51-55.—32 male undergraduates, 16 in an experimental group and 16 in a control group, gave 2 verbal estimates of each of 8 standard intervals ranging from 300-1000 msec. in 100-msec steps. The experimental group reproduced each standard 12 times before verbally estimating it, while the control group had no prior experience with the standards to be verbally estimated. The mean reliability of the verbal estimates of the experimental group was significantly higher ($p < .02$) than that of the control group. This finding was held to account for the high reliability coefficients reported for the method of verbal estimation by a number of comparative studies employing several methods on the same group of Ss. The result suggests that serial position of the measuring methods may spuriously inflate the reliability coefficients of the method of verbal estimation when that method is used subsequent to the method of reproduction.—*Journal abstract.*

3296. Svenson, Ola. (U. Stockholm, Psychological Lab., Sweden) **A functional measurement approach to intuitive estimation as exemplified by estimated time savings.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 204-210.—Ratings of time savings when increasing an original assumed mean speed to a higher one were collected for different distances and combinations of velocities in 2 experiments. 24 and 35 undergraduates, respectively, served as Ss. The spontaneous process leading to estimate formation was accounted for by a multiplicative combination of 2 components, 1 related to physical distance and the other proportional to the difference in speeds divided by the larger speed. This use of the information of velocities leads to systematic discrepancies between predicted and real-time gains.—*Journal abstract.*

3297. Yoblick, Darryl A. & Salvendy, Gavriel. (State U. New York, Buffalo) **Influence of frequency on the estimation of time for auditory, visual, and tactile modalities: The kappa effect.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 157-164.—Tested the hypothesis that a spatial component of frequency, wavelength, has a direct effect on the subjective estimation of filled time intervals on 40 undergraduates. Combinations of pairs of auditory tones, visual flicker, and tactile vibrations with 3 stimulus intensities, and 7 levels of disparity within each pair of stimuli were studied. The Ss estimated by reproduction whichever frequency in the pair seemed to last longer. Results, which support the hypothesis only for auditory tones,

indicate Ss overestimate the duration of the lower of 2 frequencies significantly more than the higher, and their overestimates increase with increasing disparity between frequencies.—*Journal abstract.*

VISION

3298. Bauer, Robert W. & Florip, David J. **Night vision with a binocular system.** *U.S. Army Human Engineering Laboratories Technical Note*, 1969(Aug), No. 3-69, 11 p.—Observed recovery of dark adapted acuity after the use of a night vision system in 2 experiments within a flight simulation facility. The users of these 2 systems gave up about 1 log cycle in dark adaptation (luminance required) to gain about 1 log cycle in viewing objects 5-10 min. or larger. 100% recovery of rod dark adaptation required from 3-4.2 min. Because of their target brightness sensitivity, color characteristics and acuity ranges, these systems can be appropriately compared with human unaided dark adapted rod vision.—*Journal abstract.*

3299. Eriksen, Charles W., Becker, Barbara B., & Hoffman, James E. (U. Illinois) **Safari to masking land: A hunt for the elusive U.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 245-250.—Due to the theoretical interest in whether U-shaped visual masking functions are obtained when discrimination responses are required of the Ss, an attempt was made to replicate the N. Weisstein and R. N. Haber (see PA, Vol. 39:6538) experiment using 4 adult Ss. The attempt was unsuccessful. Results indicate that masking was uniform over a temporal range of approximately 50 msec. The possibility of individual differences in the shape of masking functions was investigated in 2 subsequent experiments with 4 and 3 undergraduates, respectively, with negative results. Overall, results of the 3 experiments support a temporal integration account of masking when assessed by detection or discrimination criteria. Some possible reasons for discrepancies with the Weisstein and Haber experiment are considered. (24 ref.)—*Journal abstract.*

3300. Gregg, J. R. (Coll. of Optometry, Los Angeles, Calif.) **Opyty so zreniem v shkole i doma.** [Vision experiments for home and school.] Moscow, USSR: Mir, 1970. 199 p. 45 K.

3301. Mauney, Malvin C. & Porter, Vonne F. (Southern Coll. of Optometry) **A comparison of optometric findings taken in refracting rooms of different shapes.** *Journal of the American Optometric Association*, 1969(Jun), Vol. 40(6), 607-609.—Studied the clinical feasibility of using wedge-shaped booths for refraction tests in place of the typical rectangular booth. 36 Ss were given 2 visual examinations each, 1/2 being examined 1st in the wedge-shaped booth. 21 components of the visual examination were obtained under both room conditions. Results show that the wedge-shaped booth can be as useful as the rectangular booth for reliable refraction tests, and has the advantage of occupying less floor space.—*P. McMillan.*

3302. Putz, Vernon R. (Wisconsin State U.) **Dynamic visuometric techniques.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 240-244.—Describes a general technique to automate the measurement of visual thresholds. The method is based on the dynamic analog of the method of adjustment, incorporating continuous feedback. Threshold is treated as a system interaction between some level of response and

sensed input. The S tracks a stimulus that continually oscillates in magnitude around threshold. The accuracy and variability of the S's response provides a dynamic and functional assessment of the threshold under the condition of the experiment. Techniques for instrumenting several visuometric procedures are described.—*Journal abstract.*

3303. Wallace, G. & Worthington, A. G. (Monash U., Clayton, Victoria, Australia) **The dark adaptation index of perceptual defence: A procedural improvement.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 41-46.—A. G. Worthington (see PA, Vol. 39:6493) has reported a study which employed rate of dark adaptation as an index of perceptual defense. Recently D. J. Weintraub and D. H. Krantz (see PA, Vol. 42:8166) reported a replication study which failed to reproduce the original findings. It can be argued that this was not a true replication, however, the reliability of the original findings and the potential usefulness of the procedure were placed in doubt. An attempt was made to improve the procedure originally utilized and to evaluate the consistency of the effect. The most significant improvement in technique concerned the use of 1 test stimulus throughout the entire procedure and the use of improved measurement techniques. Results strongly support Worthington's original interpretation that, using appropriate methodology, it is possible to demonstrate the existence of a perceptual component in perceptual defense.—*Journal abstract.*

Perception

3304. Chitayat, Deanna G. (New School for Social Research) **Differential perceptual adaptation to opposite rotations of the visual field.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 409.

3305. Fisher, Cletus G. (U. Iowa) **Confusions among visually perceived consonants.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 796-804.—18 undergraduates with normal hearing responded to the visual perception of initial and final consonants in an English-like phonetic environment in a test of the homophony of consonant sounds of English. The Multiple-choice Intelligibility Test provided stimulus items but special response sheets were provided to allow each S a possible response of any consonant judged homotypical or homorganic to the stimulus item. Correct answers as possible responses were deleted to provide a usable number of confusions. Ss were not aware of the deletion of correct responses even after the task was completed. Resulting confusion matrices were analyzed for significant confusions among consonants; these confusions were grouped into mutually exclusive classes termed visemes. Results support previously published linguistic groupings of homophenous sounds rather than the classical listing from the developers of speechreading methodology. Variations from the former are explained in terms of the addition of minimal phonetic redundancy.—*Journal abstract.*

3306. Forster, Kenneth I. (Monash U., Clayton, Victoria, Australia) **Visual perception of rapidly presented word sequences of varying complexity.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 215-221.—Describes 4 experiments that determine whether or not syntactic complexity affects the visual perception of rapidly presented word sequences. Results from 50 undergraduates indicate that sentences containing only 1

sentence in the underlying structure are more accurately reported than sentences containing 2 underlying sentences. It is shown that this result is not due solely to distortion of the input, but is likely to reflect the rate at which structural representations of the input can be developed. (19 ref.)—*Journal abstract.*

3307. Gilbert, A. J. (Western Australia Inst. of Technology, South Bentley) **Set and visual perception.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 155-160.—Studies into the influence of set on perception have produced conflicting evidence. It is suggested that experimental results have been confounded by factors, i.e., the number of task instructions and stimulus objects presented for each trial, and whether primary or secondary stimulus attributes have been employed. Results from 80 undergraduates indicate that the principal effect of task instructions was to energize associated schema. This effect influenced perception by tending to determine which schema were involved in the development of percepts. Responses were separately influenced through set-relevant responses being made more readily available.—*Journal abstract.*

3308 Gillam, Barbara. (U. Copenhagen, Denmark) **Judgments of slant on the basis of foreshortening.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 31-34. By analogy with B. K. Stavrianos' finding for linear perspective, it was proposed that the effectiveness of foreshortening as a slant cue would increase as a function of visual angle. Surfaces of vertical lines slanted around a vertical axis were monocularly viewed by 12 undergraduates at 3 horizontal visual angles and 4 angles of slant. An adjustment method was used to record apparent slant. An analysis of variance showed significant F ratios for visual angle and angle of slant, supporting the hypothesis that increasing visual angle increases the effectiveness of slant judgments. However, Ss' verbal reports indicate that slant may not be perceived when only foreshortening is available as a cue.—*Journal abstract.*

3309. Grauer, Robert A. & Dunn, Bruce E. (U. Calgary, Ontario, Canada) **Enhanced flicker discrimination during stimulation by pulsed tones.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 218.—Stimulated 84 Ss by tones that varied in frequency and pulse rate. It was observed that Ss were better able to discriminate flicker during stimulation by pulsed tones than by steady tones. There was no significant effect of tone frequency. Previous experiments had shown that CFF was higher under conditions of steady tone stimulation than in quiet conditions.—*Author abstract.*

3310. Greenberg, Herbert J. & Bode, Daniel L. (Purdue U.) **Visual discrimination of consonants.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 869-874.—Determined consonant differentiation by speechreading for full-face and lips-only exposures utilizing 2 forms of a closed-set response test. 32 female undergraduates viewed a videotaped recording of a male talker under the 2 exposure conditions. Consonant discrimination was more accurate when Ss viewed the talker's entire face than when they viewed only his lips. The 2 test forms were not equivalent in visual intelligibility and initial consonants were more accurately discriminated visually than final consonants. These factors should be considered in research or diagnostic use of CVC monosyllables in the measurement of visual consonant discrimination.—*Journal abstract.*

3311. Harcum, E. Rae. (Coll. of William & Mary)

Defining shape for perceptual element-position curves. *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 362-372.—Attempts to resolve the controversy between M. Glanzner (see PA, Vol. 42:13029) and E. R. Harcum (see PA, Vol. 42:13030) about whether the perceptual serial-position curve should be described in absolute or relative terms, particularly with reference to the degree of asymmetry. 4 measures of asymmetry are discussed: (a) absolute differences in errors between elements on the left vs. right of center; (b) left-right differences weighted according to totals of errors; (c) relative frequencies of Ss showing superior perception for a given $\frac{1}{2}$ of the pattern; and (d) rank order of elements according to relative accuracy. The superiority of the conception in relative terms is established primarily through interpretation of empirical results. It is concluded that a fine-grained analysis of individual differences in perceptual strategy, using all available measures for shape of error distributions, should be applied to the theoretical issues in this area. (53 ref.)—*Journal abstract.*

3312. Kleiven, Jo & Rommetveit, Ragnar. (U. Oslo, Inst. of Psychology, Norway) **Meaning and frequency in a binocular rivalry situation.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 17-20.—When a word perception task was studied with 24 undergraduates under conditions of binocular rivalry, the meaningful 1 of 2 rivaling strings of letters was identified more often than the other. Differences in frequency of the trigrams in the Norwegian language had no effect.—*Journal abstract.*

3313. Lester, Gene. (State University Coll. New York, Buffalo) **Haidinger's brushes and the perception of polarization: The history to the present of an on-going problem.** *Acta Psychologica, Amsterdam*, 1970(Sep), Vol. 34(1), 106-114.—*Journal abstract.*

3314. McKeever, Walter F. & Huling, Maurice D. (Ventura County Mental Health Dept., Calif.) **Right hemispheric superiority in graphic reproduction of briefly viewed dot figures.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 201-202.—20 undergraduates drew dotted and solid-lined designs following standard brief exposures. The designs were presented equally often in the left and right visual half-fields. Drawing accuracy was unrelated to field of presentation for solid-lined designs, but dotted designs were significantly more accurate when drawn following left field presentation. The result is consistent with previous reports of right hemisphere superiority in dot perception.—*Journal abstract.*

3315. Murch, Gerald M. (Portland State U.) **The perception of rotary motion.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 83-85.—Extends R. P. Power's (see PA, Vol. 41:6543) analysis of the cues of rotary motion for rectangular figures subtending small visual angles. Results indicate that the perception of rotational direction evolves from size and perspective cues provided by the orderly transformation of the ambient array projected by the moving target.—*Journal abstract.*

3316. Naylor, G. F. (U. Queensland, St. Lucia, Australia) **Perception times and rates as a function of the qualitative and quantitative structure of the stimulus.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 165-172.—Tested 42 undergraduates with 5 series of stimulus material each containing a quantitative range of material with increasing complexity of structure from series to series. It was found that the absolute

perception time for the single units of these series did not differ greatly, but that the relative times for perceiving more than 1 unit presented simultaneously increased in accordance with increased content and with complexity of content. Rates of perception increased to a maximum corresponding to an optimal quantum of simultaneously presented material, and then decreased when the amount presented was further increased.—*Journal abstract.*

3317. Nilsson, Thomy H. (U. Alberta, Edmonton, Canada) **Two-pulse-interval vision thresholds.** *Journal of the Optical Society of America*, 1969(Jun), Vol. 59(6), 753-756.—Presents data on visual discrimination of 2-pulse-interval differences. 8 faculty members and graduate students served as Os. Exp. I measured difference thresholds for pulse intervals from 0-75 msec.; luminance being varied from 50-2000 ml. Luminance had no significant effect on these temporal discriminations. Difference thresholds decreased linearly as pulse interval increased. Exp. II measured increment and decrement difference thresholds separately, for pulse intervals from 0-90 msec.: Increment thresholds decreased as pulse interval increased from 0-30 msec., but increased as pulse interval was increased beyond 30 msec. Although the shape of the decrement-threshold function was not defined, increment- and decrement-threshold functions differed markedly. These discrimination functions are thought to result from the temporal-response characteristics of definite visual processes. (15 ref.)—*Journal abstract.*

3318. Quinlan, Donald. (Yale U.) **Effects of sight of the body and active locomotion in perceptual adaptation.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 91-96.—Studied the influence of sight of the body and active locomotion on perceptual adaptation to tilted vision in 60 male undergraduates. Sight of all, a part, or none of the body was examined under conditions of both active and passive locomotion. Judgments of apparent vertical (AV) and apparent body position (ABP) were obtained after 20 min. of tilted vision. Active Ss showed more adaptation than passive Ss in the combined AV and ABP judgments, and Ss with sight of their own bodies showed more adaptation than Ss viewing only objects in the environment. AV and ABP did not differ significantly, although there was a tendency for the ABP judgment to show more adaptation in the active body-viewing conditions. Findings are consistent with the reafference hypothesis of R. Held and his colleagues, and suggest that there are 2 additive components of adaptation, which could be described as head-trunk orientation and eye-head orientation.—*Journal abstract.*

3319. Reilly, Thomas. (U. Kansas) **Some normative data for the spiral aftereffect.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 211-217.—Exposed 67 undergraduates to the spiral aftereffect (SAE) in varied combinations of stimulation time and direction of rotation to observe the frequency and duration of SAE for a normal population. It was noted that: (a) men report slightly more AEs than women, (b) more men than women always report an AE, (c) AE reports increase with longer inspection times, (d) expansion AEs occur more often and last longer than contraction AEs, (e) reversal stimulation yields fewer AE reports of shorter duration and has a greater effect on contraction AE than expansion AE, and (f) the relation between stimulation time and AE duration is not linear. (18 ref.)—*Journal abstract.*

3320. Simondon, G. **La perception de longue durée: II. Analyse de la rotation d'une surface vue en projection.** [Long duration perception: II. Analysis of the rotation of a surface seen in projection.] *Journal de Psychologie Normale et Pathologique*, 1970(Apr), Vol. 67(2), 153-170.—Drawings of various types of objects were projected on a screen at a distance of 500 mm. The most constant effect was globalization, in which: (a) a solid surface is seen as partially translucent; (b) a textured surface is seen as animated; and (c) plane surfaces, when textured, may be perceived as alternatively undulating, while the textured surface appears in relief.—L. A. Ostlund.

3321. Smith, Karl U., Putz, Vernon, & Molitor, Killian. (U. Wisconsin, Behavioral Cybernetics Lab.) **Delayed retinal feedback of eye movements: A dynamic basis of perceptual disabilities.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 538-548.—Investigated temporal factors in vision in relation to the delay of the retinal feedback of ocular movements in eye tracking. A hybrid real-time computer system and dynamic programming methods were used to calibrate photoelectric eye-movement transducers in viewing visual targets, to yoke these targets to eye motion, to introduce feedback delays in eye-movement-retinal interaction, and to measure error in eye tracking. Results indicate that feedback delay affected the accuracy of both the compensatory and the pursuit tracking in a significant way, with a somewhat greater effect being found for pursuit movements. Since delay reduced smooth pursuit motions to saccadic reactions that varied in size with the delay interval, it is suggested that ocular dynamics and guidance in space perception are governed by time-specific neuron mechanisms of the central visual system. Findings negate classical theory of ocular dynamics and perception of direction by proving that directional guidance of the eyes is determined by directional specificity and temporal specificity of the feedback processes of pursuit and saccadic movements of the eyes and is not caused primarily by learned temporal association between visual and tactual sensory processes. It is concluded that major disabilities and distortions in vision, which are not reducible to traditionally defined optometric and ophthalmologic factors, may be produced by built-in developmental perturbations of ocular feedback timing. Findings emphasize dynamic optometric measurements in understanding common and elusive distortions of visual perception. (19 ref.)—*Journal abstract.*

3322. Smith, Nathaniel C. (Ohio State U.) **Recognition thresholds for digits.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 11-15.—Studied the role of form and size upon the recognition thresholds for digits using the Weiss focal variator and Century Old Style Bold digits. Ss were 5 young adults. Individual differences were so large as to make any generalization impossible; halving and doubling the standard produced a significant and differential effect upon the recognition thresholds. The question of the role of form in the determination of recognition threshold, the concept of response probability, and the applicability of the Tanner-Swets model to this type of data is raised.—*Journal abstract.*

3323. Vernon, M. D. **Perception through experience.** London, England: Methuen, 1970. x, 306 p. \$8.75.

Size & Distance & Depth Perception

3324. Crannell, C. W. & Peters, Gregory. (Miami U.) **Monocular and binocular estimations of distance when knowledge of the relevant space is absent.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 157-167.—In 3 experiments undergraduates reported the distance of an illuminated target shown in total darkness. Monocular and binocular observations both produced the same results: very poor depth perception which became wholly negligible when the targets were equated for size and brightness at the eye. In 2 additional experiments Ss reported the nearest and farthest targets among simultaneously presented groups of 2 to 6 targets. Binocular vision, in this case with disparity present, was consistently superior to monocular vision, which tended to yield results less than chance, a phenomenon termed the "Bappert effect." It is concluded that accommodation and convergence do not serve as cues for depth.—*Author abstract*.

3325. Gardner, Riley W. (Menninger Foundation, Topeka, Kan.) **Scored for the cognitive control of extensiveness of scanning.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 330.—Presents reasons for using direct measures of scanning behavior, rather than constant error, to represent the cognitive control of extensiveness of scanning in response to size-estimation tests.—*Author abstract*.

3326. Hershberger, Wayne & Urban, Daniel. (Northwestern Illinois U.) **Depth perception from motion parallax in one-dimensional polar projections: Projection versus viewing distance.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 133-136.—36 undergraduates viewed each of 3 polar projections of a 22.9 cm long dotted line rotating in depth about its center. The 3 projections differed in the distance of the projection point employed: either 30.5, 61, or 121.9 cm. from the coincident axis of rotation and projection plane. The veridicality of Os' judgments of direction of rotation varied as an inverse function of projection distance and was unaffected by viewing distance.—*Journal abstract*.

3327. Marlowe, Lloyd H. (Brown U.) **Orientation of contours and binocular depth perception.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 417.

3328. Rawlings, Samuel C. & Shipley, T. (U. Miami) **Stereoscopic acuity and horizontal angular distance from fixation.** *Journal of the Optical Society of America*, 1969(Aug), Vol. 59(8), 991-993.—Measured the threshold of stereopsis (mean deviation in sec. of arc) of 3 Os at 2° intervals from 8° right to 8° left in the horizontal meridian of the binocular field. A simple 2-point target, along with a binocular fixation point, was presented by use of a mirror haploscope. Disparity was introduced by varying the separation of the 2 peripheral points in 1 eye. Judgments of the relative depth of the 2 binocular peripheral points, were based on these disparity cues. Data show a decrease of stereoscopic acuity as a function of horizontal offset. There is a slight discontinuity in the curve, near 4-6°, which may correspond to a rod-cone density change.—*Journal abstract*.

3329. Thor, Donald H., Winters, John J., & Hoats, David L. (Edward R. Johnstone Training & Research Center, Bordentown, N.J.) **Eye elevation and visual space in monocular regard.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 246-249.—80 junior high school students made monocular comparisons of

standard and variable apertures through collimating lenses in a dark room. Placement of paired targets was varied in a vertical arc with 10 combinations of elevations at 10, 30, 50, and 90° to the horizontal. When the standard was the lower target, size and distance discriminations were both distorted ($p < .001$) in a comparable illusory direction (lower target seen as larger and nearer). No illusion was obtained for size or distance discriminations when the standard target was in the upper position.—*Journal abstract*.

3330. von Wright, J. M. & Kekkinen, Raili. (U. Turku, Finland) **Stimulus range and the estimated ratio between two stimuli.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 294.—The estimated ratio between 2 given circular areas presented to 63 Ss was found to decrease with an increase in the size-range of a set of circular areas presented in an immediately preceding experiment which involved pair comparison of circles with respect to pleasantness.—*Author abstract*.

3331. Wober, Mallory. (U. Bristol, England) **Confrontation of the H-V illusion and a test of 3-dimensional pictorial perception in Nigeria.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 105-106.—2 tests previously used separately in investigating Africans' cognitive skills both imply that they examine ways in which Ss infer 3-dimensional properties from (2-dimensional) lines on paper. These tests were given to 2 separate samples of 173 and 50 Nigerian adults, yielding 0 correlations.—*Journal abstract*.

Color Vision

3332. Chickering, K. D. (Kollmorgen Corp., Holyoke, Mass.) **Perceptual significance of the differences between CIE tristimulus values.** *Journal of the Optical Society of America*, 1969(Aug), Vol. 59(8), 986-990.—The chromatic difference given by the Fricke, MacAdam, Chickering (FMC) color-difference formula is separated into yellow-blue and red-green chromatic differences. The rates of change of lightness and chromatic differences with change of CIE tristimulus value differences are then calculated. Results, 9 partial derivatives, are plotted on 1931 CIE chromaticity diagrams. The red-green chromatic difference is most sensitive; variations less than .22 (out of 98) of ΔX , anywhere in color space, are sufficient to cause a perceptual change of at least 1 MacAdam unit. For many colors of practical interest a .02 variation causes a 1 MacAdam unit change, a fact which should concern instrument manufacturer, instrument user, and tolerance setter alike. (19 ref.)—*Journal abstract*.

3333. Fidell, L. S. (San Fernando Valley State Coll.) **Orientation specificity in chromatic adaptation of human "edge-detectors."** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 235-237.—The McCollough effect, a pattern-specific complementary hue aftereffect, has usually been demonstrated with horizontal and vertical adapting and test patterns. In a study with 35 undergraduates, the strength of the effect produced by adapting patterns of various angular separations was measured. The effect decreased with decreasing angular separations until it was minimal at 11° of separation. Results are considered to be consistent with an edge-detector interpretation of this aftereffect. With vertical and horizontal adapting patterns, the reddish aftereffect was 17% and the greenish aftereffect 9% of colorimetric purity.—*Journal abstract*.

3334. Harris, Charles S. & Gibson, Alan R. (Bell Telephone Lab., Murray Hill, N.J.) **Is orientation-specific color adaptation in human vision due to edge detectors, afterimages, or "dipoles?"** *Science*, 1968(Dec), Vol. 162(3861), 1506-1507.—Conducted an experiment with 24 Ss to test the McCollough effect, which states that after an S looks alternately at red vertical and green horizontal stripes, vertical and horizontal white stripes appear greenish and pink, respectively. Results indicate that most Ss saw a McCollough aftereffect. This aftereffect might imply that contour-detecting cells participate in human vision, or might simply be due to afterimages. A procedure that precludes afterimages still yields aftereffects, but sensory units less complex than edge detectors could be responsible.—*Journal abstract*.

3335. Pearson, D. E., Rubinstein, C. B., & Spivack, G. J. (Bell Telephone Lab., Inc., Holmdel, N.J.) **Comparison of perceived color in two primary computer-generated artificial images with predictions based on the Helson-Judd formulation.** *Journal of the Optical Society of America*, 1969(May), Vol. 59(5), 644-658.—Tests the accuracy of the H. Helson and D. B. Judd formulation in predicting the perceived color of objects in 2-primary projections. 5 trained Ss gave color-naming responses for hue, lightness, and saturation of perceived color in computer-generated artificial images viewed in red and white projection. The averaged results indicate predictions that are 90% correct for hue, 81% for lightness and 61% for saturation at mesopic luminance levels, and 83% correct for hue, 67% for lightness, and 78% for saturation at photopic luminance levels.—*Journal abstract*.

3336. van der Horst, Gerard J. (Physics Lab., Utrecht, Netherlands) **Fourier analysis and color discrimination.** *Journal of the Optical Society of America*, 1969(Dec), Vol. 59(12), 1670-1676.—Measured the contrast thresholds of equiluminous chromaticity-modulated gratings for various waveforms. It was expected that only the fundamental Fourier component is of significance in the threshold visibility of colored gratings. In addition, the Fourier transformation is applied to the chromatic spatial-sensitivity curves. The transformed functions illustrate the spatial organization of the contrast mechanisms. For 160 trolands, the summation area of the red-green chromatic activity extends over 10° , whereas the yellow-blue activity integrates over about 25° . A comparison of the Fourier transforms of a luminance- and chromatic-threshold contrast curve shows: (a) inhibitory qualities, and (b) the greater spatial sensitivity of the luminous function. The assumption is made that the visual resolution for differences of brightness, and chromaticity, is limited by the diffraction of light by the pupil. The visual acuity for differences of hue as a function of the background wavelength is predicted for a 30-compound grating and compared with an empirical function. There is good agreement.—*Journal abstract*.

3337. Weitzman, Donald O. & Kinney, Jo A. (Naval Submarine Medical Center, Groton, Conn.) **Effect of stimulus size, duration, and retinal location upon the appearance of color.** *Journal of the Optical Society of America*, 1969(May), Vol. 59(5), 640-643.—The names given to spectral stimuli from 480-610 m μ and to a white-light test stimulus were obtained using 11' or 21' diameter stimulus fields, exposed for 20 msec. in the fovea and for 20 and 200 msec. at 5° and 10° in the periphery. The hypothesis that normal color vision is

replaced by tritanopic vision in all parts of the retina if the total luminous energy is sufficiently reduced was tested. Results obtained with 4 Os confirm the presence of tritanopia when small brief stimuli are viewed foveally but fail to confirm it in the periphery. Rather, reduced color vision in the periphery is more nearly characteristic of deuteranomaly which results in colorless vision. Results support the notion that foveal tritanopia is due to the depressed sensitivity of the blue receptor mechanism found in the central fovea. (25 ref.)—*Journal abstract*.

Form & Pattern Discrimination

3338. ———. **Periodic psychophysics.** *Nature* (Oct), Vol. 224(5217), 311.—Campbell and colleagues have applied the Fourier theory to the visual system. "In outline, their method has been to produce gratings in which brightness varies sinusoidally in one direction. A spatial pattern varying sinusoidally in the horizontal direction... has the appearance of equally spaced vertical stripes with soft blurred edges. When described in the spatial frequency domain this is a very simple stimulus." The visual system confronted by such a pattern responds differentially and a frequency response curve, known as the contrast sensitivity function, can be plotted linearly. Experimental determination of contrast sensitivity functions corresponded to "linear theory particularly for frequencies greater than 10 cycles/degree. While not implying that the brain does a Fourier analysis of visual patterns, these results indicate that at near threshold levels, spatial information is transmitted without distortion and that Fourier methods provide an appropriate mathematical representation of the visual system."—B. A. Stanton.

3339. Bersted, Chris T., Brown, Bill R., & Evans, Selby H. **Schema learning and utilization as a function of task and stimulus variables.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1969(Dec), No. 22-69, 21 p.—Evaluated the effects of constraint redundancy shifts, length of rest interval and duration of intertask interval on the acquisition and transfer of schematic concepts. Exp. I with 81 undergraduates indicated that increasing the magnitude of stimulus redundancy in a simple discrimination task facilitates schematic concept formation (SCF), but that the redundancy variable interacts with length of the rest interval administered prior to the redundancy shift. Transfer of SCF from a discrimination task to a modified reproduction task following a variable intertask interval was demonstrated in Exp. II with 72 Ss. This demonstration, however, required the use of an extremely sensitive dependent measure. Results complement each other in that they indicate hypothesis shifting by Ss, rather than fatigue or boredom, to be the primary basis for both the variable performance and the small positive transfer in SCF tasks. (15 ref.)—*Journal abstract*.

3340. Brebner, John; Brooks, Harry, & Gellatly, Angus. (U. Adelaide, South Australia) **Signal discrimination with multiple inputs.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 63-66.—Demonstrated that discrimination among randomized dot patterns which varied in the number of dots used is better with duplicated than with single presentations. 36 undergraduates served as Ss. This finding is in line with previous work using unisensory and bisensory multiple inputs. The experiment also shows that where Ss make successive judgments of the same display, and these

judgments conflict with one another, 1 being correct and the other wrong, this conflict is resolved with a better than chance likelihood of being correct. It was also shown that Ss' confidence in amended judgments is lower than in repeated judgments. The tendency to guess correctly between conflicting judgments, may be the basis for the improvement in detection and discrimination performance previously observed with multiple inputs.—*Journal abstract.*

3341. Krueger, Lester E. (City Coll., City U. New York) **Apparent combined length of two-line and four-line sets.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 210-214. —Recent studies, using single-line stimuli, show apparent length to be a power function, with exponent 1, of objective or physical length. If apparent lengths are additive, then, given the 1 exponent, 2 lines should appear to S to have the same total length as the single line they would form if physically joined. Ss were 70 undergraduates. When S adjusted the length of 1 line to match the combined length of 2 other lines, however, the variable line was generally made much longer than the actual combined length of the 2 lines. Dividing the total length equally between the 2 lines, so that each had 50%, represents the greatest departure from a single line, yet the largest overestimation occurred when 1 of the 2 lines had 65-75% of the total length. The overestimation was greater when the lines were spaced farther apart, suggesting that the amount of area occupied by the lines affects apparent combined length. (19 ref.)—*Journal abstract.*

3342. Menzer, George W. & Thurmond, John B. (U. Louisville) **Form identification in peripheral vision.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 205-209. —Employed outlined and solid-surfaced metric histoforms and polygons in an identification task with 120 undergraduates where choice forms were fixed at 0° and target forms at 6 points along the temporal horizontal meridian in the periphery (nasal retina). Accuracy in the identification of solid-surfaced polygons in the far periphery (80° from the fovea) was much higher than has been previously reported. Polygons were identified more quickly than histoforms, but a significant difference was not obtained between the speed of identification of outlined and solid shapes. Combined speed and error data indicate that shape (histoform or polygon) is the most salient dimension of a form less than 50° from the fovea, whereas beyond 50° from the fovea the surface (outlined or solid) of a form is its most salient dimension. Finally, comparisons of the functional relations provided by these performance data with anatomical and physiological data produced the hypothesis that spatial summation of rod receptors beyond 20° of angular eccentricity in the nasal retina is directly proportional to the density of rod receptors. (21 ref.)—*Journal abstract.*

3343. Plumb, Clifford C. (Indiana U.) **The effect of structural depth cues on delayed recognition responses and evaluative ratings of visual displays.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 420-421.

3344. Preusser, David; Garner, W. R., & Gottwald, Richard L. (Yale U.) **Perceptual organization of two-element temporal patterns as a function of their component one-element patterns.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 151-170. —20 undergraduates observed and described continuously repeated 2-element temporal patterns and their component 1-

element patterns. Descriptions could begin at any event in a pattern. Descriptions of 1-element patterns revealed 2 organizing principles: preference for longest gap at the end, or longest run of positive events at the beginning. Variability of pattern organization was low when in a particular pattern these 2 principles were compatible or when the principles were incompatible but with the gap principle stronger, and increased when the 2 principles were incompatible and equally strong or the run principle was stronger. The descriptions of 2-element patterns showed that 1 element emerged as figure and the organizing principles for that element determined the perceived organization for the 2-element pattern. It is concluded that variability and difficulty of 2-element perceptual organization is a function both of figure-ground relations between the 2 elements and of compatibility of 1-element organizing principles.—*Journal abstract.*

3345. Price, Richard H. & Slive, Arnold B. (Indiana U.) **Association value and label relevance in shape recognition.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 43-46. —Examined the effects of association value and label relevance on Ss' recognition accuracy and criterion for reporting a shape as seen before. Results from 100 undergraduates indicate that association value affected both recognition performance and Ss' criterion for reporting a shape as seen before. Label relevance improved recognition performance but did not affect Ss' criterion. The roles of association value and label relevance are discussed in terms of their effects on the production of labels during both learning and recognition phases of the experiment.—*Journal abstract.*

3346. Rankin, William C., Markley, Robert P., & Evans, Selby H. **Pythagorean distance and the judged similarity of schematic stimuli.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1969(Dec), No. 25-69, 17 p. —Independent groups of undergraduates (N = 30) rated the similarity of pairs of patterns belonging to the same class, either before or after a discrimination task of schematic concept formation (SCF). Average judged similarity increased as a function of SCF pretraining. A linear relationship was found between a Pythagorean-distance measure on the patterns and subjective similarity of pairs of stimuli ($r = .88$). Pythagorean distance between pairs of patterns was measured by summing the squared differences between their corresponding physical attributes. No such relationship was obtained from an analysis of judgments from a group that viewed random, nonschematic stimuli. A secondary analysis of the discrimination judgments in the SCF task showed that the Pythagorean-distance measure was predictive of judgments on pairs of stimuli from the same schema family, but the relationship did not hold for pairs representing 2 different schemata. Multidimensional scaling analyses indicated that mildly deviant schematic stimuli were perceived to be instances of a single family. The dimensions describing a schema cluster appeared to be specific to the sample of stimuli. A tendency for the Kruskal procedures to collapse certain types of stimulus clusters was observed and discussed. (19 ref.)—*Journal abstract.*

3347. Steinheiser, Frederick H. (U. Minnesota, Center for Research in Human Learning) **Individual preference scales within a multidimensional "similarities" space.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 325-327. —Obtained paired comparison judgments of preference and similarity from 27

undergraduates, who were given all possible pairings of 16 abstract polygons. The grouped similarities data were subjected to a nonmetric multidimensional analysis, resulting in an adequate 3-dimensional solution. A Euclidean distance metric was used to find interpoint distances in this 3-space. Assuming that increasing distance reflects decreasing similarity, the less preferred patterns would be perceived as being more highly dissimilar to the highly preferred patterns. Patterns were less preferred as their distances increased from the most preferred patterns.—*Journal abstract.*

Eye Movement

3348. Holt-Hansen, Kristian. (Copenhagen U., Psychological Lab., Denmark) **An electronic explanation of experienced oscillating movements.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 179-186.—Demonstrates that the beta-apparent movement seems to be classifiable as 1 of the oscillating forms for apparent movement, and offers an approach and explanation based on an electronic working-model. (17 ref.)—*Journal abstract.*

3349. Reeves, John L., Cogan, Rosemary, & Cogan, Dennis C. (Texas Technical Coll.) **Autokinetic movement as a function of color.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 210.—Randomly presented red, green, blue, and yellow filtered auto-kinetic stimuli to 18 undergraduates with normal color vision. No reliable differences in extent of perceived movement were found among the colors. Results are discussed in terms of eye movement theory.—*Author abstract.*

Brightness & Contrast Discrimination

3350. Festinger, Leon; Coren, Stanley, & Rivers, Geoffrey. (New School for Social Research) **The effect of attention on brightness contrast and assimilation.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 189-207.—Reports 3 experiments examining the conditions under which brightness assimilation and brightness contrast are obtained. Brightness assimilation was found only under circumstances in which the gray portion of the visual display—the gray portion being compared with some other standard gray—was not the focus of attention. When attention was focused on this gray, brightness contrast was obtained. A theoretical explanation is offered in terms of the effect of attention on perceived average brightness.—*Journal abstract.*

3351. Flock, Howard R. & Freedberg, Edmund. (York U., Downsview, Toronto, Ontario, Canada) **Perceived angle of incidence and achromatic surface color.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 251-256.—Describes theory and evidence proposing illumination, and therefore necessarily angle of incidence of light, as a perceptual cue for lightness judgments. In 2 experiments, angle of incidence was varied by having 46 female Ss view an upright trapezoid that monocularly appeared flat and binocularly, upright. In Exp. I, numbers of cues to the direction of a fixed source above the trapezoid were varied and combined. In Exp. II, the background for an illumination gradient was varied. Angle of incidence and cues to the location of the source did predict the trends in lightness judgments but not the magnitude of the effects. An alternative explanation to cue theory is proposed.—*Journal abstract.*

3352. Sparrock, J. M. (U. West Indies, Kingston, Jamaica) **Stabilized images: Increment thresholds and subjective brightness.** *Journal of the Optical Society of America*, 1969(Jul), Vol. 59(7), 872-874.—Measured changes of brightness sensation (fading) that occur when images are stabilized on the retina with a matching technique. Increment thresholds were measured under the same conditions. Under stabilization, the increment threshold is proportional to stimulus level (Weber's law). Increment thresholds change at a different rate than does brightness; this suggests that these mechanisms behave independently.—*Journal abstract.*

AUDITION

3353. Smith, Paul F., Harris, Martin S., Russotti, Joseph S., & Myers, Cecil K. **Effects of exposure to intense low frequency tones on hearing and performance.** *U.S. Naval Submarine Medical Center Report*, 1970(Jan), No. 610, 4 p.—Exposed 12 Naval enlisted personnel for a 24-hr period to either 70-Hz tones at 112.8 ± 10 db. re .0002 dynes/cm² or 300-Hz tones at 113.4 ± 3 db. re .0002 dynes/cm² or 300-Hz tones at 113.4 ± 3 db. re .0002 dynes/cm². During the exposure, performance on a sensorimotor task (RATER) was tested periodically, and auditory threshold shifts were measured. No decrement in RATER performance was noted for either group. Temporary threshold shifts were moderate except for 1 S. The general behavior of the groups and statements made during informal interviews indicates that similar exposure conditions would be well tolerated on a routine basis.—*Journal abstract.*

3354. Wilson, Richard H., Dirks, Donald D., & Carterette, Edward C. (U. California, Los Angeles) **Effects of ear preference and order bias on the reception of verbal materials.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 509-522.—Investigated J. Inglis' hypothesis that dichotic verbal material presented to the right ear is produced correctly more often than the stimuli presented to the left ear because individuals respond initially to the material at the right ear and thus are subject to greater trace decay on that presented to the left ear. 2 types of dichotic materials (digits and nonsense syllables) were presented in quiet and also in a background of white noise. Different groups of 24 18-21 yr. old Ss were used in 4 basic experiments. Ss were tested under the following conditions: (a) no bias, (b) right bias (instructed to respond to right ear presentations initially), and (c) left bias (instructed to respond to left ear presentations initially). Results of the no bias conditions suggest a tendency for more correct responses from right ear than from left ear presentations (even though order of response was divided almost equally between the ears). However, the superiority is only a modest statistical one. When instructional bias was imposed, the results always favored the ear of the instructed bias. (20 ref.)—*Journal abstract.*

Perception

3355. Creel, Warren; Boomsliter, Paul C., & Powers, Samuel R. (Union U., Albany Medical Coll.) **Sensations of tone as perceptual forms.** *Psychological Review*, 1970(Nov), Vol. 77(6), 534-545.—The perception of sound is time-dependent. What is experienced is an imposed form. Its raw material is memory of the past

portion of the stimulus and expectation of its future. The auditory input itself is, at any given instant, a single stimulus which, standing alone, has no pattern or meaning. Investigation of larger sound patterns in language and in music has led to evidence that the sensation of tone is itself an imposed form. That central neural factors are important to tonal sensation is shown by tone-noise tests given to 55 patients before and after surgery to improve blood supply to the brainstem. In other phenomena of tone, the brain exhibits the properties of an apparatus that works by neural mechanisms of temporal recurrence. (45 ref.)—*Journal abstract*.

3356. Saxman, John H. (U. Wisconsin) **Differential sensitivity to auditory feedback delay intervals: A preliminary study.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 595-599. Assessed differential sensitivity to delay interval change (jnd) for 6 female Ss at 12 standard delay times ranging from 30-360 msec. The speaker's self-generated speech signal (/da/) and its return via delayed auditory feedback constituted the interval boundaries. Mean absolute jnds varied in magnitude from 15.45-19.66 msec. and were found to be independent of the standard delay times. The relative sensitivity to delay change decreased rapidly at the shorter delay times, then leveled off to a fairly gradual slope beginning at approximately 150 msec.—*Journal abstract*.

3357. Saxman, John H. & Hanley, Theodore D. (U. Wisconsin) **Perception of auditory feedback delay: Subjective estimate of delay magnitude.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 861-868. 20 female undergraduate and graduate students selected by the method of fractionation, the delay interval judged by them to be $\frac{1}{2}$ the duration of the standard delay interval with which it was paired. The signals judged were the delay intervals between the Ss' own production of the syllable /da/ and its return via delayed auditory feedback. 10 ascending and 10 descending $\frac{1}{2}$ judgments were obtained for each S at each of the standard delay intervals of 100, 200, 400, and 800 msec. The curves for the ascending, descending, and combined ascending-descending judgments, when plotted against delay intervals in physical time, were all nearly linear with a slight positively accelerated slope. A tentative scale of subjective delay time is described and its implications for evaluating the speech response to delayed auditory feedback as a function of time are noted.—*Journal abstract*.

3358. Simon, J. Richard; Craft, John L., & Small, A. M. (U. Iowa) **Manipulating the strength of a stereotype: Interference effects in an auditory information-processing task.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 63-68. In a choice RT task, 96 undergraduates pressed either a right- or left-hand key in response to monaural "right" and "left" commands conveyed by 200- and 500-Hz, 96-dB SPL tones. Commands were either presented alone (no-noise trials) or accompanied by a broad-band noise to the same or opposite ear. On the no-noise trials, RT was significantly faster when the meaning of the command corresponded to the ear in which it was heard than when it did not. This Tonal Command \times Ear Stimulated interaction was eliminated, reduced, or reversed by manipulating the noise intensity at the opposite ear, and was accentuated by introducing accompanying noise to the same ear. Results are explained in terms of a potent

natural tendency to react toward the major source of stimulation.—*Journal abstract*.

3359. Tolkmitt, Frank J. (U. Melbourne, Victoria, Australia) **Journal of Experimental Psychology**, 1970(Nov), Vol. 86(2), 171-180.—Derives a model for sequential processing in audition from the results of 3 experiments. 20 undergraduates and graduate students localized 8 sound sources, installed in a horizontal plane around S's head, which could be activated in any desirable sequence by bursts of white noise. Exp. I shows that perception of rotating white noise changed systematically when burst duration was reduced from 400 to 25 msec. The perceptual change is ascribed to a reduction of the time allowance for locating a single source, thereby making impossible complex locating decisions. In Exp. II, this explanation is empirically supported by decision times computed separately for different burst durations. Shortening burst duration decreased selectively the localization frequency of the 8 speakers. Exp. III indicates that Ss suffered from illusions, thought to arise because of the necessity to allocate the time allowance as fast as possible. (15 ref.)—*Journal abstract*.

3360. Webster, J. C., Carpenter, A., & Woodhead, M. (Applied Psychology Research Unit, Cambridge, England) **Perceiving steady state vowel, musical, and meaningless sounds.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 616-621.—3 groups of 6 Navy enlisted men listened 2 periods/day for a wk. to each of 3 tests, made up of 9 different complex steady state sounds. On 1 test all 9 sounds had fundamental frequencies of 55 Hz.; on the 2nd, 110 Hz.; and on the 3rd, 220 Hz. 3 of the 9 sounds were completely meaningless and remained so on all 3 tests. 3 sounds were segments of the intoned vowels, a, i, and u when the fundamental frequency was 110 Hz. When shifted in frequency 1 octave the resultant sounds were perhaps vowel-like but were not a, i, and u. 3 sounds were the tones of musical instruments when the fundamental frequency was 220 Hz. Ss identified each sound by an arbitrarily assigned number. The group that heard the real vowels always made fewer errors in assigning numbers to them. When all sounds were shifted upward or downward 1 octave, errors among the 3 classes of sounds were equally divided for the 1st test session. At the end of 1 wk. there were fewer errors on the vowel-derived sounds sounding down 1 octave and on the meaningless sounds sounding up 1 octave at 220 Hz.—*Journal abstract*.

3361. Webster, John C., Woodhead, Muriel M., & Carpenter, Alan. (U.S. Naval Electronics Lab. Center, San Diego, Calif.) **Perceptual constancy in complex sound identification.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 481-489.—Investigated whether there are perceptual constancies between classes of complex sounds, even though the acoustic information is very different. 17 male listeners identified sounds consisting of vowels, musical instrument tones, and meaningless buzz sounds, presented at 3 different fundamental frequencies (octave shifts), and at 3 signal-to-noise differentials. The sounds were numbered but not named. The vowels had voice-like quality in mid-octave (110 Hz.); the musical tones sounded music-like at the highest octave (220 Hz.); at the lowest octave (55 Hz.) both music and vowels were physically meaningless; the meaningless buzz sounds had no greater relevance in 1 octave than any other. These buzz

sounds could be distinguished from each other by differing harmonic patterns. It was found that, in the absence of masking noise, the vowels were better identified in midoctave than were the musical and meaningless sounds. The musical sounds were not better identified than the others in high octave. The meaningless sounds were unexpectedly easier to identify in the low octave. They generally withstood thermal noise masking well, but not buzz masking, compared with the musical and vowel sounds. It was more difficult to identify musical and vowel sounds during thermal noise masking than during buzz masking. It is concluded that the fixed-ratio hypothesis is not applicable to vowel (formant) sounds within the octaves tested, but may be used to explain the constancy of identification for sounds which depend on harmonic patterning.—*Journal abstract*.

3362. Yates, Aubrey J., Martin, Margaret, & Di Lollo, Vincent. (U. Western Australia, Nedlands) **Retrieval strategy in dichotic listening as a function of presentation rate and structure of material.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 26-31.—Examined the effect of 3 types of structure and 3 rates of presentation of material 2 4-word sentences delivered dichotically in the auditory modality) on strategy of retrieval in 90 undergraduates. Structure was by ears, by pairs, or random; rate of presentation was fast (interpair interval of 200 msec.), intermediate (1200 msec.), or slow (2700 msec.). By-ears and by-pairs order scores were calculated. Results indicate that with random structure, retrieval by ears predominated at the fast presentation rate, retrieval by pairs at the slow rate, while both retrieval types were equally frequent at the intermediate rate. When structure was imposed on the material, it significantly modified the effects of presentation rate, accentuating or reversing retrieval strategy depending on whether the imposed structure was congruent with, or opposed, the influence of presentation rate. It is concluded that structure is a more important determinant of retrieval strategy than presentation rate when both are operating simultaneously. *Journal abstract*.

Speech Discrimination

3363. Black, John W. (Ohio State U.) **Responses to multiple-choice intelligibility tests.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 453-466. —Administered multiple-choice intelligibility tests consisting of 4-word response sets to about 480 listeners at 4 signal-to-noise ratios and at 4 signal levels. 3 types of analysis were made: (a) the response sets were studied for phonetic-phonemic disparity, (b) the correct responses to the sets were tallied (intelligibility scores), and (c) the distribution of responses within each set was measured (uncertainty). Analyses indicate that: (a) there is a limited relation between phonetic-phonemic disparity within a set and the correct responses, (b) there is a tendency of "easy" and "hard" response sets to maintain their relative ranks from 1 listening condition to another, (c) the correct responses and the uncertainty of the response sets are negatively correlated, and (d) in an analysis of the errors the relative frequency of occurrence of the error responses is not a constant from 1 listening condition to another. Based on the obtained data, a procedure is suggested for determining these frequencies if the correct score is known. (20 ref.) —*Journal abstract*.

3364. Carhart, Raymond; Tillman, Tom W., & Daillos, Peter J. (Northwestern U.) **Unmasking for pure tones and spondee: Interaural phase and time disparities.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 722-734. Interference with the binaural intelligibility of spondee words and the binaural detection of a sinusoid of continuously varying frequency (250-4000 Hz.) produced by 2 continuous independent random noise signals was measured in 10 normal-hearing adults at 3 masker levels under 5 conditions of listening: homophasic, parallel antiphase, opposed antiphase, parallel time delay, and opposed time delay. The 2 antiphase conditions produced equivalent masking-level differences (MLDs) for spondee words (5.3 db. re homophasic level). The MLDs for the 2 time-delay conditions ($t = .8$ msec.) were also approximately equal, but were appreciably smaller (3.8 db.). For pure-tone signals, averaged MLDs were also less for time-delayed than for antiphase listening, but the 4 nonhomophasic conditions yielded functions relating MLD to frequency that had a common pattern. MLDs increased with frequency between 250 and 400 Hz., were maximal in the range between 400 and 800 Hz., and then declined to very small but fairly uniform values above 1200 Hz. A comparison of the MLDs yielded for pure tones with those for spondee supports the conclusion that MLDs for spondee are mediated by the release from masking that occurs for the spectral components involved in spondee reception at threshold level. (15 ref.) *Journal abstract*.

3365. Kreul, E. James, et al. (Stanford Research Inst., Menlo Park, Calif.) **A proposed clinical test of speech discrimination.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 536-552. —The Modified Rhyme Test has been adapted to the needs of the clinical audiologist. Tape recordings of 1 female and 2 male speakers were made, evaluated, and assembled in a format suitable for use as a clinical tool. Special attention was given to ensure an appropriate carrier phrase, consistent timing sequences, well-controlled recordings, simplified instructions, and test forms. The tests were administered to panels of listeners, and results were assessed for possible effects of learning, speaker or listener differences, and comparability of test lists. The recordings are available, for all 3 speakers, with the noise adjusted to yield approximately the same percentage of correct responses for normal listeners, 96, 83, and 75% correct. —*Journal abstract*.

3366. Sticht, Thomas G. **Comprehension of repeated time-compressed recordings.** *Journal of Experimental Education*, 1969(Sum), Vol. 37(4), 3 p. Used time-compressed, tape recorded messages to determine if listening to the message twice, in the same amount of time required to listen to the uncompressed message once, would improve listening comprehension scores of 40 high and 40 low aptitude Army inductees. Results indicate that for both groups, listening to the compressed messages twice improved comprehension scores over scores obtained by listening to the compressed tapes once. Comprehension of repeated time-compressed messages was not improved over that obtained by a single listening to the uncompressed messages. *Journal abstract*.

Audiometry

3367. Harris, J. Donald. **An efficient monaural procedure for the psychoacoustic calibration of**

earphones. *U.S. Naval Submarine Medical Center Report*, 1969(Sep), No. 593, 9 p.—Examines a new procedure for psychoacoustic calibration of earphones in which the air-conducted outputs of a standard and an unknown earphone are successively equated for loudness to a reference bone-conducted tone. Ss were 12 graduate students. The problem to the S is one of monaural loudness discrimination, with a relatively small variance (differential sensitivity = 1.23–1.61 db.), and involves only 4 sources of variance associated with coupling 2 earphones to the same ear, and a single loudness discrimination judgment for each phone. The mean test-retest difference in the earphone transfer functions varied by 1.33–5.89 db. at different frequencies, mid-value = 3.36 db. Only a few min. are required to complete an S's observations at any frequency. Acceptable group means for transferring audiometric standards to an unknown earphone could be obtained at any frequency by requiring as few as 9 Ss to make a single monaural loudness discrimination/earphone by this technique. The mean test-retest difference in the earphone transfer functions by the traditional ear-reversal method varied from 4.16–7.54 db. at different frequencies, mid-value = 6.30 db., nearly twice that of the suggested procedure.—*Journal abstract.*

3368. **Harris, J. Donald & Myers, Cecil K.** *Tentative audiometric hearing threshold level standards from 8 through 18 kHz.* *U.S. Naval Submarine Medical Center Memorandum Report*, 1970(Feb), No. 70-2, 2 p.—Both ears of 100 young healthy 17–23 yr. old candidates for Submarine Service, normal by otoscopy but otherwise unselected, were given Békésy-type audiometry through 18 kHz. Minimum audible pressures were obtained comparable to those from a study on adolescent males; there was also correspondence with the British Standard for young adults up to 15 kHz. It is suggested that the time is approaching for standardizing audiometry in the octave 10–20 kHz. using all available data.—*Journal abstract.*

3369. **Hattler, Karl W.** (U. Oklahoma, Oklahoma City) *The Type V Bekesy pattern: The effects of loudness memory.* *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 567–575.—10 trained, audiometrically normal graduate students heard a 1-kHz reference tone at 50-db or 80-db SPL. Ss maintained the reference loudness throughout a 3-min 1-kHz fixed-frequency run. 7 test signals, consisting of 1 sustained and 6 differentially interrupted pure tones, were employed for loudness-memory tracking. Preliminary training eliminated learning effects. 30-sec pretracking adaptation periods produced loudness adaptation which was complete to asymptote for each test signal. Tracking levels were inversely related to the signal's duty cycle and were independent of other temporal parameters such as on-duration and interruption rate. The occurrence of the Type V Bekesy audiogram is attributed to the differential effects of memory upon the loudness of sustained and interrupted pure tones. (19 ref.)—*Journal abstract.*

3370. **Kopra, Lennart L. & Blosser, Dennis.** (U. Texas) *Effects of method of measurement on most comfortable loudness level for speech.* *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 497–508.—Tested 18 male and 18 female undergraduates, all with normal hearing, for the effects of 3 variables on most comfortable loudness (MCL) level for speech. Variables were (a) 3 measurement methods, (b) sex of listener, and (c) repeated testing. MCL levels for speech were

measured in an initial test session and a retest session by the method of adjustment, the method of limits, and the Bekesy audiometer. Results show that: (a) all 3 measurement methods produced similar mean MCL levels in both test and retest, (b) mean MCL levels did not change significantly from test to retest for any single measurement method, (c) sex of listener did not significantly affect mean MCL level, (d) MCL levels as measured by the 3 methods were significantly correlated, (e) test-retest correlations for each measurement method were significant, and (f) Bekesy audiometer tracings of MCL level remained stable over the 4½-min test periods in both initial test and retest sessions.—*Journal abstract.*

3371. **Myers, Cecil K. & Harris, J. Donald.** *Comparison of seven systems for air conduction audiometry from 8–20 kc/s.* *U.S. Naval Submarine Medical Center Report*, 1969(Feb), No. 567, 12 p.—Assembled 7 equipment systems to study human auditory acuity from 8–20 kcps. 10 otologically normal adults served as Ss. 2 loudspeakers and 2 earphones, 2 types of stimulus and 2 psychometric methods were utilized. All systems were capable of providing useably reliable thresholds throughout the whole frequency range. When objectively calibrated, several systems yielded comparable reference threshold SPLs as inferred at the eardrum. A slight preference was expressed for the method of using Békésy threshold-tracking, with a changing-frequency noise band 300 cps in width, and for a discrete-tone system which uses the method of constants.—*Journal abstract.*

3372. **Shepherd, David C. & Goldstein, Robert.** (Jewish Hosp., St. Louis, Mo.) *Intrasubject variability in amplitude of Bekesy tracings and its relation to measures of personality.* *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 523–535.—Obtained test-retest measures of Bekesy amplitude from 10 normal-hearing adults on 8 different days. Measures were analyzed to determine: (a) the extent of intrasubject variability among repeated measures of Bekesy amplitudes traced by Ss, and (b) the relation of intra-S differences in Bekesy amplitudes to day-to-day changes in anxiety and other measures of personality construct. Findings indicate that intra-S variability in the amplitude of Bekesy tracings produced by normal-hearing Ss is less than reported measures of inter-S variability of Bekesy amplitudes obtained from groups of normal-hearing Ss. Ss who traced narrow Bekesy amplitudes scored significantly higher on measures of anxiety and depression than did those who traced moderate or wide amplitudes. Wide swingers scored higher on a measure of defensiveness than did moderate or narrow swingers, and moderate swingers were significantly more defensive than narrow swingers. Day-to-day changes in anxiety did not relate to day-to-day changes in Bekesy amplitudes traced by any one of the Ss.—*Journal abstract.*

3373. **Willott, James F.** *A determination for the Navy of Zero Hearing Level for Speech.* *U.S. Naval Submarine Medical Center Memorandum Report*, 1969(Jul), No. 69-7, 3 p.—Examined 23 normal-hearing candidates for the Submarine Force for speech reception threshold (SRT) by speech audiometry using phonetically-balanced (PB) lists of monosyllables instead of the usual spondee words. Such PB words are better in assessing the important frequency regions for daily speech communication, namely, 500–2000 cps. The Navy threshold for SRT_{PB} is 25-db SPL re .0002 dyne/cm², or 6 db. higher than the standard SRT (spondees). A standard speech audiometer, now calibrated for spon-

dees according to United States Standards Institute specifications, can then be used with the PB lists by subtracting 6 db. from the hearing level dial reading to arrive at the particular S's SRT._{FB}—*Journal abstract.*

3374. Willott, James F., Myers, Cecil K., & Harris, J. Donald. **Differential sensitivity for alternate interaural loudness balancing in the psychoacoustic calibration of earphones.** *U.S. Naval Submarine Medical Center Report*, 1969(Sep), No. 594, 6 p.—Examined the variances associated with the psychoacoustic calibration of audiometric earphones by the method of alternate interaural loudness balancing with a standard earphone 1st on 1 side of the head and then on the other. 8 major sources of variance can be identified. On 13 graduate students the differential sensitivity for alternate interaural loudness balancing was 1.5–2.5 db., the higher frequencies giving somewhat larger values. Variances due to coupling and to absolute threshold testing were estimated at about 1 db. for the former and from 1.27–2.51 db. for the latter. The sizes of these variances were considered sufficient to explain the test-retest consistency of mean transfer functions, which were of the order of 6 db. The group mean transfer function could be specified for either of 2 new circumaural earphones with a precision of .92–4.84 db. at various audiometric frequencies (± 1 standard error).—*Journal abstract.*

CHEMICAL SENSES

3375. Corbit, Tiina E. (Brown U.) **Facilitation of olfactory signal detection by cross-adaptation.** *Dissemination Abstracts International*, 1970(Jul), Vol. 31(1-B), 410.

SOMESTHESIA

3376. Brecher, M. Herbert & Brecher, Gerhard A. (U. Oklahoma, Medical Center, Oklahoma City) **Motor effects from visually induced disorientation in man.** *FAA Office of Aviation Medicine Report*, 1969(Nov), No. 69-23, 7 p.—Walking behavior was assessed inside an optokinetic drum. Path tracings of attempts at straight forward and backward walking showed no deviations when the drum was stationary, but did show deviations in the direction of drum movement when the drum was rotating. A nonlinear increase in deviations from a straight path accompanied faster drum speeds (range: 3–45 rad/min). 2 types of corrective training were attempted but both were unsuccessful with most Ss.—*W. E. Collins.*

3377. Brecher, M. Herbert & Brecher, Gerhard A. (U. Oklahoma, Medical Center, Oklahoma City) **Quantitative evaluation of optically induced disorientation.** *FAA Office of Aviation Medicine Report*, 1970(Jan), No. 70-2, 3 p.—Tested S's ability to walk a straight path inside an optokinetic drum. Although angular deviation from a straight path increased with increasing drum speeds (3–45 rad/min), it did so at decreasing rates. At drum velocities of 20 rad/min or less, most Ss were unaware of their inability to walk a straight path. At high drum velocities, Ss apparently were more aware of the "disorientation" and were partially successful in compensating for it.—*W. E. Collins.*

3378. Gilbert, A. J. (Western Australian Inst. of Technology, South Bently) **A further study of factors involved in judgments made by the method of**

constant stimuli. *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 169–175.—A recent report by A. J. Gilbert (see PA, Vol. 42:8237) indicated that, with a procedure involving tactile stimulation of both forearms, there are several factors involved in judgments made by the method of constant stimuli. It is suggested that these factors include general adaptation, a specific adaptation to the standard stimulus, adaptation to the comparison stimuli, and some factor or factors related to the interval between judgments. In an experiment with 48 undergraduates, results from tactile stimulation of the 1 forearm indicate that possibly only 2 adaptive factors are operative in this situation. At least 1 other factor, possibly related to short-term memory and the sensory aspects of the stimulation, must enter into some functional relationship with the stimulus values.—*Journal abstract.*

3379. Warm, Joel S., Clark, Jeffrey L., & Foulke, Emerson. (U. Cincinnati) **Effects of differential spatial orientation on tactual pattern recognition.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 87–94.—Assessed the effects of variation in the relative spatial orientation of figures on tactual pattern recognition. Ss were 48 undergraduates. Metric figures at 2 levels of complexity, 4×4 and 6×6 , were used. Ss determined which of 2 choice figures was identical to a previously presented target (identity indicator response) or, if neither of the 2 choice figures was identical to the target (nonidentity indicator response). 2 orientation conditions were employed: (a) all figures were oriented in the same direction and (b) choice figures were oriented in different directions relative to the target and to each other. In general, differential orientation degraded both the accuracy and speed of recognition. The negative effects of differential orientation were dependent upon figure complexity and the type of indicator response when perceptual performance was measured in terms of accuracy but not when a speed index was used. Patterns at the low level of complexity were recognized more rapidly than high complexity patterns when a non-identity indicator response was required; no differences between complexity levels were noted with the identity indicator response. (16 ref.)—*Journal abstract.*

ENVIRONMENTAL EFFECTS

3380. Rohles, F. H. (Kansas State U.) **Thermal sensations of sedentary man in moderate temperatures: Special report.** Manhattan, Kan.: Kansas State U., Inst. for Environmental Research, 1970. 122 p.—Determined the range of thermal conditions at which sedentary Ss report feeling comfortable. 1600 college students were exposed in groups of 5 men and 5 women each to 20 dry bulb temperatures ranging from 60–98° F in increments of 2° at each of 8 relative humidities: 15, 25, 35, 45, 55, 65, 75, and 85%. Ss reported their thermal sensations on a ballot every $\frac{1}{2}$ hr. Results show that for sedentary Ss in standard clothing with an insulative value of .6 clo for 3 hr., the "comfortable" votes ranged from 62–98° F. It was also found that men feel warmer than women during their 1st hr. at a given temperature and that humidity plays a significantly more important role in how men feel than how women feel.—*Author abstract.*

SLEEP & FATIGUE & DREAMS

3381. Backeland, Frederick. (State U. New York, Downstate Medical Center, Brooklyn) **Correlates of**

home dream recall: Reported home sleep characteristics and home dream recall. *Comprehensive Psychiatry*, 1969(Nov), Vol. 10(6), 482-491.—A sleep and dream log was filled out by 55 young adult males for 14 consecutive days. Detailed dream reports tended to come from end of the night REM-period awakenings while vague reports were associated with nocturnal awakenings with relatively long times back to sleep, and no-content dream reports were derived from briefer nocturnal awakenings. Frequent detailed dream recallers as compared with nonrecallers took longer to get to sleep but were calmer before sleep, had less abrupt and more spontaneous terminal awakenings, and reported feeling more refreshed on awakening. Recallers tended to awaken from REM sleep and nonrecallers from NREM sleep in the morning. No relationship was found between cognitive style and ease of dream recall in this sample of Ss. (37 ref.)—*Journal summary*.

3382. **Tart, Charles T. & Dick, Lois.** (U. California, Davis) **Conscious control of dreaming: The post-hypnotic dream.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 304-315.—13 highly hypnotizable undergraduates each spent 2 nights in the laboratory. Before going to sleep, they were deeply hypnotized and instructed to dream about a stimulus narrative in every Stage-1 REM dream of the night. A 2nd stimulus narrative was used for the other night in counterbalanced order. Dream reports were obtained from Stage-1 REM awakenings. All Ss but 1 showed some effects, and the mean effect across Ss ranges from 2 1/2-4 elements of the stimulus narratives clearly appearing in the dreams. The peak effect ranged from 0-24 1/2 elements. Thematic analysis indicates that 8 reported at least 1 dream in which the stimulus narrative was a dominant content organizer. The number of stimulus narrative elements appearing in the dream reports was positively correlated with hypnotizability, i.e., with factors of hypnotizability characterizing an ability to function in an altered state of consciousness and negatively with the compulsive, inhibitory aspects of hypnotizability. Hypnosis is clearly helpful, but may not be necessary to achieve deliberate control of dream content. Such control may have important therapeutic and growth applications. (51 ref.)—*Journal abstract*.

3383. **Tent, Lothar.** (Philipps U. Marburg, Inst. für Psychologie, W. Germany) **Versuche zur Früherfassung von Merkmalen mentaler Überbeanspruchung: Ein Beitrag zum Problem der vorzeitigen Invalidität.** [Investigation concerning early detection of characteristics of mental overwork: A contribution to the problem of early disability.] *Archiv für die gesamte Psychologie*, 1968(Aug), Vol. 120(1), 1-24.—Assesses variables of permanent mental overwork, which, in extreme cases, may contribute to early disability. The risk of mental overwork is defined as the permanent 1-sided deviation from the convergency rule stating that mental expenditure and achievement tend to adapt on a harmonized individual level of activity. Disproportionately high relative expenditure may lead to an overdrawing of the regulating tolerance and result in early disability with forced convergency on a low activity level. In a 4-hr laboratory experiment with 30 students, the final quotient of (normalized) expenditure (pulse rate) and (normalized) achievement—dependent variable—could be predicted by means of weighted data from a different experiment—-independent variables ($R = .7$, $P < 1\%$). This relationship was not reproduced satisfactorily in a subsequent investigation of 102

industrial workers using ratings of superiors as a makeshift criterion. The multiple correlation between rated susceptibility and 4 variables: body-weight, blood-pressure, concentration test score, and achievement motivation, was only $R = .4$ ($P < 5\%$). In a discriminatory analysis, the means of weighted predictor scores of 2 extreme subgroups ($N = 20$; 22) differed very significantly with still considerable overlap. This approach was discussed in terms of G. P. Lienert's regression theory, and M. Haider's deactivation theory of fatigue. (53 ref.)—*English summary*.

3384. **Weitzman, Elliot D., et al.** (Albert Einstein Coll. of Medicine, Yeshiva U.) **Acute reversal of the sleep-waking cycle in man: Effect on sleep stage patterns.** *Archives of Neurology*, 1970(Jun), Vol. 22(6), 483-489.—Changes in sleep patterns result from acute sleep-waking cycle reversal. 5 healthy adult males slept for 1 wk. from 10 PM to 6 AM, followed by 2 wk. of day sleep from 10 AM to 6 PM. Increase in time spent awake and decrease in REM sleep time occurred during the inverted sleep period. Duration of episodes in all stages of sleep decreased after reversal, while the number of changes in sleep stages increased. Results suggest the importance of a polygraphic definition of sleep, implications for understanding endogenous depression and narcolepsy, and applications for a growing number of occupations in today's society that involve sleep-waking reversals. (29 ref.)—*S. E. Gavin*.

HYPNOSIS & SUGGESTIBILITY

3385. **Evans, Michael B. & Paul, Gordon L.** (U. Illinois, Children's Research Center Bldg.) **Effects of hypnotically suggested analgesia on physiological and subjective responses to cold stress.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 362-371.—Evaluated relative effects of suggested analgesia and hypnotic induction regarding reduction of stress responses (self-report, heart rate, pulse volume) to the physical application of ice-water stress. 4 groups ($N = 16$ each) of undergraduate female Ss, equated on hypnotic susceptibility, were run individually, receiving (a) hypnotic induction plus analgesic suggestion, (b) hypnotic induction alone, (c) waking self-relaxation plus analgesic suggestion, or (d) waking self-relaxation alone. The major findings were that suggestion, not hypnotic induction procedures, produced reductions in the self-report of distress, and that the degree of reduction was related to hypnotic susceptibility in both hypnotic and waking conditions. Neither suggestion nor hypnotic induction procedures resulted in reduction of the physiological stress responses monitored. Several methodological issues are discussed. Although findings add to the bulk of evidence supporting the skeptical view of hypnotic phenomena, results are related to other literature, suggesting that an adequate clinical evaluation of hypnotic analgesia has not yet been undertaken. (37 ref.)—*Journal abstract*.

3386. **Fromm, Erika; Oberlander, Mark I., & Gruenewald, Doris.** (U. Chicago) **Perceptual and cognitive processes in different states of consciousness: The waking state and hypnosis.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 375-387.—Hypnosis was assumed to influence perceptual and cognitive functioning in the direction of increased primary process ideation and adaptive regression. The Rorschach test was adminis-

tered to 32 undergraduates in the waking state and under hypnosis in counterbalanced order. Hypnosis was induced by a standardized procedure. Ss received identical instructions for the Rorschach in both conditions. Protocols were scored according to R. R. Holt's system for manifestations and control of primary process. Hypnotic Rorschachs showed an increase in primary process manifestations, but no changes in defensive and coping functioning, and no overall changes in the Adaptive Regression score. However, the nature of the data was found to be influenced by Ss' sex and level of adjustment. (40 ref.)—*Journal abstract.*

3387. Sachs, Lewis B. (West Virginia U.) **Comparison of hypnotic analgesia and hypnotic relaxation during stimulation by a continuous pain source.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 206-210.—Upon completion of training, 5 high school students had their arm immersed in 0° C water during both a hypnotic relaxed-hypnotic analgesic and a hypnotic analgesic-hypnotic relaxed testing sequence. Blood pressure and subjective pain responses were measured during presentation of this continuous pain source, enabling Ss to be compared under the hypnotic analgesic and hypnotic relaxed conditions. Although the analgesic conditions produced far greater effect upon the subjective pain responses than on the blood pressure, each S indicated lower blood pressure scores over the combined analgesic conditions than over the combined relaxed conditions. The reduction of subjective pain responses were in agreement with results of an anonymous questionnaire, providing further confirmation for the obtained analgesia.—*Journal abstract.*

3388. Schneck, Jerome M. (St. Vincent's Hosp. & Medical Center, New York, N.Y.) **Sleep paralysis and spontaneous hypnotic paralysis.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 16.—Comments on the resemblances between sleep paralysis and spontaneous hypnotic paralysis, and encourages further investigation.

3389. Sutcliffe, J. P., Perry, C. W., & Sheehan, P. W. (U. Sydney, New South Wales, Australia) **Relation of some aspects of imagery and fantasy to hypnotic susceptibility.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 279-287.—Studied relations between hypnotic susceptibility and some aspects of imagery and fantasy in a normal population of 95 undergraduates. Vividness of imagery was assessed by a reliable questionnaire adapted from procedures 1st devised by G. H. Betts; dreams were collected by a diary method which studied the incidence of distortion in dream content; and hypnotizability was assessed by the Stanford Hypnotic Susceptibility scale (Form C), a standardized scale devised by the authors, and a rating procedure based on both scales. Results show a positive, curvilinear relationship between vividness of imagery and hypnotic susceptibility, but no significant relationship for fantasy. Evidence suggests that both imagery and fantasy, considered conjointly, lead to a more accurate prediction of deep susceptibility than the imagery variable alone. (34 ref.)—*Journal abstract.*

3390. Tart, Charles T. (U. California, Davis) **Transpersonal potentialities of deep hypnosis.** *Journal of Transpersonal Psychology*, 1970, Vol. 2(1), 27-40.—Following a general discussion of hypnosis, a variety of behaviors occurring in an S under self-reported deep hypnosis is described. Physical relaxation increased as did visual blackness and peacefulness. Awareness of the environment and sense of personal identity decreased. Awareness of a joke rose at a certain point and then

faded out with still deeper hypnosis. A sense of potentiality increased until anything appeared possible. E's identity was sharply focused but with greater depth became remote and finally was lost. Time passed more slowly up to a point and then time became a meaningless concept. A feeling of oneness with the universe increased while awareness of breathing dropped sharply and spontaneous mental activity decreased. It is concluded that hypnosis can be used to move to relatively profound states of consciousness and to explore them.—P. E. Lichtenstein.

MOTIVATION & EMOTION

3391. Corah, Norman & Boffa, Joseph. (State U. New York, Buffalo) **Perceived control, self-observation, and response to aversive stimulation.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 1-4.—Attempted to reconcile the apparently discrepant findings of R. A. Champion's and R. J. Bandler, G. R. Madaras, and D. J. Bem's (see PA, Vol. 42:13090) studies of response to aversive stimuli. It was hypothesized that the discrepancy was in part a function of the choice provided by the Bandler, et al. instructions. 40 undergraduates were given 10 escape and 10 no-escape trials from aversive white noise. 1/2 of the Ss were given instructions which gave them the choice of escape or no escape, while the other 1/2 were given no such choice. Results support both studies. The use of choice instructions appears to be equivalent to giving the S a sense of control over the threatening stimulus.—*Journal abstract.*

3392. Davenport, W. G. (U. Newcastle, New South Wales, Australia) **Auditory vigilance: The effects of costs and values on signals.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 213-218.—Examined the effects on signal detection performance of the value of correctly detecting a signal and the costs of a miss and false detection for auditory vigilance behavior. Results from 30 undergraduates suggest that poorer detection performance was obtained with increased costs for misses and false detections, while the value placed on the correct detection of a signal had little effect. The d' statistic of signal detection theory was invariant with both signal costs and time, while β varied with both factors. Results are interpreted to mean that the performance decrement during the vigil was due to an increased strictness in the criterion (β) which the S used for deciding whether or not a signal was present. The cost factors were effective in manipulating performance during the watch by causing changes in the S's decision criteria. Findings unanimously support those predicted by J. A. Swets, W. P. Tanner, and T. G. Birdsall's decision theory; this is suggested as perhaps being the best available basis for a theory of vigilance.—*Journal abstract.*

3393. Hendrick, Clyde & Lilly, Roy S. (Kent State U.) **The structure of mood: A comparison between sleep deprivation and normal wakefulness conditions.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 453-465.—Examined the stability of the factor structure of mood under 2 different experimental conditions, sleep deprivation and normal wakefulness. 2 different forms of a mood scale were administered to several college classes, and the ratings for each scale were intercorrelated and factored. 8 interpretable factors emerged from each analysis, and the 2 sets of factors were highly congruent. In the 2nd phase Ss completed the mood ratings after staying awake all night or after getting a

good night's rest. Comparisons between the means for the 2 groups showed significant differences on 26 of the 44 variables included in the scale. The scores for the sleep-deprived group were then intercorrelated and factored, and the factor structure was compared with the relevant factor structure obtained in the 1st phase of the study. The results of the comparison showed that 6 of the 8 factors appeared under both conditions of sleep deprivation and normal wakefulness.—*Journal summary*.

3394. Lukens, Horace C. (U. Maine) **The emission of affective verbal behavior as a function of two modes of experimenter intervention: A partial replication and extension.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 398.

3395. Matlin, Margaret W. (181 River Meadow Dr., Rochester, N.Y.) **Response competition as a mediating factor in the frequency-affect relationship.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 536-552.—A series of experiments with a total of 263 undergraduates explored an explanation for the documented positive correlation between frequency and affect: that increasing frequency leads to a decrease in the response competition that the novel stimulus elicits, and that response competition is inversely related to affect. When frequency was experimentally manipulated, it was found to be inversely related to 3 measures of response competition: latency of free association, errors in recall of free association, and latency of recall. When samples of English words of varying frequency were tested, the relationship was not as clear. In other studies response competition was varied in 3 different ways. In all 3 cases, subsequent affect ratings show that response competition and affect were inversely related.—*Journal abstract*.

3396. Saegert, Susan C. & Jellison, Jerald M. (U. Michigan) **Effects of initial level of response competition and frequency of exposure on liking and exploratory behavior.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 553-558.—Tested the response competition interpretation of the increase in liking for stimuli as a function of frequency of exposure. 59 male undergraduates served as Ss. As was predicted, liking for complex stimuli increased with increased exposure, and liking for simple stimuli reached asymptote after a small number of exposures. Exploratory behavior was found to decrease as frequency of exposure increased. A relatively low level of liking was associated with the most frequently exposed simple stimuli. This drop in liking is discussed in terms of response competition and levels of cognitive conflict preferred.—*Journal abstract*.

3397. Schmeck, Ronald R. (Southern Illinois U.) **Error-produced frustration as a factor influencing the probability of occurrence of further errors.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 153-156.—Following the demonstration that frustration can produce an increase in the probability of occurrence of errors, R. R. Schmeck and J. L. Bruning (see PA, Vol. 45:Issue 3) noted that errors themselves should produce frustration and an increase in the probability of occurrence of further errors. A pair of experiments, which manipulated and measured the error rate of 30 undergraduates on a button-pressing task, supported the following generalizations: (a) an error produces an increase in the probability that further errors will occur, and (b) this effect apparently does not interact with the complexity of the task. It is theorized

that the nonspecific motivational changes resulting from error-produced frustration raises additional incorrect competing responses above threshold.—*Journal abstract*.

ATTENTION & EXPECTANCY & SET

3398. Adcock, Ngaire V. & Mangan, G. L. (Victoria U., Wellington, New Zealand) **Attention and perceptual learning.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 247-254.—Hypothesized that attention-producing stimuli would act as reinforcers in perceptual learning, and effects would operate across modalities. In the experiment reported 2 emphasisers (electric shock and bell-buzzer) were used with visual and tactual tests of perceptual learning ($N = 64$ male volunteer students). Control groups were used and neutral stimuli introduced for comparison purposes. Finally, severe electric shock was used with a few cases to demonstrate the expected reversal effect of "perceptual defense." The major predictions were confirmed, some at a very high level of significance. The so-called "perceptual defense" effect was explained more parsimoniously in terms of narrowing of attention and high arousal. (34 ref.)—*Author abstract*.

3399. Bindra, Dalbir. (McGill U., Montreal, Quebec, Canada) **The problem of subjective experience: Puzzlement on reading R. W. Sperry's "A modified concept of consciousness."** *Psychological Review*, 1970(Nov), Vol. 77(6), 581-584.—The statement by R. W. Sperry (see PA, Vol. 44:1839) on consciousness is confusing because it entangles the idea of conscious awareness (subjective experience) as an emergent phenomenon of brain function with the idea that such awareness plays a causal role in determining neural activity and behavior. Disentangled, Sperry's hypotheses appear to be circular and dualistic. Whether these difficulties are inherent in his basic position, or are misinterpretations arising from the vagueness of his present statement, would become clear if Sperry further explicates his hypotheses in more concrete terms. (19 ref.)—*Journal abstract*.

3400. Delahanty, Frances F. (Fordham U.) **Tolerance for unrealistic experiences: An attempt to validate the construct by varying subjects' expectancies.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 379-380.

3401. Greenwald, Anthony G. (Ohio State U.) **Selective attention as a function of signal rate.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 48-52.—20 undergraduates responded to a series of visually presented digits by speaking each digit's name as rapidly as possible. $\frac{1}{2}$ of the digits were accompanied by a simultaneous conflicting auditory digit and $\frac{1}{2}$ by an auditory tap. Each S provided data for this task at trial rates of 1 every 1, 2, 4, or 8 sec. At all trial rates, RTs to the auditory digit trials were slower than those to the tap trials, indicating inefficient selective attention to the visual digits. However, there was a significant decrease in this difference as ITI increased ($p < .01$), indicating that selective attention efficiency increased as trials were increasingly separated. Findings are discussed in relation to selective attention formulations that have been developed primarily from studies of selective listening to 1 of 2 auditory inputs.—*Journal abstract*.

3402. Hockey, G. R. (U. Durham, England) **Changes in attention allocation in a multicomponent task under loss of sleep.** *British Journal of Psychology*,

1970(Nov), Vol. 61(4), 473-480.—Hypothesized that environmental treatments thought to change arousal in opposite directions (noise and loss of sleep) will also produce opposing changes in the degree of selectivity in attention allocation. A dual task method was employed where 12 17-23 yr. old male Ss performed a primary tracking task while simultaneously monitoring an array of light sources for occasional signals (the subsidiary task). The effect of loss of sleep was significant to impair performance of the primary task, and to reduce the advantage of high- over low-probability sources, within the subsidiary task, i.e., a loss of selectivity. This result complements that found in previous experiments with noise in which changes in attention allocation move in the opposite direction (an increase in selectivity), and supports the view that selectivity is a function of arousal level. (22 ref.)—*Journal abstract*.

3403. Hohmuth, Arthur V. (Trenton State Coll.) **Vigilance performance in a bimodal task.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 520-525.—Evaluated the need for an arousal construct in a theory of vigilance, as opposed to a theory based on a selective attention construct. Performance over time was examined in a situation involving 2 detection tasks, 1 in each of 2 modalities. 34 undergraduates were instructed to direct their attention to 1 of the 2 tasks, the primary task; the other task was of secondary importance. The main concern was in discovering whether the vigilance decrement would be specific to the primary task, as would be suggested by the selective attention theory, or whether it would be seen in both tasks, as suggested by the arousal construct. Data show that the decrement is task specific. However, it is not always the primary task which shows the decrement. It is argued that neither the construct of arousal nor that of selective attention is adequate, alone, to deal with the vigilance decrement. Results are discussed in terms of these 2 concepts and in terms of some practical implications for the design of real-life displays. (15 ref.)—*Journal abstract*.

3404. Mostofsky, David I. (Ed.) (Boston U.) **Attention: Contemporary theory and analysis.** New York, N.Y.: Appleton-Century-Crofts, 1970. viii, 447 p. \$10.50.

3405. Sperry, R. W. (California Inst. of Technology, Div. of Biology, Pasadena) **An objective approach to subjective experience: Further explanation of a hypothesis.** *Psychological Review*, 1970(Nov), Vol. 77(6), 585-590.—Attempts to clarify a hypothesis of consciousness in which the phenomena of subjective experience are conceived to exert a direct causal influence on brain activity. Response is made to some questions posed by D. Bindra (see PA, Vol. 45:Issue 3) that arose from a recent statement by Sperry of the concept. The aim is to clarify where possible with material that supplements rather than repeats previous accounts, and the hypothesis is compared with other existing theories.—*Journal abstract*.

MOTOR PERFORMANCE

3406. Allen, John C. (U. Maryland) **The use of tactics in a psychomotor skill.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 375.

3407. Bartz, Douglas W. & Smith, Leon E. (U. Iowa, Motor Performance Research Lab.) **Effect of moderate exercise on the performance and learning of a gross motor skill.** *Perceptual & Motor Skills*, 1970(Aug), Vol.

31(1), 187-190.—Investigated the effect of a moderate standardized work load upon the learning of a gross motor skill. 10 nonexercised undergraduates performed 10 30-sec trials on a stabilometer, rested, and performed 3 additional trials. On the same apparatus 10 exercised Ss performed an initial exercise bout, in addition to exercise bouts between the 1st 10 30-sec trials. Results show that, although the exercised Ss had an elevated heart rate, performance throughout the learning trials and the retest trials did not differ significantly from that of nonexercised Ss.—*Journal abstract*.

3408. Jones, Marshall B. (Pennsylvania State U., Medical School) **Rate and terminal processes in skill acquisition.** *American Journal of Psychology*—After 16 trials of practice on micrometer adjustment, 200 airmen mastered the task, more or less; what little variance remains is error. However, the rate at which Ss approach this terminal level of near-perfection can be retarded by systematically transforming knowledge of results: the stronger the transformation, the longer it takes Ss to master the task. With no such transformation, correlations among early trials of practice showed strong superdiagonal patterning. As practice proceeded, this pattern weakened and then, around Trial 7, collapsed; the correlation level dropped near 0 and the matrix became disorganized. With progressively stronger transformations of knowledge of results, and in exact proportion as learning was retarded, the superdiagonal pattern persisted longer and longer into the practice series before it finally disintegrated. Results are interpreted in terms of a 2-process theory of individual differences in motor learning, based on the distinction between the level of proficiency an S approaches at the end of practice and the rate or route he follows in reaching it.—*Journal abstract*.

3409. Mikaelian, H. H. (Connecticut Coll.) **Adaptation to rearranged eye-foot coordination.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 222-224.—Investigated the generality of adaptation following 3 types of movements during prism exposure. 8 right-handed undergraduates with normal vision served as Ss. The 3 exposure conditions consisted of (a) walking with prisms, (b) viewing leg movements through prisms, and (c) viewing arm movements through prisms. Results show that changes in eye-foot coordination and egocentric localization occur following both a and b. Exposure conditions b and c both produce changes in eye-hand coordination; however, eye-foot coordination was found unaltered following c.—*Journal abstract*.

3410. Terekhov, Yu. V. & Agayan, G. **Pristavka dlya chernil'noi registratsii vektorogram.** [Auxiliary device for ink-recording of vectorograms.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 288-292.—Describes a device and its principle of action for recording in ink directly on paper the vector curves of different processes. The utilization of the auxiliary device in procuring vector-stabilograms is discussed.—*I. D. London*.

3411. Venediktov, A. B., Terekhov, Yu. V., & Tishchenko, M. I. **Pribor dlya opredeleniya ustoiichivosti stoyaniya i opornykh reaktsii cheloveka.** [Instrument for determining the stability of standing and that of the postural reactions in man.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 281-288.—Presents a characteristic stabilogram and several basic parameters of

stabilographic variation in the human body.—I. D. London.

REACTION TIME

3412. Bernstein, Ira H., Rose, Robert, & Ashe, Victor M. (U. Texas, Arlington) **Energy integration in intersensory facilitation.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 196-203.—Conducted 2 experiments to explore facilitative effects obtained in visual RT when an auditory event occurs in close temporal proximity to the reaction signal. A particular model which assumes intersensory summation of stimulus intensity (energy integration) was tested with 2 male and 2 female undergraduates in Exp. I, and 4 adults in Exp. II. As predicted, the magnitude of the difference between visual and bisensory RT was directly related to auditory intensity and inversely related to visual intensity, although bisensory RT was inversely related to both intensities. The magnitude of the effect was approximately symmetric regarding temporal asynchrony in Exp. II, where the auditory event could either precede or follow the visual event. However, systematic deviations from symmetry occurred, related to other aspects of facilitation.—*Journal abstract*.
3413. Christ, Richard E. (Kansas State U.) **Some effects of stimulus-exposure time on choice-reaction time.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 264-271.—86 undergraduates were run in 2 experiments investigating choice RT as a function of mixed and constant exposure time. Within the range of exposure times explored (50-150 msec.), conditions employing a constant exposure time did not differ from one another. However, when a series of short exposure times was mixed with a series of intermediate exposure times, the RT to both was increased. It is concluded that stimulus and S factors develop within the situation to produce effects that cannot be predicted from knowledge of only the stimulus-exposure conditions.—*Journal abstract*.
3414. Eichelman, William H. (U. Massachusetts) **Familiarity effects in the simultaneous matching task.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 275-282.—Designed 2 experiments to determine how familiarity affects the amount of time needed to decide whether 2 strings of letters are the same or different. Ss were 8 right- and left-handed undergraduates and 8 right-handed volunteers, respectively, with normal vision. In Exp. I, the RT for 2 words was compared to the RT for 2 random strings of letters. The number of letters/string was also varied. It was found that the familiar word strings could be compared more quickly than the random strings and that this difference increased as the number of letters/string increased. Exp. II determined if Ss were reading the word strings and processing their names. If this were true, it should make little difference if the strings to be matched were printed in different cases. However, a large difference between different-case and same-case stimuli was found for both random and word strings. Therefore, it is felt that familiarity with the stimulus material can affect stages of processing concerned with the physical characteristics of the stimulus.—*Journal abstract*.
3415. Greenwald, Anthony G. (Ohio State U.) **A choice reaction time test of ideomotor theory.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 20-25.—In 5 RT experiments, a total of 42 undergraduates and 10 6-yr-old children responded to auditory and visual letter or digit stimuli by speaking or printing the presented letter or digit. It was found that visual-written and auditory-spoken RTs were more rapid than expected on the basis of additive main effects of stimulus modality and response task. This finding had been derived as a prediction from the ideomotor hypothesis that performance of a voluntary action is mediated by an image of the action's sensory feedback. Explanations of the result that do not require the image concept are considered. (17 ref.)—*Journal abstract*.
3416. Kamlet, Arthur S. (Bell Telephone Lab., Whippany, N.J.) **Processing of sequentially presented signals in information-combining tasks.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1969(Jun), No. 9-69, 55 p.—Examined a special form of the 2-signal paradigm in which the 1st stimulus provided the rule or operator for defining the appropriate response to the 2nd stimulus. This form of the 2-signal experimental paradigm is called an information-combining task. Temporal factors in an information-combining task were examined to discriminate among alternative human performance theories. Specifically, the number of alternative operators and the number of alternative 2nd signals were independently varied over a range of intervals between the operator and the 2nd signal. In some tests the interstimulus interval was held constant from trial to trial; in other tests the interstimulus interval varied between successive trials. Results reject single-channel theories of information processing in favor of a flexible, capacity-sharing model. Results also suggest that Ss perform sophisticated strategy adjustments to take advantage of subtle features of these information-combining tasks. (82 ref.)—*Journal abstract*.
3417. Lefcourt, Herbert M. & Siegel, Jerome M. (U. Hawaii) **Reaction-time behaviour as a function of internal-external control of reinforcement and control of test administration.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 253-266.—Tested 168 undergraduates in 2 self- vs. E-controlled RT experiments. Ss with internal vs. external control of reinforcement expectancies were compared across these conditions. Internal-external proved to be irrelevant to condition effects, whereas sex of S proved important. Female Ss were quicker in self-directed conditions in both regular and irregular RT procedures, while always slower than males in general. When instructions were embellished to facilitate performance for a 3rd sample, external Ss did show some improvement. Data indicate support for previous research that has emphasized responsiveness of external Ss to E's structuring of tasks. External Ss seemed more affected by motivating directions especially in the other-directed condition, at the shortest preparatory interval. No clear-cut support, however, was found for the hypothesized interaction between internal-external and self- vs. other-controlled conditions. (French summary) (19 ref.)—*Journal abstract*.
3418. Simon, J. Richard & Craft, John L. (U. Iowa) **Effects of an irrelevant auditory stimulus on visual choice reaction time.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 272-274.—40 female undergraduates performed a unimanual choice RT task, pressing either a left or right button in response to the onset of a light which illuminated the button. In a predetermined random sequence of trials, the stimulus light was either presented alone or concurrently with a

monaural or binaural tone. The right response was facilitated by the tone to the right ear but inhibited by the tone to the left ear, while the left response was facilitated by the tone to the left ear, but inhibited by the tone to the right ear. RT on the binaural trials was faster than on the no-tone trials.—*Journal abstract.*

3419. Versteeg, Arlen. (U. Arizona) **Effect of a border on reaction time to onset and offset stimulation in the fovea.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 235-238.—Obtained RTs to the onset and offset of flash stimuli located in various positions in a visual field divided into 2 contiguous regions of white and black. Ss were 3 dark-adapted undergraduates. With presentation of the flash stimuli in the fovea, there were no significant differences in the character of functional onset and offset RTs or in the character of the function relating RT to distance from the border. There was a border effect operative for both functions; a decrease in both onset and offset RTs appeared as the border was approached from the white side and a slight increase in both onset and offset RTs when the border was approached from the black side.—*Journal abstract.*

LEARNING

3420. Beach, Lee R., et al. (U. Washington) **Probability learning: Response proportions and verbal estimates.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 165-170.—At various points in a 2-choice probability learning experiment, 121 undergraduates were interrupted and asked to estimate p , the probability of the more frequent of the 2 stimulus events. The Ss' estimates of p were compared with the proportion of trials on which other Ss predicted the events. These estimates imply that Ss learn the frequency of the 2 events much more rapidly than inferred from response proportions. The estimates change as a function of training in a manner consistent with a simple Bayesian revision model.—*Journal abstract.*

3421. Belica, Michael J. (Indiana U.) **Recognition learning from single- and multiple-channel presentations within the audio sensory domain.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 276-277.

3422. Bishop, Barbara R. (Florida State U.) **A comparison of learning efficiency and emotional concomitants in aversive stimulation and time-out from positive reinforcement.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5278.

3423. Breitman, Martin. (Yeshiva U.) **Organizational factors in intentional and incidental learning.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 407.

3424. Erickson, James R. & Block, Karen K. (Ohio State U., Human Performance Center) **Conditional response distributions in a multiple-choice probability-learning situation.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 328-330.—Presents conditional response distributions from a 16-choice probability-learning experiment. 60 undergraduates served for 800 trials each under 1 of 3 reinforcement distributions; rectangular, right triangular, or symmetrical triangular. Unlike Ss in experiments reported previously, there was no tendency for Ss in the present experiment to avoid predicting at the point of reinforcement on the previous trial (local negative recency). Rather, a form of

local positive recency was found. As in 2-choice experiments, negative recency in multichoice experiments is restricted to early trials in the sequence, or is due to artifacts in the experimental procedure or reinforcement schedule. The means of the conditional response distributions were linearly related to the point of reinforcement on the previous trial, as predicted by N. H. Anderson's information integration model, and by a variety of other models of linear form.—*Journal abstract.*

3425. Halford, G. S. & Davenport, W. G. (U. Newcastle, New South Wales, Australia) **An RTT experiment with two responses on each trial to a stimulus complex.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 203-211.—Applied tests for incremental and all-or-none learning in a situation with 65 undergraduates where each of 2 responses was equally reinforced with a stimulus complex consisting of 2 3-letter nonsense syllables. Learning was continued for 7 trials, and cases where Ss could give both correct responses were analyzed to see whether they occurred with separate nonsense syllables or with the same 1. It was found that when 2 responses were attached to a stimulus complex, both responses were elicited by each of the component stimuli. This result would not normally be predicted from a stimulus-response conception of learning, but is favorable to derivations from the expectancy theory of K. MacCorquodale and P. E. Meehl.—*Journal abstract.*

3426. Laszlo, Judith L. (U. Western Australia, Netherlands) **The role of visual and kinaesthetic cues in learning a novel skill.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 191-196.—Trained 18 medical students in a serial discriminative task under normal sensory feedback; with visual (+K-V) information loss; with kinaesthetic (-K+V) information loss. The performance curves over the 10 training sessions showed initial high decrement for -K+V; and somewhat less decrement for +K-V groups. All groups improved significantly, the information loss groups reaching the same final performance level. In Test I (normal feedback), the groups performed at equal levels. It is proposed that sensory information during the practice of a new skill influences performance rather than learning. Results in Test II, where feedback channels available to Ss differed from those utilized during training, support the hypothesis of the dependence of skilled task on the modality utilized during training.—*Journal abstract.*

3427. Restle, Frank. (Indiana U.) **Theory of serial pattern learning: Structural trees.** *Psychological Review*, 1970(Nov), Vol. 77(6), 481-495.—When undergraduates learn patterned sequences, they divide them into subparts. Each subpart has the property that it can be generated unambiguously by simple rules. Such a rule system consists of E, the set of elements or events forthcoming, and I, the set of intervals leading from 1 event to the next. Parts or their generating rule systems can be the elements of higher order rule systems. This produces the recursive E-I theory. 1 part is generated from another by any of a class of transitions such as repeating, transposing, or inverting. By applying such transitions as compound functions, one generates structural trees, which give a particularly simple account of certain regular patterns. Experimental results show that the difficulty of learning a transition within such a pattern depends on how high it is in the tree. The theoretical results are applied to the theory of music.—*Journal abstract.*

3428. Saltz, Eli. (Wayne State U.) **Manifest anxiety: Have we misread the data?** *Psychological Review*, 1970(Nov), Vol. 77(6), 568-573.—An examination of the research literature suggests that the data on the relationship between manifest anxiety and learning has been misread. A more defensible theory appears to be that the persons who score as high anxious are those who show disrupted behavior under failure-induced stress, but not necessarily under pain-induced stress; persons who score as low anxious are those who show disruption under pain-induced stress, but not necessarily under failure. This position accounts for most of the conditioning and verbal learning data published to date. (25 ref.)—*Journal abstract*.

3429. Scandura, Joseph M. (U. Pennsylvania, Graduate School of Education) **Role of rules in behavior: Toward an operational definition of what (rule) is learned.** *Psychological Review*, 1970(Nov), Vol. 77(6), 516-533.—Proposes a precise formulation of the notion of a rule in terms of sets and functions. It is argued that this molar formulation cannot be captured by networks of associations unless one allows associations to act on (other) associations. This formulation is then used as a basis for showing how rules are involved in decoding and encoding, symbol and icon reference, and higher order relationships. Decoding and encoding are shown to involve insertion into and extraction from classes, respectively. Reference is viewed in terms of rules which map equivalence classes of signs into the classes of entities denoted by these signs. Symbols are shown to involve arbitrary reference, whereas icons retain properties in common with the entities they denote. Higher order relationships are then expressed as higher order rules on rules. This is a direct generalization of associations on associations. Finally, a partial solution is posed to the problem of what (rule) is learned. Given a rule-governed class of behaviors, what is learned is defined as the class of rules which provides an accurate account of test data. Empirical evidence is presented for a simple performance hypothesis based on this definition. (38 ref.)—*Journal abstract*.

3430. Simpkins, Ruth E. (Rider Coll.) **Verbal performance effected by social and material reinforcements.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 268-271.—Investigated the effects of 2 levels of social and material reinforcement on the verbal performance of 104 male undergraduates who were divided into impulsive and nonimpulsive groups by paper-and-pencil tests. A Taffel-type verbal conditioning task was used. Following preliminary instructions given to Ss in person, all further interaction took place with E in an adjoining control room. Social reinforcement involved prerecorded comments: "mm-hm" or "ok" for weak; "good," "that's good," "very good," "excellent," or "fine" for strong. The material reinforcement was either 2¢ (weak) or 15¢ (strong). Thus the design was a 2x2x2 factorial for type of reinforcement, intensity, and level of impulsivity. Only data from aware Ss were included in the analysis. Material reinforcement was more effective than social reinforcement for all blocks of reinforced trials ($p < .01$). There were no significant effects for intensity or impulsivity. Results are discussed in terms of awareness of the response-reinforcement contingency and differential valuation of incentives. (15 ref.)—*Journal abstract*.

3431. Singer, Robert N. & Witker, Janet. (Michigan State U.) **Mental rehearsal and point of introduction**

within the context of overt practice. *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 169-170.—Placed 65 female undergraduates in 1 of 5 groups to learn the pursuit-rotor task. 4 of the groups practiced mentally at various designated points during the overt practice context; the 5th practiced without any directed mental rehearsal. Using various statistical analyses, no significant differences were found between the groups, although a trend indicated some value of early introduction of mental rehearsal within the context of overt practice.—*Journal abstract*.

3432. Spiker, Charles C. (U. Iowa, Inst. of Child Behavior & Development) **An extension of Hull-Spence discrimination learning theory.** *Psychological Review*, 1970(Nov), Vol. 77(6), 496-515.—Proposes 2 modifications in the basic axioms of Hull-Spence discrimination learning theory. The principle of primary stimulus generalization is changed from an exponential to a linear function for both habit and inhibition. The principle of stimulus interaction is substituted for the additive axiom used by Spence and for the principle of afferent neural interaction proposed by Hull. With these 2 modifications, and other principles in the theory, prediction equations are derived for several types of problems involving discrimination learning and transfer. The modified theory is shown to predict that successive, conditional reaction, and mixed simultaneous-successive problems can be learned. There is also an illustration of the way in which response-produced cues can be quantitatively incorporated into the theory. Finally, a method is described for obtaining maximum likelihood estimates of the parameters in the prediction equations. A generally favorable evaluation of the theory results from a comparison of its predictions with the outcomes of some 2 dozen experimental studies. (38 ref.)—*Journal abstract*.

3433. Tsao, Yao-chung. **The generalization and discrimination of stimulus-weight learning.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 155-164.—4 groups of Ss were instructed to press a key in a quick motion to a 3.5-cm displacement, upon seeing a light after hearing a sound. Sounds were paired with weights. After 25 training trials, there were 2 testing trials and 3 additional training trials. Results suggest that discrimination learning is established during the 25 training trials, and that there is a tendency of generalization during the 2 test trials which is not statistically significant. Results agree with Hull's stimulus intensity dynamism which hypothesizes that the stronger CS invokes the stronger CR.—*Journal abstract*.

3434. Turner, C. & Mackintosh, N. J. (U. Edinburgh, Scotland) **Continuity theory revisited: Comments on Wolford and Bower.** *Psychological Review*, 1970(Nov), Vol. 77(6), 577-580.—Critically examines the suggestion made by G. Wolford and G. H. Bower (see PA, Vol. 44:2077) that K. W. Spence's theory of discrimination learning can predict an overlearning reversal effect (ORE). The prediction depends on a choice of parameter values representing strong initial preferences for 1 or the other position, or for S-. Experimental evidence with 20 stat-rats shows that such preferences are not a necessary condition for the occurrence of an ORE. Even if the model could predict an ORE under other conditions, the basis for the prediction would be the existence of a strong correlation between position habits in acquisition and reversal, which does not exist.—*Journal abstract*.

Conditioning

3435. Gendreau, Paul, et al. (Queen's U., Kingston, Ontario, Canada) **Effect of two days' monotonous confinement on conditioned eyelid frequency and topography.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 291-293.—Compared conditioned discriminative eyelid response frequency and topography for 9 volunteer prisoners before, immediately after, and 2-7 days following 2 days of monotonous confinement. Monotonous confinement did not enhance learning over control readings; however, it may have a selective effect on individual differences and conditioning.—*Journal abstract*.

3436. Kuo, Shang-wu. **Effects of contextual activity in conditioning of voluntary response.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 144-154.—Studied the conditioning of a voluntary response in 164 Ss by arranging a tone and a light, respectively, as CS and UCS with an interstimulus interval of 200 msec. Control groups were instructed to complete key-pressing response to the UCS. Experimental groups had to press or let go of the key with prescribed amounts of force or work in response to the CS and then complete the response to the UCS as did the control groups. 2 test trials were run for all groups except Group 2. It was found that more and larger CRs were obtained in the experimental groups on both of the test trials. Results obtained on the 2nd test trials were more or less smaller than those obtained on the 1st.—*Journal abstract*.

3437. Meyer, Philip A. (U. South Dakota) **Role of an unavoidability procedure in eliminating avoidance behavior with humans.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 337-340.—Recent theoretical emphasis on response-contingent omission of the noxious stimulus (NS) as the major source of reinforcement for an avoidance response (AR) suggests an extinction procedure where the NS is unavoidable. The NS is presented on all extinction trials. 44 undergraduates stopped making ARs, which had prevented air blasts delivered behind the ear, faster with an unavoidable NS than with the NS omitted on all extinction trials, but slower than with punishment. In Exp. II, 4 groups received the unavoidability procedure in extinction, but the contingency whereby an AR either terminates the signal or not, varied in training and extinction. The 2 groups for which the signal termination contingency changed from training to extinction showed the most differences during extinction with an unavoidable NS. Avoidance latencies were longer during the unavoidability procedure than in training.—*Journal abstract*.

3438. Miller, Adam W. & Babcock, Bonnie B. (St. Cloud State Coll.) **The operant conditioning of awareness.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 169-177.—Investigated verbal operant conditioning and higher-order conditioning of meaning, their relationship to awareness, to operant conditioning of awareness statements, and to the controlling function of instructions. 90 undergraduates were studied individually. Their task was to learn for each of 4 nonsense syllables 3 correct word associates and a related awareness statement. In a 3×3 factorial design 3 kinds of awareness statements were reinforced and 3 levels of instructions were used. The findings were: Awareness statements operantly conditioned. The degree of operant conditioning of associates and of awareness statements

was predictably varied so they occurred together or independently. Higher-order conditioning of meaning occurred and was predictably varied in its relationship to awareness. Awareness statements during conditioning and questionnaire measured awareness were related.—*Journal summary*.

3439. Vogel-Sprott, M. (U. Waterloo, Ontario, Canada) **Resistance to extinction in human subjects: Learning informative properties of a blank trial.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 241-245.—Trained 60 undergraduates to respond to "good" or "bad" visual signals as reward or punishment. Training groups received either (a) consistent reward (CR₊) for the correct response and blank, i.e., no signal, for all wrong responses; (b) partial reward (PR₊) for the correct response, blanks occurring with some correct and all incorrect responses; or (c) blanks (CP) for all correct responses, with consistent punishment of wrong responses. 1/2 of the Ss from each training group received extinction (blank trials) immediately following acquisition. The discriminable onset of extinction was controlled for the remaining Ss by preceding extinction with a set of trials in which every response received either reward or punishment. PR₊ and CP training both led to more persistence in extinction than CR₊, even when discrimination was controlled. Consecutive repetitions of the correct response during extinction suggests that the CP procedure developed a resistance to deviation beyond that obtained from PR₊. The evidence is consistent with the view that S learns the predictive properties of a blank trial and this learning mediates behavior in extinction.—*Journal abstract*.

3440. Wiegand, Dennis B. & Rodwan, Albert S. (DePaul U.) **A test of the preparatory response theory by measurement of increased stimulus attractiveness following a signal.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 225-229.—Measured the enhancement effect on the attractiveness of a visual stimulus (UCS) following advanced information (CS), as proposed by the preparatory response theory. 3 CS durations of 1, 3, and 10 sec. were combined with high and low UCS intensity. 60 male undergraduates were assigned randomly to the 6 experimental conditions and rated the attractiveness of photographs of females (UCS). The predicted enhancement effect following information was found in all treatment conditions, with its strongest occurrence in the group with the high-intensity UCS and the 10-sec CS. No overall increase in the enhancement effect as a function of the number of trials occurred, contrary to expectation. Results support a preparatory response interpretation for the value of noninstrumental information. (15 ref.)—*Journal abstract*.

3441. Worrall, Norman. (Hatfield Polytechnic, England) **Differential GSR conditioning of true and false decisions.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 13-19.—Used a series of questions to demonstrate differential conditioning of the GSR to decisions to give true or false answers to the questions. Following a mock theft, 20 personality inventory-type questions were asked, to any 5 of which undergraduate Ss were required to give a deliberate false answer. An experimental group (N = 60) had shock paired with each false answer, while control groups experienced either random shock (N = 60) or no shock (N = 60) at all. The GSR under examination appeared to have 2 components, 1 occurring several sec. before the overt answer and 1 approximately coinciding with the answer.

The experimental group showed differential conditioning in the amplitude of this response complex for true-false answers, and the effect showed transfer to specific test questions about objects possibly taken during the mock theft. Group differences were maintained in the generalization and extinction data. Results are discussed in terms of whether the paradigm is best regarded as mediational, classical, or instrumental.—*Journal abstract.*

Verbal Learning

3442. Carlson, Hilmer J. (U. North Dakota) **Verbal conditioning rates and awareness as a function of reinforcement value and informational aspects of verbal reinforcers.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 390.

3443. Dey, Mukul K. (McMaster U., Hamilton, Ontario, Canada) **Experimental extinction of verbal associative responses.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 193-200.—Using the design normally employed to study retroactive inhibition, the variables of interval between reinforced practice and retest and of extended practice without reinforcement vs. rest during the interval were factorially combined. Ss were 36 male and 36 female undergraduates. Nonreinforcement significantly decreased the frequency and increased the latency of correct responses in comparison with the condition of rest; the magnitude of this effect was greater under massed than under distributed stimulus presentation. These evidences of experimental extinction of verbal associative responses uphold the unlearning theory of retroactive inhibition and the wisdom of applying conditioning principles in the interpretation of verbal learning. (20 ref.)—*Journal abstract.*

3444. Hergert, Merrill W. (U. North Dakota) **Verbally conditioned regression as a function of different reinforcement of a verbal response class.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 150.

3445. Kanak, N. Jack & Curtis, C. Dwayne. (U. Oklahoma) **Unlearning of context-item and specific associations in the W₁-R₁, W₂-R₂ paradigm.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 256-263.—Ss were 48 naive undergraduates. Bidirectional modified free-recall data revealed significant unlearning of context-W (wrong item) and context-R (right item) associations, compared with both a control group that recalled immediately after List 1 practice and a normal forgetting control group that recalled List 1 after working on a neutral interpolated task. Also, an associative-matching task indicated that Ss also experienced unlearning of specific, incidentally learned, W-R/R-W List 1 associations. Results represent an extension to verbal-discrimination learning of recent paired-associate studies that demonstrated unlearning of specific and context-item associations in the A-B, C-D paradigm.—*Journal abstract.*

3446. Wollen, Keith A. (Washington State U.) **Effects of set to learn A-B or B-A upon A-B and B-A tests.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 186-189.—Assessed the importance of learning set upon forward and backward learning by factorial combinations of set to learn (A-B vs. B-A) and direction of testing (A-B vs. B-A) with 96 undergraduates. Although there were no differences among the 4 groups in terms of frequency correct, latency differences were

obtained. Forward latencies were shorter than backward latencies for correct responses but not for errors. Learning set exerted no influence on either frequency or latency.—*Journal abstract.*

3447. Zaffiro, William R. (U. Southern Mississippi) **The relative roles of serial position and sequential association effects as related to levels of meaningfulness in a serial learning task.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5307.

Verbal Paired Associate Learning

3448. Deshpande, S. W. **Reassessment of meaningfulness of some CVC trigrams.** *Journal of the Indian Academy of Applied Psychology*, 1969, Vol. 6(2), 57-60.—The correlation coefficient between the observed percentages of Glaze and Krueger was higher than those observed in the present study, with Glazer and other Indian studies suggesting a necessity for new norms for an Indian sample.—*U. Pareek.*

3449. Dey, Mukul K. (McMaster U., Hamilton, Ontario, Canada) **Influence of the sequence of similar stimuli on paired-associate learning.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 255-265.—2 groups of Ss (N = 40 male volunteer undergraduates) received practice on a paired-associate list composed with several groups of similar stimuli through 2 sessions separated by a brief rest. The similar stimuli were presented in a random (R) sequence to Group R-R all along but first in clusters (Cs) and then in a random sequence to group C-R. The latter group showed superior performance before but inferior performance after the rest in comparison with the former. This finding suggests that the clustering of similar paired-associate stimuli retards learning but facilitates performance.—*Author abstract.*

3450. Fletcher, Faye M., Etaugh, Claire F., & Reid, Larry D. (Bradley U.) **Paired-associate analogue of language learning: Role of reinforcement, repetition, and number of rule instances.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 319-325.—Taught 16 adults 25 paired associates, forming a 5 × 5 matrix, in which the stimuli were 2-digit numbers and the responses were 2-letter pairs; 23 pairs (regulars) followed matrix rules; 2 pairs (irregulars) did not. On study trials, Ss were presented 21 regular pairs once and 2 irregular pairs twice; test trials were with all 25 stimuli. Ss learned the pairs more rapidly than those in a similar study which used fewer pairs and a smaller matrix. Ss receiving verbal reinforcement for correct responses on test trials performed no better than Ss not reinforced. Ss receiving both verbal reinforcement and repetition of correct responses on test trials learned fastest. Performance on irregular pairs was initially better than on regular pairs. Errors on the irregulars involved generalization of regular responses.—*Journal abstract.*

3451. Kanak, N. Jack & Neuner, Sharon D. (U. Oklahoma) **Associative symmetry and item availability as a function of five methods of paired-associate acquisition.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 288-295.—80 undergraduates learned a paired-associate list of 8 pairs of familiar words by 1 of 5 methods of acquisition, varying in terms of whether the A and B components of a pair involved a recall process, both a recognition process, or 1 component a recognition process and the other a recall process. Learning by the anticipation method and a

study-test method involving recall of both items on paced test trials required more trials than the traditional recall method or a recognition-discrimination condition. Comparisons of the anticipation and recall methods on several other measures indicate that the inferiority of the anticipation method was attributable to a slower rate of development of reliable associative strength or, alternatively, to a higher confidence threshold on the part of anticipation Ss. Associative symmetry was demonstrated in the conditions which involved only recall or only recognition processes, while 3 conditions which mixed recall and recognition processes yielded asymmetry favoring superior recall for the item involving a recall process. Items learned by recognition, whether A or B items, were significantly less available than items learned by recall. (20 ref.)—*Journal abstract.*

3452. Laurence, Mary W. (U. Toronto, Ontario, Canada) **Role of homophones in transfer learning.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 1-7.—2 experiments examined the role of homophones as elements in transfer learning. Exp. I with 100 19-27 yr. old Ss showed positive transfer between 2 paired-associate (P-A) lists provided that homophones of response items in List 1 served as response terms in List 2, and that no re-pairing of items had occurred. When stimulus and response terms were re-paired, negative transfer was observed. An acoustically based, spelling-translation stratagem applicable to the same-order but not to the re-paired lists is suggested as accounting for the differential results. Exp. II with 60 undergraduates examined transfer between 2 identically ordered free recall lists of homophones. The acoustic identity between lists facilitated List 2 learning on Trial 1 only, but thereafter led to negative transfer. Results are interpreted to support E. Tulving's view that subjective organization developed in the course of List 1 learning was inappropriate to and interfered with List 2 learning.—*Journal abstract.*

3453. Miller, Stuart. (Towson State Coll.) **Prediction of mediated paired-associate learning.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 131-132.—Gave 100 undergraduates either associative or recall instructions in a compound free association test. The percentage of the most popular response was then used to predict the number of correct responses in paired-associate learning of the compounds. Only associative instructions was significantly related to learning ($p < .01$). A mediational interpretation of the results is offered.—*Journal abstract.*

3454. Nelson, Douglas L., Peebles, Jerry, & Pancotto, Frank. (U. South Florida) **Phonetic similarity as opposed to informational structure as a determinant of word encoding.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 117-119.—Each of 200 Ss acquired 1 of 10 paired-associate lists in which 6-letter words served as stimuli and single digits as responses. Words within 9 of the lists shared letters in Positions 1, 2, . . . , 6 or Positions 1 and 2, 3 and 4, or 5 and 6. The 10th list served as a low-similarity control. Results indicate that a reduction in the distinctiveness of initial and, to a lesser extent, of terminal portions increases difficulty of acquisition to a greater extent than reductions in the saliency of medial portions. Findings are interpreted as consistent with the hypothesis that the words, in this task, were coded as phonological serial sequences and not in terms of their informational structure.—*Journal abstract.*

3455. Wright, John H. & Gescheider, George A. (Hamilton Coll.) **Effects of stimulus similarity on paired-associate learning under immediate and delayed knowledge of results.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 181-186.—102 undergraduates learned by an anticipation procedure a single 8-pair paired-associate (PA) list of either high or low similarity among PA stimuli under 1 of 3 conditions of delay of knowledge of results (KR) produced by separating systematically within each trial the presentation of the stimulus terms for testing from subsequent presentation of the respective stimulus-response pairs for response confirmation and further learning. The finding of considerably better PA performance under immediate than under delayed KR indicates that the learning of verbal PAs by an anticipation procedure is adversely affected by delay of KR. The magnitude of the superiority of performance under immediate KR was considerably greater in learning the PA list of high stimulus similarity than in learning the PA list of low stimulus similarity. This finding supported the hypothesis that 1 of the functions of immediate KR in verbal PA learning is to minimize or reduce the detrimental effects of intralist interference.—*Journal summary.*

Reinforcement

3456. Clance, Pauline R. (U. Kentucky) **The effects of different reinforcement-punishment contingencies upon the occurrence of aggressive behavior.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 390-391.

3457. Dixon, Paul W. & Hammond, Sharon. (U. Hawan, Hilo) **Operant conditioning of spoken phonemes /s/ and /z/ and awareness.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 87-92.—4 groups of 15 undergraduates each selected 1 of 2 nouns and gave its plural when it was presented on a 3 × 5 in. index card. Each S was then given a postconditioning interview. 15 Ss were reinforced by the word good for choosing nouns whose plurals were formed by adding the voiced alveolar fricative /z/. 15 were reinforced for choosing plurals formed by adding the unvoiced alveolar fricative /s/. The other 2 groups were used as /s/ and /z/ controls. Both reinforced groups showed significant conditioning effects when compared with their controls with no significant interaction between reinforcement and phoneme response class. Ss showed a preference for /z/ as compared to /s/ plurals at a statistically significant level. A comparison of conditioning scores for those who were aware of the reinforcement good and also those who were not aware of any reinforcement was made with those who were aware of a correlated or correct reinforcement response contingency. Greater awareness produced significantly greater conditioning, indicating that conditioning effects are related to a postconditioning interview even in a reinforcement response contingency which is not easily discriminable.—*Journal abstract.*

3458. Mandell, Elizabeth E. (U. South Carolina) **An investigation of the effects of partial reinforcement on extinction employing augmented knowledge of results as reward.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 417.

3459. Wang, May J. **Experiments of variables confounding with percentage of reinforcement in concept learning.** *Acta Psychologica Taiwanica*,

1968(Mar), Vol. 10, 105-119.—Studied concept learning with partial or continuous reinforcement, and reinforcement for placement or reason. 80 Ss placed cards right or left and were reinforced for placements. Another group of 40 Ss placed cards right or left and gave trial by trial reasons and were reinforced for reasons. In Exp. I during acquisition, $\frac{1}{2}$ of the Ss received 100%, and $\frac{1}{2}$ 50% reinforcement until each reached 50 trials. In Exp. II during acquisition, $\frac{1}{2}$ received 100% and $\frac{1}{2}$ 50% reinforcement until each reached 100 trials. The reasons for placement were odd numbers of figures per card to the left, and cards with even numbers of figures to the right. The shifting period had 100 trials with 100% reinforcement, and the reasons for placement were shifted to color. In acquisition and shifting periods, the partial reinforcement effect (PRE) was found. Reinforcement for reason was superior to reinforcement for placement in performance. In both acquisition and shifting periods, with reinforcement contingent on either verbal or motor responses, the PRE could be found in concept learning. It was also found to be sustained through blocks of continuous reinforcement. The shifting condition is analogous to an extinction condition.—*Journal abstract.*

MEMORY

3460. Briggs, George E. & Swanson, James M. (Ohio State U., Human Performance Center) **Encoding, decoding, and central functions in human information processing.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 296-308.—Examined speed and accuracy in an information-reduction task in 2 experiments with 48 undergraduates. RT was a linear function of central processing uncertainty (H_c), $RT = A + B (H_c)$; A was decomposed into components relating to initial encoding time, to input sampling time (the Sperling SCAN function), and to response decoding time; B was decomposed into components relating to retrieval time from long-term memory and to central comparison time. The empirical constants of additivity of RT were consistent between the 2 experiments and with those from previous research.—*Journal abstract.*

3461. Clifton, Charles & Birenbaum, Steven. (U. Massachusetts) **Effects of serial position and delay of probe in a memory scan task.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 69-76.—In a task in which 12 13-15 yr. old girls indicated whether a probe digit was a member of a previously seen list, the effect of the position of the probed item in the list upon the speed of correct "yes" responses was studied by factorially varying the number of digits that preceded and the number that followed the probed item in the list. Such responses were found to be faster when the probed item came near the end of the list, provided that the probe was presented within .8 sec. after the end of the list. Ancillary findings show that: (a) while the functions relating RT to the length of the memorized list were primarily linear increasing, minor but reliable deviations from linearity were noted for "yes" responses at list lengths 1 and 2; and (b) while 9 Ss showed parallel functions relating RT to list length, 3 Ss showed functions for "no" responses that were twice as steep as their functions for "yes" responses.—*Journal abstract.*

3462. Colegate, Robert L. & Eriksen, Charles W. (U. Illinois) **Implicit speech as an encoding mechanism in visual perception.** *American Journal of Psychology*,

1970(Jun), Vol. 83(2), 208-215.—Anticipated that 12 undergraduates using 1-syllable responses could encode more information from a rapidly decaying icon than those using 3-syllable responses. 3 or 6 nonsense forms were simultaneously presented in a tachistoscopic exposure. 1 group of Ss had previously learned 1-syllable names for the nonsense forms; and another group, 3-syllable names. At temporal intervals after termination of the display that were too long for iconic storage to persist, a probe designated the location of 1 of the elements in the display and S reported what nonsense form had been in this location. The 1-syllable response group was found to have encoded significantly more information from the display. However, the superiority of the 1-syllable response group was not as large as would be expected from the differences in duration of implicitly speaking a 1- as opposed to a 3-syllable response.—*Journal abstract.*

3463. Dainoff, Marvin J. (Miami U.) **Time course of visual and auditory encoding.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 214-224.—Using a Posner-type RT procedure 8 undergraduates responded "same" or "different" to visually presented letter pairs. Onset of the 2nd letter, relative to the 1st was delayed 0, 1125, 1500, or 2000 msec. Pair members were printed in either upper- or lowercase type, and selected from a population of either auditorily confusable or nonconfusable letters. Results show that RT was faster when S compared physical forms of letters (e.g., BB) than names of letters (e.g., Bb), but that this difference decreased with delay. Further, when names were compared, RT was longer for auditorily confusable names, and this effect increased with delay. These observations support a model in which the likelihood of auditory encoding increases over time, whereas maintenance of a visual code decreases. (35 ref.)—*Journal abstract.*

3464. Epstein, William. (U. Wisconsin) **Facilitation of retrieval resulting from post-input exclusion of part of the input.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 190-195.—In a former study, on each of 8 trials, W. Epstein (see PA, Vol. 44:207) presented a different pair of lists and S was instructed to memorize both lists. On each trial, the recall cue, given after the last item, solicited recall of only the 1st or 2nd list, or recall of both lists. Epstein found that recall of the only list was superior to recall of the list as the 1st of 2 lists on a both trial. The current experiments studied the generality of this effect with 64, 40, and 80 undergraduates, respectively. Exp. I compared presentation of the 2 lists in different modalities (auditory and visual), with presentation in a single modality (visual or auditory). Exp. II examined the effect with pairs of word lists rather than word lists paired with number lists. Exp. III varied rate of presentation and response mode. Superior only recall was observed in all 3 experiments. Exp. III suggests that the only effect is greater when both lists are presented in the same modality.—*Journal abstract.*

3465. Fozard, James L. (Veterans Administration Outpatient Clinic, Boston, Mass.) **Apparent recency of unrelated pictures and nouns presented in the same sequence.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 137-143.—Regularly interrupted a long inspection sequence consisting of single unrelated pictures and nouns with questions in which 42 undergraduates and instructors chose the more recently presented of the 2 items shown in the question. In $\frac{1}{2}$ of

the questions, the stimuli closer to and farther from the question in which they were being compared were both pictures or nouns; in the other $1\frac{1}{2}$, 1 was a picture, the other a noun. From best to poorest, accuracy of choice of the more recently presented item was: 2 pictures, nearer picture and farther noun, 2 nouns, and nearer noun and farther picture. Data support the hypothesis that judgments of recency for the 2 classes of stimuli differ in both average location and variability on a subjective continuum.—*Journal abstract.*

3466. Hall, James W. & Kozloff, Edward E. (Northwestern U.) **False recognitions as a function of number of presentations.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 272-279.—Presented a list of words visually to 160 undergraduates who indicated whether each word had or had not appeared earlier on the list. Late in the list were associates of those critical stimulus words that had appeared earlier, either 1, 3, 5, or 7 times. The frequency of false recognition of the associates 1st increased, then declined, as a function of the number of times their corresponding critical stimulus words had occurred, and was greater than that for nonassociates of previously appearing words. Results are considered in terms of a 2-stage recognition model wherein the perceived situational frequency of a word is critical in the recognition decision.—*Journal abstract.*

3467. Kennedy, R. A. & Wilkes, A. L. (U. Dundee, Scotland) **A comparison of retrieval and location operations in active and passive sentences.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 491-498.—Obtained data from 96 undergraduates on either location (indicating presence or absence of probe words) or retrieval (responding to probe words with the next word) for both active and passive sentence examples. Ss were timed to respond in both tasks. The resulting latency profiles were compared and the relative contribution to these of surface structure and semantic features was assessed. In the location profiles, fast, medium, and slow positions were isolated and found to be associated with semantic function in both the active and passive sentences. In the retrieval profiles structural factors to a large extent predicted the latencies obtained. Differences between active and passive forms were more evident in location than in retrieval.—*Journal abstract.*

3468. Massaro, Dominic W. (U. Wisconsin) **Perceptual processes and forgetting in memory tasks.** *Psychological Review*, 1970(Nov), Vol. 77(6), 557-567.—Presents a quantitative model of the effects of perceptual processing on memory. It is assumed that memory for an item is directly related to the processing of that item and inversely related to the processing of other items, and that the amount of perceptual processing decreases during the temporal course of item presentation. Therefore, rate of forgetting is not constant with respect to the retroactive duration or the number of interpolated items. It is shown that increasing the rate of presentation of a list of items not only decreases the perception of the items, but also decreases the rate of forgetting when measured against the number of retroactive items. The theory provides an adequate description of several memory studies using both verbal and nonverbal items. (30 ref.)—*Journal abstract.*

3469. Mills, John A. & Winocur, Gordon. (U. Saskatchewan, Saskatoon, Canada) **Reminiscence in connected discourse.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 209-215.—Reports 3 experiments on the reminiscence of highly meaningful connected

discourse learned by the serial rote anticipation method using a retention interval of 10 min. It was shown that such reminiscence as was obtained could not be explained by the maintenance of set during the rest interval but by rehearsal. A subsidiary experiment showed that rehearsal did not prevent forgetting over a 24-hr interval.—*Journal summary.*

3470. Moulton, Alan E. (U. Kentucky) **The effect of manipulation of motive-incentive variables in acquisition on the retention of verbal material.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 419.

3471. Murch, G. M. & Albert, D. (Portland State Coll.) **All-or-none vs. incremental learning in verbal free recall.** *Archiv für die gesamte Psychologie*, 1968(Aug), Vol. 120(1), 115-124.—Compares an all-or-none and an incremental explanation of the learning process in verbal free recall with 100 undergraduates. The factor of the subjective level of learning difficulty for the stimulus materials used was kept under control by having each S, prior to the main experiment, rate the syllables (CVC) as to their levels of learning difficulty. In Group I, syllables being correctly reproduced were replaced by new syllables rated as having the same level of learning difficulty by the individual S. The same procedure was used for Group II with the addition that those syllables being in part correctly reproduced were also removed. In the control condition new lists were presented on each of the 12 trials. Results indicate a greater number of syllables reproduced for Group I than for Group II and the control. It is concluded that an all-or-none description of verbal free recall is inadequate. (French & German summaries) (17 ref.)—*Journal summary.*

3472. Sussman, Harvey & Smith, Karl U. (Wisconsin U., Behavioral Cybernetics Lab.) **Sensory-feedback persistence in determining memory.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 503-508.—Investigated sensory feedback persistence as a factor in determining memory by varying the display persistence of both a to-be-learned stimulus pattern and a memory-reproduction stimulus pattern, and then measuring the effects of this variable feedback persistence on reproduction of the stimulus-wave pattern. A hybrid computer system regulated aspects of feedback control of the motor-sensory factors in the learning and memory procedures and measured error in the dynamic memory tests. Results specifically confirm the hypothesis that spatial factors in learning, as produced by persistence of a visually tracked pattern, function as time-spanning processes to encode time in memory and thus to make possible feed-forward projection and prediction of behavior on a space-time basis. Findings support the view that learning and memory are interrelated time-spanning and space-time projection processes in behavior, and govern the sense of time in the past and future rather than being determined by factors of time contiguity and temporal association of separate discrete responses.—*Journal abstract.*

Short Term & Immediate Memory

3473. Anisfeld, Moshe. (Yeshiva U.) **False recognition of adjective-noun phrases.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 120-122.—60 15-27 yr. old Ss judged each of 154 phrases, presented aurally at a 4-sec rate, on a scale ranging from

1 (definitely new, i.e., it had not appeared earlier in the list) to 4 (definitely old). They made more false recognition errors (i.e., 2-4 responses) to phrases (e.g., fat book) synonymous with preceding phrases (thick book) than to control phrases (history book), but the difference between antonymous phrases (thin book) and the control phrases was not significant, even though the antonymous adjectives were also common associates of the preceding adjectives. The absence of an antonymous effect for phrases contrasts with findings showing the presence of an effect for antonymous words. It is suggested that phrases, because they are propositional entities and have relatively determinate meaning, arouse primarily referential reactions, i.e., they are mainly coded not for their form but for their substance. Synonymous phrases share similar referents and are therefore somewhat indistinguishable in memory, but the referents of antonymous phrases are quite different.—*Journal abstract.*

3474. Archer, Barbara U. & Margolin, Robert R. (U. Rhode Island) **Arousal effects in intentional recall and forgetting.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 8-12.—Studied effects of white-noise-induced arousal upon intentional remembering and forgetting using 2-digit numbers as stimuli, followed 3 sec. later by the instruction "remember it" or "don't remember it." 16 stimuli (8 in conjunction with white noise and 8 without) were presented to 24 male and 24 female undergraduates. For $\frac{1}{2}$ of the Ss, the noise, when it occurred, was presented just prior to the stimulus, while for the remaining Ss, noise occurred after the stimulus but prior to instructions. Significantly more remember items were recalled than don't-remember items. White noise had no effect on intentional forgetting, but did produce significant facilitation of recall of remember items, and that facilitation was significantly greater for men than for women. A significant difference did not result for the temporal point of noise introduction.—*Journal abstract.*

3475. Brehmer, Berndt & Lindberg, Lars-Åke. (U. Umeå, Sweden) **Retention of probabilistic cue-criterion relations as a function of cue validity and retention interval.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 331-334.—Studied retention of a probabilistic cue-criterion task with scaled cue and criterion variables in a 3×2 factorial experiment with 3 levels of cue validity; .45, .70, and .90; and 2 retention intervals, immediately after the completion of the learning stage, and 1 wk. later. The retention tests were performed without feedback with 54 undergraduates. Response consistency was higher in the retention tests than in the learning stage, due to (a) an increase in extremeness of Ss' predictions, and (b) a decrease in the variability in their response systems. There was no change in the Ss' behavior over the 1-wk interval. The increase in consistency in the retention tests is interpreted to be an effect of the omission of feedback, rather than of forgetting.—*Journal abstract.*

3476. Elmes, David G., Adams, Carl, & Roediger, Henry L. (Washington & Lee U.) **Cued forgetting in short-term memory: Response selection.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 103-107.—4 experiments used a running paired-associate task to investigate the effects of cueing Ss to forget items presented prior to a critical pair and to determine how Ss forget irrelevant information. Cueing Ss to forget prior information was effective when the list presentation times were equivalent for cued ($N = 57$) and noncued

($N = 57$) Ss. Ss cued to forget prior items were less likely to use those items as response intrusions than were Ss who were not cued to forget the same items. In a postlist recognition task, cued and noncued Ss recognized the to-be-forgotten items with equal facility.—*Journal abstract.*

3477. Fisher, Dennis F. **Short-term memory: An annotated bibliography: Supplement I.** Aberdeen Proving Ground, Md.: U.S. Army Human Engineering Lab., 1969. iii, 62 p.—Presents an annotated compilation of 165 references dealing with short-term memory from 1968-1969. An alphabetical index of pertinent parameters of investigation and topics of interest are provided.—*Journal abstract.*

3478. Hudson, Robert L. & Austin, James B. (Mississippi State U.) **Effect of context and category name on the recall of categorized word lists.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 43-47.—Tested the hypothesis that if the context words result in the retrieval of more higher order memory units than a no-context control, then the recall of the context group will exceed that of the no-context control. Exp. I with 57 undergraduates used 3 words from each of 10 taxonomic categories as stimuli for 5 presentation-recall trials. In addition to the context group and the control group, a 3rd group was included which was presented the category names rather than the context words. Results indicate both the context group and category group retrieved more higher order units and they both exceeded the control group in number of words recalled, but did not differ from each other. Exp. II with 48 Ss was identical to Exp. I except categories were formed from the B. J. Underwood and J. Richardson norms and 6 trials were run. The category group exceeded the context and control groups in number of words recalled and there was no difference between the latter 2 groups. An explanation is offered as to why the context group failed to exceed the control group in Exp. II and both experiments are discussed regarding their support of a dependent storage model.—*Journal abstract.*

3479. Kincaid, J. Peter & Wickens, Delos D. (Ohio State U.) **Temporal gradient of release from proactive inhibition.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 313-316.—In a Peterson-type short-term memory experiment, proactive inhibition (PI) builds up rapidly but will be reduced if a shift to a new type of material is introduced. An experiment is described which tests whether PI reduction can occur as a function of the amount of time during which rehearsal is controlled, after the buildup of PI. The experiment used consonant trigrams and obtained retention measures after 10 sec. from 150 undergraduates. Each trigram contained a letter from each of 3 acoustic groups (BCPT, FXS, MN). Considerable reduction of PI was found after 45 sec. of the rehearsal controlling activity with a slight additional improvement demonstrated after 120 sec. Acoustic confusion matrices show that the acoustic properties of the letters were completely decayed after the 10-sec retention interval. It is concluded that: (a) interfering properties of verbal material can decay in time, and (b) acoustic encoding was not a significant factor in this situation. (15 ref.)—*Journal abstract.*

3480. Klein, Gary A. **Temporal changes in acoustic and semantic confusion effects.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 236-240.—Examined the effect of varying the retention interval in a recognition task on the features used by 192

undergraduates to remember the stimuli. 4 groups of Ss were tested using retention intervals of 6, 20, and 80 sec., or 20 min.. The recognition test contained words that correctly matched original list (OL) words, and 3 types of nonmatching words: neutral, acoustically similar to OL words, and semantically similar to OL words. The latency of correct responses increased over retention intervals, and was significantly longer for the acoustically and semantically similar words than for the neutral words, with no Items \times Intervals interaction. Confidence ratings and error data show constant confusion effects, suggesting that memory stages should not be defined by mode of stimulus representation.—*Journal abstract.*

3481. Merryman, Sandra S. (Indiana U.) **Concurrent rehearsal in short-term retention.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 418-419.

3482. Murdock, Bennet B. & Okada, Ronald. (U. Toronto, Ontario, Canada) **Interresponse times in single-trial free recall.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 263-267.—Investigated interresponse times in single-trial free recall. Each of 72 undergraduates was given 20 test lists with 20-word lists visually presented at either 60 or 120 words/min. Spoken recall was tape-recorded for off-line analysis. Rate of recall was inversely related to the number of words actually recalled and interresponse times were inversely related to the number of words yet to recall. Evidence suggests that these data could be consonant with a random-sampling model for single-trial free recall.—*Journal abstract.*

3483. Potts, George R. & Shiffrin, Richard M. (Indiana U.) **Repetitions, blank trials, and the vonRestorff effect in free recall memory.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 128-130.—Presented lists of 25 random words visually 1 word at a time to 160 undergraduates; they were immediately free recalled. 2 of the lists were control lists; the others were divided into experimental conditions as follows. 1 word in the central serial positions was given special treatment during presentation; this word either was given an immediate (massed) repetition, was given a spaced repetition, was displayed with an asterisk to its left, or was followed by a blank presentation period. A spaced repetition was recalled slightly better than either a massed repetition or a word with an asterisk displayed to its left, and these latter 2 were recalled at a level about double that for a nonaccentuated, nonrepeated word. A blank trial did not improve recall for the word preceding that period. Results are explicable in terms of the vonRestorff effect, and warn against drawing conclusions about repetition effects if the item repeated is unique enough to induce the vonRestorff phenomenon.—*Journal abstract.*

3484. Rich, Robert. (Monash U., Clayton, Victoria, Australia) **"Acoustic confusions" in short-term memory and auditory imaging.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 185-192.—Short-term memory confusions tend to resemble errors made in auditory signal identification tasks. 2 kinds of explanation have been advanced to account for this. 1 postulates an acoustic, the other an articulatory mechanism. Both are compatible with available data. A test of a version of the acoustic hypothesis is reported. Auditory imaging was postulated as the mechanism involved. 6 undergraduates with poor auditory imagery, and a control group, were used in 2 experiments: a visual

short-term memory task, and an auditory signal identification task. The confusion matrices from the 2 experiments were rank correlated. Rhos were significant for both kinds of S, implying that auditory imaging is not involved in short-term memory. (27 ref.)—*Journal abstract.*

3485. Saltz, Eli & Modigliani, Vito. (Wayne State U., Center for the Study of Cognitive Processes) **Meaningfulness and short-term memory: Test of a model.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 309-312.—Theorizes that, under certain specifiable conditions, words with high frequency in the language will be recalled better than words of low frequency, while in other conditions the reverse will occur. 52 undergraduates were tested in short-term memory in a 2×5 factorial design. Recall of 2 words visually presented for 1 sec. was tested following a series of random numbers verbally presented by E and recorded by Ss. Results support the predictions.—P. Zell.

3486. Shulman, Harvey G. & Martin, Edwin. (Ohio State U., Human Performance Center) **Effects of response-set similarity on unlearning and spontaneous recovery.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 230-235.—Studied the effects of conceptual similarity between response sets in paired-associate retention with 144 female undergraduates. List 1 retention was measured at 3 retention intervals following List 2 learning. The relationship between the 2 lists was either the A-B, A-D or A-B, C-D paradigm, with 2 levels of response-class similarity studied within each paradigm. Results show significant evidence for both unlearning and spontaneous recovery. The amount of unlearning observed increased with response-set similarity and stimulus similarity (A-D vs. C-D paradigm). The response-set suppression hypothesis, in conjunction with the role of stimulus factors in retroactive interference, explains the data. (16 ref.)—*Journal abstract.*

3487. Thomson, Donald M. & Tulving, Endel. (U. Toronto, Ontario, Canada) **Associative encoding and retrieval: Weak and strong cues.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 255-262.—Reports data from 3 experiments in support of the encoding specificity hypothesis of retrieval: the effectiveness of retrieval cues depends upon the specific format of encoding of the to-be-remembered (TBR) words at the time of their storage, regardless of how strongly the cues are associated with the TBR words in other situations. In the critical experimental conditions, TBR words were studied in presence of weakly associated cue words. 180 female undergraduates served as Ss. Recall of the TBR words in the presence of these cues was greatly facilitated in comparison with noncue recall; recall of the TBR words in presence of their strongest normative associates, which had not been seen at input, did not differ from noncue recall.—*Journal abstract.*

3488. Turvey, M. T., Brick, P., & Osborn, J. (U. Connecticut) **Temporal course of proactive interference in short-term memory.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 467-472.—In 3 experiments with 200, 150, and 120 undergraduates, respectively, each S in each condition received 5 successive short-term memory (STM) tests with phonemically similar consonant trigrams as the items to be remembered. The retention interval for Tests 1-4 of all conditions was held constant at 16.5 sec. On Test 5 the

retention interval was varied across conditions with the 3 experiments exploring retention intervals in the range 1-21.5 sec. In all experiments little, if any, forgetting was observed on Test 1, and proactive interference (PI) was observed to develop across tests. Analysis of the Test 5 data indicate that the PI effect of prior test items upon the Test 5 target item reached a maximum by 6.5 sec., with no further forgetting beyond this interval. Test 5 data also suggest a reminiscence effect at the longest retention interval of 21.5 sec. Implications of data for a theory of PI in STM are discussed.—*Journal abstract.*

THINKING

3489. Bose, U. (Indian Statistical Inst., Calcutta) **An investigation into the relationship between speed of work and intelligence.** *Psychology Annual*, 1969, Vol. 3, 20-26.—High scoring individuals in a matching test also scored high on tests of verbal reasoning, mental alertness, and following directions. Correlation coefficients, though low, were all significant at the .01 level.—*U. Pareek.*

3490. Greene, Judith M. & Wason, P. C. (Birkbeck Coll., U. London, England) **Negation: A rejoinder to Wales and Grieve.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 238-239.—R. J. Wales and R. Grieve (see PA, Vol. 44:4543) report an experiment in which they show that a factor of confusability affects the comprehension of affirmative and negative sentences, and then claim that this is a relevant factor in explaining the difficulty of negatives. Arguments and experimental evidence to dispute this claim are presented.—*Journal abstract.*

3491. Luchins, Abraham & Luchins, Edith H. (State U. New York, Albany) **Wertheimer's seminars revisited: Problem solving and thinking: II.** Albany, N.Y.: State U. New York, Faculty-Student Assn., 1970.—This is the 2nd of 3 volumes reconstructing Wertheimer's seminars. Topics covered include: structural vs. functional solutions in arithmetic, teaching arithmetic, number concepts, Piaget vs. Wertheimer, sum of a series, seeing structure in numerical sequences, understanding items in terms of structure, understanding some mathematical structures, differences between perception and thinking, diagnostic testing for understanding of structure, symmetry, stability and rho-connections, Pragnanz and closure, focusing on the details vs. facing the structure, imagining figures, lines and curves, definition of structure, and structures and connections. Each chapter contains suggestions for future research as well as reports of unpublished investigations begun under Wertheimer's supervision and outgrowths of this work. Each chapter is built around verbatim remarks by Wertheimer. The discussion reflects the intellectual climate in psychology in the 1930s and is related to present-day discussions of learning, thinking, and teaching as well as fundamental assumptions of theoretical psychology.—*Author abstract.*

3492. Wason, P. C. & Johnson-Laird, P. N. (University Coll., Psycholinguistics Research Unit, London, England) **A conflict between selecting and evaluating information in an inferential task.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 509-515.—Investigated an inferential task in which 36 undergraduates selected which of 4 cards they needed to inspect in order to determine whether a rule was true or false. In 1 condition crucial information was concealed on the other

side of the cards, and in another condition it was on the same side of the cards, but covered by a mask. A previous experiment suggested that Ss sometimes confused the notion of the other side of the card. But no difference was found between these 2 conditions. Only 2 Ss initially made the correct selection. An attempt was made subsequently to enable Ss to correct their errors by asking them to evaluate the cards in relation to the rule. When a conflict occurred between the selection of the cards and their evaluation, some insight was gained. In other cases these 2 processes passed one another by, in spite of the fact that this involved self-contradiction.—*Journal abstract.*

3493. Williams, Robert F. & Underwood, Benton J. (Northwestern U.) **Encoding variability: Tests of the Martin hypothesis.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 317-324.—In Exp. I, with 270 undergraduates, an A-Br transfer paradigm was used with low-meaningfulness (M) trigrams as stimuli and numbers as response terms. To control stimulus selection, a single letter (1st or 3rd) was printed in red, or no letter was in red (control). This variable was orthogonal across the 2 lists. To determine if the red-letter manipulation influenced stimulus selection, backward recall of the trigrams was taken. Results show that stimulus selection was controlled but that transfer was uninfluenced by change in the functional stimulus for the 2 lists. In Exp. II, items from widely different M levels were presented for varying frequencies, after which 30 Ss made absolute frequency judgments. Meaningfulness did not influence these judgments, but recall and M were related. Results are interpreted to mean that variability in encoding of low-M stimuli is not of the magnitude assumed by E. Martin's (see PA, Vol. 43:294) theory of encoding variability.—*Journal abstract.*

Problem Solving

Concepts

3494. Arenberg, David. (National Inst. of Health, Gerontology Research Center, Baltimore, Md.) **Equivalence of information in concept identification.** *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 355-361.—Describes a method which provides equivalent amounts of information for logically equivalent selections in concept identification when Ss select instances. Equivalence is maintained between comparable conjunctive and disjunctive problems as well as within a particular problem type. This equivalence-of-information method permits amount of information gained to be used to measure performance for each selection. The nonequivalence of available information which usually results when solutions are fixed and when Ss select instances is avoided by this method. Data from an experiment in which the equivalence-of-information method is used suggest that amount of initial information gain is a variable that merits investigation and indicate that pooling results of concept problems with high and low initial information may obscure important differences.—*Journal abstract.*

3495. Blount, William R. (George Peabody Coll. for Teachers) **The relationship of convergent concept usage task performance to divergent production, cognition, and general intellectual functioning.**

Dissertation Abstracts International, 1970(Jul), Vol. 31(1-B), 406-407.

3496. Bourne, Lyle E. (U. Colorado, Inst. for the Study of Intellectual Behavior) **Knowing and using concepts.** *Psychological Review*, 1970(Nov), Vol. 77(6), 546-556.—In 2 experiments, 78 and 48 undergraduates, respectively, solved several problems in which the object was to find the correct conceptual rule (out of 4 rules—conjunctive, disjunctive, conditional, or biconditional) for sorting of geometrical designs. Sizable general positive intra- and interrater transfer effects were observed. The effects were traceable to the acquisition by Ss of a simple yet general problem-solving strategy based on the bidimensional logical truth table, and suggest a tentative hierarchical model of the sophisticated S's knowledge and skill (cognition and competence) based on the embeddedness and generative character of concepts.—*Journal abstract.*

3497. Deffenbacher, Kenneth A. (U. Nebraska, Omaha) **An extension of four single-cue process models to conjunctive concept learning.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 95-102.—Extended a family of 4 different process models of single-cue concept learning to 2-category conjunctive concept learning. The fit of these 4 extended models to data from 120 undergraduates solving conjunctive problems over a wide range of stimulus complexity was assessed. None of the models fit the data over all levels of stimulus complexity. Possible reasons for this lack of fit are discussed.—*Journal abstract.*

3498. Gardner, P. L. (Monash U., Clayton, Victoria, Australia) **Relative difficulty of restricted-conjunctive and conjunctive concepts.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 211-213.—Defined a restricted-conjunctive concept as the joint presence of a number of relevant attribute values and the absence of another attribute value. 32 high school students were randomly allocated to 1 of 2 treatment groups. Stimuli presented to Group R defined a restricted-conjunctive concept; Group C attempted a conjunctive concept. Group R made a significantly greater total number of errors (incorrect verbalizations of the conceptual rule); successful Ss in Group R required a significantly greater time to attain the concept.—*Journal abstract.*

3499. Giambra, Leonard M. (Miami U.) **Conditional and biconditional rule difficulty with attribute identification, rule learning, and complete learning task.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 250-254.—Traced inversions in the relative difficulty of the conditional (Cond) and biconditional (Bic) concept rules to a specific task difference. Conditional rules were found to be more difficult with the attribute identification (AI) task and less difficult with the rule learning (RL) and complete learning (CL) tasks. A $2 \times 3 \times 5$ factorial design was replicated 4 times with 60 undergraduates/replication. Variables were concept rule (Cond, Bic), task (AI, RL, CL), and successive problems (5/S). Major results show (a) Cond less difficult than Bic in CL as expected and in AI which was unexpected, and (b) Cond more difficult than Bic in RL, also unexpected. The unexpected results are discussed in terms of the percentage of exemplars and the nature of the criterion used.—*Journal abstract.*

3500. Wickens, Thomas D. (Brown U.) **Attribute elimination strategies for concept identification with practiced subjects.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 430.

DECISION & CHOICE BEHAVIOR

3501. Appelbaum, Mark I. **A methodological study of preference.** Champaign, Ill.: U. Illinois, Urbana-Champaign, 1969. 143 p.—Traditionally, measurement of human preferential choice behavior was predicated on 2 assumptions: (a) lack of individual differences in preferential choice, and (b) use of a linear (unidimensional) model of preferential choice. The appropriateness of these assumptions and their effect on results of data analyses based on them were experimentally evaluated. 104 male undergraduates indicated their preference for stimuli in 3 choice experiments involving (a) simple geometric stimuli (color-form rectangles), (b) complex geometric stimuli (heterosexual somatic preference), and (c) abstract stimuli (preference for famous people). Data were analyzed under traditional assumptions and less restrictive sets which allowed for individual differences in preference or for a multidimensional model of preferential choice or both. It was found that profound differences among individuals exist with respect to their preferential choices and that multidimensional models of preferential choice do no worse, and usually better, than the corresponding unidimensional models. It was also shown that already existing techniques (i.e., the Tucker cluster analysis procedure and nonmetric multidimensional scaling techniques) can be employed to analyze choice behavior data with little modification. (72 ref.)—*Book abstract.*

3502. Hartley, Raymond E. & Williams, Carl D. (Memphis State U.) **A three-element model for binary prediction.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 327-335.—600 undergraduates received 1 of 4 100-trial, 2-alternative, 50%-event sequences. A model incorporating logical, experiential, and error components provided a better description of choice behavior on these 4 event schedules than an alternative model. Data suggest that each element of the model plays an important role in choice behavior.—*Journal abstract.*

3503. Howard, Nigel. (U. Waterloo, Ontario, Canada) **Note on the Harris-Rapoport controversy.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 316.—Argues that a valid interpretation of metagame theory applied to the 1-shot game requires remembering that it is both an equilibrium and a predictive theory and that R. J. Harris (see PA, Vol. 44:231) and A. Rapoport (see PA, Vol. 45:Issue 3) have missed the point. It is concluded that the "theory of human conflict and cooperation" is only empirical rather than logically necessary or normative.—G. Steele.

3504. Rebbin, Thomas J. (U. Louisville) **Decision-making behavior in a performance setting.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 422.

PHYSIOLOGICAL PSYCHOLOGY

3505. ———. Aleksei Vasil'evich Kibyakov. *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1302.—Recounts the life and work of A. V. Kibyakov on the occasion of his 70th birthday. His present research is focused on the "nature of the automatic activity of smooth muscle structures."—I. D. London.

3506. ———. **VIIth International Congress of Electroencephalography and Clinical Neurophysiology, San Diego, California, September 13-19,**

1969. *Electroencephalography & Clinical Neurophysiology*, 1969, Vol. 27(7), 641-736.—Contains abstracts of papers presented at the Congress.

3507. Baevskii, R. M. *Signaly pis'mennoi rechi i metody ikh issledovaniya*. [The signals of written speech and methods for their investigation.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 240-248.—Examines methods of investigating writing, based on its actography. 2 new methods are proposed and detailed.—J. D. London.

3508. Cohen, Leon. (Stanford U., Medical School) **Interaction between limbs during bimanual voluntary activity.** *Brain*, 1970, Vol. 93(2), 259-272.—While performing a series of alternate flexions and extensions of 1 wrist, Ss were required to perform 1 rapid flexion-extension of the other wrist in response to click signals. Analysis of EMG showed that in most cases there was a brief halt in alternating movement due to interruption of activation of muscles; it was not due to extraneous muscle activity nor to an effect on transmission of motor commands. Passive movement of 1 limb generally had no effect upon alternating movement of the other. It is suggested that bimanual interference is produced by a regulatory mechanism which acts to reduce the competition of afferents from the 2 limbs for a central signal processing mechanism.—W. A. Wilson.

3509. Eckstein, Gustav. **The body has a head.** New York, N.Y.: Harper & Row, 1970. xix, 799 p. \$12.50.—Presents a description of the functions of the human body culminating in the relation of the mind to the body. To provide historical perspective, the ideas of leading historical figures are initially summarized. This is followed by a contemporary treatment of various systems of the body as viewed by a physiologist.

3510. Genkin, A. A. **Razbienie na klassy psikhofiziologicheskikh svoistv, osnovannykh na vzaimosvyazi povedencheskikh, elektrokorkovykh i elektrokozhnykh indikatorov.** [Classification of psychophysiological characteristics, based on interrelationships of behavioral, electrocortical and electrocutaneous indices.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 192(6), 1363-1366.—9 physiological and psychological measures were taken on 18 adult Ss and correlated. The only significant correlations were those between the rate of information transmission in the visual-motor system and the average level of asymmetry of the duration of phases of parieto-occipital EEG during a 60-sec interval (.65) and between average GSR and the average EEG cycle during a 60-sec interval (.68). The nonsignificant correlations were due to groups of Ss whose data differed in opposite directions. Thus, the interaction of differences in RT to auditory signals of different intensities (RT), EEG asymmetry, and shift in GSR under instructions was found to be due to the existence of Ss with "weak" and "strong" excitatory processes. In Ss showing positive correlation between number of errors in a cancellation task and RT also showed a slower EEG, a higher level of EEG asymmetry, and a higher level of GSR in comparison with their complementary counterparts. Results are discussed in terms of the temperamental types of Teplov and Nebylitsin.—L. Zusne.

3511. Gross, Charles G. & Zeigler, H. Philip. (Eds.) (Harvard U.) **Readings in physiological psychology: Learning and memory.** New York, N.Y.: Harper & Row, 1969. x, 313 p.—Presents readings by various authors in 4 areas of learning and memory: (a)

consolidation theory and retrograde amnesia, (b) nature of structural change in learning, (c) functional localization, and (d) electrophysiological approaches.

3512. Milner, Peter M. (McGill U., Montreal, Quebec, Canada) **Physiological psychology.** New York, N.Y.: Holt, Rinehart, & Winston, 1970. x, 531 p.

3513. Pribram, K. H. (Ed.) (Stanford U.) **Brain and behaviour: I. Mood, states, and mind: Selected readings.** Baltimore, Md.: Penguin Books, 1969. 496 p. \$2.95(paper).—Presents the 1st of a 4-volume collection of papers concerned with the interrelationship of the brain and psychological processes. Selections by various authors range from early previously untranslated papers to recent contributions by leading neuropsychologists, and cover the following areas: (a) sleep, alertness, and mood; (b) physiological drive states; and (c) attention and the control of input.

3514. Pribram, K. H. (Ed.) (Stanford U.) **Brain and behaviour: IV. Adaptation: Selected readings.** Baltimore, Md.: Penguin Books, 1969. 524 p. \$2.95(paper).—4th in a 4-volume series of papers by various authors on the brain-behavior relationship. Topical areas covered include language and thought, motivation, and emotion. An overview section of 5 papers for the entire series is included.

3515. Rosenberg, Kenneth M., Denenberg, Victor H., & Zarrow, M. X. (State University Coll. New York, Oswego) **Mice (*Mus musculus*) reared with rat aunts: The role of rat-mouse contact in mediating behavioural and physiological changes in the mouse.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 138-143.—Mice were fostered by rat aunts that had their nipples removed (thelectomy). "As hypothesized, the experimental effect was greater than previously obtained using other aunt preparations and approximated the effect obtained using rat mothers." The mortality rate in aunt-reared animals was higher than in controls. In Exp. II, the effect of the presence of thelectomized rats (with or without parturitional experiences) on mice reared by their natural mothers was observed. Postpartum rat aunts were more maternal than control aunts. Rearing with postpartum aunts reduced activity and the adrenal corticosterone response in mice.—G. Greenberg.

3516. Rozenblat, V. V. **Sovremennye problemy dinamicheskoi biotelemetrii.** [Current problems in dynamic biotelemetry.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 123-138.—Examines problems concerning the future development of dynamic radiotelemetry in physiology and medicine which are basically concerned with (a) enhancement of the operational capacities of instrumentation, (b) extension of the range of recorded parameters, (c) development of multichannel systems, and (d) automatic treatment and analysis of information.—J. D. London.

3517. Schönpflug, Wolfgang. (Ed.) **Methoden der Aktivierungsforschung.** [Methods of activations research.] Bern, Switzerland: Hans Huber, 1969. 348 p.

3518. Teumer, E. **Philosophische Probleme der Wechselbeziehung von Struktur und Funktion in der Biologie.** [Philosophical problems of the mutual relationship between structure and function in biology.] Jena, Germany: VEB Gustav Fischer, 1969. 130 p.—Views the concept of structure as a philosophical concept of the same order as the concepts of space, time, and movement. Function is viewed as expressive of a "definite form of movement, connected with the more

highly organized systems bearing within themselves the capacity of regulation." The interaction of structure and function is seen as a "unity of contradictory aspects."—*I. D. London.*

3519. **Timo-laria, Cesar, et al.** (U. São Paulo, Medical School, Brazil) **Phases and states of sleep in the rat.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1057-1062.—Studied the sleep of 60 Wistar albino rats with chronically implanted electrodes to record the electrocorticogram (ECoG), the cervical EMG, and eye movements. ECoG changes in areas 10, 4, 6, 1, 2, 2a, 3, and 7 paralleled the patterns found in the human EEG during the various stages of sleep, whereas in areas 23, 24, 29b, and 29c the waves were in synchronism with the dorsal hippocampus, thus allowing to follow the limbic electrical activity during sleep. The desynchronization of arousal was found distinct from the pattern recorded during the paradoxical phase. It is suggested that what is termed slow-wave or synchronized sleep, and paradoxical phase or desynchronized sleep be considered, respectively, synchronized and desynchronized states of sleep, each one comprising more than 1 phase or stage. (17 ref.)—*Journal abstract.*

3520. **Utkin, V. L.** **Elektronnyi differentsiator dlya fiziologicheskikh issledovanii.** [Electronic differentiator for physiological research.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 266-272.—Presents details of the functional design and basic circuits employed in an electronic differentiator capable of producing 1st and 2nd derivatives.—*I. D. London.*

3521. **Wieland, Betty A. & Mefferd, Roy B.** (Veterans Administration Hosp., Psychiatric & Psychosomatic Research Lab., Houston, Tex.) **Systematic changes in levels of physiological activity during a four-month period.** *Psychophysiology*, 1970(May), Vol. 6(6), 669-689.—Examined intraindividual differences over a 4-mo period in a number of physiological variables for 3 Ss. Autocorrelation techniques revealed the presence of systematic changes (cycles and trends). It is concluded that intraindividual differences in these variables are as large as interindividual differences and that they cannot be explained as errors of measurement. Possible sources of variability are discussed. (29 ref.)—*Journal abstract.*

NEUROLOGY

3522. ———. **Andreï Ivanovich Naumenko.** *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1303.—Recounts the life and work of A. I. Naumenko on the occasion of his 60th birthday. He is noted for his research on cerebrospinal circulation.—*I. D. London.*

3523. **Airapet'yants, E. Sh. & Batuev, A. S.** **Printsipy konvergentnogo analizatornykh sistem.** [Principles of convergence of the analyzer systems.] Leningrad, USSR: Nauka, 1969.—A monograph, discussing (a) important problems reflecting the "present stage of development of our conceptions concerning the general laws and principles of the morphofunctional organization and integrative activity of the brain"; (b) an organic generalization of the major data of the literature and of the research materials amassed by the laboratories, directed by E. Sh. Airapet'yants, on these problems; and (c) the creation, on this basis, of an "original conception" concerning the fundamental principles of convergence for the cerebral analyzer systems, representing thereby a "creative development of the ideas of Academician A. A.

Ukhtomskii on the significance of the convergence principle in the activity of the CNS."—*I. D. London.*

3524. **Albert, D. J., Stortlien, L. H., Wood, D. J., & Ehman, Gerard K.** (U. British Columbia, Vancouver, Canada) **Further evidence for a complex system controlling feeding behavior.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1075-1082.—Explored the distribution of brain regions involved in feeding behavior by disturbing synaptic conduction and interrupting neural pathways. Food consumption of hungry male hooded rats was significantly reduced by blocking synaptic conduction (with procaine hydrochloride) in the lateral hypothalamus, anterolateral hypothalamus, and globus pallidus but not by similar disturbances in the amygdala, preoptic area, posterolateral hypothalamus, or caudate nucleus. In Exp. II with female Ss, severe aphagia and adipisia followed cuts in the coronal plane anterior and posterior to the lateral hypothalamus. Less severe effects occurred with cuts in the sagittal plane lateral to the hypothalamus or coronal cuts through the posterior internal capsule. There was only a transient effect with cuts through the preoptic area. Results suggest a feeding circuit which passes from the brainstem longitudinally through the lateral hypothalamus from where separate bundles pass to the anterolateral hypothalamus, globus pallidus, and thalamus. (35 ref.)—*Journal abstract.*

3525. **Badalyana, L. O. (Ed.)** **Rukovodstvo po metodike issledovaniya nervnoi sistemy.** [Manual on methods for examining the nervous system.] Moscow, USSR: Meditsina, 1968. 296 p.—Presents a manual involving (a) the bases of general neurology, and (b) the procedures for examination of the nervous system and its functions, including the higher cortical functions which require psychological testing.—*I. D. London.*

3526. **Bammer, H. G.** **Zukunft der Neurologie.** [The future of neurology.] Stuttgart, W. Germany: Georg Thieme, 1967. 263 p.—Presents a collection of 26 articles devoted to current directions and findings of neurological research.—*I. D. London.*

3527. **Beleslin, D. B. & Myers, R. D.** (Purdue U., Lab. of Neuropsychology) **A technique for repeated superfusion or withdrawal of fluid from the exposed cerebral cortex of a conscious animal.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1173-1175.—Describes a method for collecting substances released from the dorsal or lateral aspects of the chronically exposed cerebral cortex for use with unanesthetized animals, i.e., monkey or cat. A stainless steel reservoir was designed to (a) permit superfusion or withdrawal of fluid from the same site, (b) protect against exogenous infection, (c) reduce the possibility of leakage, and, (d) enable S to be used for repeated experiments and thus serve as its own control during behavioral and physiological changes. The exposed surface of the cerebral cortex can be superfused within the reservoir for a given interval by means of an infusion-withdrawal pump. Alternatively, fluid already present in the reservoir and in contact with the exposed cerebral cortex can be withdrawn by a syringe. Chemical or biological assays are carried out to identify the neurohumoral substances present in the superfusate or collected fluid.—*Journal abstract.*

3528. **Berkley, K. J. & Smith, O. A.** (U. Washington, Medical School, Regional Primate Research Center) **Behavioral indices for neural systems involved in pain and fear responses of monkeys.** *Experimental Neurology*, 1970(Mar), Vol. 26(3), 527-542.—Trained 7

pigtail monkeys to choose between an escape and an avoidance response by pressing 1 of 2 levers. An escape response terminated electric shock across 1 foot and indexed pain. An avoidance response terminated light or buzzer cues and indexed fear. Electrodes were then aseptically implanted in the mesencephalic-diencephalic junction of each barbiturate-anesthetized S while gross potentials evoked by electrical stimulation of the extremities were recorded at each site. Lever pressing and motor responses to electrical stimulation at each brain site (ESB) were monitored. The ESB of the lateral spinothalamic tract (LST) and the terminal nuclei of the medial lemniscus (ML) and LST systems produced much lever pressing, whereas ESB elsewhere did not. The type and location of the electric shock used during training contributed to the patterns of these lever press responses. Evoked potentials did not correlate with lever press responses to ESB, but did correlate with motor ("orienting") responses to ESB. Data indicate that: (a) the use of several physiological techniques in an S trained to make more than 1 type of response is a useful approach to the study of sensory function in the nervous system, (b) interaction of information coded by ML and LST fibers relative to pain sensation is different in each of the terminal nuclei, and (c) there may be functional differences between ventralis posteroinferior and ventralis posterolateralis. (34 ref.)—*Journal abstract.*

3529. Bundzen, P. V. & Menitskii, D. N. *Metod issledovaniya mekhanizmov samoregulatsii golovnogo mozga.* [A method of investigating the mechanisms of cerebral autoregulation.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 233-240.—Utilized automatic frequency analysis of the EEG. In the capacity of a functional test, stimulation based on the principle of feedback was employed. Contrary to the ordinary use of trigger photostimulation, a narrow-range filter was applied in the feedback chain which combined with a delay-block enabled stimulation from the average level of activity in the alpha-rhythm diapason. Utilization of different modifications of the given method (the application of continuous and rhythmic, gradual and trigger stimulation) made it possible to (a) model the homeostatic processes involving the brain and the external environment, and (b) evaluate and regulate the functional state of the CNS. The method was successfully utilized in a psychoneurological clinic for the diagnosis of several pathological states.—*I. D. London.*

3530. Chernigovskii, V. N. (Pavlov Inst. of Physiology, Leningrad, USSR) *K kharakteristike sovremennogo etapa v razvitiu kontseptsii o kortiko-vistseral'nykh vzaimootnosheniyakh.* [On the characteristics of the current stage in the development of the conception concerning cortico-visceral interrelationships.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 904-911.—Reexamines K. M. Bykov's theory of cortico-visceral interrelationships considering contemporary findings and orientations. While Bykov's view concerning the controlling action of the cerebral cortex over the internal organs is not shared, support is given to the "enormous physiological and biological significance of Bykov's conception." An attempt is made to show that, considering the current level of knowledge concerning the principles of control and automatic regulation, the "enormous factual material, accumulated by Bykov's school," should be put into correspondence with these principles. "Without this, there can be no further

progressive development of [Bykov's] conception and understanding of facts already established"; nor can there be a successful "search of new facts to confirm the viability of Bykov's conception." (English summary)—*I. D. London.*

3531. Clark, Agnes L. (East Texas State U.) *The relationship of selected physiological factors to interpersonal encounters.* *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5228.

3532. Eldred, Earl & Buchwald, Jennifer. (U. California, School of Medicine, Los Angeles) *Central nervous system: Motor mechanisms.* *Annual Review of Physiology*, 1967, Vol. 29, 573-606.—Reviews the literature dealing with the aspects of segmental involvement in motor control, and with the organization of supraspinal influence on motor activity. (230 ref.)

3533. Hamburg, Max, et al. (City Coll., City U. New York) *The effect of parabiosis on audiogenic convulsions in seizure-susceptible mice.* *Experimental Neurology*, 1970(Feb), Vol. 26(2), 283-290.—4-mo-old Swiss mice, genetically predisposed to audiogenic seizures, were joined parabiotically along their flanks to mice resistant to such seizures. Controls consisted of parabiotic pairs of seizure-prone mice. 2-3 wk. after operations pairs were retested for seizure response to audiogenic stimulation. In surviving parabiotic pairs of seizure-susceptible Ss joined to resistant Ss, less than 25% of the susceptible members of the pair continued to respond to sound with convulsions when tested at 2 wk.; tests with trypan blue indicated failure or only minimal establishment of a joint circulation in those few pairs. Parabiotic pairs of seizure-susceptible Ss continued to respond with convulsions to sound when tested at 2 wk. as did 80% of unoperated seizure-prone Ss that had given a positive seizure response at the beginning of the experiment. In a few seizure-prone Ss that were separated after prolonged parabiosis with resistant controls, convulsions in response to noise reappeared again in Ss of the seizure-prone genotype 1 wk. after removal from the normal twin. It is concluded that mice predisposed to audiogenic convulsions may lack either a humoral factor or a detoxifying enzyme present in normal seizure-resistant mice. (38 ref.)—*Journal abstract.*

3534. Harris, J. Donald & Sergeant, Russell L. *Some comparisons between visual and auditory neurophysiology.* *U.S. Naval Submarine Medical Center Report*, 1969(Sep), No. 592, 8 p.—Discusses (a) the similar ranges of sensitivity to quanta of energy and the biological mechanisms whereby the physical stimuli are transformed logarithmically, (b) coding of the physical stimulus by single cells in the optic and the auditory nerves, (c) principles of neural integration in the brainstem and midbrain nuclei, (d) the point-to-point relationship between cortical activity and certain aspects of the physical stimulus, (e) the eye and ear as channels of information, and (f) cross-modality facilitation and inhibition. (28 ref.)—*Journal abstract.*

3535. Ifinskii, O. B. (Pavlov Inst. of Physiology, Leningrad, USSR) *Otveti odnochnykh mekhanoretseptorov na vkluchenie i vyklyuchenie razdrzheniya.* [Responses of single mechanoreceptors to stimulatory turning on and off.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 99-107.—A comparative study of the on and off responses (receptor and spike potentials) of the Pacinian bodies, utilizing either associated nerve fibers or single receptors isolated from the small intestinal tissue of the cat. It was found that the

Pacinian bodies may have different on and off reactions, depending on the strength and direction of the stimulating force, place of its application, initial pressure, and the elastic properties of the receptor capsule. Off responses were absent in completely decapsulated receptors. Under the influence of temperature, on and off receptor potentials underwent similar modifications. It is suggested that the off response in the Pacinian bodies is actually an on response, arising after cessation of stimulation owing to the elastic properties of the nerve-ending capsule. It is shown that the capsule is responsible also for the appearance of multiple discharges in the Pacinian bodies when the latter are stimulated by intense single application of current. Under static strain, to the degree that pressure increases, the reaction thresholds grow, the amplitude of spike potential falls, its duration increases, and a variability of spike-potential amplitude emerges. After slight compression full restoration of response reactions is possible.—*I. D. London.*

3536. Klimova-Cherkasova, V. I. (Inst. of Experimental Medicine, Leningrad, USSR) **O strukturno-funktsional'noi osnove filogeneticheskoi i ekologicheskoi obuslovennoi spetsifiki tsentral'noi vegetativnoi regulatsii.** [On the structural-functional basis of the phylogenetically and ecologically engendered specificities of central autonomic regulation.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 1003-1009.—Used narcotized frogs, tortoises, chickens, pigeons, cats, and dogs (Total N = 150). On analysis of the central mechanisms of tonic regulation of cardiac activity in the ascending vertebrate series, a structural-functional organization was disclosed which is generally similar. The tonic character of the suprabulbar influences upon the vagal centers of the medulla oblongata, and the tonic inhibitory influences from these centers upon the cardiac muscle are ancient properties of the central nervous structures. The spatiotemporal organization of the intracardiac impulse activity of the elementary units of the vagal nuclei exhibited no differences in the various stages of phylogenesis and in the various ecological groups. This finding is in agreement with the data on the absence of comparative-physiological differences in certain parameters of neuronal activity at other levels of the CNS. Quantitative differences in the descending influences on the bulbar centers characterized the Ss with respect to both phylogenetic and ecological indices. Ss with ecologically engendered vagotonia, the dependence on the functional state of the bulbar centers was considerably higher than in Ss which are "sympathicotonic." The ecologically engendered level of summated impulse activity directly observed in the efferent link of the bulbar centers was determined by the whole complex of afferentiation from the receptor fields specific to the ecological modality involved. It is concluded that, on the whole, the ecological specificity of the functioning of the bulbar autonomic centers is secured by their interaction with the higher structures. (English summary) (19 ref.)—*I. D. London.*

3537. Kogan, A. B. (State U., Rostov-on-Don, USSR) **Nekotorye ekologicheskie osobennosti neironnoi organizatsii korkovogo analiza zritel'nykh i slukhovykh signalov.** [Some ecological features of the neuronal organization of cortical analysis of visual and auditory signals.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 966-970.—Presents an experi-

mentally based discussion showing that at the level of neuronal organization of the cortical divisions of the visual and auditory analyzers, their adaptation to primarily the analysis of stimuli appears. The modality of the stimuli acquired considerably more signal significance in connection with the conditions of life. Signs of this adaptation are visible in the neuronal mechanisms considering that the polymodal neurons of the associative cortical zones in the cat—a "seeing" animal—are recruited into the excitatory reactions mainly by photic stimulation, but are mostly inhibited in response to acoustic stimulation. Reversed relationships are disclosed in the rabbit—an animal whose orientation is more "auditory." The speed of emergence of excitatory impulse responses to sound is also less in cats than in rabbits. All these manifestations of "ecological specificity" seem connected with the activity of nerve cells at a depth of not more than 1000 microns from the surface, i.e., within the limits of Layers I-III.—*I. D. London.*

3538. Kopylova, G. N., Kisel'eva, L. D., & Udel'nov, M. G. (Lomonosov State U., Moscow, USSR) **Vzaimodeistvie mezhdu vliyaniyami na serdtshe ekstrakardial'nykh i vnutriserdechnykh nervnykh putei.** [Interaction between the influences of extracardial and intracardiac nervous pathways on the heart.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 79-85.—Attempted to determine the possibility and forms of interaction between the effects of joint and separate electric stimulation of the extracardial and intracardiac nervous system on the heart in frogs. It is shown that intracardiac and extracardial influences had a common final pathway in the intramural nervous system of the heart.—*I. D. London.*

3539. Kreindler, A. **Dinamica proceselor cerebrale.** [Dynamics of cerebral processes.] Bucharest, Romania: Romanian Academy of Sciences, 1967.—A monograph devoted to a "multifaceted and active discussion" of the dynamics of the cerebral processes in their "experimental and cliniconeurological aspects." This "attempt at a dialectical synthesis," dealing with key problems in neurology and neurophysiology, incorporates not only recent data derived from the world literature, but also the latest results of research, conducted at the Institute of Neurology of the Romanian Academy of Sciences.—*I. D. London.*

3540. Lauben, V. F. & Schliack, H. **Leitfaden der Neurologie.** [Textbook of neurology. (8th ed.)] Stuttgart, W. Germany: Georg Thieme, 1967. 302 p.—A manual for doctors and medical students.—*I. D. London.*

3541. Levashov, Yu. A. & Kullanda, K. M. **Elektronnoe ustroystvo, programiruyushchee rabotu kompleksnoi ustanovki dlya neirofiziolgicheskikh issledovani.** [An electronic device which programs the functioning of a complex apparatus for neurophysiological investigations.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 197-202.—Presents the block diagram and basic circuit of a device for neurophysiological research.—*I. D. London.*

3542. Manni, Ermanno & Giretti, Maria L. (U. Sassari, Inst. of Human Physiology, Italy) **Central eye nystagmus in the pontomesencephalic preparation.** *Experimental Neurology*, 1970(Feb), Vol. 26(2), 342-353.—An acute "pontomesencephalic" preparation, surgically separated from the thalamus and from the medulla oblongata, was prepared in the guinea pig. A region was isolated from the other parts of the CNS by 2

transections, 1 rostral to the oculomotor nuclei and the other just caudal to the abducent nuclei. This preparation was also deprived of the cerebellum and of all the vestibular nuclear complex; it contained only the nuclei of cranial nerves III, IV, and VI, part of the trigeminal nuclear complex and part of the reticular formation. Electrical stimulation of the surface of 1 superior colliculus still produced contraversive quick-phase ocular nystagmus. This ponto-mesencephalic preparation represented the minimal brainstem portion indispensable for central eye nystagmus. It is concluded that the neural mechanism for central ocular nystagmus is located in the brainstem between and including the oculomotor and abducent nuclei. While the reticular formation seemed to be involved in the circuitry of central eye nystagmus, the vestibular nuclei were not essential. (35 ref.)—*Journal abstract*.

3543. Meshcherskiĭ, R. M. & Gutman, S. R. **Is-pol'zovanie sledyashchei sistemy dlya mikroelektronnogo poiska neuronov.** [Utilization of a tracking system for microelectrode search of neurons.] In E. B. Babskiĭ (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 192-196.—Describes a tracking system which controls the micro-manipulator for implantation of the microelectrode into the nervous tissue, and conducts both extra- and intracellular search for neurons. The basic circuit of the device utilized in the automatic search for neurons is presented.—I. D. London.

3544. Palmer, Gene C., Davenport, Rodman, & Ward, James W. (Vanderbilt U., Medical School) **Involvement of RNA synthesis in the fixation of abnormal reflexes in the newborn rat.** *Experimental Neurology*, 1970(Feb), Vol. 26(2), 263-274.—A lesion placed in the anterior cerebellum of a newborn rat produced an asymmetrical flexion of the ipsilateral hind limb. When a midthoracic transection of the spinal cord was made before a median time of 38 min. had elapsed, the postural asymmetry disappeared. When the cord was cut after 38 min., the asymmetry persisted. T. J. Chamberlain, P. Halick, and R. W. Gerard termed this critical period "fixation time" and postulated that fixation may involve metabolic changes in appropriate neurons. In the present experiments, injected actinomycin-D delayed fixation to 68 min. and decreased the uptake of labeled uridine into the spinal cord. At 30 min. following the cerebellar operation, the uptake of labeled uridine into the spinal cord was decreased in Ss with the lesion as compared with the sham-operated controls. Isolation of nuclear and cytoplasmic fractions and autoradiography revealed that the label was confined to the neuronal nuclei. At various times following the cerebellar lesion, there were no changes in total spinal cord RNA and no differences in RNA levels between left and right sides of the spinal cords in either control or experimental Ss. (21 ref.)—*Journal abstract*.

3545. Popov, A. K., Volkov, A. M., Arutyunov, S. K., & Lobusov, E. S. (Inst. of Medical & Biological Problems, Moscow, USSR) **O mekhanizmakh spontannoi ritmicheskoi aktivnosti kory mozga.** [Mechanisms of spontaneous cortical activity.] *Doklady Akademii Nauk SSSR*, 1970, Vol. 193(1), 245-247.—Hodographs of 2 points on the perimeter of a circle were used as a model to simulate neural interaction in an analog computer. The results lead to the conclusion that spontaneous activity of cortical structures is due to a mechanism which incorporates a strict sequentiality of changes in a

specific type of neural interaction.—L. Zusne.

3546. Pushkarev, Yu. P. (Pavlov Inst. of Physiology, Leningrad, USSR) **O zavisimosti vozvratnogo tormozheniya ot uslovii antidromnogo i ortodromnogo razdrazhenii.** [On recurrent inhibition as a function of the conditions of anti- and orthodromic stimulation.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1210-1218.—42 nembutalized cats were used to study the susceptibility of motoneurons to antidromic inhibition under various conditions of activation, utilizing rhythmic stimulation of motor and afferent nerves and that of spinal roots. Recurrent inhibition of segmental reflex reactions was brought about most effectively within the range of 5-35 stimuli per 1 sec. of antidromic stimulation, attaining a maximum at 35 ± 5 stimuli/sec. Recurrent influences were more marked at the limits of the monosegmental level than at those of the heterosegmental level. It is found that, along with this, the distribution of recurrent inhibition is affected more by a functional than by a spatial factor. Various degrees of recurrent inhibition were observed within the various groups of motoneurons. (English summary) (25 ref.)—I. D. London.

3547. Smith, Allan M. (McGill U., Montreal, Quebec, Canada) **The effects of rubral lesions and stimulation on conditioned forelimb flexion responses in the cat.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1121-1126.—Unilateral lesions in the region of the red nucleus impaired the ability of 5 cats to perform conditioned flexion responses in the contralateral forelimb. Conditioned flexion responses could be trained in the forelimb ipsilateral to rubral lesions. Ss with control lesions ipsilateral to the trained forelimb showed no deficit as a result of the lesion. Exp. II demonstrated that red nucleus stimulation below the threshold for movement could be used as a CS for the anticipation of shock, and stimulation with intensities great enough to evoke contralateral limb flexion could be conditioned to a tone. (28 ref.)—*Journal abstract*.

3548. Stepanov, I. I. (1st Medical Inst., Leningrad, USSR) **O znachenii razlichnykh istochnikov zapasov mediatora v terminal'nykh apparatakh noradrenergicheskogo neirona dlya sinapticheskoi peredachi impul'sov na gladkuyu myshtsu.** [On the significance of different sources of mediator supplies in the terminal structures of the noradrenergic neuron for synaptic transmission of impulses to the smooth muscle.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1219-1224.—Investigated the postganglionic link of the sympathetic motor nerve, innervating m. retractor penis, using urethanized male dogs. The state of synaptic transmission was judged by the amplitude of the contractile responses of the muscle to transmural stimulation of the sympathetic nerves by impulses of current at submaximal strength (10 impulses/sec; 1-msec impulse; 50 sec. or 60 min. stimulation duration) under normal conditions and after blockade of all sources of mediator supplies. Synaptic transmission from the sympathetic nerve to the smooth muscle was not disrupted in the course of 60 min. of stimulation (10 cps), because of the functioning of the mediator sources in the terminal structures of the noradrenergic neurons. Reabsorption of the mediator from the synaptic slots into the terminal structures played a basic role in maintenance of the level of synaptic transmission during stimulation. Mediator loss, due to insufficient reabsorption by the terminal structures, was mainly compensated

for by synthesis of the mediator in the terminal structures. The quantity of the mediator, released from the body of the nerve cell during 60-min stimulation, was slight and had minimal significance for maintenance of the constancy of level of synaptic transmission as compared with the mediator accumulated in the terminal structures through synthesis and reabsorption there. (English summary) (22 ref.)—*I. D. London.*

3549. Val'dman, A. V., Kavalev, G. V., & Tsyrlin, V. A. (1st Medical Inst., Leningrad, USSR) **Analiz funktsional'noi organizatsii "spinal'nogo vazomotomogo tsentra."** [Analysis of the functional organization of the "spinal vasomotor center."] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 1010-1019.—Curarized cats (intact, decerebrated, and spinal) served as Ss. Data provide evidence for the complex morphofunctional and neurochemical organization of the associative elements of the spinal "vasomotor center." The functional activity of the segmental vasomotor apparatus was modulated by descending influences from supraspinal structures and afferent impulsion at the segmental level. The utilization of neurotropic agents—nembutal, dehydroergotoxin, aminazine (chlorpromazine), morphine, amizyl, and scopolamine—in analysis made it possible to distinguish in the propriospinal system neuronal elements with definite functional tendencies. (English summary) (23 ref.)—*I. D. London.*

3550. Vasilevskii, N. N. & Soroko, S. I. (Inst. of Experimental Medicine, Leningrad, USSR) **Sledovye protsessy i kletochnye mekhanizmy pamyati.** [Trace processes and cellular mechanisms of memory.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 957-965.—Rabbits were used to study trace effects in neurons of the cortical projection zone of the cutaneous analyzer with particular attention directed to the mechanisms regulating the display of trace rhythms. Data demonstrate that the neurons of the cortical projection zone participate in the fixation and reproduction of sensory information. It appeared most probable that the cortical projection zones, and the deep structures of the brain form a single synaptically interconnected system, the activity of whose elements secures the fixation and subsequent exact reproduction of past states. Despite the generalized changes in summated bioelectrical activity, appearing in the form of activation or rhythms "tagged with respect to interval," the differentiated appearance of trace discharges "tagged with respect to interval" was observed in projection neurons. Discharges, "tagged with respect to interval," or their groups were reproduced only by those cells, whose local receptive fields were subjected to prolonged rhythmic stimulation. The neighboring cellular populations also underwent active inhibition. Since the receptive fields of the neurons in these populations were distributed alongside fields of cells earlier subjected to prolonged activation, it is assumed that the spatial differentiated reproduction of discharges, "tagged with respect to interval," is secured by mechanisms of accessory (afferent) inhibition. In the course of fixating the rhythm of afferent stimulation, plastic changes take place in both the system of excitatory and inhibitory synaptic unions between neurons. (English summary) (16 ref.)—*I. D. London.*

3551. Zimkin, N. V., et al. (Eds.) **Dvadtsat' pervoe soveshchanie po problemam vysshei nervnoi deyatelnosti.** [21st Conference on Problems of Higher Nervous Activity.] Leningrad, USSR: Nauka, 1966. 362

p.—Presents a collection of extensive summaries of the 509 papers read at the 1966 Conference, held in Leningrad.—*I. D. London.*

Neuroanatomy

3552. Bogolepov, N. N. **Elektronnaya mikroskopiya mozga.** [Electron microscopy of the brain.] Moscow, USSR: Meditsina, 1967. 170 p.—A monograph generalizing the results of research, reported in the literature, on the submicroscopically fine organization of the nervous system and the higher vertebrate brain.—*I. D. London.*

LESIONS

3553. Genes, S. G. & Lesnoi, N. G. (Inst. of Endocrinology & Hormonal Chemistry, Kharkov, USSR) **Evakuatornaya funktsiya zheludka v otsutstvie nadpocheknikov i pod vliyaniem izbytko glyukokortikoidov.** [Evacuatory function of the stomach in the absence of adrenals and under the influence of an excess of glucocorticoids.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1272-1277.—Ss were adrenalectomized dogs, recipients of deoxycorticosterone acetate (DOXA). Some findings: Unilateral adrenalectomy produced in the beginning a weakening of the evacuatory function of the stomach, but later, as a consequence of developing compensation in the remaining adrenal, it normalized. Bilateral adrenalectomy, compensated by DOXA, did not change the evacuatory function of the stomach in 3 Ss, but weakened it considerably in 1 S. The evacuatory function of the stomach was stable both when the glucocorticoids were absent and when they were present in excess. Glucocorticoid preparations influenced the evacuatory function of the stomach both humorally and locally, acting directly on the tissues of the gastric wall. In both cases, the central and autonomic nervous systems played a definite role.—*I. D. London.*

3554. Itina, L. V. (Inst. of Physiology, Minsk, USSR) **Tormoznye efferentnye vliyaniya bluzhdaiushchego i chrevnogo nervov na retseptory tonkogo kishchnika.** [Inhibitory efferent effects of the vagus and splanchnic nerves on the receptors of the small intestine.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1261-1271.—10 dogs were used to study the reflex responses, whose efferent arc is not connected with the vagus or splanchnic nerves, in order to further analyze the specific behavior of the receptors of the small intestine. Irrigation of the middle sections of the small intestine with solutions of glucose or NaCl in sufficient concentrations had an inhibitory influence on the alimentary CRs and salivary UCRs, and time of eating and food-procuring reactions of the animals. Subdiaphragmatic section of the splanchnic or vagus nerves or of both together and the im administration of 1 mg/kg hexonium intensified the inhibitory influences of glucose and NaCl from the intestines on the salivary reflexes—evidence for the existence of a constant inhibitory central influence on the receptor apparatus of the intestines. It is suggested that there are differences in the receptor apparatus of the intestine participating to produce the observed gastric and salivary secretory effects. (English summary)—*I. D. London.*

3555. Michael, Richard P. & Zumpe, D. (Bethlem Royal Hosp., Kent, England) **Sexual initiating be-**

haviour by female rhesus monkeys (*Macaca mulatta*) under laboratory conditions. *Behaviour*, 1970, Vol. 36(3), 168-186.—Attempted to confirm the observation that, in addition to the well-known presentation of the female rhesus monkey, the gestures of hand-reaching, head-ducks, and head-bobs have sexual significance. 7 measures of sexual activity were used to obtain data on pairs of Ss before and after ovariectomy. It was found that prior to the operation all females presented, the vast majority showed hand-reaching and head-ducks, and about 1/3 showed head-bobs. On a percentage basis, presentations were more effective in triggering successful mounting than the head and hand movements though the latter still accounted for a majority of initiated mounts. Immediately after ejaculation all these behaviors virtually ceased. Ovariectomy had the effect of decreasing the total number of invitations and increasing the number of refusals. The data provide strong evidence that hand-reaches, head-ducks, and head-bobs are female sexual invitations and that earlier studies which excluded these presented an incomplete picture of sexual behavior. (German summary) (33 ref.)—S. R. Goldstein.

3556. Saff'iants, V. I. (Pavlov Inst. of Physiology, Leningrad, USSR) **O mekhanizme diltel'nykh kontralateral'nykh vliyaniy v spinnom mozgu pri odinokhnykh razdrazheniyakh.** [On the mechanism for prolonged contralateral effects in the spinal cord when single stimulations are employed.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 34-39.—Cats with upper spinal section (C₄) were Ss in a study to determine to what degree extensive prolongation of contralateral effects in the lumbosacral division of the spinal cord may be due to recruitment into reflex activity of the upper segments of the spinal cord, and proprioceptive feedback impulsion, arising in the receptor apparatus of the contralateral muscles upon their contraction. Prolonged inhibitory and exaltatory contralateral effects were maintained even when only the lumbosacral division of the spinal cord was functioning. Section of the contralateral ventral roots of the lumbosacral division of the spinal cord did not change the duration of such effects when single stimulations were applied. The data suggest that these effects are traceable to the activation of a large number of internuncial neurons.—I. D. London.

3557. Savos'kina, L. A. (Bogomolets Inst. of Physiology, Kiev, USSR) **Vliyaniye pererezki dorsal'nogo koreshka na mono- i polislin apticheskie refleksy spinnogo mozga.** [Influence of dorsal root section on mono- and polysynaptic spinal reflexes.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 40-45.—Ss were cats with sectioned dorsal root (usually the 7th) under conditions of decerebration or nembutal narcosis (45 mg/kg). 12-24 hr. after dorsal root section the amplitude of both mono- and polysynaptic reflex reactions to stimulation of the sectioned root was considerably increased. 34-48 hr. afterwards a decrease occurred. 48-72 hr. later the monosynaptic reactions to stimulation of the sectioned root disappeared, while the polysynaptic reflex reactions were continued, but at a reduced level. During the same periods the amplitude of the mono- and polysynaptic reflex discharges, resulting from stimulation of an adjacent intact dorsal root, increased.—I. D. London.

3558. Vashetina, S. M. (Research Inst. of First-Aid, Leningrad, USSR) **Otsenka pochechnoi tsirkulyatsii metodom kontrastnoi rentgenokinetografi.** [As-

essment of renal circulation by the method of contrast roentgenocinematography.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1278-1281.—15 un-narcotized cats were used in the study which also investigated the influence of denervation of the kidney on its hemodynamics. (English summary) (15 ref.)—I. D. London.

3559. Wood-Gush, D. G. & Gilbert, A. B. (Agricultural Research Council, Poultry Research Centre, Edinburgh, Scotland) **The nesting behaviour of hens with ovarian transplants.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 52-54.—Observations were made on the nesting behavior of hens in which the ovary had been transplanted to another site adjacent to the caudal lobe of the kidney. 2 components were studied: the time taken in nest "examination" and the time spent sitting on the nest. No differences were found in either component between the experimental and control birds. It is concluded that a neural mechanism in the ovary is not necessary for nesting.—*Journal summary.*

3560. Zil'berman, M. N. (Medical Inst., Orenburg, USSR) **Formirovaniye kishechnoi fistuly iz svobodnogo segmenta tonkoi kishki metodom migratsionnoi plastiki na sal'nik.** [Formation of an intestinal fistula from a free segment of the small intestine by means of migrational plastic surgery in the omentum.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1300-1301.—Describes a surgical technique for translocation of organs for experimental ends.—I. D. London.

Brain Lesions

3561. Bekhtereva, E. P. (Inst. of Experimental Medicine, Leningrad, USSR) **Deistvie nekotorykh farmakologicheskikh veshchestv na follikulostimuliruyushchuyu funktsiyu gipofiza v usloviyakh koagulyatsii yader mindalevidnogo kompleksa.** [Action of some pharmacological agents on the hypophyseal folliculo-stimulating function after coagulation of the nuclei of the amygdaloid complex.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 85-86.—Sexually mature male rats were used to study (a) the influence of extirpation of the amygdaloid nuclei on the level of the follicule-stimulating hormone (FSH) in the hypophysis and plasma, and (b) the features typifying the action of several hormonal and neurotropic agents on the follicle-stimulating function of the hypophysis under these conditions. Such extirpation led to an increase in the secretion of FSH by the hypophysis. Under these conditions the suppressive action on FSH production by the M-cholinolytic, metamizyl, and by estradiolmonobenzoate was increased, while the action of the N-cholinolytic, spasmolytin, either was not manifested or was similar to that of metamizyl. The data are held to support the hypothesis that the stimulation of hypophyseal FSH secretion by spasmolytin in intact Ss is accounted for by the blocking of N-cholinoreceptors, distributed in the region of the limbic structures, particularly in the amygdala.—I. D. London.

3562. Blass, Elliott M. (U. Pennsylvania, Inst. of Neurological Sciences) **Separation of cellular from extracellular controls of drinking in rats by frontal brain damage.** *Science*, 1968(Dec), Vol. 162(3861), 1501-1503.—7 female Sherman albino rats that had undergone removal of the frontal portion of the brain, including the olfactory bulbs, did not drink, or drank less than 7 controls, when subjected to cellular dehydration.

These same Ss drank normally in response to extracellular volume reduction. 10 Ss from whom only the olfactory bulbs had been removed drank normally in both tests. An essential part of the neurological system mediating drinking produced by cellular dehydration, but not by volume reduction, therefore lies within the frontal cortex or immediate subcortical tissue.—*Journal abstract.*

3563. Carlson, Neil R. & Cole, Jeffrey R. (U. Massachusetts) **Enhanced alternation performance following septal lesions in mice.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 157-161.—Male and female B6D2F, hybrid mice were given septal lesions (Group SEPT), cortical lesions (CORT), or served as unoperated controls (NORM). Ss were trained for food reward in a 2-lever single-alternation task. Performance of Group SEPT was significantly better than that of the control group; Groups CORT and NORM did not differ from each other. Results are incompatible with the hypothesis that septal lesions produce a simple deficit in response inhibition or sequential behavior. It is suggested that the results might be attributed to higher response rates because of septal lesion-induced enhancement of the reward value of the food.—*Journal abstract.*

3564. Dougherty, M., Shea, S., Liu, C. N., & Chambers, W. W. (U. Pennsylvania, Dept. of Anatomy & Inst. of Neurological Sciences) **Effects of spinal cord lesions on cutaneously elicited reflexes in the decerebrate cat. Tonic bulbospinal and spinobulbar inhibitory systems.** *Experimental Neurology*, 1970(Mar), Vol. 26(3), 551-570.—Studied regulation of polysynaptic reflexes (ipsilateral extensor, flexor, and digital) in forelimbs and hind limbs in 19 decerebrate cats. Polysynaptic reflexes (both extensor and flexor) in response to pinch were inhibited all over the body, although they were more easily obtained from certain reflexogenous zones than from others. Responses to touch, pressure, and stroke were readily elicited from the perineum but were inhibited from other areas. Tonic bulbospinal inhibitory pathways were located in the dorsal part of the lateral funiculi and facilitatory pathways in the ventral funiculi and ventral parts of the lateral funiculi. Both increased extensor tone and decreased flexor reflex activity of the forelegs after thoracic transection (Schiff-Sherrington phenomenon) were due to the interruption of ascending inhibitory fibers of spinal origin which act upon brainstem centers. The tonic spinobulbar pathways which have the effect of inhibiting brainstem centers responsible for decerebrate inhibition of polysynaptic reflexes ascend through the dorsal part of the lateral funiculi. The fibers inhibiting the brainstem inhibitory centers for extensor tone ascend in more ventral pathways. (16 ref.)—*Journal abstract.*

3565. Falkon, Daniel & Donovick, Peter J. (State U. New York, Binghamton) **Low resistance to extinction in rats with septal lesions under inappropriate appetitive motivation.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 150-156.—When a lever-pressing response trained under food deprivation was extinguished under water deprivation, 80 naive male Sprague-Dawley rats with septal lesions responded significantly less than controls. Secondary reinforcement during extinction elevated responding, except for Ss with septal lesions that had a presurgical history of water deprivation. Results are consistent with a conceptualization of the septum as an

inhibitor of a motivational state of the organism. Thus, destruction of the septum appears to enhance the response to the immediate cues guiding the behavior and thereby amplifies whatever current positive or negative motivational state is present in the organism. (22 ref.)—*Journal abstract.*

3566. Fried, P. A. (Carleton U., Ottawa, Ontario, Canada) **Pre- and post-operative approach training and conflict resolution by septal and hippocampal lesioned rats.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 975-979.—Found that pre- and postoperative approach training had differential effects on 25 male Wistar rats with septal or hippocampal lesions in an approach-avoidance conflict. Trained to run a straight alley for food reinforcement, septal lesioned Ss who received approach training after surgery showed less inhibition upon the introduction of shock than septal Ss who received preoperative approach training. Ss with hippocampal lesions however, showed a greater loss of inhibition when preoperatively trained to approach. On the trials on which the lesioned Ss did demonstrate behavioral inhibition the spatial location of approach-avoidance conflict was similar to 12 controls. Results suggest that the effect of septal lesions in an approach-avoidance situation is determined, to a considerable degree, by postoperative approach training, whereas the effects of hippocampal lesions appear to interact with preoperatively determined set. (16 ref.)—*Journal abstract.*

3567. Giantonio, Gerald W., Lund, Nick L., & Gerall, Arnold A. (U. Notre Dame) **Effect of diencephalic and rhinencephalic lesions on the male rat's sexual behavior.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 38-46.—Following extensive preoperative tests in which 234 male Sprague-Dawley rats were run to sexual exhaustion, bilateral electrolytic lesions were placed in 8 areas of the diencephalon and rhinencephalon to investigate their role in the mediation of sexual behavior. Postoperative tests indicate that lesions in the medial preoptic-anterior hypothalamic region completely abolished copulatory and ejaculatory behavior in 11 of 17 Ss while leaving precopulatory sexual arousal intact. Lesions in the stria terminalis and basomedial-corticomedial amygdala resulted in an increase in the time spent responding to ejaculation (i.e., time from initial mount with thrust, in an ejaculation series, to ejaculation) and a slight reduction in the number of ejaculations to exhaustion. (20 ref.)—*Journal abstract.*

3568. Glassman, Robert B. (Lake Forest Coll.) **Cutaneous discrimination and motor control following somatosensory cortical ablations.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1009-1019.—In an experiment with 19 adult female cats, unilateral ablation of the anterior ectosylvian gyrus (AEG) alone or in combination with ablation of the posterior sigmoid gyrus (PSG) and coronal gyrus, was followed by a contralateral cutaneous sensory deficit, as shown by tests of learned discrimination or orientation-localization of passively-received cutaneous stimuli. Performances of problems involving light touch, or a difficult discrimination, were sometimes impaired more than a simple discrimination involving pressure stimuli. Ablation of the PSG alone was not followed by a cutaneous sensory deficit but by impairment of posture and fine motor control more severe than that which followed AEG ablation. Following PSG ablation, recovery of ability to accurately

direct the forelimb with vision, but not while blindfolded, suggested a proprioceptive deficit, however, PSG ablation was also associated with damage to the corticospinal tract. Results suggest a particular division of function between Side I and Side II. (41 ref.)—*Journal abstract*.

3569. Gotsick, James E. (Syracuse U.) **The effects of stimulation and deprivation on spontaneous activity levels in rats with lesions of the septal area, cingulate cortex, and hippocampus.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 413-414.

3570. Hamilton, G. & Isaacson, Robert L. (U. Florida) **Changes in avoidance behavior following epileptogenic lesions of the mesencephalon.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1165-1167.—Created irritative lesions caused by penicillin or sodium sulfadiazine in various brain sites, particularly in the mesencephalic region, of 23 male Long-Evans hooded rats. All Ss were then tested on a 2-way active avoidance task. Lesions in the region of the interpeduncular nucleus produced severe impairments in the avoidance task while similar treatments of the reticular formation and red nucleus produced only moderate levels of impairment. Lesions at other sites failed to produce any deficits in the avoidance task.—*Journal abstract*.

3571. Jalowiec, John E., Stricker, Edward M., & Wolf, George. (McMaster U., Hamilton, Ontario, Canada) **Restoration of sodium balance in hypophysectomized rats after acute sodium deficiency.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1145-1149.—Like 8 intact male albino rats, 14 hypophysectomized (hypex) rats showed appropriate increases in thirst and sodium appetite when they became sodium deficient following subcutaneous formalin treatment. Decreased water and sodium losses in urine permitted renal retention of ingested fluids and restoration of intravascular fluid volume and sodium concentration. The only apparent effect of hypophysectomy was to decrease the rate of saline intake. Consequently, hypex Ss remained hypovolemic longer (11-20 hr.) than did intact Ss (6-10 hr.). Urinary potassium/sodium ratios suggest that aldosterone levels in hypex Ss were not increased as much as in intact Ss by the formalin treatment. Since both groups increased saline intake when mineralocorticoid levels were increased, it is possible that formalin treatment did not provide as strong a stimulus for sodium appetite in hypex as in intact Ss. Nevertheless, although pituitary hormones may potentiate sodium appetite and generally defend the animal against stress, it is concluded that the pituitary gland is not vital to sodium metabolism at either a behavioral or a physiological level. (22 ref.)—*Journal abstract*.

3572. Montgomery, Royce L. & Berkut, Michael K. (U. North Carolina, Medical School, Chapel Hill) **A morphological study of viscera in aged rats with lesions in the limbic system.** *Physiology & Behavior*(Sep), Vol. 5(9), 989-992.—35 senescent male Sprague-Dawley rats were bilaterally lesioned electrolytically in either the septal or amygdaloid area of the brain. After convalescence surviving Ss were given a short superficial behavioral test to establish the actuality of the brain lesion attempted. Further testing was not administered and Ss remained quiescent in individual cages until sacrificed. After 45 days lesioned Ss were killed and autopsied immediately along with 19 appropriate intact normal and sham-operated controls. Morphological studies of viscera revealed tubular atrophy in

testes of septally-lesioned Ss but not amygdaloid-lesioned Ss. Distinctly enlarged Bowman's spaces were seen in kidneys from Ss with septal lesions but not in kidneys of Ss with amygdaloid lesions. Adrenal hypertrophy did not develop in any of the brain lesioned (nonstressed septal and amygdaloid) Ss. Electrolytic lesions placed in septal and amygdaloid nuclei of young and senescent Ss produced analogous morphological alterations. (21 ref.)—*Journal abstract*.

3573. Perachio, Adrian A. & Lubar, Joel F. (Emory U., Yerkes Regional Primate Center) **Striate cortex ablation and deficits in conditioned avoidance response.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1063-1067.—Tested 50 adult cats for acquisition and retention of conditioned avoidance response (CAR) to an auditory CS following ablation of a portion of striate cortex. Ss were found to be significantly deficient compared with normals. Blinding normal or operated Ss with opaque contact lenses also caused a significant deficit in acquisition and retention of the CAR. Combination of striate cortex ablation and blinding by contact lenses prevented avoidance responses in 4 of 10 operated Ss. The marked deficit in an auditory task in the absence of visual cues suggests a complexity of effect of striate ablation not explainable only in terms of visual loss.—*Journal abstract*.

3574. Pronin, L. A. (Inst. of the Brain, Moscow, USSR) **O vliyanií tsentral'noi nervnoi sistemy na deyatel'nost' serdtsa u plodov krolikov.** [On the influence of the central nervous system on cardiac activity in rabbit fetuses.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 73-79.—The CNS of the fetuses of 29 rabbits was subjected to various forms of surgical insult. No increase was observed in the frequency of cardiac pulsation, as was normal in the intact S in the later prenatal period, after decapitation or spinal section below the medulla oblongata. However, after ablation of the cerebral hemispheres under conditions of chronic experiment, an increase was observed. With extirpation of the medulla oblongata or the spinal cord under conditions of acute experiment, the frequency of heartbeat dropped to the level characteristic for the 28-day fetus. Until the 29th intrauterine day the frequency of heartbeat was not regulated by the CNS. By that day, brainstem structures matured which exerted their influence on cardiac activity via the spinal cord.—*I. D. London*.

3575. Roydes, Rona L. (108 E. 7th St., Oil City, Pa.) **Frontal lesions impair habituation of the head-shake response in rats.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1133-1137.—Investigated the effect of frontal lesions on habituation of the head-shake response. 2 groups of 8 male albino rats were given 2 sessions of 40 stimulated trials each, 24 hr. apart. Each session was followed by a retention test at 30 min. The stimulus was a mild puff of air directed at the pinna of the ear. A marked decrement in response frequency occurred from the 1st to the last trial block, and was highly significant, as determined by nonparametric analyses. 1 group was then lesioned in the frontal cortex, bilaterally. The other group was sham-operated. The habituation procedure was repeated after 7 days recovery from surgery. Sham-operated controls behaved as before. Frontal Ss, however, showed impaired rate of habituation and a much higher terminal level of responding, compared to controls. These results were highly significant. In addition, frontal Ss did not retain habituation at 30 min.

in contrast to controls. Controls did not recover above 50% of their initial level of responding. 4 more Ss were cingulectomized and compared with 4 controls. The cingulectomized Ss performed no differently from controls, on either major sessions or retention tests. (17 ref.)—*Journal abstract*.

3576. Schlag-Rey, M. & Lindsley, D. B. (U. California, Brain Research Inst., Los Angeles) **Effect of prefrontal lesions on trained anticipatory visual attending in cats.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1033-1041.—Trained 5 naive adult cats to look at a left and a right target on alternate trials and, while looking, to keep fixating the correct target for a criterion duration necessary to receive a visual stimulus, signaling a milk reward. 4 Ss showed a clear performance deficit in this task after bilateral removal of the anterior sigmoid and dorsal preoreus gyri. The 5th S, although temporarily impaired following a similar unilateral lesion, showed no deficit after a 2nd contralateral lesion, more laterally placed in the frontal pole. A quantitative analysis of various biases underlying overt responses showed that Ss were impaired on specific dimensions of oculomotor responses. Results agree with recent stimulation studies localizing a frontal eyefield in the cat and support the hypothesis that in carnivores and primates, the frontal eyefields control voluntary eye movements. Some performance deficits in tasks requiring use of directional cues and selective attention, observed in carnivores following frontal lobe lesion, may be due to invasion of such frontal eyefields. (23 ref.)—*Journal abstract*.

3577. Shlyifer, T. P. (Inst. of Experimental Medicine, Leningrad, USSR) **Vliyaniye pereryva vnutrikorkovykh svyazей na aktivnost' neuronov somato-sensornoi zony kory.** [Influence of interruption of intracortical connections on neuronal activity in the somatosensory cortical zone.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 971-976.—Studied the functional activity of single cortical neurons after interruption (circular section of parietal cortex) of intracortical connections (60 and 90 neurons of intact and nonintact rat brains, respectively; 35 and 65 neurons of intact and nonintact guinea pig brains, respectively). Painful (4-6 pricks in the spinal skin) and acoustic (2000-cps tone and 80-db bell) stimulation did not exert the same influence on the neurons of the somatosensory cortical zone in either group of Ss. With interruption of intracortical connections, functional lability of the cortical neurons declined, the number of active cells diminished, frequency of spontaneous impulsion decreased, and the number of cortical cells reacting to sensory stimuli dropped. In rats the auditory system exerted on the somatosensory cortical neurons a greater influence by means of intracortical paths than did the auditory system in guinea pigs. (English summary) (16 ref.)—*J. D. London*.

3578. Wakeman, Kenneth A., Donovick, Peter J., & Burright, Richard G. **Septal lesions increase bar pressing for heat in animals maintained in the cold.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1193-1195.—Allowed male Sprague-Dawley unshaven albino rats in a cold chamber to bar press for heat. Septal lesions in 12 Ss increased the number of bar presses and the relative number of reinforcements/bar press relative to levels of 14 operated controls. These differences could not be attributed to differential surgical effects on operant levels since unshaven control and septal lesioned Ss did not differ in total bar presses in the absence of reinforcement. Results are interpreted as another specific

example of the septal lesioned rat's increased reactivity to stimuli of positive hedonic value. (15 ref.)—*Journal abstract*.

3579. Żernicki, B., Doty, R. W., & Santibañez-H, G. (Nencki Inst., Warsaw, Poland) **Isolated midbrain in cats.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 221-235.—Describes electrophysiological and behavioral characteristics of isolated midbrain preparations in 8 cats. Isolation was achieved posteriorly by pretrigeminal transection, and anteriorly by premesencephalic transection or a cut paralleling the optic tract and ending in the preoptic area. These preparations displayed comparable activity. Ocular fixation reflexes were absent even in preparations having optic input, and stable CRs could not be formed. Most striking is the almost total absence of background activity in the mesencephalic reticular formation. This depression does not arise from circulatory insufficiency, shock, or cell death since: (a) pupils remain miotic, (b) electrical stimulation of the mesencephalic reticular formation yields pupillary dilation and eye movements, (c) no severe degeneration is seen in chronic preparations, (d) seizure activity is often displayed in acute and chronic conditions, and (e) background activity is not much depressed in the pretectal area and superior colliculus even with elimination of optic input. It is concluded that background activity of the mesencephalic reticular formation is dominated almost exclusively by input from the ipsilateral forebrain. (French summary) (49 ref.)—*Journal summary*.

Brain Hypothalamic & Hippocampal Lesions

3580. Antunes-Rodrigues, José; Saad, Wilson A., Gentil, Cleber G., & Covan, Miguel R. (Ribeirão Preto, Medical School, São Paulo, Brazil) **Mechanism of decreased sodium chloride intake after hypothalamic lesions: Effect of hydrochlorothiazide.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1183-1185.—In normal rats hydrochlorothiazide has a natriuretic action and in consequence S increases salt intake as a homeostatic mechanism. 57 male Wistar rats with decreased NaCl ingestion due to hypothalamic lesions failed to show this behavior in spite of the fact that their modifications in urinary and plasmatic sodium were of the same direction as those observed in 54 controls. It seems that the information about sodium concentration and therefore sodium needs is now ineffective because of the interruption of the circuit which normally receives this information. Results of this study and those published elsewhere support the hypothesis of a neural mechanism underlying the changes observed in rats with decreased NaCl intake due to bilateral anteromedial hypothalamic lesions.—*Journal abstract*.

3581. Grossman, Sebastian P. (U. Chicago) **Avoidance behavior and aggression in rats with transections of the lateral connections of the medial or lateral hypothalamus.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1103-1108.—Parasagittal surgical cuts in the medial quadrant of the lateral hypothalamus which isolated the medial half of the hypothalamus from all lateral connections produced marked deficits in avoidance learning but no discernible change in performance on a test of intraspecies aggression. 18 adult female albino Sprague-Dawley rats showed transient motor deficits as well as aphagia and adipisia but were normal on all measures before the avoidance training

and aggression tests were begun. Similar parasagittal cuts lateral to the lateral border of the anterior and medial hypothalamus (including the region lateral to the ventromedial nuclei) facilitated the acquisition of a shuttle box avoidance response but failed to affect intraspecies aggression. These Ss were aphagic and adipsic for longer periods of time but had recovered normal body weights and motor abilities at the time of testing. (30 ref.)—*Journal abstract*.

3582. Posey, Thomas B. (Texas Technological U.) **Differential reinforcement of discrete trial inhibitory behavior in hippocampectomized rats.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 421-422.

3583. Winocur, Gordon & Mills, John A. (U. Saskatchewan, Saskatoon, Canada) **Transfer between related and unrelated problems following hippocampal lesions in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 162-169.—Groups of naive male Wistar rats with hippocampal lesions, cortical lesions, and operated controls were preoperatively trained on brightness discrimination and postoperatively tested on pattern discrimination. The operated-control and hippocampal groups displayed poorer postoperative learning as a function of preliminary training, but the amount of negative transfer was significantly greater in the hippocampal group. There was no negative transfer in the cortical group. In Exp. II. hippocampal and control groups were tested on a series of 3 independent and unrelated tasks (lever pressing, 1-way active avoidance, brightness discrimination) presented in different sequences. The combined effect of surgical treatment and prior training never interfered with performance on any of the tasks. It is suggested that hippocampal lesions interfere with the detection of important but relatively subtle changes in environmental events. (15 ref.)—*Journal abstract*.

BRAIN STIMULATION

3584. Goldstein, Robert & Templer, Donald I. (Behavior Research Lab., St. Louis, Mo.) **Comparison of learning for hypothalamic and septal stimulation.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 997-1001.—Tested the assumption of differential rates of learning for hypothalamic and septal stimulation in a T maze after having equated the reinforcement value for 2 groups in a shuttle box. Results of 2 studies with 15 and 11 female Holtzman albino rats, respectively, supported this assumption; hypothalamic Ss made a significantly greater number of choice responses in the maze when primed in the start box (Exp. II) than when not primed (Exp. I). In both experiments the hypothalamics made a significantly greater proportion of turns to the correct side. The difference in total turns was interpreted as evidence of a longer latency poststimulatory effect of hypothalamic over septal stimulation. There was also some evidence within hypothalamic Ss of a positive relationship between proportion of turns correct and the presence of stimulus-bound behavior (eating) established in a later test.—*Journal abstract*.

Chemical Stimulation

3585. Belluzzi, James D. & Grossman, Sebastian P. (U. Chicago) **Avoidance learning: Long-lasting deficits after temporal lobe seizure.** *Science*, 1969(Dec),

Vol. 166(3911), 1435-1437.—Microinjections of carbachol (carbamylcholine chloride) into the amygdaloid complex of 7 male albino Holtzman Sprague-Dawley rats produced behavioral and electrophysiological seizures which subsided within 24 hr. A persisting functional change caused a deficit in avoidance learning 1-3 wk. after the seizure. A cholinergic system is implicated by the fact that cholinergic blockade (scopolamine) of the amygdala during training reversed the effects of the seizures induced by carbachol.—*Journal abstract*.

3586. Blinkova, T. P. (Inst. of Experimental Medicine, Leningrad, USSR) **Mezhtsentral'nye vzaimootnosheniya v émbriogeneze kur.** [Intercentral interrelationships in the embryogenesis of chickens.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 8-13.—Utilizing 52 chicken embryos, attempted to determine (a) the level at which the "closure function" operates during motor-electrodefensive conditioning (CS was a 100-db, 2000-cps sound) in the embryonic period (14th-16th day), (b) the role of different central structures during the course of CR activity, and (c) the interrelationships between the different parts of the brain. Data, derived from cerebral sectioning and chemical stimulation of the cerebral surface, provide evidence for the role of the cerebral hemispheres and the anterior thalamus in regulating the course of CR activity. Application of sodium salts on the hemispheric surface and the anterior thalamus excited and increased the basic functions of these structures, leading to the inhibition of CR motor reactions. It thus appears that definite inhibitory mechanisms exist in the chicken embryo. The ablation of structures, exerting an inhibitory influence, or the chemical stimulation of the middle thalamus promoted a more distinct functional manifestation of their capacity to secure the closure of CR reactions. Therefore, in the embryonic chicken conditioned motor connections are seen to undergo closure at the level of the middle thalamus.—*I. D. London*.

3587. Khavari, Khalil A. (U. Wisconsin, Milwaukee) **Chemical microinjections into brain of free-moving small laboratory animals.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1187-1189.—Described a simple cannula-swivel unit which allows chronic discrete or continuous injections into brains of moving and behaving small laboratory animals. The cannula-swivel unit, with minor modifications, may also be used for iv and intragastric injections.—*Journal abstract*.

3588. Margules, D. L. (Temple U.) **Alpha-adrenergic receptors in hypothalamus for the suppression of feeding behavior by satiety.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 1-12.—Direct bilateral application of an alpha-adrenergic blocker (phentolamine HCl) to the perifornical medial forebrain bundle of 18 male albino Charles River rats fed chow ad lib caused intense overeating of milk. This effect was anatomically localized and chemically specific. At these sites, such application of l-norepinephrine suppressed the intake of milk but d-norepinephrine did not. Adulteration of the milk with quinine sulfate (.008%) had little effect on the suppression of feeding caused by norepinephrine. Adulteration with .004% quinine eliminated the overeating caused by phentolamine and, with .010% quinine adulteration, phentolamine suppressed milk intake. Thus, blockade of α -adrenergic receptors in the perifornical medial forebrain bundle by phentolamine causes the same paradoxical effects as ventromedial hypothalamic lesions; overeating of palatable

food and finickiness for unpalatable food. α -adrenergic receptors in the hypothalamus may participate in the regulation of feeding behavior by satiety, and the negative-feedback aftereffects of these receptors may be responsible for the hunger-satiety cycle. (39 ref.)—*Journal abstract*.

3589. Margules, D. L. (Temple U.) **Beta-adrenergic receptors in the hypothalamus for learned and unlearned taste aversions.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 13-21.—Direct bilateral application of 9 μ g. of the β -adrenergic agonist, dl-isoproterenol HCl, to the perifornical medial forebrain bundle of 5 male albino Charles River rats fed chow ad lib suppressed the intake of quinine-adulterated milk, but not the intake of sweet milk. The same selective suppression of bitter milk intake was demonstrated in other Ss that had received an ip injection of .133 mg/kg of dl-isoproterenol HCl. On the day after such treatments conditioned suppression of the bitter milk-licking response occurred. Conditioned suppression of the intake of bitter saccharin was also demonstrated with posttrial ip injections of .066 mg/kg of l-isoproterenol HCl. Direct bilateral application of the highly potent and specific β -adrenergic blocker, LB-46 (16 μ g.), abolished the suppressant effects of quinine on the rate of milk licking but increased the suppressant effects of satiety on total milk intake. This constitutes the converse of the ventromedial hypothalamic paradox: a deficit in finickiness and undereating. β -adrenergic receptors in the hypothalamus may participate in the formation of unconditioned taste aversions, and the positive-feedback aftereffects of these receptors may be involved in the formation of conditioned taste aversions. (22 ref.)—*Journal abstract*.

3590. Meyer, Cornelius C. & Ruby, Theodore M. (Quinnipiac Coll.) **A stereotaxic attachment for implanting crystalline steroids in the brain.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1181-1182.—Describes a simple and efficient device for chronically implanting crystalline steroids in the brain. A disposable syringe is adapted so that a plunger extrudes a pellet into the desired brain area. The implant is easily adapted to the drill holder of a Kopf Stereotaxic Instrument. The stereotaxic technique was successfully used with domestic chicks and provided accurate implant localization along with minimal damage to associated neural structures.—*Journal abstract*.

3591. Olton, David S. (Johns Hopkins U.) **Specific deficits in active avoidance behavior following penicillin injection into hippocampus.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 957-963.—Studied acquisition of 2-way active avoidance and subsequent response suppression following unilateral injections of penicillin or sodium sulfadiazine into the septum, hippocampus, or entorhinal area of 46 Long-Evans hooded rats. 10 controls were unoperated and 10 were anesthetized and then returned to their cages. Injections of penicillin into hippocampus markedly disrupted active avoidance behavior, while leaving active escape behavior intact; in passive avoidance, the 1 S which met criterion for testing was unimpaired. Injections of penicillin into other closely related limbic areas (septum or entorhinal area), and control injections of sodium sulfadiazine had no effect on these behaviors. Results indicate that the behavioral importance of epileptiform activity within the hippocampus is distinctly different from such activity in other limbic areas, and that it is probably incorrect to

characterize seizure activity within the hippocampus as a functional ablation. (15 ref.)—*Journal abstract*.

Electrical Stimulation

3592. Amit, Z., Stern, Muriel H., & Wise, R. A. (McGill U., Montreal, Quebec, Canada) **Alcohol preference in the laboratory rat induced by hypothalamic stimulation.** *Psychopharmacologia*, 1970, Vol. 17(5), 367-377.—Wistar rats were induced to drink alcohol solutions by electrical stimulation in the lateral hypothalamus. They increased their home-cage intake of alcohol over that of control Ss. Changes in alcohol-directed behavior continued after termination of the brain stimulation treatment. Experimental Ss developed preferences for alcohol over water tolerance for increasing doses of alcohol dependence. They consumed alcohol that was contaminated with quinine. The data suggested the development of addiction to alcohol solutions.—*Journal abstract*.

3593. Davis, R. E. & Hirtzel, M. S. (U. Michigan, Mental Health Research Inst.) **Environmental control of ECS-produced retrograde amnesia in goldfish.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1089-1092.—Enhanced the retrograde amnesic effect of ECS by exposing goldfish to the intertrial environment for 25 min. just prior to administration of ECS. As the interval between training and ECS was increased, the amnesia produced by the Environment \times ECS interaction took longer to develop. The environment-dependent effects of ECS relate to those of other amnesic agents previously described. (15 ref.)—*Journal abstract*.

3594. Fanardzhyan, V. V. & Pogosyan, R. I. (Orbeli Inst. of Physiology, Erevan, USSR) **Reaktsiya kletok Purkin'e kory mozghechka koshki na razdrashenie oblasti fastigial'nogo yadra.** [Purkinje cellular reaction in the cat cerebellar cortex to stimulation of the region of the fastigial nucleus.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 987-994.—Numbutalized cats were Ss in an intra- and extracellular study of (a) the spontaneous and evoked activity of the Purkinje cells in response to stimulation of the region of the fastigial nucleus, (b) the antidromic discharges and focal potentials, arising in the cortex of the anterior lobe of the cerebellum under such stimulation, and (c) the various criteria for differentiating the antidromic and trans-synaptic responses of the Purkinje cells. Analysis of the synaptic excitation of Purkinje cells suggests the differentiation of 2 distinct types of responses: (a) a single response with a latent period of over 1 msec., and (b) a group response observed against a background of marked neuronal depolarization. The reactions were connected with activation of the Purkinje cells by the moss and curling fibers, respectively. (English summary) (15 ref.)—*I. D. London*.

3595. Karamyan, A. I., Belekova, M. G., & Veselkin, N. P. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **O skhodstve i razlichii talamo-telentsfala'noi sistemy golovnogo mozga amfibii i reptilii.** [On the similarity and difference of the thalamotelencephalic system of the amphibian and reptilian brain.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 977-986.—Examined several electrophysiological features dealing with the organization of the thalamotelencephalic system, which served as basis for both the similarities and differences encountered in the higher nervous activity of amphibians (frogs: *Rana temporaria* and *ridibunda*) and reptiles

(tortoises: *Emy orbicularis* and *Testudo horsfieldi*). The foci of the visual and somatic cortical representatives, and the zones of their overlap were determined. It was found that in the 1st 2, cells predominated which are connected with 1 form of sensitivity; and in the zones of overlap, convergent polymodal neurons predominated. However, the frog thalamus was a much more diffusely organized center. The most important differences between frogs and tortoises located in the forebrain are detailed. Evoked responses to electrical stimulation of the structures of the dorsal and ventral thalamus were recorded in frogs in the region of the primordial hippocampus, but in tortoises in the zone of the general cortex. They possessed similar properties: the capacity to (a) facilitate in the process of low-frequency (1-6/sec) rhythmic stimulation—the recruitment effect, and (b) maintain prolonged facilitation (up to 8 min.) after preliminary low- and high-frequency (1-10/sec and 100/sec, respectively) stimulation—postactivation potential. (English summary) (45 ref.)—*I. D. London.*

3596. Lidsky, T. I., Levine, Michael S., Kreinick, Carol J., & Schwartzbaum, J. S. (U. Rochester) **Retrograde effects of amygdaloid stimulation on conditioned suppression (CER) in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 135-149.—In disagreement with an earlier report by G. U. Goddard, bilateral low-level stimulation of the amygdala of 67 male albino Holtzman rats failed to exert any retrograde effect upon acquisition and extinction of conditioned suppression of licking responses. Although conditions were sensitive to brain dysfunction produced by amygdaloid lesions, various tests with subseizure intensities of amygdaloid stimulation yielded negative findings. Market impairments in performance were found with retrograde and anterograde application of amygdaloid seizures. But the diffuse spread and prolonged effect of such seizures precluded any assessment with this technique of an amygdaloid role in consolidation of memory. The latter assumption still awaits experimental verification. (28 ref.)—*Journal abstract.*

3597. Manaster, Margaret S. (U. Kansas) **Feeding and self-stimulation compared when "positive" and "aversive" hypothalamic sites are stimulated independently and in combination.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 416-417.

3598. McGaugh, James L. & Landfield, Philip W. (U. California, School of Biological Sciences, Irvine) **Delayed development of amnesia following electroconvulsive shock.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1109-1113.—Gave ECS to 222 male Swiss-Webster mice in Exp. I, either 8 or 20 sec. following 1 training trial on an inhibitory avoidance task. A retention test was given 1, 6 or 24 hr. later. In the 20-sec ECS delay groups, retention performance was high at the 1-hr test but low at the 6- and 24-hr tests. In the 8-sec ECS delay group the retention performance was low at both the 1- and 24-hr tests. Response latencies 1 hr. following treatments were not increased by ECS only or ECS following a noncontingent footshock. Exp. II examined state-dependency interpretations of these effects. Ss received either ECS or no ECS 20 sec. after a training trial. 1 wk. later Ss received either an ECS or no ECS 1 hr. prior to a retention test. Reinstatement of the ECS state did not enhance retention: the 2nd ECS did not produce high retention latencies in Ss given post-training ECS. Findings are consistent with the view that amnesia develops as short-term memory processes

decline following ECS. (18 ref.)—*Journal abstract.*

3599. Mendelson, Joseph. (Rutgers State U.) **Lateral hypothalamic stimulation: Inhibition of aversive effects by feeding, drinking, and gnawing.** *Science*, 1969(Dec), Vol. 166(3911), 1431-1433.—In an experiment with 8 albino and hooded rats it was found that the opportunity to engage in feeding, drinking, and gnawing behavior facilitated by localized hypothalamic stimulation can delay the onset of the aversive effects of the stimulation and may completely suppress them. This suggests that the aversive effects of the stimulation are due to the excessive arousal of a drive. (19 ref.)—*Journal abstract.*

3600. Nachman, Marvin. (U. California, Riverside) **Limited effects of electroconvulsive shock on memory of taste stimulation.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 31-37.—88 male Sprague-Dawley rats which drank saccharin for 5, 10, or 30 sec. and were made sick 5 min. later by an injection of lithium chloride (LiCl) learned to avoid drinking saccharin again. An ECS given immediately after 30 sec. of saccharin drinking had no effect on the learned saccharin aversion, while ECS given immediately after 5 or 10 sec. of saccharin drinking produced some amnesic effects. Results are consistent with the idea of a brief temporal gradient for ECS effects although, even at short temporal intervals, amnesic effects occurred in only a small percentage of Ss. The relatively limited effects of ECS are interpreted to be a result of the particularly strong type of learning used. In Exp. II, ECS was found to be ineffective as a UCS in producing learned taste aversion.—*Journal abstract.*

3601. Narikashvili, S. P., Kadzhaya, D. V., & Timchenko, A. S. (Inst. of Physiology, Tbilisi, USSR) **O znachenii raznykh sloev dorsal'nogo naruzhnogo kolenchatogo tela v proiskhozhdenii otvetov asotsiativnoi oblasti kory golovnogo mozga koshki.** [On the significance of the various layers of the dorsal lateral geniculate body in the origin of the responses of the associative area of the cat cerebral cortex.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 948-956.—Unanesthetized curarized and chloralosed cats served as Ss. With threshold single electrical stimulation of the upper 2 layers (A and A₁) of the dorsal lateral geniculate body, a response arose only (or mostly) in the visual cortex. With the same stimulation of the lower layer (B), the response arose only (or mostly) in the associative cortex. With suprathreshold stimulation of the upper 2 layers, an associative response occurred with the primary response; with the same stimulation of the lower layer, the primary response occurred with an associative response. The effect of such stimulation is attributed to branching of the stimulating electrical current into the adjacent layers. After electrolytic lesion of the central part of the lower layer, the associative response to suprathreshold stimulation of the adjacent layers no longer occurred. After lesion of the lower layer, the response in the associative cortex vanished only for the light flash, while responses to stimulation of other modality was entirely unchanged. A response in the associative cortex occurred only on stimulation of the contralateral optic nerve. With stimulation of various layers by paired stimuli, the associative response was blocked only in the case where the lower layer (B) was stimulated by the conditionalizing stimulus. It is concluded that visual impulses, which bring on the occurrence of an associative response, as distinct from

impulses responsible for the arisal of the primary response, are switched in the lower layer (B) of the dorsal lateral geniculate body. (English summary) (26 ref.).—*I. D. London.*

3602. Phillips, Anthony G. (U. British Columbia, Vancouver, Canada) **Enhancement and inhibition of olfactory bulb self-stimulation by odours.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1127-1131.—In 3 experiments with 18 male Wistar rats, it was found that self-stimulation maintained by electrical stimulation of the olfactory bulb was increased at low current intensities, when a background odor of amyl acetate or peppermint was present. No effect was observed at optimal current intensities, nor did the odors enhance self-stimulation at control sites in the zona incerta and ventral premammillary nucleus of the hypothalamus. Malodorous quinine attenuated self-stimulation at olfactory bulb sites, but had no effect at control sites. Findings support the hypothesis that the effects of peripheral reinforcers are mediated by the self-stimulation areas of the brain. (20 ref.).—*Journal abstract.*

3603. Potash, Lawrence M. (U. Alberta, Edmonton, Canada) **Vocalizations elicited by electrical brain stimulation in *Coturnix coturnix japonica*.** *Behaviour*, 1970, Vol. 36(3), 149-167.—Electrical brain stimulation was used to locate neuroanatomical loci related to particular natural calls in reproductively ready male and female Japanese quail. All calls were tape recorded and accompanying motor activity noted. It was found that natural calls could be placed into 15 categories and that, according to sonographic analysis, brain stimulation elicited 10 of these categories. All brain stimulation elicited vocalizations could be changed by varying frequency-intensity parameters of the stimulus. Since trains of electrical stimuli elicited emissions resembling natural calls it is possible that some aspects of effector modulation underlying these vocalizations may be centrally patterned. (German summary) (22 ref.).—*S. R. Goldstein.*

3604. Pryor, Gordon T. & Otis, Leon S. (Stanford Research Inst., Menlo Park, Calif.) **Persisting effects of chronic electroshock seizures on brain and behavior in two strains of rats.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1053-1055.—Gave 30 male Fischer rats minimal, maximal, or sham ECS seizures daily, 5 times/wk for 6 wk. beginning at 30 days of age. Groups were sacrificed 48 hr., 2 or 6 wk. after the last treatment. The initial depression in body weight and increase in cortical brain weight by the maximally convulsed group recovered to control values by 6 wk. MAO activity was elevated throughout the brain 48 hr. after the last treatment and remained so in the ventral cortex for 6 wk. The 30 buffalo rats exhibited only the decreased body weight and elevated MAO activity after 6 wk. of treatment; treatment for 10 or 12 wk. produced some of the other changes observed in Fischer and Wistar strains. Treatment for 6 wk. did not affect acquisition of a successive brightness discrimination in an underwater T maze in either strain when tested 48 hr. or 4 wk. after the last treatment. Acquisition of a pole-displacement conditioned avoidance response was depressed in both strains at both test intervals.—*Journal abstract.*

3605. Wiener, Neil I. (York U., Toronto, Ontario, Canada) **Electroconvulsive shock induced impairment and enhancement of a learned escape response.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 971-974.—Administered single or multiple ECS treat-

ment to 217 male hooded rats in 3 experiments, 5 min., 30 min., or 1, 3, 5, 7, 14 or 31 days following shock escape training in a Y maze and retested them 24 hr. later. Both single and multiple ECS induced performance loss if administered 7 or 14 days following training. However, only multiple ECSs induced performance decrement when administered 5 or 30 min. after training. Retest performance was facilitated by single or multiple ECSs administered 31 days after training. No significant performance changes were evident following other training-treatment intervals. Physostigmine (anticholinesterase) injection prior to retest augmented the effect of a single ECS, producing a pattern of performance alteration resembling that found to result from multiple ECSs. Scopolamine (anticholinergic) eliminated the effects of a single ECS. (18 ref.).—*Journal abstract.*

3606. Zvartau, E. E., Makarov, A. Yu., Goncharova, V. A., & Alekseeva, E. I. (1st Medical Inst., Leningrad, USSR) **O korrelyatsii mezhdu izmeneniem sod-erzhaniya serotonina i adrenalinopodobnykh veshchestv v krovi i likvore i povedencheskimi reaktsiyami pri razdrazhenii gipotalamusa.** [On the correlation between behavioral reactions and change in level of serotonin and adrenaline-like substances in the blood and cerebrospinal fluid when the hypothalamus is stimulated.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1196-1202.—In 25 cats behavioral reactions were elicited by electrical stimulation of various structures of the hypothalamus—"the most important integrative center of behavior." Such stimulation changed the level of serotonin in the blood and heightened its level considerably in the cerebrospinal fluid. Changes in serotonin level in the cerebrospinal fluid correlated with the change in its concentration in the venous blood. The type of behavioral reaction known as "true rage [directed aggressiveness]," elicited by stimulation of the hypothalamus, was accompanied by the release of serotonin and adrenaline-like substances into the blood and of serotonin into the cerebrospinal fluid. Serotonin level was raised in arterial blood in the case of electrically elicited "fear" and "escape" reactions. (English summary) (23 ref.).—*I. D. London.*

ELECTRICAL ACTIVITY

3607. Anan'ev, V. M. **Mnozhestvennoe otvedenie bioelektricheskikh potentsialov, ikh kommutatsiya i avtomaticheskii analiz.** [Multiple recording of bioelectrical potentials, their commutation and automatic analysis.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 202-227.—Examines the possibility of developing, on the basis of electroencephalography, a single method of multiple-point registration of bioelectrical potentials from different organs and systems in man and animals. Several problems concerned with lead-offs of bioelectrical potentials are discussed, and a system for the commutation of many signals in semiconductors is described. A system is also developed for the complete automatic analysis of electrophysiological data through computer techniques—an analysis consisting of preliminary amplitude analysis, followed by mathematical treatment of the data of the preliminary analysis, utilizing composite programs.—*I. D. London.*

3608. Antonova, I. G. & Shipova, N. V. (Pediatric Medical Inst., Leningrad, USSR) **O svoistvakh myshtsy, napryagayushchei barabannuyu pereponku**

koshki, i tsentral'noi regulatsii ee sokrashchenii. [On the properties of the tensor tympanic muscle in the cat and of the central regulation of its contractions.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1225-1232.—Ss were 46 cats, 10 under ether narcosis, 26 decerebrated, and 10 encephale isolé. EMGs were recorded along with m. tensor tympani mechanograms by means of mirror isometric or isotonic myographs. The muscle displayed a comparatively long duration of single contraction (contractile phase of about 60 msec.). Superposition of single contractions occurred with low frequencies of stimulation. There was a similarity between the contractile properties of the muscle and those of the slow fibers of the external ocular muscles. Tensor tympanic muscle action potentials had a complex multiphasic form when the mandibular nerve and the nucleus of the trigeminal nerve were stimulated. The muscle had a motor representative in the cerebral cortex. In each hemisphere there were 2 zones: the middle part of the anterior cruciate gyrus, and the middle-inferior part of the anterior suprasylvian gyrus. (English summary) (15 ref.)—*I. D. London.*

3609. **Astardzhyan, G., Radov, Khr., Nachev, Ch., & Boev, K. Informatsionno-tsifrovoye ustroystvo dlya analiza ritmicheskikh biologicheskikh protsessov opredelennogo klassa.** [Digital informational apparatus for analysis of rhythmic biological processes of a certain class.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45: Issue 3) 102-117.—Describes the principle underlying the action of an apparatus for the analysis of disturbances of cardiac rhythm, respiration, and rhythmic processes of the digestive tract. A method for analyzing these disturbances is developed.—*I. D. London.*

3610. **Babskii, E. B. (Ed.) Metody sbora i analiza fiziologicheskoi informatsii.** [Methods for the gathering and analysis of physiological information.] Moscow, USSR: Nauka, 1969. 303 p.—Presents a collection of 37 articles on (a) the gathering and analysis of information in cardiology, (b) methods of biotelemetry and stimulation, and (c) the application of various electronic apparatus. The collection represents an issue of the series *Problemy Biologicheskoi Kibernetiki* [Problems of Biological Cybernetics].—*I. D. London.*

3611. **Bert, J., et al. (Centre National de la Recherche Scientifique, Lab. de Neurophysiologie Appliquée, Marseille, France) A comparative sleep study of two Cercopitheciinae.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 32-40.—Studied the sleep patterns of the 2 genera of Cercopitheciinae, *Papio papio* (baboon) and *Macaca mulatta* (rhesus). EEGs and oculograms were recorded from implanted skull screws. While both genera were readily identifiable as having primate sleep patterns, there were 2 major differences: (a) baboons showed more rhythmic activity and transient paroxysmal activity; and (b) with regard to distribution of sleep in stages, baboons had a lack of Stage 4 against the 16.6% of rhesus, less of Stage 3 (12.3%), but more of Stage 2 (55.4%) than the rhesus, which had 19.7% of Stage 3 and 34.6% of Stage 2. (French summary) (18 ref.)—*Journal summary.*

3612. **Bremer, Frédéric. (U. Bruxelles, Belgium) Inhibitions intrathalamiques récurrentielles et physiologie du sommeil.** [Intrathalamic recurrent inhibition and the physiology of sleep.] *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 1-16.—Tested the hypothesis that the induction of sleep

involves an increase of intrathalamic inhibition of the recurrent axonal type using encephale isolé cats. Comparison of the voltage, shape, and duration of the potentials recorded at different levels of vigilance of the brain demonstrated that arousal results regularly in a reduction of their amplitude, up to their complete suppression, while sleep and sleep-like conditions are associated with their increase. It is concluded that an increase in intrathalamic inhibition, resulting from the reduction or the suppression of the energizing action of the ascending reticular system, plays an important role in the immediate determinism of slow sleep in the cat. (39 ref.)—*English summary.*

3613. **Bruno, Louis J., Davidowitz, Jacob, & Hefterline, Ralph F. (Columbia U.) EMG waveform duration: A validation method for the surface electromyogram.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 211-219.—Examined the EMG recorded with surface electrodes using a triggered oscilloscope technique. When all but the high-amplitude waveforms in a given segment of activity were excluded from analysis, it was found that the duration of the remaining waveforms was specific to the muscle that produced them. That is, waveforms of a given duration were recorded whenever conventional indices—observable contraction, joint movement, needle recordings—showed activity in a specific muscle. This led to the suggestion that waveform duration might be used to validate the surface EMG. The suggestion, which is limited by the need to control posture and electrode placement, both of which may influence waveform duration, is illustrated in application to psychological research. (23 ref.)—*Journal abstract.*

3614. **Bulygin, I. A. & Soltanov, V. V. (Inst. of Physiology, Minsk, USSR) Novye dannye ob osobennostyakh interotseptivnoi i eksterotseptivnoi afferentnoi impul'satsii.** [New data on the features marking intero- and exteroceptive afferent impulsion.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 995-1002.—Used cats under ether anesthesia in an electrophysiological study replicating previous work with frogs. Qualitative differences were established in afferent innervation of the intestine and the skin of the hind leg, also confirmed morphologically. In the peripheral end of the intestinal nerves, connected with the empty terminal part of the small intestines, afferent impulsion was recorded by mechanical (stretching) and chemical (acetylcholine) stimulation. The impulsions were characteristic for A (mostly delta) and C fibers, classified by speed of propagation of spike potentials, evoked by single right-angular impulses. In the peripheral end of the cutaneous nerve of the hind leg, afferent impulsion was recorded, in response to analogous stimulation of the cutaneous receptors, afferent impulsion, characteristic chiefly for A (beta, gamma, and delta) fibers and considerably less frequently for C fibers, defined by the same indices. All the afferent fibers of the cutaneous nerve, and also the A afferents of the intestinal nerve, are cerebrospinal since they degenerated peripherally after prior section of these nerves several days before the experiment. The C afferents of the intestinal nerves are centripetal branchings of the peripheral afferent neurons, since they maintained their intactness and retained their functional capacity peripherally after prior section. Earlier conclusions are confirmed concerning the qualitative features marking the afferent link of the intero- and exteroceptive reflexes. (16 ref.)—*I. D. London.*

3615. Colgan, D. M. (Victoria U., Wellington, New Zealand) **Effects of instructions on the skin resistance response.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 108-112.—Examined effects of instructions on component responses of the skin resistance response. 2 groups of 4 male and 7 female undergraduates each were given 30 presentations of signal lights, with shock following on 50% of trials after 6-sec interstimulus interval (ISI). On the 15th trial, 1 group was told how to predict shock, and the other was given dummy instructions. Results show that: (a) responses occurring in the ISI, and those occurring after the point of shock onset, declined in magnitude for predictable nonshocked trials; (b) in disagreement with previous evidence, responses to shocked trials remained constant after shocks became predictable; and (c) contrary to previous evidence, interruption effects of instructions did not diminish postshock-point responses. Data suggest that component responses of the skin resistance response reflect simple changes in arousal mechanism activity.—*Journal abstract*.

3616. Dill, John C., Lockemann, Peter C., & Naka, Ken I. (California Inst. of Technology) **An attempt to analyze multi-unit recordings.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 79-82.—Illustrates the use of a computer system in 2 attempts to analyze complex data in which spike potentials from several neurons are involved. 1 method uses the wave shape, and the other uses operational criteria. These methods are illustrated by applications to research in the fly and cat CNS. (French summary)—*Journal summary*.

3617. Erickson, Robert P. (Duke U.) **A useful fake neuron.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1191-1192.—Describes a device which produces electrical signals of approximately the size and shape of extracellularly recorded single neuron impulses, at frequencies of about 45-800/sec. These signals can be used to test the effects of impulse frequency and amplitude on counting rate-meters, and the fidelity of other electronic amplifying and display apparatus.—*Journal abstract*.

3618. Gordon, James. (Brown U.) **Edge accentuation in the frog retina.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 413.

3619. Hanover, Ronald E. (Syracuse U.) **The transcephalic direct current potential locus of attention and Witkin's field-dependence-field-independence.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 365.

3620. Hobson, J. Allan. (Harvard Medical School, Boston, Mass.) **Sleep after exercise.** *Science*, 1968(Dec), Vol. 162(3861), 1503-1505.—Found that after moderate treadmill exercise, marked decreases in operant responding and in latency to onset of behavioral sleep occurred in 10 male cats with electrodes implanted for long-term electrographic recording. The sleep produced is characterized by enhancement of synchronized EEG activity with suppression of the desynchronized phase. The result is consistent with the theory that a function of synchronized sleep is to facilitate recovery from fatigue.—*Journal abstract*.

3621. Irmiš, F., Radil-Weiss, T., Lát, J., & Krekule, I. (Psychiatric Research Inst., Prague, Czechoslovakia) **Inter-individual differences in hippocampal theta activity during habituation.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 24-

31.—Investigated changes in theta rhythm during an acoustic stimulus (1150 cps) lasting for 10 sec. and repeated at 50-sec intervals using 21 male albino rats with electrodes implanted in the dorsal hippocampus. The average frequency and total duration of the theta rhythm during presentation of the 1st 10 stimuli represented individually stable values. Results were in positive significant correlation. Both parameters were in positive correlation with individual differences in the nonspecific excitability level derived from the intensity of exploratory activity on repeated exposure of Ss to a new environment. Both the frequency and duration of the theta rhythm decreased as a function of stimulus repetition. The rate of decay was maximal during the 1st-4th presentations of the stimuli. A significant positive correlation was found between the duration and average frequency of theta rhythm and between its frequency during the 1st sec. of its occurrence and its duration. (French summary) (22 ref.)—*Journal summary*.

3622. Jacobs, Barry L., Harper, Ronald M., & McGinty, Dennis J. (U. California, Los Angeles) **Neuronal coding of motivational level during sleep.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1139-1143.—Recorded stable increases or decreases in the discharge rate of single neurons from the ventral diencephalon and midbrain during sleep following manipulation of the hunger level of freely moving cats. These changes were larger during paradoxical than slow wave sleep. Control data indicate that in the absence of any external manipulation neuronal activity is stable from 1 sleep session to another. (20 ref.)—*Journal abstract*.

3623. Klukowska, Lidia & Tokarski, Juliusz. (Medical Academy, Lublin, Poland) **Plasticity of the spinal preparation and changes in the reflex excitability.** *Acta Physiologica Polonica*, 1969, Vol. 20(4), 529-537.—Investigated the extent the spinal preparation reveals the plastic type effects. 120 frogs, *Rana temporaria*, served as Ss. The spinal cord was transected at the calamus scriptorius level, the lower $\frac{1}{3}$ of the semitendinosus muscle was isolated, and the iliac cutaneous nerve was prepared. Reflex contractions of the semitendinosus muscle were obtained due to electric irritation of the iliac cutaneous nerve, by a series of multiple supramaximal impulses taken from the multi-vibratory stimulator. Records were made on the kymograph. The flexion reflex elicited in the spinal frog produced an aftereffect in the form of excitability depression, the depth of which depended on the duration of afferent stimulation. The changes in excitability revealed the character of long-term changes. It is concluded that plastic mechanisms exist at the level of the spinal cord. (18 ref.)—*Journal abstract*.

3624. Landolt, J. P. & Milliken, W. E. (Defence Research Establishment, Toronto, Ontario, Canada) **A discriminator and integrator device for multi-unit neural activity analysis.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 83-84.—Describes a cheap, reliable discriminator and integrator device for the specific analysis of multiunit neural activity. Only solid-state components are used. Several options are available for displaying the instrument output. (French summary)—*Journal summary*.

3625. Lassi, N. I. (1st Medical Inst., Leningrad, USSR) **O spontanno' sokratitel'noi aktivnosti prodol'nogo i kol'tsevo'go sloev muskulatury matki u neberemennykh i beremennykh koshek.** [On spontaneous and cyclic activity of the longitudinal and circular muscle layers of the uterus in nonpregnant and pregnant cats.]

taneous contractile activity of the longitudinal and circulatory layers of musculature in nonpregnant and pregnant cats.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1282-1287.—21 nonpregnant and 37 pregnant Ss were used to study (a) the spontaneous contractile activity of the longitudinal and circular musculature of 1 of the uterine horns (in situ and in vitro), and (b) the change in this activity in the transition of the S from the nonpregnant to the pregnant state. Spontaneous contractions were identical in both layers. In nonpregnant Ss the muscles of both layers exhibited relatively frequent, continuous, and low amplitude contractions (Type A); in pregnant Ss they exhibited relatively infrequent, distinctly discrete, and high amplitude contractions (Type B). Type A contractions were present in vitro in circular muscles, Type B contractions being present in the longitudinal muscles. It is concluded that, in the absence of pregnancy, spontaneous contractions in the myometrium are the work of the uterine circular muscle layer with its sympathetic motor innervation and that, in pregnancy beyond the initial period, spontaneous myometrial contractions are the work of the longitudinal uterine muscle layer with its parasympathetic motor innervation. (English summary) —*I. D. London*.

3626. Lebedev, O. T. & Grigor'yan, R. A. **Poluavtomaticheskii elektronnyi stimulyator tetano-odnochnykh impul'sov.** [Semiautomatic electronic stimulator of tetanic-single impulses.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 178-181.—Describes an electronic stimulator which can present a series of electrical impulses and immediately thereafter present a single delayed test impulse with a uniformly regulated interval of delay (in msec.).—*I. D. London*.

3627. Nicholls, J. G. & Baylor, D. A. (Harvard Medical School, Boston, Mass.) **Long-lasting hyperpolarization after activity of neurons in leech central nervous system.** *Science*, 1968(Oct), Vol. 162(3850), 279-281.—Made intracellular recordings from the cell bodies of sensory neurons within isolated ganglia of leeches. After a train of impulses, the membrane potential of sensory neurons was increased for several min. by an electrogenic pump. During this hyperpolarization, the sensitivity of the membrane potential to external potassium ions was increased, so that physiologically occurring increases in potassium concentration could influence synaptic processes.—*Journal abstract*.

3628. Nozdrach'ev, A. D. (Pavlov Inst. of Physiology, Leningrad, USSR) **Elektrofiziologicheskaya kharakteristika afferentnoi i efferentnoi impul'satsii v vegetativnykh nervakh v khronicheskom eksperimente.** [Electrophysiological characteristics of afferent and efferent impulsion in the autonomic nerves in chronic experiment.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 46-56.—14 alert dogs were used to study the character of afferent and efferent impulsion recorded from electrodes chronically implanted in the major splanchnic nerve and in the postganglionic branches of the inferior mesenteric ganglion. 2 types of potentials for afferent impulses were observed: (a) slow potentials with an amplitude of up to 10-12 microV., and (b) rapid oscillations with a large biphasic amplitude from 12 microV. to higher. The presence of group discharges, synchronous with breathing and the pulse, was a characteristic feature of afferent impulsion. The

potentials of efferent impulsion, similarly recorded, appeared most often in synchrony with cardiac activity and breathing (amplitude from 15-30 microV. when grouped; from 10-15 microV. when ungrouped). An increase in both afferent and efferent impulsion was observed in acute experiments, on injection of acetylcholine solution and on painful stimulation with electric current. This impulsion was depressed after injections of adrenaline and physiological solution.—*I. D. London*.

3629. Rozenshtaukh, L. V., Yur'ev, S. A., & Yushmanova-Rakova, A. V. **Primenenie elektrometricheskikh usilitel'ei postoyannogo toka dlya issledovaniya vnutrikletochnykh potentsialov miokarda.** [Application of electrometric amplifiers of direct current for the study of myocardial intracellular potentials.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 88-102.—Examines the characteristics of electrometric amplifiers of direct current with positive and negative feedback. Their basic circuits are presented, and results of applying these amplifiers to the study of the action potentials of different parts of the heart in the presence of vagal inhibition are analyzed.—*I. D. London*.

3630. Schneider, M. & Gerin, P. **Une méthode de localisation des dipôles cérébraux.** [A method of localization of cerebral dipoles.] *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 69-78.—Studied theoretically the distribution of the electrical field on the plane limiting surface of a homogeneous medium containing a dipole source. The key points in the variations of the electrical field make it possible to define a method to determine the coordinates of the dipole and its direction. Some aspects of the study were verified directly in animal experiments, simulating the dipole by an artificial source. This analysis was applied to epileptic discharges recorded on the human scalp. It was found that for certain focal activities it is possible to determine the localization of the corresponding focus. For diffuse activities the dipole source demonstrated consisted only of an electrical equivalent, the value of which for the interpretation of EEGs is discussed. (22 ref.)—*English summary*.

3631. Sutin, Jerome & Michael, Richard P. (Emory U., Medical School) **Changes in brain electrical activity following vaginal stimulation in estrous and anestrus cats.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1043-1051.—Studied changes in the electrical activity of the cerebral cortex and hypothalamus in response to vaginal probing in female behaviorally estrous and anestrus cats. Low frequency spikes or slow waves occurred following 15 of 121 vaginal probes in all 20 Ss. 11 of these 15 responses were in behaviorally anestrus Ss. In 13 Ss, 7 of which were behaviorally estrous, high amplitude spindle activity appeared in the EEG following vaginal probing. There was no relation between cortical or hypothalamic electrical activity and the behavioral or hormonal status of Ss. Spikes or slow waves in the hypothalamus were also produced by nonspecific stimuli such as tail pinch, particularly in Ss in which pulmonary ventilation was manipulated to alter end-tidal CO₂. (30 ref.)—*Journal abstract*.

3632. Vaughan, Herbert G., Gross, Elliott G., & Bossom, Joseph. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Cortical motor potential in monkeys before and after upper limb deafferentation.** *Experimental Neurology*, 1970(Feb), Vol. 26(2), 253-262.—Trained 4 rhesus monkeys to perform wrist extension

at regular intervals. The motor potential (MP) and EMG associated with these movements were recorded before, and in 2 Ss after dorsal rhizotomy extending from C2 to T4. Although wrist extension of the deafferented limbs appeared superficially normal, the contractions developed more slowly and were more prolonged. There was also a substantial increase in the interval between onset of cortical and muscular activity—corticomuscular delay (CMD)—as well as increased variability of CMD. These changes could be attributed in part to reduced spinal excitability due to deafferentation. Despite the marked changes in timing, the configuration of the MP was unaltered. It is suggested that kinesthetic feedback is not registered in motor cortex during the performance of skilled movements. (16 ref.)—*Journal abstract*.

3633. Volkov, V. G. **Tranzistorno-lampovye usilteli dlya mikroelektrodnogo otvedeniya biopotentsialov.** [Transistor-tube amplifiers for microelectrode recording of biopotentials.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 272-280.—Describes the design of input amplifying devices intended for microelectrode recording of biopotentials.—*I. D. London*.

3634. Volkov, V. G. & Egorov, Yu. V. **Tranzistornye razdelitel'nye ustroystva k impul'snym elektronnyim stimulyatoram.** [Transistor separators for impulse electronic stimulators.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 181-191.—Describes and analyzes separators for inclusion in stimulators in order to reduce the artifacts of stimulation.—*I. D. London*.

3635. Yur'ev, S. A. **Korreksiya chastotnykh kharakteristik v oblasti vysokikh chastot s pomoshch'yu polozhitel'noi obratnoi svyazi.** [Correction of frequency characteristics in the region of high frequencies with the aid of positive feedback.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 81-88.—Presents an analysis of features characterizing circuits with positive feedback for correction of frequency distortions in the recording of biopotentials from sources with high internal resistance. A simplified expression for the transitory characteristics of such circuits, and a sufficiently accurate, simple "graphoanalytical method of calculation" are presented.—*I. D. London*.

3636. Zornetzer, Steven. (U. California, School of Biological Sciences, Irvine) **A simple and reliable chronic brain implantation technique for the mouse.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1197-1199.—Describes methods and techniques used for chronic implantation of electrodes in mouse brain. The advantages and disadvantages of using the mouse for electrophysiological experimentation are discussed. Male Swiss Webster mice served as Ss.—*Journal abstract*.

Electroencephalography & Evoked Potentials

3637. Bennett, Thomas L. (Sacramento State Coll.) **Hippocampal EEG correlates of behavior.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 17-23.—Examines 3 task variables which may have accounted for previously reported divergent results regarding the function of the hippocampus as reflected by its electrical activity. These variables include modality of stimuli, presence of an alerting signal, and whether the rewarded and unrewarded stimuli were presented successively or simultaneously. The modality of the positive

stimulus and whether the rewarded and unrewarded stimuli are presented successively or simultaneously did not have a differential effect on the electrical activity of the hippocampus and adjacent entorhinal cortex of 8 adult cats. Results imply that theta rhythm reflects an alert or attentive state and the role of the hippocampus in response inhibition. It is concluded that although some of W. Adey's findings suggest that the hippocampus plays a general role in learning, the possibility that his findings instead reflect the role of this structure in mediating complex orienting responses cannot be ruled out. (French summary)—*Journal summary*.

3638. Crown, Peter D. (U. Arizona) **Visual evoked potentials during EEG autocontrol in man.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 410.

3639. Fields, Craig. (Rockefeller U.) **Visual stimuli and evoked responses in the rat.** *Science*, 1969(Sep), Vol. 165(3900), 1377-1379.—Presented male Long-Evans hooded rats with a series of visual stimuli, each described by shape, size, and position. Cortical recordings were made in medial and lateral positions of rat visual cortex. Average responses were calculated and correlated. Data reveal that information regarding size was contained in electrical activity from medial areas, and information regarding shape in electrical activity from lateral areas.—*Journal abstract*.

3640. Harris, Martin S. **Binaural interaction and laterality: Comparison of cortical evoked potentials produced by clicks and tone pip stimuli.** *U.S. Naval Submarine Medical Center Report*, 1969(Oct), No. 599, 14 p.—Studied laterality and binaural interaction at the level of the auditory cortex in 3 cats. The evoked potentials in response to acoustic stimuli of clicks and tone-pips were picked up using bilateral macroelectrodes on the posterior ectosylvian gyri. The problem was drawn from existent knowledge of homolateral/contralateral relationships in the animal, and studies in the human which have indicated asymmetry of function in the cerebral hemispheres related to verbal and nonverbal properties of acoustic stimulation. Equal intensity clicks, and 1- and 2-kHz tone pips were used. Results demonstrate binaural interaction but show no evidence that the different kinds of acoustic stimuli are systematically related to binaural interaction or homolateral/contralateral relationships. Failure to find asymmetry of function for the acoustic stimulation used is discussed in light of the verbal-nonverbal distinction for human Ss. (27 ref.)—*Journal abstract*.

3641. Harter, M. Russell & White, Carroll T. (U. North Carolina, Greensboro) **Evoked cortical responses to checkerboard patterns: Effect of check-size as a function of visual acuity.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 48-54.—In an experiment with 8 21-43 yr. old Ss, the size of checks comprising checkerboard patterns and the degree of focus influenced certain components of visually evoked cortical responses (VER). The amplitude of these components varied nonmonotonically with check-size. The check-size which elicited responses of greatest amplitude depended on the magnitude of induced refractive error and thus on visual acuity. When the patterns were sharply focused, relatively small checks elicited responses of greatest amplitude. When the patterns were progressively defocused, progressively larger checks elicited the greatest responses. It is concluded that the amplitude of VERs appears to be

related to the smallest check-size which was clearly perceived. (French summary) (18 ref.)—*Journal summary*.

3642. Massopust, L. C., et al. (Cleveland Psychiatric Inst., Lab. of Neurophysiology, O.) **Electroencephalographic characteristics of brain cooling and re-warming in monkey.** *Experimental Neurology*, 1970(Mar), Vol. 26(3), 518-526.—Subjected 7 male rhesus monkeys to extracorporeal autocerebral perfusion hypothermia. 3 Ss were continuously perfused after brain temperature reached 15° C for 30 min. and 4 were subjected to circulatory arrest for 30 min. after intracerebral temperatures fell to 15° C. In either case, EEG showed a gradual decrease in the amplitude of the major frequency, followed by a loss of the major frequency, then a decrease in amplitude of the minor frequency with continuous slowing. Finally, low amplitude theta frequencies only were present; these became isoelectric at intracerebral temperatures of 22-19° C. It took about 35 min. to cool the brain from 37-15° C. On rewarming, but before recovery of the S, it took approximately 3 hr. before EEG activity approached prehypothermic frequencies and amplitudes with intracerebral temperatures reaching 34° C within 25 min. after initiation of rewarming. Cerebral blood flow changes and changes in cellular membrane permeability probably contribute to the long latency in return of EEG activity.—*Journal abstract*.

3643. Nazarov, V. A. **Avtomaticheskii analiz EEG na ETsVM "URAL-2."** [Automatic EEG analysis on the "URAL-2" electronic computer.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 228-233.—Describes a method for the automatic analysis of EEGs, recorded by means of a method developed by V. M. Anan'ev. The principle underlying the analysis, and the necessary changes in the logical structure of separate operations in the computer utilized are presented.—*I. D. London*.

3644. Regan, D. & Cartwright, R. F. (U. Keele, Staffordshire, England) **A method of measuring the potentials evoked by simultaneous stimulation of different retinal regions.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 314-319.—Describes a method designed to minimize the variability in the gross electrical responses of the brain (evoked potentials) to successive presentations of identical visual stimuli. Potentials evoked by stimulation of the left and right $\frac{1}{2}$ -fields of 1 eye by almost identical visual stimuli are measured simultaneously. The 2 brain signals are extracted from a high noise level (10-50 times greater than the signal) by 2 analogue Fourier analyzers and results are presented in a quantitative form. 2 stimulus modulation frequencies are generated which differ by a small amount, variable from ± 1 to ± 8 cps. Once the frequency difference is set it will remain constant with time (e.g., a frequency difference of $3 \pm 1\%$ over 1 hr.). The device uses a differential gear driven by an electronically stabilized variable speed motor. Intensity and pattern double-stimulators are described which minimize the effects of light scattered within the eye, and which provide complementary information. Applications to clinical problems, including migraine, are discussed. (French summary) (21 ref.)—*Journal summary*.

3645. Rhodes, John M., et al. (U. New Mexico) **Primate electrophysiology, particularly related to sleep.** *USAF ARL Technical Report*, 1969(Mar), No.

69-5, 74 p.—In a series of studies evaluating sleep in lower primates it was possible to demonstrate that sleep staging criteria are more similar to humans than lower animals. However, within the primate scale the lower primates have shorter stages and interspecies differences. These interspecies differences suggest the possibility of studying specific stages more advantageable in 1 species than another. From the definition of primate sleep similarities it was possible to study sleep deprivation effects. The deprivation effects are similar to man at the extreme level, that is deep sleep (Stage 4 and paradoxical) is the 1st to recover and is most necessary for recovery of basic function. However, the evidence was highly suggestive that the recovery of lighter sleep stages (particularly Stage 2) was related to recovery of a subjective sense of well-being. This latter aspect would appear to be most crucial for the return of good decision making. In other studies investigating electrical activity of the lower primate brain under conditions of rapid decompression, it was found that EEG correlates were early prognosticators of a return to performance. It was also possible to identify, in the chimpanzee, an electrical rhythm recordable from the uncus that was related to the emotional significance of an odor. Other work covered describes how cortical temperature differs from lower primates to lower mammals, evoked response differences within different primate species, biochemical differences between parenteral and ventricular injections. (109 ref.)—*Journal abstract*.

3646. Shucard, David W. (U. Denver) **Relationships among measures of the cortical evoked potential and abilities comprising human intelligence.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 426-427.

3647. Smith, D. B., Donchin, E., Cohen, L., & Starr, A. (U. Southern California, Inst. of Aerospace Safety & Management) **Auditory averaged evoked potentials in man during selective binaural listening.** *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 146-152.—Obtained average evoked potentials (AEPs) to clicks while 8 male undergraduates performed a selective listening task with a separate series of stimuli, i.e., numbers, letters, and clicks, presented to each ear. Ss were instructed to attend to one or the other ear and at different times to report the letters or clicks. Results show enhancement of a late positive component of the click AEP when clicks, but not when letters were reported. No differences in the AEP were found for those clicks presented in the attended ear as compared to those in the rejected ear. (French summary) (21 ref.)—*Journal summary*.

3648. Suter, Charles M. (U. Maryland) **Evoked potential correlates of the critical band.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 372.

3649. Umezaki, H. & Morrell, F. (Kyushu U., Neurological Inst., Fukuoka, Japan) **Developmental study of photic evoked responses in premature infants.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 55-63.—Studied 1226 averaged photic evoked responses (PER) at 29-43 wk. postconception in 31 prematurely born infants. The wave form, peak latencies, and distribution of responses were correlated to postconceptional age. Results show that: (a) PERs were localized at the occiput in premature Ss and tended to spread outside the occipital area with increasing age; (b) PERs were initially negative before 32 wk. with an initially positive wave appearing after

approximately 35 wk. of postconceptional age; (c) peak latencies decreased with increasing age, but the estimation of postconceptional age was unreliable because of the considerable individual variability; and (d) relative amplitude of the 2nd positive peak (III) to the 1st negative peak (II) increased with postconceptional age. Possible mechanisms compatible with results are discussed according to the morphophysiological studies on evoked responses in animal experiments. (French summary) (36 ref.)—*Journal summary*.

3650. Venator, E. R., Andy, O. J., Koshino, K., & Frothingham, R. E. (U. Mississippi, Medical Center, Jackson) **Septum after-discharge effects upon cortical photic-evoked responses.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 64-68.—Evaluated the effects of septum after-discharges on photic evoked responses in the lateral gyrus and the anterior medial suprasylvian gyrus of 16 adult cats. The early negative components of the responses evoked in the lateral gyrus were attenuated by the after-discharges, but no other consistent effects were observed. No relationship between evoked potential effects and qualities of the after-discharges was found. It is concluded that the alteration of sensory input obtained may explain some of the behavioral impairments observed during psychomotor seizures of limbic origin. (French summary)—*Journal summary*.

SENSORY PHYSIOLOGY

3651. Baker, Chester H. & Hall, Robert J. (Human Factors Research, Goleta, Calif.) **Cutaneous sensitivity: A review of some literature, problems and approaches.** *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1969(Dec), No. 21-69, 121 p.—Examines some of the research on cutaneous sensitivity over the last 15 yr. A review of the literature on tactile communications and pain has been omitted. Apparatus, procedures and findings are outlined in Part I. Part II attempts to show where data from different experiments appear to be, or not to be, consistent, and discusses the problems and difficulties that confront the scientist engaged in cutaneous research. Recommendations for further research are confined to behavioral measures of the skin senses. (375 ref.)—*Journal abstract*.

3652. Laget, P. **Codes et codages en neurophysiologie sensorielle.** [Codes and coding in sensory neurophysiology.] *Journal de Psychologie Normale et Pathologique*, 1970(Apr), Vol. 67(2), 133-149.—Recent progress in neurophysiology, particularly those aspects resulting from the systematic treatment of information gained at a cellular level, have led to the concept of coding. A rigorous definition of formal properties of nerve codes has been found useful, as well as codes based upon statistical properties of the distribution of intervals on patterns of temporal distributions. Though it is relatively simple to discover unique nerve elements, code systems are very difficult to analyze when multiple conductors are involved. Nevertheless, coding seems a promising approach in the analysis of peripheral and central nerve phenomena, particularly in the domain of sensory physiology.—*L. A. Ostlund*.

3653. Landolt, Jack P. (Defence Research Establishment, Toronto, Ontario, Canada) **Neural properties of pigeon lingual chemoreceptors.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1151-1160.—Investigated the neural properties of the pigeon lingual

chemoreceptor mechanism from electrophysiological data extracted from the peripheral laryngo-lingual nerve; a branch of the IX nerve trunk. Ss were cross-bred from strains of Homer, King, Carneau, and common. Of 32 chemicals tested individual pigeon variations are noted to many solutions. Salt and acid solutions are very effective stimuli; solutions commonly associated with the sweet or bitter taste sensation in man are notably ineffective as stimuli in the pigeon. In most instances there is good correlation between electrophysiological and behavioral response. A new measure, the ionic stimulating efficiency factor derived from both the relative effectiveness measure and response rise time data shows a ranking of $\text{NH}_4^+ > \text{K}^+ > \text{Na}^+ \geq \text{Ca}^{++}$ and $\text{Cl}^- > \text{Br}^- = \text{I}^-$ for several salt solutions. Both anions and cations are involved in chemoreception. L. M. Beidler's fundamental taste equation can be fitted to NaCl response data but only above a certain threshold value of .2M concentration. Acetic acid data does not appear to fit Beidler's equation. Burst-like clusters and pattern temporal variation are prominent features of single-fiber activity. Intensity coding is mediated by both fiber recruitment and impulse frequency variation. (36 ref.)—*Journal abstract*.

3654. Riggs, Lorrin A. & Sternheim, Charles E. (Brown U.) **Human retinal and occipital potentials evoked by changes of the wavelength of the stimulating light.** *Journal of the Optical Society of America*, 1969(May), Vol. 59(5), 635-640.—Compared wavelength-discrimination functions for 3 different stages in the processing of visual signals. Responses at an early retinal stage were recorded by use of a contact-lens electrode attached to the cornea of the eye. Occipital scalp electrodes recorded potentials evoked at the cortical level. Finally, the Os made psychophysical judgments of the corresponding differences of hue. Electrical responses were evoked by rapid shifts from one wavelength to another within a set of vertical stripes that made up the visual field. In favorable regions of the spectrum—near 495 and 595 nm modulation (nm.), small (4-7 nm.) shifts of wavelength evoked measurable occipital potentials and produced noticeable changes of the perceived hue. Much larger differences (20-25 nm.) were required, however, to elicit retinal responses. This suggests that an enhancement of wavelength-discriminating signals must take place at some stage between the bipolar layer of the retina and the striate area of the cortex.—*Journal abstract*.

3655. Tapper, Daniel N. (Cornell U., New York State Veterinary Coll.) **Behavioral evaluation of the tactile pad receptor system in hairy skin of the cat.** *Experimental Neurology*, 1970(Mar), Vol. 26(3), 447-459.—Evaluated the behavioral relevance of the tactile pad receptor (TPR) system in hairy skin by use of a conditioned avoidance procedure wherein 4 adult cats were trained to raise their forepaw in response to minute tactile stimuli in a graded series of pressures confined to the epidermal pads, structures in which the mechanoreceptors are located, and immediately adjacent skin. Ss could perceive and respond to stimuli introduced into a single sensory unit of the TPR system and displayed greater sensitivity than when the stimuli were applied to surrounding skin. No loss in selective sensitivity or general level of sensitivity was produced by section of the dorsal spinal funiculus. Section of both the dorsal and dorsolateral funiculi resulted in general loss in light tactile sensitivity and precluded a more subtle evaluation

of specific receptor sensitivity. (17 ref.)—*Journal abstract.*

3656. Wald, George. (Harvard U.) **Molecular basis of visual excitation.** *Science*, 1968(Oct), Vol. 162(3850), 230-239.—Reviews past and current research in the biological aspects of vision. It is observed that "some of the most significant aspects of the photoreceptor process come from its being laid out in 2 dimensions: on the molecular level, in 2-dimensional arrays of oriented molecules...; and on the cellular level, in the single layer of receptor cells that composes the retinal mosaic." Because technology now permits the measurement of separate retinal units, it is possible to sample "through their differences in spectral absorption and sensitivity, the properties and behavior of each receptor type over the surface of such highly variegated retinas as that of man." (76 ref.)—*P. McMillan.*

BIOCHEMISTRY

3657. Deaux, Edward; Sato, Earl, & Kakolewski, Jan W. (Antioch Coll.) **Emergence of systemic cues evoking food-associated drinking.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1177-1179.—20 male Holtzman albino rats maintained on a feeding schedule of 8 1.5 gm. portions of Purina Lab Chow/day consistently initiate drinking following food ingestion. To establish whether systemic cues accompany the onset of drinking, 10 Ss were sacrificed and serum osmolality was determined. The control group was sacrificed at the time of day they normally received the 1st portion of food. The experimental group was sacrificed at the moment of initiation of drinking following consumption of the 1st portion of food. The difference in serum osmolality between the groups indicates that a systemic cue had emerged at the time of initiation of drinking.—*Journal abstract.*

3658. Engel, Jerome. (Stanford U., Medical School, Palo Alto, Calif.) **Turnover of RNA in normal and secondarily epileptogenic rabbit cortex.** *Experimental Neurology*, 1970(Feb), Vol. 26(2), 221-238.—Autoradiographically examined nuclear, nucleolar, and cytoplasmic RNA turnover in neurons and neuronal populations of normal and secondarily epileptogenic cortex. 14 white male rabbits with "mirror foci" and implanted epidural electrodes, and 9 normal controls with and without implanted electrodes were injected iv with tritiated uridine. Additional autoradiographic observations were made on Ss with mirror foci 8 hr. after iv administration of tritiated cytidine, adenosine, and guanine. Average grain counts made 15 min. and 1, 8, and 24 hr. after drug administration, for all of the uridine-injected Ss within each time group revealed that the nuclear label decreased from 81.1% of the total intracellular label at 15 min. to 54.3% by 24 hr. whereas cytoplasmic label increased from 12.8% at 15 min. to 39.7% at 24 hr. Nucleolar label was greatest (13.6%) at the 1-hr time interval. No average differences in these nuclear/nucleolar/cytoplasmic ratios were observed between epileptogenic and nonepileptogenic neuronal populations. At the cellular level great variability in intracellular grain content and location was observed within every population, but the only finding consistently characteristic of the mirror foci areas was the presence of nests of dense neurons which stained darkly with RNA-specific azure B but contained little or no intracellular label. The staining properties and intracellular grain patterns were not seen when the sections

were pretreated with RNase. It is concluded that the time course of RNA synthesis and turnover calculated here is in agreement with other reports for neurons of the mammalian CNS. The only finding peculiar to epileptogenic tissue, in the interictal state, was the presence of neurons with increased RNA-staining properties but decreased incorporation of RNA precursors. (37 ref.)—*Journal abstract.*

3659. Frankenhaeuser, Marianne & Rissler, Anita. (U. Stockholm, Psychological Lab., Sweden) **Effects of punishment on catecholamine release and efficiency of performance.** *Psychopharmacologia*, 1970, Vol. 17(5), 378-390.—Studied physiological and psychological reactions in 40 male university students. In Session 1 Ss received electric shock in a random schedule they could not influence. In Sessions 2 and 3 a choice-reaction task was performed; 1/2 the Ss were punished for slow performance. The degree of control exerted by the Ss was greater in Session 3. Session 4 had the Ss in passive relaxation. Punishment produced a rise in adrenaline and noradrenaline release. By increasing Ss' control over the situation the adrenaline increase was counteracted, while the noradrenaline release was unaffected. Ss with high adrenaline and noradrenaline excretion were more efficient in speed and accuracy of performance. (15 ref.)—*Journal abstract.*

3660. Kakolewski, Jan W. & Deaux, Edward. (Antioch Coll.) **Influence of sham stomach loading on serum osmolality.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1205-1206.—In an experiment with 21 female Holtzman albino rats, stomach sham-loading was accompanied by a significant increase in serum osmolality which was highly correlated with the time involved in the sham-loading procedure. A decrease in serum osmolality followed a stomach loading of 8 ml. of distilled water, but the change was smaller than that observed to follow oral ingestion of the same volume of water.—*Journal abstract.*

3661. Kudrin, A. N. & Vorob'ev, V. G. **Aminoketony.** [The aminoketones.] Moscow, USSR: Meditsina, 1970. 328 p.—Based on the authors' own research in the field of the beta-aminoketones and on the data of the literature, a book on the biological, pharmacological, and clinical aspects of the aminoketones, among which are "active adrenolytics, spasmolytics, antagonists of angiotensin, antiarrhythmic and neurotropic agents" and whose "broad spectrum of pharmacological activity is connected with their influence on the processes of excitation and inhibition in the central and peripheral nervous system and also in the striped and smooth musculature."—*I. D. London.*

3662. Mandell, Arnold J. & Spooner, Charles E. (U. California, Irvine) **Psychochemical research studies in man.** *Science*, 1968(Dec), Vol. 162(3861), 1442-1453.—Presents current theory and methodology in research attempting to relate biochemical phenomena to brain function in man, with particular relevance to behavioral states. Reservations concerning the establishment of any substance as a physiological modulator or transmitter in the CNS are discussed. 4 research strategies currently in use are described. (105 ref.)—*Journal summary.*

3663. Meyerson, Bengt J. (U. Uppsala, Sweden) **Monoamines and hormone activated oestrous behaviour in the ovariectomized hamster.** *Psychopharmacologia*, 1970, Vol. 18(1), 50-57.—Estrous behavior was activated by estradiol/progesterone treatment in

ovariectomized hamsters. Amine depletors, reserpine and tetrabenazine, did not reduce the estrous behavior while an inhibitory effect was obtained by the MAO inhibitors, pargyline and nialamide. When dihydroxyphenylalanine or 5-hydroxytryptamine was combined with pargyline, the inhibitory effect was enhanced.—*P. Federman.*

3664. Nordgren, Richard A., Woodruff, Diana S., & Bick, Michael D. (U. Southern California) **The effect of exogenous RNA on the retention of discriminative learning in the rat.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1169-1171.—To test the hypothesis that administration of RNA affects behavior by providing a supply of precursors for de novo synthesis of RNA, the effect of whole RNA was compared to that of an alkaline hydrolysate. 28 male Long-Evans rats were trained on a discrimination task and divided into 4 groups of equal mean performance on the task. Each group received 1 of the following treatments: whole RNA injection, hydrolysate RNA injection, saline injection, no injection. No significant difference was observed in the mean performance of the 4 groups after injections. It is concluded that RNA did not affect learning or retention of a discrimination task. Since the procedure of some experiments demonstrating the positive effect of RNA on learned behavior was to repeatedly inject Ss with RNA over long periods of time, while in the present study Ss were injected only once, the difference in results may have been due to experimental differences in the injection schedule.—*Journal abstract.*

3665. Sandberg, H. E. & Piette, L. H. (U. Hawaii, Medical School) **EPR studies of psychotropic drug interactions at cell membranes.** *Agressologie*, 1968, Vol. 9(1), 59-67.—Interaction of equal concentrations of perphenazine, chlorpromazine, and promazine with maleimide spin labeled ghosts produced a reversible conversion of weakly immobilized spin labels. Results demonstrate the usefulness of the spin label technique in studying the interaction of drug molecules with membranes. The reaction of chlorpromazine free radical with bound spin label indicates that the free radical moiety penetrates the membrane to the site of the strongly immobilized spin labels.—*M. Daniels.*

3666. Stoller, William. (Indiana U., Kokomo) **Brain RNA hydrogen bonding in young and old rats after metrazol-induced convulsion.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1071-1072.—Used the reaction of nucleic acid with formaldehyde to investigate brain RNA hydrogen bonding in 6 young and 6 old Carworth Farms rats after metrazol-induced convulsion or control treatment. The degrees of hydrogen bonding for the young-convulsive, young-nonconvulsive, old-convulsive, and old-nonconvulsive conditions were estimated to be 52.9 ± 3 , 52.6 ± 2.9 , 47.4 ± 7.5 , and $52.4 \pm 2.9\%$ respectively. Differences among these values were not statistically significant.—*Journal abstract.*

Hormones

3667. Adler, N. T., Resko, J. A., & Goy, R. W. (U. Pennsylvania) **The effect of copulatory behavior on hormonal change in the female rat prior to implantation.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1003-1007.—The concentration of progesterone in systemic plasma of female Sprague-Dawley rats was proportional to the amount of copulatory stimulation they received when they were in heat. Within 6 hr. after mating, 7 Ss receiving more than 9 intromissions (high

intromission group) had significantly higher quantities of this hormone in their blood than 7 Ss receiving no copulatory stimulation (control group). 5 Ss in the high intromission group showed steadily increasing concentrations of progesterone over the 4 days following mating, while 9 Ss receiving a small number of intromissions (low intromission group) or no intromissions (control group) did not show this increase. In addition to progesterone, the female rat is known to secrete a 2nd, weaker, gestational hormone: 20α -OH-pregn-4-ene-3-one. On the 4th day after mating, the ratio of progesterone to 20α -OH-pregn-4-ene-3-one in the high intromission group was 1.1 compared to .43 for the low intromission group and .21 for the control group. Thus, sufficient stimulation from the male rat's copulatory intromissions initiates a neuroendocrine reflex in the female; the result of this reflex is an elevated concentration of progesterone in the female soon after coitus, followed by the maintained secretion characteristic of pregnancy. (30 ref.)—*Journal abstract.*

3668. Anton-Tay, Fernando; Chou, Chuan; Anton, Sylvia, & Wurtman, Richard J. (Massachusetts Inst. of Technology) **Brain serotonin concentration: Elevation following intraperitoneal administration of melatonin.** *Science*, 1968(Oct), Vol. 162(3850), 277-278.—The ip administration of melatonin to female Sprague-Dawley rats caused an increase in brain serotonin concentration, especially in the midbrain. This effect could be demonstrated within 20 min. of melatonin administration and was not associated with changes in norepinephrine concentration. (19 ref.)—*Journal abstract.*

3669. Avakyan, O. M. & Pogossyan, A. V. (Inst. of Fine Organic Chemistry, Erevan, USSR) **O potentsirovani sokrashchenii semyavynosyashchego protoka katekholaminami.** [On potentiation of the contractions of the spermatic duct with catecholamines.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 25-28.—Isolated guinea pig vasa deferentia were utilized in a study to determine the role of the ganglionic structures, distributed around the entrance of the hypogastric nerve into the spermatic duct, in the considerable intensification of the contractile reaction of the isolated organ in response to either transmural electrical stimulation or electrical stimulation of the hypogastric nerve under the influence of noradrenaline and adrenaline. Noradrenaline and adrenaline (8 microgm/ml) increased the contractions of isolated spermatic duct with electrical stimulation of the hypogastric nerve. After removal of the ganglionic structures around the entrance of the nerve into the organ and transmural stimulation of the spermatic duct, the catecholamines intensified the reaction. The magnitude of the effect was increased after depletion of noradrenaline through the action of reserpine. Adrenaline potentiated the responses of vasa deferentia to a much greater degree than did noradrenaline. Why this is so is unclear since the nerves of vas deferens are noradrenergic.—*J. D. London.*

3670. Baranov, V. G., et al. (Pavlov Inst. of Physiology, Leningrad, USSR) **Sopostavlenie gonadotropnoi funktsii gipofiza s urovnem katekholaminov i neirosekretornoj aktivnost'yu u krys.** [Comparison of hypophyseal gonadotropic function with catecholamine level and neurosecretory activity in rats.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 1020-1027.—Female rats (with normal sexual cycle, in constant heat, and ovariectomized) served as Ss. Results of (a) biolog-

ical determination of the luteinizing (LH) and follicle-stimulating hormones in the hypophysis and of the hypothalamic factor (LH-RF), eliciting the excretion of the LH from the hypophysis, were compared with the results of (b) the histological study of the anterior lobe of the hypophysis along with catecholamine level and secretory activity of all parts of the hypothalamo-hypophyseal neurosecretory system. The findings are presented in considerable detail. (English summary) (46 ref.).—*I. D. London.*

3671. Beatty, William W., Powley, Terry L., & Keesey, Richard E. (North Dakota State U.) **Effects of neonatal testosterone injection and hormone replacement in adulthood on body weight and body fat in female rats.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1093-1098.—Administered testosterone or oil injections to 36 Holtzman female rats at 3 days of age. Upon reaching adulthood, each treatment group was divided into 3 subgroups that were either (a) ovariectomized and given prolonged estrogen injections, (b) ovariectomized and given oil injections, or (c) sham-operated and given oil injections. In agreement with previous findings, the infant testosterone treatment increased body weight (significant increases from control levels appeared by 28 days of age) and decreased ovarian weight. Ovariectomy in adulthood produced quantitatively similar increases in body weight whether or not testosterone had been administered in infancy. Similarly, estradiol was equally effective in both infant testosterone and control groups in blocking this increase in weight following ovariectomy. However, estradiol reduced the weight of ovariectomized and testosterone-treated Ss only to levels characteristic of other testosterone-treated but non-ovariectomized Ss, never to normal control levels. Results are interpreted as indicating that testosterone in infancy chronically alters or reorganizes a central nervous mechanism responsible for regulating body weight; but, this mechanism retains its responsiveness to the normal weight-suppressing effects of estrogen following such treatment. Observations indicating parallel effects of estrogen upon weight and body fat, particularly in the inguinal fat organs, are also reported.—*Journal abstract.*

3672. Brockway, Barbara F. (2175 Tabor Dr., Denver, Colo.) **Hormonal and experiential factors influencing the nestbox oriented behaviour of budgerigars (*Melopsittacus undulatus*).** *Behaviour*, 1969, Vol. 35(1-2), 1-26.—"Estrogenic material can induce both virgin and experienced males to perform nestbox-oriented behaviour. The presence or absence of testicular androgens, or of exogenous androgenic material, does not prompt males to perform any nestbox-oriented behaviour. Virgins are less responsive than are experienced males. Females seem more easily induced, by hormonal manipulations, to perform nestbox-oriented behaviour than are males with similar backgrounds and given identical treatments."—*N. M. Ginsburg.*

3673. Edwards, David A. & Herndon, James. (Emory U.) **Neonatal estrogen stimulation and aggressive behavior in female mice.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 993-995.—Compared the effects of neonatal and androgenization and neonatal estrogenization on the development of mechanisms for aggressive behavior in Swiss-Webster mice. Female Ss were given either estradiol benzoate (EB) or testosterone propionate (TP) on the day of birth. Other females were given a control injection of oil on the day of birth; male

Ss received an injection of oil on the day of birth. As adults all Ss were gonadectomized, given replacement therapy with TP, and tested in pairs for fighting. 92% of the 13 pairs of females given EB at birth fought following androgen replacement therapy in adulthood. Only 25% of the 12 pairs of females given oil at birth fought in adulthood. 100% of the males (N = 22) and 100% of the females given TP (N = 24) on the day of birth fought in adulthood. It is concluded that administration of estrogen to neonatal female mice facilitates the differentiation of androgen sensitive mechanisms for adult aggressive behavior. In this regard, neonatal estrogenization appears to mimic the effects of neonatal androgenization.—*Journal abstract.*

3674. Edwards, David A. & Thompson, Michael L. (Emory U.) **Neonatal androgenization and estrogenization and the hormonal induction of sexual receptivity in rats.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1115-1119.—Compared male rats, neonatally androgenized and normal females for the induction of receptivity by estrogen stimulation alone or by combined administration of estrogen and progesterone. Neonatally estrogenized females were also compared with neonatally androgenized females, to determine to what extent neonatal estrogenization exactly mimics neonatal androgenization. 31 female Sprague-Dawley Ss were given an injection of testosterone propionate, estradiol benzoate, or oil at birth. 11 male Ss were given oil at birth. As adults, all Ss were gonadectomized and tested for sexual receptivity following administration of estrogen alone, or estrogen and progesterone. Females given oil at birth showed moderate levels of sexual receptivity when administered estrogen alone. Levels increased as estrogen was increased. At each dose level, females given oil at birth and estrogen and progesterone in adults showed higher levels of receptivity than females given only estrogen. Male Ss, and androgenized and estrogenized females failed to show significant receptivity at any dose level of estrogen stimulation, whether or not progesterone was also given. It is concluded that a major effect of neonatal androgen stimulation, exogenous or endogenous, is an inhibition of the development of estrogen sensitive systems for lordotic behavior. In this regard, neonatal estrogenization appears to mimic the effects of neonatal androgenization.—*Journal abstract.*

3675. Fiske, Virginia M. & Huppert, Leonore C. (Wellesley Coll.) **Melatonin action on pineal varies with photoperiod.** *Science*, 1968(Oct), Vol. 162(3850), 279.—In an experiment with 95 female Sprague-Dawley rats, it was found that administration of melatonin can prevent the diurnal rhythm of serotonin concentration characteristic of the pineal organ. Whether or not such a change is induced depends upon the point in the photoperiod when the hormone is injected. This observation indicates that the action of melatonin is affected by the photic environment of the recipient.—*Journal abstract.*

3676. Hutchison, J. B. (Sub-Dept. of Animal Behaviour, Madingley, England) **Differential effects of testosterone and oestradiol on male courtship in Barbary doves (*Streptopelia risoria*).** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 41-51.—Sexually experienced male Barbary doves displayed sexual behaviors ranging from "complete" to "incomplete." These behaviors were modified after 8-10 successive daily tests with females, apparently reflecting effects of experience. The role of endocrine factors underlying the devel-

opment and maintainancy of some sexual behaviors were studied by treating castrated males im with testosterone propionate or estradiol monobenzoate and observing sexual behaviors for 16 successive days with females. Testosterone failed to induce test soliciting in males that did not display this behavior, but reestablished it to precastration levels in males that did display it. Estradiol induced this behavior in all Ss. Less chasing was induced by estradiol than by testosterone in males displaying complete courtship patterns prior to castration. Testosterone induced 50% of castrates to display bowing; estradiol did not induce this behavior. (18 ref.)—G. Greenberg.

3677. Michael, Richard P. & Zumpe, D. (Bethlem Royal Hosp., Beckenham, England) **Aggression and gonadal hormones in captive rhesus monkeys (*Macaca mulatta*)**. *Animal Behaviour*, 1970(Feb), Vol. 18(1), 1-10.—Studied aggressive interactions between pairs of adult rhesus monkeys of opposite sexes quantitatively during 1019 hr. of observation extending over 2.5 yr. The levels of aggression by both males and females changed with pregnancy, ovariectomy, and the administration of gonadal hormones (estradiol, progesterone, and testosterone propionate). Ovariectomy increased the overall level of aggression, particularly, that of the male. In contrast, pregnancy and the administration of hormones to females diminished aggression by males and increased their tolerance of aggression by females. There is evidence that estradiol administration directly increases female aggressivity while progesterone does so indirectly by diminishing female receptivity and her tolerance of male mounting attempts. (36 ref.)—*Journal summary*.

3678. Pfaff, Donald W. (Rockefeller U.) **Autoradiographic localization of radioactivity in rat brain after injection of tritiated sex hormones**. *Science*, 1968(Sep), Vol. 161(3848), 1355-1356.—Radioactivity was found in cell bodies of neurons and glial cells throughout brains of male and female rats injected with either testosterone- H^3 ($N = 8$) or estradiol- H^3 ($N = 8$). Uptake by limbic and hypothalamic structures was higher and longer lasting than that in nonlimbic structures. In all brains, the preoptic area, prepiriform cortex, olfactory tubercle, and septum had particularly high, long-lasting uptake of both hormones.—*Journal abstract*.

3679. Pushkarev, Yu. P. (Pavlov Inst. of Physiology, Leningrad, USSR) **Analiz deistviya katekholaminov i serotoninina na vegetativnye ganglii**. [Analysis of the action of the catecholamines and serotonin on autonomic ganglia.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 22-25.—42 cats under chloralose-urethane narcosis were used in a comparative study of the influence of the catecholamines and serotonin on the different stages of synaptic transmission in sympathetic ganglia with undisturbed blood supply. The catecholamines and serotonin in physiological doses displayed opposite effects on synaptic transmission in sympathetic ganglia. In most cases the catecholamines inhibited this transmission; serotonin facilitated it. The deterioration of synaptic transmission, produced by adrenaline (1-1 microgm/kg), noradrenaline (3-5 microgm/kg), and large doses of serotonin (3-10 microgm/kg) occurred due to a decrease in the excitatory action of the presynaptic termini. The sporadic facilitation of synaptic transmission, which was observed following the administration of small doses of amines, was seen as the result of an

increase in the excitability of the ganglionic cholinergic receptive structures.—I. D. London.

3680. Schmidt, Robert S. (Loyola U., Hines, Ill.) **Preoptic activation of mating call orientation in female anurans**. *Behaviour*, 1969, Vol. 35(1-2), 114-127.—Tree frogs and Fowler's toads were induced to ovulate by injecting gonadotrophin and progesterone. Gravid females oriented toward tapes of conspecific male mating calls. Nongravid females and males made no observable response to mating calls. "Testing of females with forebrain lesions showed that the telencephalon and the dorsal part of the preoptic area are not necessary for orientation behavior, but that the region of the ventral magnocellular preoptic nucleus is essential."—N. M. Ginsburg.

3681. Yakovlev, N. N. **Simpozium po endokrinnyim mekhanizmam regulatsii prispособleniya organizma k myshechnoi deyatel'nosti**. [Symposium on the Endocrine Mechanisms for Regulating the Adaptation of the Organism to Muscular Activity.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1307-1309.—Presents summaries of a number of the papers read at the 1969 symposium held in Kyaeriku, USSR.—I. D. London.

3682. Zumpe, D. & Michael, Richard P. (Bethlem Royal Hosp., Beckenham, England) **Redirected aggression and gonadal hormones in captive rhesus monkeys (*Macaca mulatta*)**. *Animal Behaviour*, 1970(Feb), Vol. 18(1), 11-19.—Describes threat behavior characterized by being directed away from the sexual partner in 5 oppositely-sexed pairs of adult rhesus monkeys. It was established that threatening-away did not occur in response to any external, environment stimulus, but did vary with the sexual activity of the pair. When male sexual interest in the female was high, male threatening-away was more frequent and intense. Threatening-away by females increased when female receptivity was increased either by subcutaneous injections or by brain implants of estrogen. When female receptivity was reduced by progesterone administration, female threatening-away also declined. It is argued that threatening-away behavior is redirected aggression and functions to consolidate the bonds between sexual partners. (32 ref.)—*Journal summary*.

Drug Effects—Human

3683. Back, Kurt W., et al. **Physiological and situational factors in psychopharmacological experiments**. *Psychophysiology*, 1970(May), Vol. 6(6), 749-760.—Investigated some psychological and physiological reactions to introduction of chlordiazepoxide hydrochloride to an experimental situation involving a conformity trial. Groups of 4 male undergraduates were selected with either considerable previous acquaintance (friends) or little acquaintance (strangers). In each group, 2 Ss were given an injection of the drug and 2 an injection of saline. Conformity to false group feedback was measured on a Crutchfield-Gerard apparatus and arousal was measured in terms of the plasma free fatty acid (FFA) level. Self-ratings of mood were obtained using the Nowlis Adjective Check List. It was found that the experimental manipulations of group composition or drug injection did not yield clear-cut results unless the Ss were divided according to initial ratings of anxiety. Ss initially more anxious, who were administered the drug and who were tested as strangers, show greater con-

formity to group pressure and a continuous increase in physiological arousal. These conditions are interpreted as being cumulative sources of strain, under which Ss concentrate on monitoring themselves to the exclusion of attending to surrounding events.—*Journal abstract.*

3684. Bowes, W., Brackbill, V., Conway, E., & Steinschneider, A. (U. Colorado) **The effects of obstetrical medication on fetus and infant.** *Monographs of the Society for Research in Child Development*, 1970(Jun), Vol. 35(4), 55 p.—Explores the effects of maternally administered drugs upon the fetal milieu, and discusses some of the implications of these effects for the development of the child.—*A. Barclay.*

3685. Clark, Lincoln D., Hughes, Ronald, & Nakashima, Edwin N. (U. Utah, Medical Center, Behavioral Sciences Lab.) **Behavioral effects of marihuana: Experimental studies.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 193-198.—Presents evidence from an experiment with 18 21-36 yr. old college-educated men that marihuana intoxication has significant effects on complex RT (largely through sporadic impairment of vigilance), recent memory, recall and comprehension of written information, and accuracy of time estimation. The drug was given by mouth as an alcohol extract. Experimental data (including the Digit-Code Memory and Iowa Silent Reading tests) and introspective reports suggest that the processes involved in selective perception (and, conversely, habituation to irrelevant stimuli), immediate recall of preceding thoughts in order to keep on track, and capacity for goal-directed systematic thinking are particularly sensitive to relatively low doses of marihuana. It is suggested that distortion of time sense is incident to these effects on perception, memory, and organization of thought. Research on possible long-term impairment in habitual marihuana users is indicated.—*Journal summary.*

3686. Coburn, Ronald F. (U. Pennsylvania, Medical School, Cardiovascular-Pulmonary Div.) **Enhancement by phenobarbital and diphenylhydantoin of carbon monoxide production in normal man.** *New England Journal of Medicine*, 1970(Sep), Vol. 283(10), 512-515.—9 normal human Ss were given a 7-day course of phenobarbital or diphenylhydantoin. With phenobarbital and diphenylhydantoin, respectively, total body heme, as estimated by carbon monoxide dilution, rose to an average of 114.8 ($p < .05$) and 109% ($p < .05$) of control levels. Rates of heme catabolism, determined by measurement of rates of carbon monoxide production, increased an average of 174 and 214% of normal ($p < .01$) with these 2 agents. The agents appear to have induced hepatic heme, and after "induction," catabolism of hepatic heme contributed over 50% of the total carbon monoxide production. (32 ref.)—*Journal abstract.*

3687. Cohen, S. **Drugs of hallucination: The uses and misuses of lysergic acid diethylamide.** London, England: Secker-Warburg, 1968.—Presents a history of LSD manufacture, and describes the chief characteristics of the drug's influence on the CNS along with those of other hallucinogens. The medical aspects of LSD use in general and in the process of psychotherapy are discussed.—*I. D. London.*

3688. Crane, George E. (Spring Grove State Hosp., Baltimore, Md.) **Cardiac toxicity and psychotropic drugs.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 534-539.—Reviews the literature of the cardiac effects of psychotropic drugs. Therapeutic doses of thioridazine and tricyclic antidepressants cause typical

EKG changes. The same drugs, particularly in excessive doses, may produce cardiac disorder or death. Chlorpromazine and other phenothiazines appear to be less toxic. There is also the possibility that benign EKG changes will eventually lead to permanent cardiac impairment. (57 ref.)—*Journal summary.*

3689. Hollister, Leo E. & Gillespie, Hamp K. (Veterans Administration Hosp., Palo Alto, Calif.) **Marihuana, ethanol, and dextroamphetamine: Mood and mental function alterations.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 199-203.—Treated 12 normal volunteer Ss with marihuana (median dose equivalent to 32 mg. tetrahydrocannabinol), ethanol (median dose 57 gm.), dextroamphetamine (median dose 15 mg.), and a marihuana placebo. Assignment to treatments was random over weekly intervals. Subjective responses based on a mood scale revealed increased stimulation and activity, and decreased drowsiness from dextroamphetamine as compared with placebo. Ethanol and marihuana decreased activity. Dextroamphetamine tended to improve performance on psychometric tests; the other 2 drugs tended to impair it. Time estimation was longer with marihuana than with the other treatments, yet because the latter were associated with gross underestimates, marihuana estimates most closely approximated the actual interval being estimated. Dextroamphetamine increased performance on the digit-symbol substitution test. Ethanol and marihuana increased simple RT. Marihuana and ethanol were most alike in their effects, with the exception of the alteration in time perception produced by the former drug. Dextroamphetamine was essentially unlike the other 2 drugs and improved, rather than impaired, performance even in nonfatigued Ss.—*Journal summary.*

3690. Idström, C. M. & Schalling, D. (Karolinska Hosp., Stockholm, Sweden) **Objective effects of dexamphetamine and amobarbital and their relations to psychasthenic personality traits.** *Psychopharmacologia*, 1970, Vol. 17(5), 399-413.—5- and 15-mg dexamphetamine and 150- and 300-mg amobarbital were studied in 2 groups of 22 military Ss, selected for extreme scores on a psychasthenia scale. The pattern of the drug effects was important after dexamphetamine and impairment after amobarbital, as compared to the placebo. Dexamphetamine gave few significant effects, except for cardiovascular measures. Significant effects were obtained after amobarbital in a number of tests. The treatment group interactions were related to a greater sensitivity to amobarbital in the high psychasthenic group. More significant effects were obtained after amobarbital as compared to the placebo in the high group, especially 1 hr. after 300-mg amobarbital. (26 ref.)—*Journal abstract.*

3691. Jones, Reese T. & Stone, George C. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Psychological studies of marihuana and alcohol in man.** *Psychopharmacologia*, 1970, Vol. 18(1), 108-117.—Regular users of marihuana were given smoked and orally administered marihuana, alcohol, or a placebo. They were unable to distinguish between smoked marihuana and the placebo. The oral administration of marihuana (tincture of cannabis) produced dysphoric symptoms and was similar to alcohol in this respect. The smoked marihuana altered pulse rate, time estimation, and EEG, but had no effect on field dependence or digit symbol substitution tasks. Both drugs were mild intoxicants. (17 ref.)—*P. Federman.*

3692. Kales, Anthony; Kales, Joyce D., Scharf, Martin B., & Tan, Tjiauw-Ling. (U. California, Medical School, Los Angeles) **Hypnotics and altered sleep-dream patterns: II. All-night EEG studies of chloral hydrate, flurazepam, and methaqualone.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 219-225.—Evaluated 3 nonbarbiturate hypnotics—chloral hydrate (500 and 1000 mg.), flurazepam (30 mg.), and methaqualone (150 mg.)—using 8-night protocols. Ss were 20-30 yr. old healthy males. The administration of chloral hydrate in both dosages and of 150 mg. of methaqualone did not result in REM suppression nor did withdrawal produce a REM rebound. 30 mg. flurazepam produced a slight REM suppression but no REM rebound following withdrawal. 30 mg. flurazepam was the only drug to suppress Stage 4 sleep significantly. Beginning with the 2nd drug night, the decrease was progressive and marked and continued into the withdrawal period. Flurazepam (60 mg.) and methaqualone (300 mg.) were studied with 3- and 8-night protocols, respectively. Both produced definite REM suppression, and withdrawal of methaqualone also produced a REM rebound. The effectiveness of these drugs in inducing and maintaining sleep could not be adequately evaluated owing to the use of normal Ss. Definite trends, however, were established, with 1000 mg. chloral hydrate favorably reducing sleep latency and 30 mg. flurazepam favorably reducing both sleep latency and wake time after sleep onset. In conditions known to be exacerbated during REM sleep (e.g., coronary artery and duodenal ulcer disease), the physician is cautioned to avoid REM rebound when hypnotic drugs are used. It is stressed that any potential use of REM or Stage 4 suppressant hypnotics needs to be thoroughly investigated prior to general clinical use. (16 ref.)—*Journal summary*.

3693. Kruskal, William H. & Haberman, Shelby. (U. Chicago) **Chromosomal effect and LSD: Samples of four.** *Science*, 1968(Dec), Vol. 162(3861), 1508-1509.—Discusses problems of distinguishing between statistical significance and substantive significance in differences obtained when small samples are used in research. A study by R. S. Sparkes, J. Melnyk, and L. P. Bozzetti is used as an example of misimpressions that can be created. Additional comments on small-sample analyses are provided by F. W. Whitmore, and R. S. Sparkes, D. Thomas, J. Melnyk, and L. Bozzetti.—*P. McMillan*.

3694. Lader, M. H., Sakalis, G., & Tansella, M. (Crespigny Park Psychiatric Inst., London, England) **Interactions between sympathomimetic amines and a new monoamine oxidase inhibitor.** *Psychopharmacologia*, 1970, Vol. 18(1), 118-123.—Describes a safe method for the screening of new MAO inhibitors with respect to their potentiation of dietary and sympathomimetic amines. Studies of such a compound, clorgyline, and its interactions with oral tyramine and phenylphrine given orally to 3 doctor volunteers are described. Market potentiation of the bradycardia-inducing properties of the amines was found.—*P. Federman*.

3695. Lang, W. J. & Rand, M. J. (U. Melbourne, Victoria, Australia) **A placebo response as a conditional reflex to glyceryl trinitrate.** *Medical Journal of Australia*, 1969(May), Vol. 1(18), 912-914.—Glyceryl trinitrate consistently produced tachycardia with variable headache and palpitations in 8 normal female volunteers. After repeated administration of active

tablets, when placebos were substituted by means of a double-blind technique, tachycardia, occasional headache and palpitations resulted. Effects are interpreted as conditional responses established with the active tablet serving as the UCS and the placebo as the CS. Conditional responses can be induced in animals by means of a variety of drugs as the UCS. The occurrence of similar responses in man would be considered when conducting and interpreting clinical trials.—*Journal summary*.

3696. Lowenstein, Leah M., Simone, Rosemary; Boulter, Phillip, & Nathan, Peter. (Boston U., Medical School) **Effect of fructose on alcohol concentrations in the blood in man.** *JAMA: Journal of the American Medical Association*, 1970(Sep), Vol. 213(11), 1899-1901.—Fructose has previously been found to be the most effective experimental compound in increasing the metabolism of alcohol (ethanol). In this clinical study, fructose, glucose, or saline infusions were administered iv to Ss who simultaneously drank 300 ml of bourbon. Fructose infusions resulted in a lowering of the alcohol levels in the blood by 43% compared to the values obtained during saline solution infusions. Glucose infusions were ineffective. The lowering of the alcohol levels by fructose may occur because the dissociation of the nicotinamide alcohol dehydrogenase complex is accelerated by intermediary metabolites of fructose.—*Journal abstract*.

3697. Melges, Frederick T., Tinklenberg, Jared R., Hollister, Leo E., & Gillespie, Hamp K. (Stanford U., Medical School) **Temporal disintegration and depersonalization during marihuana intoxication.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 204-210.—In an experiment using double-blind controls, 8 normal men were given a placebo and 20-, 40-, and 60-mg marihuana extract calibrated for content of tetrahydrocannabinol. On a cognitive task and a subjective inventory it was found that the oral doses of marihuana extract induced Ss to confuse past, present, and future and to lose their goal-directedness. This temporal disintegration was related to increases in depersonalization for all 8 Ss. For each S studied separately, changes in temporal disintegration correlated positively with changes in depersonalization, indicating that these processes were dynamically interrelated. Overall findings indicate that the fragmentation of temporal experience and the accompanying depersonalization were euphorogenic. Euphoria often took place when Ss felt less concerned about future outcomes relevant to maintaining their usual sense self. (18 ref.)—*Journal summary*.

3698. Rigal, J., Savelli, A., & Juillet, P. (Hosp. Militaire d'instruction du Val-de-Grace, Service d'électroencephalographie et de neurophysiologie clinique, France) **Contribution à l'étude neurophysiologique du mode d'action des drogues psychotropes et en particulier des neuroleptiques, par la mise en évidence, chez l'homme, de leurs effets sur les systèmes effecteurs.** [Contribution to the neurophysiological investigation of the mode of action of psychotropic drugs and in particular the neuroleptics, as evidenced in man by their effects on regulatory systems.] *Agressologie*, 1968, Vol. 9(1), 153-157.—Examines the use in psychiatry of drugs with major neuroleptic activity accompanied by the appearance of various neurological manifestations predominantly extrapyramidal. These substances affect the regulating mechanisms of the

motor, tone, postural, and reflex activities. The study in man, of the reactivity of the spinal motor neuron with the appropriate neurophysiological technique, permits the evaluation of the state of excitability of the 2 large alpha and gamma systems of control of the terminal common pathway. The comparison of the responses obtained after the injection of various psychotropic drugs differentiated their respective effects on these regulating systems. It was observed that substances which cause a neuroleptic syndrome are those which cause an imbalance in the alpha and gamma levels of excitability. This concerns the substances which cause important modifications in the reflex responses, e.g., the major stimulant neuroleptics. Conversely, the sedative neuroleptics tend to depress these responses. Clinically, these results explain the paradoxical corrective action of a sedative neuroleptic on the manifestations that follow the administration of stimulant neuroleptics. However, the differences noted in the levels and delay of elimination of the various psychotropic drugs is a practical difficulty which should not be underestimated. —English abstract.

3699. Safer, Daniel J. (Johns Hopkins Hosp., Childrens Medical & Surgical Center, Baltimore, Md.) **The concomitant effects of mild sleep loss and an anticholinergic drug.** *Psychopharmacologia*, 1970, Vol. 17(5), 425-433.—37 males were tested in drug-alone, sleep-loss-alone, and sleep-loss-drug groups to determine the separate and combined effects of mild sleep loss and scopolamine hydrobromide. Scopolamine was administered iv in either a sedative dose or a low-deliriant dose; sleep deprivation was for either 1 or 2 nights. Scopolamine given after loss of sleep caused significantly more intense and prolonged psychotomimetic effects than were noted in the drug-alone condition. The results on sedation were not uniform. Ss who received a sedative dose following sleep deprivation showed increased somnolence; the reverse was true for the low-deliriant dose in the sleep-loss Ss.—Journal abstract.

3700. Safer, Daniel J. (Johns Hopkins Hosp., Childrens Medical & Surgical Center, Baltimore, Md.) **The effect of LSD on sleep-deprived men.** *Psychopharmacologia*, 1970, Vol. 17(5), 414-424.—13 males were tested for motor, attention, physiologic, and behavioral effects of 1.5 µg/kg of LSD taken orally after 1 or 2 nights' loss of sleep. 20 additional Ss were tested in 2 control categories: 1.5 µg/kg of LSD alone, and 1 night's sleep loss alone. The onset of characteristic LSD behavior and attention impairment was more rapid in Ss who received LSD after loss of sleep than in the drug-alone groups. The sleep-loss LSD Ss showed inaccuracies in problem solving and vigilance tests not present in the controls. Ss who received LSD after 2 nights' loss of sleep showed increases in pulse rate, pupil size, and 3-hr plasma levels of LSD.—Journal abstract.

3701. Saratikov, A. S. Kamfara. [Camphor.] Tomsk, USSR: Tomsk U., 1966. 275 p.—In this monograph on the pharmacology and clinical application of camphor, major attention is directed to (a) the biochemical mechanism of the cardiotonic effect produced by camphor, (b) the influence of camphor on the capillaries and regional circulation in the brain and heart, and (c) an analysis of its cholinolytic and adrenergic action.—I. D. London.

3702. Zingerman, A. M. (Inst. of Experimental Medicine, Leningrad, USSR) **O mekhanizmakh formirovaniya funktsional'noi aktivnosti regulatorynykh**

sistem golovnogo mozga cheloveka-operatora v veroyatnostnoi srede. [On mechanisms for formation of the functional activity of the regulatory systems in the brain of the human operator in a probability environment.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 940-947.—Utilized pharmacological analysis to determine (a) the features marking the reactions of the human operator to signals of varying probability ($1/4$, $1/2$, $1/4$, $1/8$), when the functional state of the cerebral regulatory systems has been changed, and (b) the role of cerebral functional systems and structures in executing these reactions. The influence of "probability of [occurrence of] an emergency situation," was simulated in the form of intense electrocutaneous pain reinforcement, and preparations were employed either to increase or decrease excitation and tension: adrenaline, melipramine, aminazine (chlorpromazine), and andaxine. The 1st 2 (stimulators) increased reactivity to the warning signals, promoting the differentiability of reactions to signals with varying probabilities of occurrence; the last 2 (tranquilizers) decreased both reactivity and differentiability of the reactions. Under the influence of the stimulators, no change was noted in the character of intersystemic interrelationships. Under the influence of the tranquilizers, the intersystemic intracentral interrelationships were distorted, with the reactions acquiring a paradoxical character. The most adequate reactions occurred against a background of melipramine action. Analysis of the data confirms the hypothesis assigning (a) a primary role to the adrenergic structures of the mesencephalic reticular formation and the amygdala in the formation of reactions to signals of high probability of occurrence, and (b) a leading role to the nonspecific formations of the thalamus, and also the hippocampus, in the formation of reactions to signals of low probability of occurrence. (English summary) (18 ref.)—I. D. London.

Drug Effects—Animal

3703. Absava, G. I. & Vysotskaya, N. B. (Inst. of Pharmacology & Chemotherapy, Moscow, USSR) **Vliyanie psikhostimulyatorov na dvigatel'nyu aktivnost' krya, a takzhe na vnutri- i vnekletochnoe sodержanie ionov kaliya i natriya v raznykh otdelakh golovnogo mozga.** [Influence of psychostimulators on the motor activity of rats and also on intra- and extracellular concentration of K and Na-ions in various sections of the brain.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 134-137.—White rats were administered 2.5 mg/kg phenamine and 12.5 mg/kg pyridol. The stimulating effect of these preparations was accompanied by an increase in Na⁺ ions and a decrease in K⁺ ions in the cells of the cerebral cortex, brainstem, and medulla oblongata. Reverse changes occurred in the respective extracellular distributions of these ions. The most pronounced changes in ionic composition were observed in the brainstem; the least, in the cerebral cortex. A correlation is noted between the developmental dynamics of the psychostimulating effect of phenamine and pyridol and changes in ionic composition.—I. D. London.

3704. Avakumov, V. M. & Batulin, Yu. M. (Inst. of Pharmacology & Chemotherapy, Moscow, USSR) **Sravnitel'naya kharakteristika raspredeleniya aminazina i khloratsizina u krya.** [Comparative characteristics of the distribution of aminazine and chlor-

acyzine in rats.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 14-17.—Rats were used in a spectrophotometric study of the level of aminazine (chlorpromazine) and of chloracyzine in the blood and tissues of the liver, brain, and heart at different intervals of time (30, 60, 120, 240, and 360 min.) subsequent to their administration. Aminazine level was higher in the cerebral tissues than for chloracyzine.—*J. D. London.*

3705. Bapna, J. S. & Dandiya, P. C. (S.M.S. Medical Coll., Jaipur, India) **Modification of the effects of antipsychotic agents on the "open field" performance of rats by treatment with α -methyl tyrosine or p-chlorophenylalanine.** *Psychopharmacologia*, 1970, Vol. 17(5), 361-366.—Studied "open field" behavior of subthreshold doses of reserpine and chlorpromazine in rats with lowered brain catecholamine or 5-hydroxytryptamine levels. The effects of antipsychotic agents on ambulation and rearing responses were enhanced in Ss with 65% lowered brain catecholamine. Lowering of the 5-hydroxytryptamine to 90% did not modify the effects of the antipsychotic agents. Brain catecholamine levels play a greater role in the mechanism of antipsychotic agents as compared to 5-hydroxytryptamine levels. (18 ref.)—*Journal abstract.*

3706. Bättig, K. (Swiss Federal Inst. of Technology, Zurich) **The effect of pre- and post-trial application of nicotine on the 12 problems of the Hebb-Williams-test in the rat.** *Psychopharmacologia*, 1970, Vol. 18(1), 68-76.—Pre- and posttrial application of .15 mg/kg nicotine had similar effects on the Hebb-Williams test performance of rats. The performance of both treated groups was better than that of the control group, suggesting a beneficial effect of nicotine on higher integrative functions.—*P. Federman.*

3707. Beketov, A. I. & Skoromnyi, N. A. (Crimean Medical Inst., Simferopol, USSR) **Vliyanie ganglioblokatorov i nitrosoedinenii na legochnoe krovoobrashchenie i oksigenatsiyu krovi.** [Influence of ganglioblockers and nitrocompounds on pulmonary circulation and blood oxygenation.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 57-60.—Ss were 58 dogs under sodium etaminal (pentobarbital) narcosis and stabilized artificial respiration. Under constant controlled respiration, gangliron, pachycarpine, and hexonium (hexamethonium) lowered pulmonary arterial pressure along with tonus of the pulmonary vessels and, after a brief increase, diminished the pulmonary flow and raised the saturation of the blood with O_2 . Nitroglycerine and sodium nitrite exerted a hypotensive action on pulmonary circulation, while nitropenton (metamine) exerted a hypertensive action thereon. The former also diminished pulmonary blood flow and lowered oxygenation of the arterial blood. No correlations were observed between changes in the hemodynamics of the pulmonary and systemic circulatory systems as a result of applying gangliolytics and nitrocompounds.—*J. D. London.*

3708. Blum, Kenneth. (Southwest Foundation for Research & Education, San Antonio, Tex.) **Effects of chlordiazepoxide and pentobarbital on conflict behavior in rats.** *Psychopharmacologia*, 1970, Vol. 17(5), 391-398.—A punishment discrimination (conflict) was conditioned in rats by simultaneously rewarding with food and punishing with shock all lever responses made in the presence of an auditory stimulus. Chlordiazepoxide and pentobarbital were administered in order to compare degree of attenuation of conflict behavior

relative to the production of behavioral debilitation. Chlordiazepoxide produced the maximum attenuation at doses that produced only minimum debilitation. Conflict attenuation (antianxiety) was greater under chlordiazepoxide while general debilitation (behavioral toxicity) was greater for pentobarbital. (17 ref.)—*Journal abstract.*

3709. Carlini, E. A. & Santos, M. (Faculdade de Ciências Médicas da Santa Casa, São Paulo, Brazil) **Structure activity relationship of four tetrahydrocannabinols and the pharmacological activity of five semi-purified extracts of Cannabis sativa.** *Psychopharmacologia*, 1970, Vol. 18(1), 82-93.—Studied the structure activity relationships of 4 tetrahydrocannabinols and the pharmacological activity of 5 semi-purified extracts from Cannabis sativa using 4 biological methods: corneal areflexia in rabbits (Gayer test) and cataonia decrease of motor activity and suppression of isolation-induced aggressiveness in mice. Modifications in the structure of pure, natural tetrahydrocannabinols rendered the resultant compounds inactive only when activity was measured by the Gayer test; the activity ranged from 1/5 to equal to the activity of the pure tetrahydrocannabinols by the other 3 methods.—*P. Federman.*

3710. Cole, Sherwood O. (Rutgers State U., Camden, N.J.) **Experimental effects of amphetamine: Supplementary report. Perceptual & Motor Skills**, 1970(Aug), Vol. 31(1), 223-232.—Evaluates generalizations related to the experimental effects of amphetamine on food-motivated operant behavior, bodily activity, and avoidance conditioning in terms of recent evidence. Acceptance of generalizations related to the drug's action on such behaviors requires that one also accept numerous qualifications or limitations in terms of drug-dose factors, S variables, and task characteristics. However, the desirability of such generalizations is stressed. (64 ref.)—*Journal abstract.*

3711. Cole, Sherwood O. (Rutgers State U.) **The relationship of amphetamine-induced anorexia and freezing under a multiple CRF-EXT operant schedule.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 163-168.—.5 and 1 mg/kg doses of amphetamine administered to 12 male albino rats significantly depressed operant performance maintained by a multiple CRF-extinction schedule and produced a significant amount of concomitant freezing behavior on 5 successive sessions. Since the correlation between depressed operant rate and freezing was significant on 3 of the 5 trials, the anorexic action of the drug may have been exaggerated by the incompatible-response nature of freezing. These results are discussed in terms of the ordered and nonordered action of the drug.—*Author abstract.*

3712. Crammer, J. L. & Rolfe, Brenda. (St. John's Hosp., Aylesbury, England) **Metabolism of ^{14}C -imipramine: III. Conversions by rat tissues.** *Psychopharmacologia*, 1970, Vol. 18(1), 26-37.—When the brains of Wistar rats were extracted 1 1/4 hr. after single ip injections of radioactive imipramine some desmethyl-imipramine was found, together with comparable amounts of iminodibenzyl and 2-hydroxyimipramine. The total radioactivity recorded from the brains did not rise on repeated daily injections. Brain slices incubated for 2 hr. at 37° C with radioactive imipramine produced desmethylimipramine, iminodibenzyl, and some didesmethylimipramine, but no hydroxylated metabolites. Liver slices produced more desmethylimipramine. less

iminodibenzyl, some 10-hydroxyimipramine and comparable 2-hydroxyimipramine. Heart, kidney, lung, and gut slices were also active in varying degrees. (22 ref.)—*P. Federman.*

3713. Dahlöf, Lars G., van Dis, Huib, & Larsson, Knut. (U. Göteborg, Sweden) **A simple device for inhalational anesthesia in restrained rats.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1211-1212.—Describes a method for administration of gaseous anesthetics to restrained rats. The device was developed especially for studying the influence of ether and halothane on genital responses elicited by electrical ICS, and consists of 2 silver tubings, 1 for administration of the anesthetic agent and the other for aspiration of profuse saliva. Drawings providing data for the construction of this device are included.—*Journal abstract.*

3714. Denber, Herman C. & Teller, David N. (Manhattan State Hosp., Ward's Island, N.Y.) **Studies on mescaline XVIII: Effect of phenothiazines, amphetamine and amobarbital sodium on uptake into brain and viscera.** *Agressologie*, 1968, Vol. 9(1), 127-136.—Injected pairs of white female Sherman rats with mescaline 8-¹⁴C iv 30 min. after intramuscular human equivalent doses of chlorpromazine, thiopropazine, diethazine, amobarbital, and amphetamine. Ss were killed 30 min. after the mescaline injection, and lung, liver, kidney, blood, and brain ¹⁴C content was measured. Subcellular fractions were prepared from the cortical brain regions. In Exp. II, groups of 4 Ss received 2.5-40 mg/kg mescaline ip 30 min. after the intramuscular drugs or saline (control). In controls, brain ¹⁴C mescaline was .14% of a 10-20 mg/kg iv dose after 30 min. with highest concentration in the cortical region. After 120 min., the concentration decreased to .017%. Diethazine increased the cortical uptake of iv mescaline 200% and amphetamine decreased uptake by 80%. Chlorpromazine and thiopropazine slightly decreased uptake into the brain homogenate. None of the drugs affected loose adsorption of mescaline to myelin. Amobarbital increased mitochondrial mescaline 300%. Pretreatment with chlorpromazine, thiopropazine, or amobarbital increased nerve ending mescaline content, though diethazine did not have this effect. Chlorpromazine and thiopropazine block mescaline activity while diethazine and amphetamine enhance behavioral changes due to the psychotomimetic. Diethazine, which intensifies mescaline's effects in rats and humans increases the psychotomimetic level in the brain, in contrast to amphetamine. It is suggested that neuroleptics do not necessarily act by altering uptake. (15 ref.)—*M. Daniels.*

3715. Dhawan, K. N., Jaju, B. P., & Gupta, G. P. (Lucknow U., K. G. Medical Coll., India) **Validity of antagonism of different effects of reserpine as test for anti-depressant activity.** *Psychopharmacologia*, 1970, Vol. 18(1), 94-98.—Studied the adynamic, ptotic, hypothermic, and conditioned avoidance response blocking effects of reserpine in normal rats and in rats subjected to electroconvulsions for 5 days. Prior exposure to electroconvulsions blocked only the hypothermic response of reserpine.—*P. Federman.*

3716. Fleishman, Joseph J. (Yeshiva U.) **The effects of picrotoxin on classical eyelid conditioning in spinal frogs.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 412.

3717. Gano, Yu., Bugaškiĭ, Ya., Anichkov, S. V., & Zabrodin, O. N. (Inst. of Experimental Medicine,

Leningrad, USSR) **Vliyanie tsentral'nykh neĭotropnykh sredstv na razvitiye eksperimental'nykh neirogennykh distrofiĭ stenki zheludka u krys.** [Influence of central neurotropic agents on the development of experimental neurogenic dystrophies of the gastric wall in rats.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 66-69.—Gastric ulcers were produced in white rats either by immobilization for 24 hr. or by combined immobilization and electrization for 3 hr. Agents administered 2-3 hr. after the start of 24 hr. immobilization were aminazine (chlorpromazine), hexobarbital, amizyl (benactyzine), sodium gamma-hydroxybutyrate, and ipronal (5-allylo-5-beta-hydroxypropylobarbituric acid), which is free of sleep-inducing action, but possesses marked sedative properties. Agents administered 15 min. before combined immobilization and electrization except for imipramine, administered 1 hr. before electrization were aminazine, phenobarbital, amizyl, and phenamine. In both instances, central depressive neurotropic agents noticeably forestalled the development of experimental ulcers of the stomach. On the contrary, phenamine increased the number of ulcerations. Analysis of the mechanism underlying the development of experimental gastric dystrophies produces evidence for the neurogenic nature of their development, and the great involvement of the sympathetic nervous system in the process. At the same time, the evidence points to a certain role for the peptic factor therein.—*I. D. London.*

3718. Gargasas, L., Grinyavichyus, K., Milyauskas, R., & Mitskene, V. (Medical Inst., Kaunas, USSR) **Odnomernye raspredeleniya EKOg vo vremya tiopentalovogo narkoza.** [Unidimensional distributions of the ECoG during thiopental narcosis.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 142-145.—In view of the fact that the form of the electrocorticogram (ECoG) in the case of delta activity reflects quite well the probability density of unidimensional distributions of ECoG potentials, and certain stages of narcosis are accompanied by delta activity, a study was undertaken of the correlation obtaining between depth of thiopental narcosis and the forms of unidimensional distributions of potentials. Curarized rabbits were used as Ss in acute experiments to obtain visual ECoG tracings along with 3 freely moving rabbits in chronic experiments (in the case of the latter, EMGs of the occipital muscles and pneumograms were taken, along with measurements of pupillary diameter, eyelid and corneal reflexes, and motor activity). 341 histograms were studied. Upon coming out of deep narcosis, the probability density of unidimensional distributions of visual ECoG potentials successively underwent a change in form from positively asymmetrical to symmetrical (mostly bimodal) and, further on, to negatively asymmetrical. A complete correspondence is noted between the form of probability density and depth of narcosis.—*I. D. London.*

3719. Glick, Stanley D., Levin, Bruce, & Jarvik, M. E. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Role of monkeys' spatial preferences in performance of a nonspatial task.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 56-61.—Analyzed the performance of adult rhesus monkeys in 3 experiments on a nonspatial delayed matching task in terms of spatial and color preferences and perseverations. Ss utilized significant spatial but not color tendencies. The strength of spatial tendencies was determined to be an important error factor accounting for differences among Ss in overall accuracy. Spatial tendencies, however, could not

account for intra-S differences in accuracy as a function of testing conditions. Administration of d-amphetamine, scopolamine, and chlorpromazine lowered accuracy. Only the effect of d-amphetamine, however, could be largely attributed to an influence on spatial tendencies. The elicitation of spatial tendencies was found to be related to the immediacy with which Ss performed the matching response.—*Journal abstract.*

3720. **Goldberg, Steven R. & Schuster, Charles R.** (U. Michigan, Medical School) **Nalorphine: Increased sensitivity of monkeys formerly dependent on morphine.** *Science*, 1969(Dec), Vol. 166(3912), 1548-1549.—3 rhesus monkeys, formerly dependent on morphine, had increased sensitivity to nalorphine's effect of suppressing operant responding for food, as compared with 2 Ss with no history of morphine exposure. Within the dose range employed, nalorphine injections produced emesis, salivation, and hyperirritability in formerly morphine-dependent Ss but not in controls.—*Journal abstract.*

3721. **Gubarev, E. A. & Buttseva, T. A.** (Medical Inst., Kursk, USSR) **K analizu batmotropnogo éffekta diprazina i dimedrola.** [A contribution to the analysis of the bathmotropic effect of diprazine and dimedrol.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 35-37.—Frog hearts in situ were used to study the influence of diprazine (promethazine) and dimedrol (benedryl) on the excitability of the myocardium. In doses of 5 and 10 mg/kg they displayed a marked negative action without affecting the amplitude of cardiac contractions. In a dose of 25 mg/kg they raised the excitability of the myocardium to the accompaniment of a negative inotropic effect. The bathmotropic action of dimedrol was mediated through both the adreno- and cholinergic innervation of the heart and their influence on the neuromuscular structures of the myocardium itself.—*I. D. London.*

3722. **Heise, George A. & Lilie, Nellie L.** (Indiana U.) **Effects of scopolamine, atropine, and d-amphetamine on internal and external control of responding on non-reinforced trials.** *Psychopharmacologia*, 1970, Vol. 18(1), 38-49.—Rats learned not to respond on nonreinforced trials in a discrete trial situation in which trial responses were reinforced only if preceded by 3 more nonresponse trials. Scopolamine impaired performance to about the same extent under the internal and external control conditions; d-amphetamine impaired nonresponding on trials only under internal control conditions. Atropine affected both internally and externally controlled nonresponding but had a greater effect on internally controlled nonresponding.—*P. Federman.*

3723. **Idänpään-Heikkilä, Juhana E., et al.** (U. Helsinki, Finland) **Relation of pharmacological and behavioral effects of a hallucinogenic amphetamine to distribution in cat brain.** *Science*, 1969(May), Vol. 164(3883), 1085-1087.—The hallucinogen 2,5-dimethoxy-4-methylamphetamine, also known as STP, accumulates in specific areas of cat brains. In an experiment with 6 cats, the unchanged compound was detected in the brain for at least 6 hr., whereas its behavioral effects lasted for about 4 hr. The coincidental pharmacological and behavioral effects of the compound apparently indicate a relation between the anatomical distribution and action.—*Journal abstract.*

3724. **Il'yuchenok, R. Yu.** (Inst. of Physiology, Novosibirsk, USSR) **Deistvie farmakologicheskikh**

veshchestv na pamyat' i obuchenie. [Action of pharmacological agents on memory and learning.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 237-246.—Presents an analytic survey of the literature on the influence of pharmacological agents on the process of memory formation, and the degree to which learning is based on the process of transferring information from short- to long-term memory. The survey covers in detail: (a) "the action of pharmacological agents on the memory-mechanisms themselves (agents acting on the conduction and circulation of nerve impulses in neural circuits; agents acting on RNA and protein synthesis)"; and (b) "the action of pharmacological agents on the regulatory memory-mechanisms (the action of agents and the role of emotions in memory-formation; the action of agents and the role of the ascending reticular activating system)."—*I. D. London.*

3725. **Jackson, Donald E.** (Eastern Michigan U.) **Effects of 6-fluoro-N, N-diethyltryptamine (6-FDET) on selected rat behaviors.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 139-142.—6-FDET, a tryptamine derivative, produces the autonomic symptoms and mood changes characteristic of hallucinogens, but not perceptual and thinking disturbances. Several studies were run to assess its effect on certain rat behaviors with 11 male albino Sprague-Dawley rats. It was found that 6-FDET exerts a fast-acting, relatively short-lived inhibitory effect on drinking and water-motivated behaviors. No evidence was found to indicate that 6-FDET affects acquisition of conditioned suppression.—*Journal abstract.*

3726. **Johnson, F. N.** (U. Birmingham, Medical School, England) **The effects of chlorpromazine on one-trial passive avoidance learning in mice: Further examination of pre- and post-learning administration.** *Psychopharmacologia*, 1970, Vol. 18(1), 11-18.—Chlorpromazine was administered to mice .5, 2 or 10 min. after a 1-trial passive avoidance learning experience. The drug produced effects of the magnitude and rate of extinction of the learned response dependent upon the injection time. In Exp. II in which lower dosages were used, the drug had no effect when given 240 min. before learning, but produced maximal blocking of response acquisition when given 120 and 8 min. before learning. Drug injections 6 and 3 min. before learning had actions on postlearning memory traces. Chlorpromazine had no effect when given 20 min. after learning.—*P. Federman.*

3727. **Jonason, Kim R., et al.** (Ohio State U.) **Effects of amphetamine upon relearning pattern and black-white discriminations following neocortical lesions in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 47-55.—Subjected 33 male hooded Long-Evans rats previously trained to perform either a pattern or a black-white discrimination to either bilateral anterior or bilateral posterior neocortical lesions, and then retrained on the task while being treated with 1 mg/kg dl-amphetamine sulfate. Amphetamine did not reinstate visual contour perception in Ss with posterior ablations, nor did it have any consequence, postoperatively, upon learning or relearning the black-white discrimination for Ss with anterior neocortical lesions. When a comparison was made between a large group of amphetamine-treated Ss with posterior ablations and a large group of posteriorly decorticated control Ss, a small, but consistent tendency toward improved performance was found in the am-

phetamine-injected Ss. It is also noted that normal learning scores did not predict either anterior or posterior postoperative retention of the black-white discrimination.—*Journal abstract.*

3728. Kachanoff, Ralph. (Arizona State U.) **The effect of phenobarbital and chlordiazepoxide on water and alcohol intake.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 415.

3729. Kal'ming, S. A. **Vliyanie aminoэфиров glikolevoj i ukusnoj kislot na usvoenie ritmov svetovykh mel'kanij setchatkoj krolikov.** [Influence of aminoethers of glycolic and acetic acids on retinal rhythmic assimilation of photic flashes in rabbits.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 173-178.—10 unnarcotized rabbits under curarization were Ss in an electroretinographic and EEG study. The aminoglycolates (the M-cholinolytics, 4-oxypiperidylbenzylate, glypin, and amizyl—benactyzine) in doses of .1-5 mg/kg and the aminoacetates (the N-cholinolytics, trapacin, diphacil—adiphenine) in doses of 1-10 mg/kg exerted no influence on the retinal rhythmic assimilation of photic flashes with photostimulation by white, yellow, green, and blue colors. With growth of intensity of the light, the amplitude of the rhythmic assimilatory waves increased when the flashes were slow (1-5/sec) and decreased when they were fast (10-25/sec). The same effects were observed after the administration of cholinolytics.—*I. D. London.*

3730. Khaunina, R. A. (Bekhterev Psychoneurological Inst., Leningrad, USSR) **Beta-adrenoblokatory.** [Beta-adrenoblockers.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 112-121.—Presents a survey of the non-Soviet literature. The materials of the survey on beta-adrenoblockers are grouped in the following divisions: (a) their chemistry and chemical action, (b) their influence on the cardiovascular system, (c) their antiarrhythmic action, (d) their influence on the vascular effects of the catecholamines, (e) their influence on the smooth-muscle organs, (f) their influence on the metabolic processes, (g) their action on the nervous system, and (h) their transformation, distribution, and toxicity.—*I. D. London.*

3731. Komendantova, M. V. & Shumilina, Z. I. (Medical Stomatological Inst., Moscow, USSR) **Deistvie razlichnykh anal'getikov na bolevuyu chuvstvitel'nost' vospalenoj tkani.** [Action of various analgesics on the pain sensitivity of inflamed tissue.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 163-165.—White rats were Ss, utilizing skipidar-induced inflammation of the hind leg and pressure-induced pain in inflamed and intact tissues to test the effect on nonnarcotic analgesics. Anodyne action by nonnarcotic analgesics was many times more effective in the inflamed limb than in the intact limb and was superior to narcotic analgesics when comparative dosage was considered. In order of increasing analgesic action: acetylsalicylic acid, amidopyrine (aminopyridine), phenacetin, butazolidine.—*I. D. London.*

3732. König-Bersin, P., Waser, P. G., Langemann, H., & Lichtensteiger, W. (U. Zurich, Switzerland) **Monoamines in the brain under the influence of muscimol and ibotenic acid, two psychoactive principles of *amanita muscaria*.** *Psychopharmacologia*, 1970, Vol. 18(1), 1-10.—Measured the concentrations of noradrenaline, dopamine, and serotonin in the brain of male albino rats after ip injections of muscimol, ibotenic, or LSD. All drugs induced a generalized increase of

serotonin. There were differences in the action of the 3 compounds on the catecholamine concentration. Muscimol and LSD caused a decrease of the catecholamines, while ibotenic acid increased the catecholamine concentration. (23 ref.)—*P. Federman.*

3733. Kontsevoi, V. M. (Medical Inst., Vitebsk, USSR) **Vliyanie nekotorykh vegetotropnykh yadov na intensivnost' razmnozheniya epitelial'nykh kletok slizisto obolochki zheludka.** [Influence of some autonomic poisons on the reproduction rate of the gastric mucosal epithelial cells.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 74-75.—60 rats were used to study the influence of several autonomic poisons —10 mg/kg atropine sulfate, 50 mg/kg hexonium (hexamethonium), 20 mg/kg phenolamine hydrochloride, 10 mg/kg aceclidine, 20 mg/kg dimecoline, and 10 mg/kg mesathion—on the reproduction rate of gastric mucosal epithelial cells under conditions of physiological regeneration. All of the preparations under study except dimecoline had a considerable inhibitory effect on the reproduction of gastric mucosal cells.—*I. D. London.*

3734. Kornetsky, Conan & Bain, George. (Boston U., Medical School) **Morphine: Single-dose tolerance.** *Science*, 1968(Nov), Vol. 162(3857), 1011-1012.—In an experiment with 106 male albino Holtzman rats, it was found that Ss showed a significant degree of tolerance to a 2nd dose of morphine, with the degree of tolerance increasing the longer the delay between the 2 doses. To measure the morphine effect, a foot-shock attenuation procedure that allowed the S to adjust the shock intensity was used in studying delays of up to 180 days.—*Journal abstract.*

3735. Kryzhanovskii, G. N. & Danilova, E. Z. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Deistvie valluma (diazepam) na sudorozhnyi sindrom pri stolbnyake.** [Action of valium (diazepam) on the convulsive syndrome in tetanus.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 166-169.—Valium possessed marked myorelaxant action in white rats. In the region of the spinal cord it depressed the activity of (a) the internuncial neurons included in the efferent output system (diminution of electrical activity of muscles in local tetanus), and (b) the internuncial neurons ensuring generalization of excitation along the spinal cord.—*I. D. London.*

3736. Kulagin, V. P. (Inst. of Cardiology, Moscow, USSR) **Izmenenie reaktivnosti sosudov pod vliyaniem al'dometa i benzanidina.** [Change in vascular reactivity under the influence of aldomet and benzanidine.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 188-190.—Studied the effect of aldomet and benzanidine (esbatal) on the character of the vasomotor reactions in the hind leg of narcotized cats subjected to nervous influences differing in intensity. Iv injection of 60-80 mg/kg of aldomet or benzanidine into Ss under ether-urethane narcosis changed the character of the vasomotor reactions of the hind legs to electrical stimulation of the lumbar region of the sympathetic chain. This was attended by either a weakening or a replacement of vasoconstrictive effects by vasodilational effects. Benzanidine brought about a change in reaction to both weak and strong stimulation. Aldomet led to the replacement of vasoconstriction by vasodilatation in response to weak stimulation.—*I. D. London.*

3737. Kuzina, N. V. (Medical Stomatological Inst., Moscow, USSR) **O svyazi mezhdu antikrazolovymi i**

antiamidopirinovym deistviem malykh trankvillizatorov. [On the connection between the anticorazol and anti-amidopyrine action of minor tranquilizers.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 159-163.—White rats and mice were used in a study of the pain-alleviating influence of duxen alone and of its combinations with amidopyrine (aminopyridine) on pain sensitivity (electrical stimulation of the tail), and the CNS. It was shown that elements of both antagonism and synergism are present in the interaction between minor tranquilizers and amidopyrine. The antagonism was observed particularly in minor tranquilizers which displayed anticorazol (antipentylene-tetrazol) action: duxen and meprobamate. Trioxazine and oxyldine, which raised the convulsant activity of corazol, acted in the same way with respect to amidopyrine, remaining synergists of the latter according to a number of other tests. Duxen considerably raised sensitivity to pain. Amidopyrine had little effect on the pain-alleviating action of duxen. Amidopyrine did not potentiate the action of duxen on defensive CRs. Duxen considerably reduced the toxicity and convulsive action of amidopyrine and acted analogously on the convulsive action of corazol.—*I. D. London.*

3738. Laborit, H., Laborit, G., & Baron, C. (Hosp. Boucicaut, CEPBEPE, Lab. d'Eutonologie, Paris, France) *Etude comparative de l'action de la chlorpromazine et de l'Ag 246 sur l'électrogénèse corticale et sous-corticale.* [Comparative study of the action of chlorpromazine and AG 246 on cortical and subcortical electrogenesis.] *Agressologie*, 1968, Vol. 9(1), 137-151.—Presents a comparative study in the rabbit with Monnier's stereotaxic apparatus of the respective action of chlorpromazine and morpholinoethyl-2, methyl-4, phenyl-6, pyridazone-3 (Ag 246). This molecule is characterized by a strong analgesic action without any ventilatory depression or loss of consciousness. On the median center, chlorpromazine lowered the threshold of recruitment and heightened that of desynchronization by stimulation at average frequencies. Ag 246 had no action at all. On the hippocampus, chlorpromazine prolonged duration of afterdischarges, while Ag 246 suppressed them completely. On the mesencephalic reticular formation, direct stimulation caused cortical arousal which was little influenced by chlorpromazine or Ag 246. Stimulation of the sciatica caused immediate cortical desynchronization which was suppressed by Ag 246 and prolonged after the interruption of the stimulation suppressed by chlorpromazine. An attempt is made to interpret the biological method of action of the 2 drugs and to define their site of action on the neuroglia and neurons.—*English abstract.*

3739. Lapik, A. S., Gubenko, I. S., Korochkin, L. I., & Salganik, R. I. (Inst. of Cytology & Genetics, Novosibirsk, USSR) *Farmakologicheskaya aktivnost' i toksichnost' nucleaz.* [Pharmacological activity and toxicity of the nucleases.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 210-212.—Includes data on toxicity and determinations of the action of DNA-ase and RNA-ase on several physiological functions in mice and rats. These enzymes had no effect on arterial pressure, respiration, and smooth muscle tonus. Signs of toxic influence on the CNS appeared only on direct administration of large doses of the enzymes (100 mg/kg) into the brain.—*I. D. London.*

3740. Lapin, I. P., Ksenofontova, T. A., Kvitko, I. Ya., & Porai-Koshits, B. A. (Lensovet Technological Inst.,

Leningrad, USSR) *Tsentral'naya neïrotropnaya aktivnost' aminopropil'nykh i aminopropionil'nykh proizvodnykh iminodibenzila i difenilamina i svyaz ee konstantami ionizatsii.* [Central neurotropic activity of aminopropyl and aminopropionyl derivatives of iminodibenzyl and diphenylamine and its connection with ionization constants.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 8-13.—More than 1000 mice were used in a study of the relationship between the different pharmacological effects of several derivatives of iminodibenzyl and diphenylamine and the values of their ionization constants (pKa). Among the aminopropionyl derivatives of iminodibenzyl, decrease in pKa was accompanied by a weakening or even the disappearance of the pharmacological (antireserpine, adrenergic, cholinolytic) effects typical for antidepressants. It is possible that a value of pKa somewhat higher than 8.3 is necessary for these effects in aminopropionyl derivatives of iminodibenzyl.—*I. D. London.*

3741. Lin, Robert C., Ngai, S. H., & Costa, E. (Columbia U., Coll. of Physicians & Surgeons) *Lysergic acid diethylamide: Role in conversion of plasma tryptophan to brain serotonin (5-hydroxytryptamine).* *Science*, 1969(Oct), Vol. 166(3902), 237-239.—Reports that injections of LSD decrease the turnover rate of 5-hydroxytryptamine (HT) of rat brain, as measured from the conversion of ¹⁴C-tryptophan into ¹⁴C-HT. The 2-bromolysergic acid diethylamide given in doses 5 times greater than those of LSD failed to change the rate of ¹⁴C-tryptophan conversion into ¹⁴C-HT. The effect of LSD is discussed with regard to its action on brain serotonergic neurons and its psychotomimetic effects. (16 ref.)—*Journal abstract.*

3742. Linich, E. P. (Inst. of Experimental Medicine, Leningrad, USSR) *Vliyaniye nekotorykh adrenergicheskikh preparatov na razvitiye éksperimental'nykh neïrodistrofii v stenke zheludka krysa.* [Influence of several adrenergic preparations on the development of experimental neurodystrophies in the gastric wall in rats.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 69-71.—Neurogenic reflex dystrophies were produced in white rats by applying "extreme" stimulation: electrization of immobilized Ss or mechanical traumatization of the duodenum. Agents administered 15 min. before application of extreme stimulation were 4 mg/kg phenamine, 5 mg/kg noradrenaline, 25 mg/kg phepracet (beta-phenylisopropylamide of paraaminophenylacetic acid) and its derivatives: beta-phenylisopropylamide of paradiethylaminophenylacetic acid (30 mg/kg) and beta-phenylisopropylamide of paradimethylaminophenylacetic acid (25 mg/kg); agents administered 1 hr. before application of extreme stimulation were 2.5 mg/kg isadrine and 2 mg/kg ephedrine. Also investigated was the ability of single administration of noradrenaline (1-2 mg/lg) and isadrine (10-25 mg/kg) to disrupt the trophic processes in intact Ss. Large doses of noradrenaline and isadrine led to development of destructive lesions in the gastric mucosa. Prior administration of noradrenaline, isadrine, ephedrine, and phenamine intensified the development of neurogenic dystrophies, caused by extreme stimulation. Sympatholytic agents (phenamine derivatives) hindered the development of destructive lesions of the gastric wall following extreme stimulation. The data provide evidence for the participation of the sympathetic nervous system in the development of neurogenic dystrophies of the gastric wall. Sympathomimetic agents themselves

produced destructive changes in the gastric mucosa. Sympatholytic agents, which blocked both alpha- and beta-adrenoreactive systems, hindered the development of the dystrophic process.—*I. D. London.*

3743. Lubas, A. A., Stankavichyus, A. P., & Shadurskii, K. S. (Medical Inst., Kaunas, USSR) Toksikologicheskie i antiserotoninovyie svoistva nekotorykh proizvodnykh guanidina. [Toxicological and antiserotonin properties of several derivatives of guanidine.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 17-21. White mice were used to study the antiserotonin properties of 11 guanidine derivatives, several of which display marked hypotensive action. Compounds with 2 or 3 benzyl radicals were shown to display marked antiserotonin properties.—*I. D. London.*

3744. Lukienko, P. I. (Medical Inst., Grodensk, USSR) Vliyaniye apressina na potrebleniye kisloroda, tkanevye dykhanie i aktivnost' nekotorykh oksidoreduktaz u intaktnykh i gipoksicheskikh krya. [Influence of apressin on oxygen consumption, tissue respiration and the activity of several oxidoreductases in intact and hypoxic rats.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 196-199.—Studied the influence of apressin in 112 Ss (intact and under conditions of hypoxia in a bathchamber simulating a height of 10,000 m. for 180 min.). Apressin decreased the total consumption and rate of utilization of O₂ in the brain and muscles of intact Ss, and promoted a more rapid restoration of its assimilation in posthypoxia. Apressin lowered cerebral, hepatic, and cardiac succinate-dehydrogenase activity in intact and hypoxic Ss, and decreased the inhibiting action of hypoxia on cytochrome oxidase activity.—*I. D. London.*

3745. Mandell, A. J., et al. (U. California, Los Angeles) Neurochemical correlates of the imipramine antagonism of the behavioral effects of norepinephrine. *Life Sciences*, 1968(Dec), Vol. 7(23, Pt. 1), 1317-1324. Determined the radioactivity of whole brain norepinephrine (NE), normetanephrine (NME), and vanillylmandelic acid 2 min following the iv injection of C¹⁴N1 during Phase III of the action of imipramine and in saline pretreated controls. The imipramine treated animals had significantly less C¹⁴NME at a time when the behaviorally depressing effects of NE were antagonized. It is speculated that imipramine has an antidepressant action by blocking the access of behaviorally depressing NE to postsynaptic sites. This mechanism has been previously postulated for the action of the phenothiazines. Recent reports indicate that certain subgroups of clinical depressions are phenothiazine responsive. It is acknowledged that imipramine induced alterations in the mobility of NE through many cellular and intracellular membranes may be involved. (23 ref.)—*Journal summary.*

3746. Menner, John H., & Rudrik, Allan D. (Dow Human Health Research Lab, Zionsville, Ind.) The effect of pronethalol on the anticonvulsant action of acetazolamide. *Life Sciences*, 1968(Dec), Vol. 7 (23, Pt. 1), 1265-1269. Studied the effects of pronethalol on electrically induced convulsive seizures and on the anticonvulsant effect of acetazolamide in male albino mice. Pronethalol possesses anticonvulsant activity which is rapid in onset and of short duration. The effect of pronethalol on the anticonvulsant effect of acetazolamide is biphasic with potentiation being observed when short pretreatments are employed and antagonism when longer intervals are used.—*Journal summary.*

3747. Merlo, Alicia B., & Kuzniecki, Nelida. (U. Buenos Aires, Faculty of Pharmacology & Biochemistry, Argentina) Effect of imipramine and chlorimipramine on an acute instrumental trace conditioned reflex in rats. *Psychopharmacologia*, 1970, Vol. 18(1), 124-128.—An acute conditioned trace reflex was established in rats using a buzzer as a CS, and an electric shock as an absolute stimulus. The intervals between the end of CS initiation of absolute stimulus were 0, 2, and 10 sec. for the different control groups and for those treated with imipramine and chlorimipramine. The number of CRs was significantly lower in the 0 trace control group than in the control groups trained with longer intervals. Both drugs decreased the number of CRs, demonstrating that acquisition and the influence of the interval upon it were annulled.—*P. Federman.*

3748. Mitskine, V., Milyauskas, R., & Mitskis, A. (Medical Inst., Kaunas, USSR) Srednyaya chastota ekstremumov i srednyaya amplituda elektrokortikogrammy v dinamike tiopentalovogo narkoza. [Mean frequency of the extrema and mean amplitude of the electrocorticogram in the dynamics of thiopental narcosis.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 3-7.—6 freely moving rabbits with implanted electrodes under 20-30 mg/kg thiopental narcosis were Ss in the study, followed by a comparative study under curarization. Concurrently, recordings were made of pupillary diameter, eyelid and corneal reflexes, and rate of respiration along with EMGs of the occipital muscles and observations of general movements. In both acute and chronic experiments the changes in mean frequency of the extrema were analogous: the deeper the narcosis, the less this mean frequency. The given parameter, mean electrocorticogram (ECoG) amplitude, can be utilized to define the depth of the narcosis. Mean ECoG amplitude in acute experiments was greater than in chronic, although the character of the changes under the action of thiopental remained the same. The application of curariform preparations produced practically no changes in the dynamics of the average frequency of the extrema in narcosis. The increase in ECoG amplitude was evidently connected with their synchronizing action on the ECoG as a result of the exclusion of proprioceptive impulses.—*I. D. London.*

3749. Mustafina, T. K. (Inst. of Experimental Medicine, Leningrad, USSR) Antigistaminnyie svoistva nekotorykh kholinoliticheskikh sredstv. [Antihistamine properties of several cholinolytic agents.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 28-31.—Fistulated dogs and isolated intestinal segments of guinea pigs were used. The cholinolytics, benactyzine (amizyl) and amedine, possess marked antihistamine action. The antagonism of these agents to histamine involved a blockade of the receptors which was "nonspecific" and "competitive" in kind, judging from the "dose-response" curve.—*I. D. London.*

3750. Navarro, German. (U. California, San Francisco) Effects of narcotics on the electrical activity of the brain. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 313.

3751. Nikiforov, M. I., Azhubalis, V. A., & Beneralov, V. I. (Kirov Military-Medical Academy, Leningrad, USSR) Vliyaniye gamofena na bioelektricheskuyu aktivnost' golovnogo mozga. [Influence of gamophen on cerebral bioelectrical activity.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 146-149.—20 rabbits were studied to determine the bioelectrical activity of several sections of the brain under the influence of

gamophen (beta-phenylisopropylamide of gamma-aminobutyric acid). With respect to effect on cerebral bioelectrical activity, 5 mg/kg of gamophen was close to the threshold value. With iv administration of 1-10 mg/kg, successive alternation of periods of fast beta and gamma oscillations and high-amplitude alpha activity and spindles was observed in the EEG. Administration of 15-75 mg/kg was accompanied by activation of primarily beta and gamma rhythms. The application of gamophen against the background of amine intoxication (0.5-2 mg/kg) and during the phase of "exhaustion" of cerebral bioelectrical activity restored fusiform activity and brought about a stable increase in the amplitude of the beta and gamma waves. Following neuroanatomical isolation of the hemispheres of the terminal brain, both the low- and middle-frequency rhythms (1-13 cps) and the fusiform rhythms fell away completely against the background of gamophen action. Extirpation of the medial section of the thalamus was accompanied by a decrease in biopotential amplitude in the homolateral hemisphere before and after gamophen administration. Subarachnoid administration of 50-100 microgm. brought about the appearance of high-amplitude synchronized potentials in the electrocorticogram (EEG). If, following iv injection, intensification of primarily high-frequency bioelectrical activity was observed, then subarachnoid administration was accompanied by changes in the EEG, characteristic for the slow-wave phase of physiological and drug-induced sleep.—*I. D. London.*

3752. Ostrovskaya, R. U., Artemenko, G. N., & Raevskii, K. S. (Inst. of Pharmacology, Moscow, USSR) *O neurotropnykh svoistvakh aminooksluksuono i gamma-aminookslimaslyano i kislot.* [On the neurotropic properties of aminooxyacetic acid and gamma-aminooxybutyric acid.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 137-142.—White mice, in experimental groups of 8-10, were used to investigate the neurotropic activity of the agents by assessing (a) their influence on the narcotic effect of Na-thiopental, medinal (barbital), and Na-oxybutyrate; and (b) their anticonvulsive action, i.e., their influence on the convulsive effects of corazol (pentylene-tetrazol), strychnine, nicotine, and semicarbazide. The influence of aminooxyacetic acid (AOAA) and gamma-aminooxybutyric acid (GAOBA) on the EEG was investigated in chronic experiments on 11 rabbits with implanted electrodes. AOAA and GAOBA possess similar spectra of neurotropic activity. They potentiated the narcotic effect of Na-thiopental, medinal, and Na-oxybutyrate; the potentiating mechanism involving both direct and indirect components. The aminooxy-acids under study displayed a synchronizing influence and potentiated the effects of gamma-aminobutyric acid (GABA) with respect to the EEG. They exerted a defensive effect in convulsions, brought on by semicarbazide and due to a decrease in cerebral GABA level. It is suggested that an increase in cerebral GABA level plays a role in the origin of the neurotropic effects of the aminooxy-acids under study.—*I. D. London.*

3753. Panksepp, Jaak; Gandelman, Ronald, & Trowell, Jay. (U. Sussex, Lab. of Experimental Psychology, Brighton, England) *Modulation of hypothalamic self-stimulation and escape behavior by chlordiazepoxide.* *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 965-969.—16 out of 17 Charles River albino rats with lateral hypothalamic electrodes self-stimulated at higher rates at

threshold current intensities while under chlordiazepoxide (CDP) than under no-drug conditions. The remaining 5 exhibited strong escape but no approach tendencies to the stimulation. At current levels 10-15 μ A above threshold, CDP (15 mg/kg) increased rate of self-stimulation at sites where escape behavior was also obtained, but decreased rate at sites where continuous stimulation did not elicit consistent escape. Since CDP also increases the latency of escape behavior from hypothalamic sites where both self-stimulation and escape is obtained, it is suggested that CDP modulates the activity of a negative rather than a positive neural system.—*Journal abstract.*

3754. Parolia, D. I. (Pavlov Inst. of Physiology, Leningrad, USSR) *Vliyaniye ionov kaliya na tonus sosudov mozga.* [Influence of K-ions on cerebrovascular tonus.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1242-1248.—11 etheranized cats were Ss in the study which also investigated the correlation between initial vascular tonus and the value and character of the cerebrovascular reactions elicited by KCl. The introduction of KCl (5 ml. of 5-10.5% solution) into the perfusing fluid was accompanied by a decrease in cerebrovascular tonus. A considerably higher concentration of KCl produced a biphasic reaction: initial constriction and subsequent dilatation. The dilatational effect lends some support to the view that this cation is 1 of the auxiliary factors involved in the mechanism underlying hyperemia of the functionally active parts of the brain. There was a reliable correlation between the degree of decrease in cerebrovascular tonus brought about by papaverine and the ensuing decrease in magnitude of the constrictive and dilatational phases of reactions to the administration of KCl (22 ref.).—*I. D. London.*

3755. Petukhov, V. I. (Hygiene-Medical Inst., Leningrad, USSR) *Vliyaniye kholinolitkov na techenie travmaticheskogo shoka.* [Influence of cholinolytics on the course of traumatic shock.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 170-171.—Rabbits were used to study the capacity of M- and N-cholinolytics to influence the course of traumatic shock, produced by hammering on the soft tissues of the thigh. The central cholinolytics, amizyl (benactyzine) and atropinal administered after primary injury, increased the resistance of the Ss to subsequent severe injury. The protective action in traumatic shock was most marked with the application of the central M-cholinolytic amizyl, and was absent in the central N-cholinolytic, pipidphen, and the peripheral M-cholinolytic, methamizyl iodomethylate.—*I. D. London.*

3756. Pryanishnikova, N. T. (Inst. of Pharmacology & Chemotherapy, Moscow, USSR) *Vliyaniye anestesiziruyushchikh veshchestv na monomolekulyarnye sloi lipidov nervnoi tkani.* [Influence of anesthetizing agents on the lipid monomolecular layers of nerve tissue.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 178-182.—Rabbits and frogs were used to study the connection between the pharmacological action of 12 anesthetics and their influence on the lipid monomolecular layers of rabbit and frog nerve tissue. It was shown that anesthetics penetrated into the lipid monomolecular layers of nerve tissue and thickened them. Minimal effective concentrations of anesthetics, producing an increase in pressure in the monolayer, were equivalent to concentrations of anesthetics in the monolayer. There was a direct interconnection between

the anesthetizing activity of drugs and their capacity to penetrate into the lipid monolayer of the nerve tissue.—*I. D. London.*

3757. Russek, Mauricio. (National Polytechnical Inst., National School of Biological Sciences, Mexico City, Mexico) **Demonstration of the influence of an hepatic glucosensitive mechanism on food-intake.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1207-1209.—The intraportal injection of 3-12 gm. of glucose through a chronic cannula produced a 40-75 min. anorexia in 2 22-hr fasted dogs that would normally eat 500 gm. of dry food without interruption. The same amount of glucose injected into a jugular cannula did not elicit any anorexia. The intraportal injection of an equal volume of isosmotic NaCl did not produce any noticeable change in the feeding behavior of the same Ss. Therefore, the satiating effect was obtained only when the glucose went directly into the liver and not when distributed throughout the organism.—*Journal abstract.*

3758. Schneider, Allen M., Kapp, Bruce S., & Sherman, William M. (New York U.) **The effects of centrally and peripherally acting cholinergic drugs on the short-term performance gradient following passive-avoidance training.** *Psychopharmacologia*, 1970, Vol. 18(1), 77-81.—Rats, injected with several drugs or saline, were trained in a passive-avoidance platform procedure and tested 5, 15, and 120 sec. later. In the saline-treated groups step-down latencies increased between the 5- and 15-sec intervals and stabilized between the 15- and 120-sec intervals. The drugs had the following effects: physostigmine salicylate decreased test latencies at the 15- and 120-sec intervals, atropine sulfate and atropine methylate increased test latencies at the 5-sec interval, and neostigmine did not modify test latencies at any of the 3 intervals.—*P. Federman.*

3759. Seaman, Florence. (Illinois Inst. of Technology) **Effects of pipradrol and chlorpromazine on aversive self-stimulation during sensory isolation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 424-425.

3760. Sethy, Vimala H., Naik, P. Y., & Sheth, U. K. (Seth G. S. Medical Coll., Bombay, India) **Effect of d-amphetamine sulphate in combination with CNS depressants on spontaneous motor activity of mice.** *Psychopharmacologia*, 1970, Vol. 18(1), 19-25.—Studied the effect of d-amphetamine in combination with pentobarbital sodium reserpine, chlorpromazine, meprobamate, and chlordiazepoxide on spontaneous motor activity in male mice. D-amphetamine together with CNS depressants produced a greater effect than amphetamine alone. (20 ref.)—*P. Federman.*

3761. Shen, Fu-hsiung. (U. California, San Francisco) **Studies on mechanisms of tolerance and physical dependence development to morphine.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 314.

3762. Sokolov, V. A. (Marine Biological Inst., Murmansk, USSR) **Elektricheskie reaktsii tsebral'nykh i vistseral'nykh gangliiv presnovodnogo dvustvorchatogo mollyuska UNIO pri deistvii soli natriya.** [Electrical reactions of the cerebral and visceral ganglia of the freshwater bivalvular mollusk UNIO under the action of sodium salts.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 14-21.—Changes in electrical activity in the cerebral and visceral ganglia were observed with the action of NaCl and Na₂CO₃ on the whole mollusk. The same chemical stimulus may cause different changes in the electrical activity of these

ganglia. Different concentrations of the same salt produced ganglionic electrical reactions which differed only in amplitude and duration of the induced changes.—*I. D. London.*

3763. Soldatenkov, P. F., Gorshkov, G. I., & Aristarkhova, L. N. (Agricultural Inst., Sverdlovsk, USSR) **Promerzhuotochnyi obmen sakhara i letuchikh zhirnykh kislot u ovets pri vyklyuchenii vegetativnoi innervatsii na urovne N-kholinoreaktivnykh sistem.** [Intermediate metabolism of sugar and volatile fatty acids in sheep with exclusion of autonomic innervation at the level of the N-cholinoreactive systems.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1288-1292.—Exclusion of the N-cholinoreactive systems with hexonium (hexamethonium) abolished the increase in sugar in arterial blood, arising in response to the action of alimentary stimulation, and led to a considerable decrease in its consumption by the digestive system. Despite feeding, the amount of volatile fatty acids entering the blood of the portal vein declined against a background of N-cholinolytic action instead of increasing as in normal cases. The decline of sugar secretion into the arterial blood, which occurred as a result of "physiological denervation," was abolished after the administration of adrenaline, and the digestive system increased consumption thereof. Against a background of N-cholinoreactive influence, adrenaline did not increase the resorption of volatile fatty acids from the gastrointestinal tract. (24 ref.)—*I. D. London.*

3764. Srimal, R. C. & Dhawan, B. N. (Central Drug Research Inst., Lucknow, India) **An analysis of methylphenidate induced gnawing in guinea pigs.** *Psychopharmacologia*, 1970, Vol. 18(1), 99-107.—Tested 20 compounds acting on the CNS and the autonomic nervous system in guinea pigs for their ability to induce gnawing. Only methylphenidate induced vigorous gnawing similar to that produced by apomorphine and amphetamine. Catecholamines do not appear to play any significant role in the mediation of methylphenidate gnawing, or even in the gnawing response itself.—*P. Federman.*

3765. Stein, Larry & Berger, Barry D. (Wyeth Lab., Philadelphia, Pa.) **Paradoxical fear-increasing effects of tranquilizers: Evidence of repression of memory in the rat.** *Science*, 1969(Oct), Vol. 166(3902), 253-256.—Reports that conditioned suppression of feeding, an index of fear, was increased rather than decreased in rats by the administration of benzodiazepine tranquilizers or amobarbital. The drug-induced increase in conditioned fear varied directly with the intensity of the shock used in fear conditioning. The drugs had no fear-increasing effect in unshocked controls or in Ss made amnesic by ECS given immediately after fear conditioning. Results recall clinical reports that iv amobarbital facilitates the recall of repressed traumatic experiences. The retrieval of painful memories may be inhibited or repressed in animals as well as in humans. In both cases, tranquilizers may counteract repression by disinhibition of the act of retrieval. (15 ref.)—*Journal abstract.*

3766. Stolk, Jon M. & Rech, Richard H. (Dartmouth Medical School) **Species differences in amphetamine toxicity: Effects of aggregation, acute and chronic reserpine pretreatment in mice and rats.** *Life Sciences*, 1968(Dec), Vol. 7(23, Pt. 1), 1299-1309.—Presents marked differences in amphetamine toxicity between rats and mice. Female albino Charles River mice and

Sprague-Dawley female rats were Ss. The major differences are as follows: (a) the effect of aggregation on amphetamine toxicity is not a factor in rats; (b) the protective effect of a single dose of reserpine was confirmed in grouped mice; rats show an increased susceptibility to some doses of amphetamine under these conditions; and (c) a dramatic increase in the lethality of amphetamine is produced in rats chronically treated with reserpine, which effect is equivocal in mice.—*Journal summary.*

3767. Strömberg, Ulf. (U. Göteborg, Sweden) **DOPA effects on motility in mice: Potentiation by MK 485 and dexchlorpheniramine.** *Psychopharmacologia*, 1970, Vol. 18(1), 58-67.—Mice were given L-dihydroxyphenylalanine (L-DOPA) in doses ranging from 7.8-500 mg/kg with and without previous administration of MK 485. Dexchlorpheniramine together with MK 485 was given before L-DOPA to some Ss. L-DOPA has depressant and excitatory effects on locomotor activity depending on dose, and MK 485 caused a potentiation of both these effects, together with an increased dopamine production in the brain. Dexchlorpheniramine caused a further potentiation of the effects on activity. The depressant effects on motility were concluded to be mediated centrally, and MK 485 potentiates L-DOPA effects on activity by allowing more of the DOPA injected to pass through the blood brain barrier and form dopamine intracerebrally. (26 ref.)—*P. Federman.*

3768. Trost, Ronald C. (U. Denver) **Psychological concomitants in drug addiction: A test for a learned drive based on morphine abstinence.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 428.

3769. Val'dman, A. V. & Kozlovskaya, M. M. (Pavlov Medical Inst., Leningrad, USSR) **Dissotsialnaya somato-vegetativnykh proyavlenii' emotsional'nogo povedeniya pod vliyaniem aminazina.** [Dissociation of somato-autonomic manifestations of emotional behavior under the influence of aminazine.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1185-1195.—In rabbits with implanted electrodes emotional-behavioral reactions were evoked by local stimulation of the hypothalamus. Recordings from cortical fields and the deep structures of the brain were also made of the (a) EEG accompaniments of "pricking up the ears," and (b) cardiovascular and respiratory reactions arising on stimulation of the same structures of the hypothalamus. Aminazine (chlorpromazine) caused dissociation of the emotional, motor, and autonomic components of the aggressive-defensive reaction, evoked by stimulation of the mural nuclei of the III ventricle. When the ventrocaudal and dorsolateral regions of the hypothalamus were stimulated, the aminazine-induced dissociation was manifested over a smaller range of doses. In doses, which induced inhibition of the goal-directed character and emotional expressiveness of behavioral reactions, aminazine did not suppress the effector hypothalamo-mesencephalic systems, connected with producing the autonomic and motor components of these reactions. The blocking effect of aminazine was little manifested on the effector links of the hypothalamic periventricular system and was expressed in greater degree with respect to the effector systems of the ventrocaudal and to the dorsolateral hypothalamus—something which was due to the specific features of the intracranial connections of these zones. (English summary) (31 ref.)—*I. D. London.*

3770. Vedernikov, Yu. P. & Afrikanov, I. I. (Medical Inst., Sverdlov, USSR) **Znachenie katekholaminov**

dlya anal'geticheskogo deistviya morfina. [Significance of catecholamines for the analgesic action of morphine.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 154-159.—Female white rats were divided into 2 groups: "tolerant" and "intolerant" to a test dose of 5 mg/kg morphine. It was shown that cocaine, pyrogallol, apomorphine, and phenamine excited the Ss and raised the threshold of pain (mechanical stimulation of tail). When given in doses causing no such effects, these drugs tended to potentiate the analgesic action of morphine. If administered after disulfiram (teturam)—an inhibitor of dopamine-beta-hydroxylase—or on termination of stereotypy induced by large doses of phenamine or apomorphine, morphine exerted less influence on the pain threshold. Prior administration of phenamine in a dose of 2 mg/kg 1 hr. before administration of morphine not only restored, but even potentiated, the effect of morphine. Alpha-methyldopa (dopegit) raised the pain threshold and potentiated the analgesic effect of morphine. Iprazid (iproniazid)—an MAO inhibitor—weakened morphine-analgesia in "intolerant" Ss and potentiated the action of the test dose in "tolerant" Ss. Reserpine weakened morphine-analgesia. The data point to the importance of a central adrenergic mechanism, involving the freeing of labile noradrenaline, for the manifestation of the analgesic action of morphine.—*I. D. London.*

3771. Verzeano, M., Dill, R., Navarro, G., & Vallecalle, E. (U. California, Irvine) **The action of metrazol on spontaneous and evoked activity.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1099-1102.—When evoked neuronal action potentials are separated into different amplitude ranges, action potentials of progressively higher amplitudes appear at progressively later times after the stimulus and correspond to different deflections of the gross response. When metrazol is injected, either systematically or intracerebrally, neuronal activity is greatly enhanced in the higher amplitude ranges and greatly diminished in the lower. Spontaneous neuronal activity is similarly influenced by metrazol. It is suggested that (a) successive deflections of the gross evoked response correspond to the activation of groups of neuronal elements of successively increasing size, and (b) metrazol has a differential action on spontaneous and evoked neuronal activity. It impairs the activity of elements of smaller size and releases the activity of elements of larger size.—*Journal abstract.*

3772. Vikhlyayev, Yu. I., Klygul', T. A., & Astakhova, A. V. (Inst. of Pharmacology & Chemotherapy, Moscow, USSR) **O protivosudorozhnykh svoystvakh nekotorykh proizvodnykh benzodiazepina.** [On the anticonvulsant properties of several benzodiazepine derivatives.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 149-154.—Rats and mice were studied to determine whether the counterconvulsive action of the benzodiazepines is the result of "true antiepileptic properties" or whether the latter are simulated through a central myorelaxant action. On inspecting the anticonvulsive activity of benzodiazepine derivatives—nitrazepam (mogadon), diazepam (seduxen), chlordi-azepoxide (elenium)—one is reminded of trimetidine (trimethadione). However, their anticonvulsant (antipentylenetetrazol) component was more marked and, to a considerable degree, they differed from the types of antiepileptic agents such as diphenine (diphenylhydanthion) and benzonal which possess high activity as

determined by the "test of maximal electroshock." Nitrazepam, diazepam, and chlorthalidone exhibited a selectivity of action for primarily convulsions of spinal origin as opposed to phenobarbital, which exerted a more marked action on convulsions, induced by stimulation of the brain.—*I. D. London.*

3773. Zabrodin, O. N. (Inst. of Experimental Medicine, Leningrad, USSR) *Vliyaniye adrenergicheskikh veshchestv na razvitiye u krysa reserpinovykh yavleniy stenki zheludka i uroven' v nei katekholaminov.* [Influence of adrenergic agents on the development in rats of reserpine-induced ulcers of the gastric wall and on catecholamine level therein.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 71-73.—In 173 white rats, blocking the conduction of sympathetic nerve impulses were administered (a) 10 mg/kg hexonium (hexamethonium) in the region of autonomic ganglia, (b) 5 mg/kg ornid at the level of sympathetic nerve endings, and (c) 5 mg/kg sympatholytin at the level of the alpha-adrenoreceptors in the tissues. Hexonium was injected 15 min. before the administration of reserpine; ornid and sympatholytic 1 hr. before. Ornid averted the development of 5 mg/kg reserpine-induced dystrophy of the gastric wall and prevented the depletion of the stores of noradrenaline and adrenaline therein. Hexonium did not avert the development of reserpine-induced ulcers of the gastric walls, and the decrease in the stores of noradrenaline therein. Sympatholytin increased the number of destructive changes in the stomach wall while failing to prevent a decrease in catecholamine content therein.—*I. D. London.*

3774. Zhitova, G. M. (Research Inst. for the Protection of Maternity & Childhood, Frunze, USSR) *Kombinirovannoe primeneniye nekotorykh preparatov pri ostrom toksoplazmoze belykh myshej.* [Combined use of some preparations in acute toxoplasmosis in white mice.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(1), 106-110. Chloridine and sulfapyridazine, and aminoquine and sulfadimezine are combinations which proved most effective in treating acute toxoplasmosis—a disease seriously involving the CNS.—*I. D. London.*

CARDIOVASCULAR PROCESSES

3775. Amlil, C. Robert. (Ohio U.) *Hyperosmolality accompanies hypovolemia: A simple explanation of additivity of stimuli for drinking.* *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1021-1028.—Measured water intakes (I) and blood plasma conditions of 13 male Holtzman albino rats in Exp. I following: (a) injection of hypertonic saline, (b) hemorrhage, and (c) injection + hemorrhage. Water intakes were additive, i.e., $I_a + I_b = I_c$. Significant plasma osmotic pressure elevations were obtained under all conditions, even following hemorrhage which was previously thought to be free of osmotic pressure changes. Exp. II, with 17 similar Ss, determined plasma conditions at various times following hemorrhage. Hemorrhage induced plasma hyperosmolality was found to be coincident with the onset of drinking only, with no changes from ad lib levels at the other times tested. Results are discussed in terms of the hyperosmotic and hypovolemic additivity of water intakes, and the adequate internal stimulus for drinking. (16 ref.)—*Journal abstract.*

3776. Horvath, T. (U. Windsor, Ontario, Canada) *A simple transmitter mount for short-term telemetric*

measurement of heart rate in the rat. *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 246.—Describes a simple nonsurgical technique for mounting a small telemetry transmitter on a laboratory rat. The method is useful for collecting heart-rate data in studies of 2 or 3 days' duration.—*Journal abstract.*

3777. Jolley, Alan. (University Coll., Cardiff, Wales) *Effects of food deprivation and consummatory activity on the heart rate of the rat.* *Animal Behaviour*, 1970(Feb), Vol. 18(1), 92-95.—Measured heart rate in differentially food-deprived groups of rats before and after deprivation, and after 5 min. of postdeprivation consummatory activity. Deprivation per se had no significant effect on heart rate. However, heart rate recorded during consummatory activity was found to be higher in the 48- and 72-hr deprived groups, than in the 24-hr deprived Ss, although eating rate was found to be inversely related to length of deprivation. No significant differences were found between heart rate changes in the 48- and 72-hr deprived groups. The increasing linear function predicted by theory was not demonstrated. Possible reasons for this are discussed.—*Journal summary.*

3778. Pappas, Bruce A., DiCara, Leo V., & Miller, Neal E. (Rockefeller U.) *Learning of blood pressure responses in the noncurarized rat: Transfer to the curarized state.* *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 1029-1032.—Trained 9 free-moving Sprague-Dawley rats to increase, and 8 to decrease, systolic blood pressure in order to avoid and/or escape electric shock. The initial difference in blood pressure between the 2 groups was small and did not approach significance. The training produced changes in the rewarded directions, with the difference between the changes being reliable and producing an overall difference of 9.7 mm. Hg. No corresponding changes were found for heart rate or gross skeletal activity. The blood pressure responses failed to transfer to the curarized state. However, subsequent training in the curarized state produced a difference between the increase and decrease groups of 21.2 mm. Hg. There was some indication that the blood pressure responses in the curarized and noncurarized training sessions were positively correlated. (15 ref.)—*Journal abstract.*

3779. Reeben, V. A. & Epler, M. A. *Sledyashchaya sistema dlya nepreryvnogo izmereniya srednego arterial'nogo davleniya.* [Tracking system for continuous measurement of average arterial pressure.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 117-123.—Describes an instrument for "physiological and clinical functional studies" of the dynamics of arterial pressure in man.—*I. D. London.*

ENVIRONMENT & STRESS

3780. Blumenfeld, Michael; Rose, Leslie I., Richmond, Lewis H., & Beering, Steven C. (State U. New York, Downstate Medical Center, Brooklyn) *Dexamethasone suppression in basic trainees under stress.* *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 299-304.—Compared 18 airmen basic trainees, evaluated in the Mental Hygiene Clinic (MH group), to 30 control trainees (C group) who did not need psychiatric evaluation. The mean anxiety and depression scores on the Zuckerman-Lubin Multiple Affect Adjec-

tive Check List (MAACL) of the MH group were significantly higher than the C group, although both groups were higher than several previous populations tested with the MAACL. There was no significant difference between the 5-hr urinary base-line 17-hydroxycorticosteroids level of the C group and that of the MH group. However, the mean steroid level of the MH group was significantly higher than the C group after dexamethasone suppression. 3 of the C group and 6 of the MH group did not meet criteria for suppression with dexamethasone. The 3 C group nonsuppressors when retested after completion of training showed suppression, with 2 Ss showing significant decrease in their anxiety, depression, and hostility scores on the MAACL. It is concluded that emotional stress can be a cause for the failure of dexamethasone suppression. Data appear to establish the overnight suppression test as a more sensitive test for examining steroid levels as a reflection of emotional stress than using base-line levels. (18 ref.)—*Journal summary*.

3781. Bundzen, P. V. (Inst. of Experimental Medicine, Leningrad, USSR) *Vliyaniye svetovogo rezhima antarktycheskogo kontinenta na sostoyaniye avtoregulyatornykh funktsii golovnoy mozga cheloveka*. [Influence of the natural photic conditions of the Antarctic continent on the state of the autoregulatory functions of the human brain.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 929-939.—Evaluated the state of the autoregulatory functions of the brain during the south polar day and night, utilizing EEGs of 10 men in combination with automatic frequency analysis of cerebral biocurrents and autostimulation in rhythm with the oscillations of "envelope alpha-activity." The daily and seasonal conditions of light, to which Ss are habituated, were an important environmental factor determining the functioning of the nonspecific autoregulatory mechanisms of the CNS. A disturbance of the cerebral processes, ensuring optimal control, occurred during change of the usual conditions of light and is probably due to disintegration of the functional interaction of the mesencephalic and thalamocortical regulatory subsystems of the brain. Changes in the autoregulatory functions of the CNS in the extreme conditions of Antarctica are accompanied by a temporary decline of reliability in operational performance and, in a number of cases, lead to the development of micro-symptoms of disturbed higher nervous activity. (19 ref.)—*J. D. London*.

3782. Chakrapani, T. K. (Advertising & Sales Promotion Co., Bombay, India) **Behavioral damage as a function of infantile anoxic mortality rate.** *Psychology Annual*, 1969, Vol. 3, 10-13.—3 levels of anoxia (ground level, and 30,000- and 34,000-ft altitude equivalent) were produced in 246 albino rats at 4 periods (at birth, and 1, 2, and 3 wk. after birth) with a vacuum pump. Mortality owing to anoxia was observed in the 30,000-ft altitude administration of anoxia 2 or 3 wk. after birth and in the 34,000-ft altitude administration of anoxia 1, 2, or 3 wk. after birth. Only 3 tasks—maze learning trials, maze learning errors, and discrimination—differentiated the control and experimental groups and yielded correlations ranging from +.80 to +1.—*U. Pareek*.

3783. Ingram, D. L. & Legge, K. F. (A.R.C. Inst. of Animal Physiology, Cambridge, England) **The thermoregulatory behavior of young pigs in a natural environment.** *Physiology & Behavior*, 1970(Sep), Vol. 5(9), 981-987.—Observed 28 large white pigs confined to

an area which included woodland, open pasture, and a hut containing straw. Air movement, radiant temperature, dry bulb temperature and rainfall were recorded. Ss did not begin to shelter and huddle together in the hut until ambient temperature was below 5°C, although in the laboratory the pig's metabolism increases below 25°C and behavioral studies show that below 25°C pigs will perform an operant response when the reinforcement is radiant heat. The time spent in the hut increased when the pigs were fed ad lib. Ss tended to spend most time in the area of lowest air movement, except when food was provided ad lib when Ss stayed near the food troughs. The avoidance of high air movement agrees with laboratory findings that pigs will learn to turn off a fan. No tendency was revealed for Ss to select the area of highest mean radiant temperature in spite of the ease with which pigs learn to perform an operant response for radiant heat. (20 ref.)—*Journal abstract*.

3784. Lipton, James M., Avery, D. D., & Marotto, D. R. (U. Texas, Medical School, Dallas) **Determinants of behavioral thermoregulation against heat: Thermal intensity and skin temperature levels.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1083-1088.—To further elucidate factors controlling thermoregulatory behavior, 2 experiments were conducted using 6 male albino rats trained to escape heat by holding down a lever. In both experiments the time spent responding increased in a monotonic fashion as thermal intensity was increased. Determination of the behavioral response was explored in more detail by recording dorsal skin temperature at the moment when a response was begun and when it was terminated. In a neutral environment (23°C) a relatively stable level of skin temperature was maintained in the face of intensity alterations as a result of the changes in behavior. A qualitatively similar result was also seen when Ss were tested in a hot environment (32°C). Findings are consistent with results of previous heat reinforcement experiments indicating a peripheral basis for the control of thermoregulatory behavior. In the cold (5°C), however, raising intensity brought about a linear increase in responding and in skin temperature levels maintained, suggesting that the determination of behavior in this experiment may be more complex. (22 ref.)—*Journal abstract*.

3785. Plaut, S. M., Ader, R., Friedman, S. B., & Ritterson, A. L. (Galesburg State Research Hosp., Ill.) **Social factors and resistance to malaria in the mouse.** *Psychosomatic Medicine*, 1969(Nov), Vol. 31(6), 536-552.—(This is a corrected version of the abstract which appeared in PA, Vol. 44:12071.) In a series of 9 experiments, mortality rate of malaria-infected mice was related to number of Ss per cage (1-20) but not to age, sex, and whether 1 or all Ss in a cage were infected. Individually housed Ss died as fast as grouped Ss but at 82° F rather than 70° F. Mortality rate was dependent primarily on housing conditions later in the infection period. Population size rather than density affected the mortality rate. Physical contact seems important in the high mortality rate of grouped mice. (51 ref.)—*W. G. Shipman*.

3786. Rubin, Robert T., Miller, Robert G., Arthur, Ransom J., & Clark, Brian R. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Differential adrenocortical stress responses in naval aviators during aircraft carrier landing practice.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 71-74.—Measured serum cortisol levels in 9 Navy pilots and

their flight officers during aircraft carrier landing practice in the 2-man F-4B jet aircraft. Pilots showed an unequivocal adrenocortical stress response: the flight officers did not. The complex and hazardous task of carrier landing appears to be a greater stress on the pilot in control of the aircraft than on his passive partner, although both are exposed to the same dangers. Findings highlight the importance of the active vs. the passive role as a determinant of stress intensity in so exposed to naturally occurring stress situations.—*Journal abstract*

1787 Skolnik, A. D. (Inst. of Physiology Novosibirsk, USSR) **Problemy fiziologicheskoi adaptatsii i povedeniya v ekologo-fiziologicheskikh issledovaniyakh.** [Problems of physiological adaptation and behavior in ecophysiological research.] *Fiziologicheskii Zhurnal SSSR*, 1969(Aug), Vol. 55(8), 920-928. Surveys some of the latest directions of Soviet research in "ecophysiology [environmental physiology]" embracing "both the reactions of the whole organism to natural factors of the environment including also behavior and the peripheral mechanisms securing the existence of man and animals in different physico-geographical zones." (4 ref.)—*I. D. London*

1788 Yoncheva, I. N. & Kuzmina, I. R. (Leningrad State U., USSR) **Izmeneniya reaktsii vovlecheniya pri umirani i reanimatsii zhivoiogo.** [Changes in the reactivational reaction in the process of dying and reanimation in the animal.] *Fiziologicheskii Zhurnal SSSR*, 1969(Oct), Vol. 55(10), 1203-1209. 33 cats subjected to lethal blood loss and subsequent reanimation were used to study the changes in the reactivational reaction during low-frequency stimulation of the reticular nucleus of the "non-specific" thalamic system. The reactivational reaction in the process of dying from blood loss was always maintained for a longer period than the spontaneous activity of the cortex. In dying the negative potentials of the reactivational reaction in the motor cortical zone disappeared later in 70% of the cases than the phasic evoked potentials of the visual cortex. In dying the positive phase, following the negative phase of reactivational potential, was the first to undergo reduction. In the reanimation period evoked potential in response to light was the first to be restored, and the reactivational reaction much later. (English summary) (4 ref.)—*I. D. London*

GENETICS

1789 Barot, Daniel; Barot-Niri, Homena, & Oltorin, Albertia G. (Sassari Univ.) **Genetic aspects of learning and memory in mice.** *Science*, 1969(Jan), Vol. 163(386), 139-149. Describes results from a study of avoidance behavior of different strains of mice in a shuttle box. Because of the high behavioral variability of noninbred mice, a selective breeding program was initiated using Swiss Webster mice, producing a strain of high inbreeders with low individual variability. A double-compartment grid box was used in a series of experiments. Strain differences were found in avoidance acquisition, maze-solving, type of retention preference for maximal or distributed practice, recovery of performance after a prolonged session and reactivity to psychotropic agents. In a multiple-stage retention is hypothesized to account for the findings that the speed of conditioning and "the nature of the mechanisms involved depend on strain and are genetically determined." The hypothesis is supported by the learning curves of the 2 strains of mice. The effects of ECS, aging,

and drugs on consolidation are discussed. Examples of research on the effect of environment on learning and memory are included. It is concluded that heredity plays an important role "in the determination of learning and retention mechanisms." (57 ref.)—*G. Steele*

1790 Robinson, Daniel N. (Amherst Coll.) **Heredity and achievement: A book of readings.** New York: N.Y.: Oxford U. Press, 1970. x, 444 p. \$4.95 (paper). Contains an anthology dealing with the history, nature, and applicability of behavior-genetic methods in the study of animal and human behavior. It is intended as a supplement to courses ranging from beginning psychology and biology to education, anthropology, and sociology.

1791 Walter, Roger O. & Hamilton, James B. (State U., New York Downstate Medical Center, Brooklyn) **Supermales (YY sex chromosomes) and androgen-treated XY males: Competition for mating with female killifish *Oryzias latipes*.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 128-131. In daily competitions for mating, the YY genotype was usually the victor and had higher mean values for individual components of male reproductive behavior. During androgenic treatment the XY males induced more spawnings than YY males, i.e., became victors instead of losers. Also, while XY (but not YY) males received exogenous androgen, the XY males tended to score higher mean values for all but 1 of the components of male reproductive behavior under study, whereas YY males tended to have reduced values.—*Journal summary*

PERSONALITY CORRELATES

1792 Barton, Jerry D. (Louisiana State U.) **Pupillary size as an index of preference.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 331-336. 5 male graduate students were shown groups of semierotic neutral and aversive photographs and ranked them on a pleasant-unpleasant continuum. When compared to the pupillary ranks, significant agreement between the 2 ranks was noted. The absolute pupillary size was also positively correlated with absolute subjective scores given to photographs which were viewed on the pleasant-unpleasant continuum.—*Journal abstract*

1793 Dettm, L., Kottel, L., & Fahrenberg, J. (L. Muenster W. Germany) **Eine faktoranalytische Untersuchung psychophysiologischer Korrelate.** [A factoranalytic investigation of psychophysiological correlates.] *Archiv für die gesamte Psychologie*, 1969(Aug), Vol. 120(1), 54-71. Attempts to analyze covariation of personality test variables and autonomic nervous system (ANS) variables. A sample of 160 male patients underwent a clinical interview, ANS function tests and a psychological test battery of the objective behavior and questionnaire type. From the resulting 18 variables, 81 were selected and factor analyzed. Although the mean intercorrelation of variables was low, 1st- and 2nd-order factor analysis revealed several psychophysiological loading patterns. Results support the concept of functional units in psychophysiological behavior. (17 ref.)—*English summary*

1794 Geer, James H., Darson, Gerald C., & Gatchel, Robert L. (State U., New York Stony Brook) **Reduction of stress in humans through nonveridical perceived control of aversive stimulation.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 731-748. In a RT task, 40 male undergraduates were told to react to

the onset of a 6-sec shock. Following 10 trials, 1 of the Ss were told that by decreasing their RT they would reduce shock duration. Remaining Ss were simply told that shock duration would be reduced. All Ss, regardless of group assignment or RT, received 6-sec shocks in the 2nd min of the study. During the 2nd min, Ss who believed they had control showed lower spontaneous skin conductance (SC) responses and smaller S₁ responses to shock onset than Ss who felt they had no control. Results indicate that perception of effective control, even if not veridical, can affect autonomic responding. (21 ref.)

Journal abstract.

1177. Gentry, William D. (Duke U. Medical School). Effects of frustration, attack, and prior aggressive training on overt aggression and vascular reactivity. *Journal of Personality & Social Psychology*, 19 (Dec), Vol. 19(4), 714-725. Reinforced 64 male undergraduates for aggressive or nonaggressive verbalizations prior to being subjected to test failure and/or physical insult. Changes in aggressive (electric shocks) and nonaggressive (light signals) behavior were noted along with changes in systolic and diastolic blood pressure. Results indicate that: (a) insult led to a greater increase in the amount and intensity of aggression than did no insult; the aggressive training led to a greater increase in the strength of aggression than did nonaggressive training; (c) elevations in diastolic blood pressure were greatest following prior insult (unconfounded by frustration); (d) changes in diastolic pressure were correlated with changes in amount of aggression; and (e) frustration failed to produce any systematic increase in either behavioral aggression or vascular activity. (21 ref.)

Journal abstract.

1178. Street, Robert L., Singh, Harpal, & Hair, Paul S. (Clark A.M.U.). The evaluation of mental stress through the analysis of parotid fluid. *Human Factors*, 19 (Oct), Vol. 12(5), 455-462. Investigates the utilization of the 1-hydroxycorticosteroid (17-OHCS) level in the parotid fluid as a measure of mental or emotional stress. 12 graduate students were subjected to 3 levels of mental stress, and the results of the chemical analysis of the parotid fluid indicate a definite relationship between mental or emotional stress and the 17-OHCS level.

Journal abstract.

NUTRITION & GASTROINTESTINAL PROCESSES

1179. Housh, D. A., Looze, D., & Stamen, P. C. (U. Sussex, Brighton, England). Subcutaneous dialysis in the study of the effects of nutrients on feeding. *Physiology & Behavior*, 19 (Dec), Vol. 5(10), 1201-1203. A cellophane dialysis bag containing small molecules (weight which is regulated under the skin of the rat) Sodium chloride, glucose, and hydrocortisone gave differential effects on food and water intake over the day following implantation. An unexpected decrease in food intake is seen after administering glucose by this technique, similar to that found after rapid intraperitoneal injection and unlike that found after either continuous or infusion or rapid gastric intubation. *Journal abstract.*

1180. Belygin, I. A. & Mahulovich, G. F. (Inst. of Physiol., Moscow, USSR). Otsobnovleniye sdrugov adrenalinnopodobnykh veshchestv v krov' pri introlseptivnykh i eksterolseptivnykh vyzvedeniyaakh. [Features regulating the changes of adrenaline-like substances in the blood, following exposure to intra- and

exteroceptive influences.] *Fiziologicheskii Zhurnal SSSR*, 1968 (Oct), Vol. 58(10), 1243-1244. Ss were 5 dogs with gastric and intestinal fistulae (2 with subsequent esophagotomy). Relatively weak and adequate chemical and mechanical stimulation of the receptors of the small intestine did not change, or raised only slightly, the level of adrenaline-like substances in the blood. The more marked changes occurred 15 min after interoceptive action. Prolonged distention by the balloon in the large intestine, rectum, and stomach, as well as strong electrocutaneous stimulation was accompanied by sharply expressed changes in the adrenaline-like substances whose maximum occurred 2 min after stimulation. Interoceptive influences were characterized by an increase in the quantity of adrenaline-like substances while exteroceptive influences were characterized by phasic changes. Prior unilateral section of the superior splanchnic nerve did not produce changes in the substances in response to the introduction of glucose solution into the large intestine, but it did sharply weaken changes in response to strong stimulation of the intestine and, to a lesser degree, to strong electrocutaneous stimulation. Its administration of amazine (chlorpromazine) 1 hr before the experiment sharply weakened the changes in the substances evoked by considerable intestinal distention and strong electrocutaneous stimulation, and decreased more weakly the 1st wave, without changing the 2nd wave of increase in these substances in the blood, brought about by the eating of 200 gm of meat. The characteristics of intra- and exteroceptive changes in the substances in the blood in nociceptive and alimentary reactions are explained by the specific features of their afferent link and by differences in biological significance. (21 ref.)—J. D. Jensen.

1181. Harrison, Arthur E. (Oklahoma State U.). Compensatory selection of magnesium sulfate by magnesium-depleted laboratory rats. *Journal of General Psychology*, 77 (1968), Vol. 6(3), 219-246. Recorded intakes of magnesium sulfate by Mg-depleted and by control Ss over 30 days of 2-bottle drinking tests. Depleted and control Ss offered a (0.0175 M) solution (tap water distilled water) did not differ with respect to intake of the test solution. In contrast, depleted Ss given a (0.015 M) solution drank significantly more of the test solution than did the controls. Continuing signs of hypomagnesemia in the depleted rats (as well as the latter animals' selection of the 0.015 M solution) accompanied, but did not necessarily correct the deficiency. (17 ref.)—Barbar. (Summary)

1182. Kobakova, Z. V. Metabolizm regulirovannyy integratsionno-derivatsionno-derivatsionno-organicheskimi veshchestvami: 6 primeneniye provoloknykh ksenodachnikov. [Metabolism regulated by integrative-derivative-derivative-organic substances: 6 application of fiberoptic xenodachnikov]. [Abstracts for organization and comparison of the major activity of the digestive organs with the application of new sensors devices for information processing.] In: I. R. Babitskiy (Ed.), *Metody shchepeniya i upravleniya informatsionnykh sistem*. (See PA Vol. 45 Issue 3, 216-217.) Describes a device for the graphic registration and subsequent interpretation of the major activity of the digestive organs at 4 points (points) centrally. The device is capable of recording processes which change with a frequency of 1 to 10 cps. Examples of its operation are presented. (1 D. Jensen.)

1183. Soria, A. M. Radiokopnyye izmereniya funktsionnoy informatsii. [See PA Vol. 45 Issue 3, 216-217.]

139-155.—Examines the principles underlying the construction of radiocapsules for the study of the gastrointestinal tract and other internal organs in man and animals. Designs of radiocapsules of the active and passive type and an analysis of the necessary specifications are presented.—*I. D. London.*

3802. Volynskii, Z. M. & Shevchenko, I. A. **Sravnitel'nye rezul'taty issledovaniya zheludochnoi sekretsii radiotelemetricheskimi metodami i zondirovaniem.** [Comparative results of a study of gastric secretion using the radiotelemetric method and probing.] In E. B. Babitskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 156-162.—Presents a study showing that (a) between pH, general acidity, and free hydrochloric acid in the stomach there is a nonlinear correlation, and (b) there exists an appreciable connection between them.—*I. D. London.*

3803. Werner, Emmy E. & Muralidharan, Rajalakshmi. (U. California, Davis) **Nutrition, cognitive status and achievement motivation of New Delhi nursery school children.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 271-281.—The Gesell, the Draw-a-Man, and various visual-motor development tests were administered to 24 inadequately and 16 adequately nourished Indian nursery schoolchildren of lower-class income at 6-mo intervals. IQ, head circumference, growth rate, and visual-motor development were higher for the adequately nourished, though language development was equivalent. (23 ref.)—*A. Krichev.*

ANIMAL PSYCHOLOGY

3804. Clarke, Alex M. (Macquarie U., North Ryde, New South Wales, Australia) **Geotactic responses in infra-human animals: A note on a new relationship between gravitational variables.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 67-70.—Transformations of published data on the geotactic responses of animals showed a highly significant positive concomitance between the magnitude of the angle A (between the inclined plane and the horizontal) and the true angle between the path of orientation and the horizontal plane (the angle ω). A remarkably consistent relationship exists in terms of linearity and slope of the regression plots for 6 sets of data which include observations for 4 different species (rats, mice, caterpillars, and snails). Gravitational forces acting on these lower animals moving along their path of orientation may be expressed in terms of the angle ω .—*Journal abstract.*

3805. Eaton, Randall L. (Purdue U.) **The predatory sequence, with emphasis on killing behavior and its ontogeny, in the cheetah (*Acinonyx jubatus* Schreber).** *Zeitschrift für Tierpsychologie*, 1970(Jun), Vol. 27(4), 492-504.—Anatomical adaptations permitting efficient predation during phylogeny have developed in a way different from other Felidae. Strangulation of the prey is necessary for the cheetah; it appears to require maturation of an innate tendency. "Seizing" and killing of prey depends on experience and is modifiable; stalking and chasing are relatively fixed behavior patterns. Cubs are trained by their mothers (22 ref.)—*Journal abstract.*

3806. Mariscal, Richard N. **A field and laboratory**

study of the symbiotic behavior of fishes and sea anemones from the tropical Indo-Pacific. *University of California Publications in Zoology*, 1970, Vol. 91, 43 p.—Studied the behavior and ecology of certain pomacentrid fishes (mainly Amphiprion) and sea anemones (Stoichactidae) both in the field and laboratory. Sea anemones seem to have characteristic ecological preferences. Experiments show some species of Amphiprion prefer certain species of anemone. Anemone fishes living with anemones defend territories, feed their anemones, and remove organic and inorganic material from them. Exploratory behavior and sound production of Amphiprion are also discussed. Anemone behaviors observed include locomotion, response to light, response to anemone fish, feeding, and changes in capability of nematocyst discharge. Changes in behavior of isolated anemone fishes are discussed. (3 p. ref.)—*P. L. Borchelt.*

3807. Russell, Eleanor. (U. New South Wales, Sydney, Australia) **Observations on the behaviour of the red kangaroo (*Megaleia rufa*) in captivity.** *Zeitschrift für Tierpsychologie*, 1970(Jun), Vol. 27(4), 385-404.—29 Ss were observed for a total of 126 hr. They had been reared in captivity. The behavior repertoire is described, except for reproductive behavior. In grooming behavior the whole body is groomed with all limbs, teeth, and tongue. The pouch is cleaned more often when a young is present. Responses to aggression were either counteraggression or avoidance. Mother-young interactions are divided into 5 periods: (a) young entirely within pouch (birth to about 150 days); (b) young occasionally out of pouch (150-190 days); (c) out of pouch for short periods (about 150-235 days); (d) young permanently out of pouch, but still suckling (about 235-365 days); and (e) weaning (after 365 days). After weaning, the mother tolerates her own young within a closer distance than other animals. The young also continue to feed and drink close to their mother. (21 ref.)—*K. E. Grossmann.*

3808. Spradbery, J. P. (Sirex Biological Control Unit, Silwood Park, Ascot, England) **Host finding by *Rhyssa persuasoria* (L.), an Ichneumonid parasite of siricid woodwasps.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 103-114.—These parasites explore the bark of infested timber with antennae, sustaining their antennal activity in special interest areas and probing with ovipositors to a depth of 3 mm. Drilling up to 5 mm was elicited by stimuli from within the timber. Since females can locate and parasitize dead hosts in logs, sound cannot be a necessary stimulus for drilling and is not an aid in host detection. Most drills are elicited by siricid frass. There is no evidence that tree species influences attraction.—*G. Greenberg.*

3809. Thiessen, D. D., Blum, S. L., & Lindzey, G. (U. Texas) **A scent marking response associated with the ventral sebaceous gland of the Mongolian gerbil (*Meriones ungulicatus*).** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 26-30.—The Mongolian gerbil regularly marks objects in an open field by rubbing them with a midventral sebaceous scent gland. A method and apparatus useful for the study of this response are described. The marking and gland size are sexually dimorphic, with the male marking about twice as frequently as the female and possessing a gland roughly twice the size. Ventral marking in males is positively correlated with urination and defecation, and it is suggested that all 3 of these activities may in some

situations be territorial scent marking responses.—*Journal summary*.

COMPARATIVE PSYCHOLOGY

3810. Eibl-Eibesfeldt, Irenäus. (Max Planck Inst. for Behavioral Physiology, Heidelberg, W. Germany) **Ethology: The biology of behavior.** New York, N.Y.: Holt, Rinehart, & Winston, 1970. x, 530 p. \$12.95.

3811. Gossette, Robert L. (Hofstra U., Comparative Animal Behavioral Lab.) **Note on the calibration of inter-species successive discrimination reversal (SDR) performance differences: Qualitative vs quantitative scaling.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 95-104.—Discusses 2 different approaches to the calibration of interspecies successive discrimination reversal (SDR) performance differences that have emerged over the past decade. 1, the discontinuity hypothesis, proposes a qualitative dimensional shift across vertebrates, with a 2-category scale based upon the presence or absence of error reduction on SDR tasks. The other approach, the continuity hypothesis, argues for a quantitative dimensional shift across species, with a scaling of interspecies performance differences in terms of absolute scores. Important directions for future research are suggested. (35 ref.)—*Journal abstract*.

3812. Gossow, Hartmut. (U. Freiburg, W. Germany) **Vergleichende Verhaltensstudien an Marderartigen: I. Über Lautäusserungen und zum Beuteverhalten.** [Comparative behavioral investigations on mustelids: I. Vocalization and predation.] *Zeitschrift für Tierpsychologie*, 1970(Jun), Vol. 27(4), 405-480.—16 weasels, 9 stoats, and 9 skunks were observed in captivity during a 4-yr period. All 3 species have a variable vocal repertoire. The development of vocalization in a weasel litter is presented; fractional components develop earlier than the complete calls. Distinct vocalizations are firmly connected with certain behavior patterns; i.e., during courtship vocal duets increase the mating motivation of the males and at the same time reduce reluctance in the female; mating would not occur without these vocal components. The predatory behavior of weasels and stoats is quite similar: it consists of a killing bite to the neck of the prey animal. There is usually a 2nd bite which is rather extended in time. Stoats have a fully developed prey-catching behavior at 3 mo. of age; before that time prey animals are crushed to death. (84 ref.)—K. E. Grossman.

3813. Kraus, Robert F. (Woman's Medical Coll. of Pennsylvania, Philadelphia) **Implications of recent developments in primate research for psychiatry.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 328-335.—Discusses the correlation between data obtained from the study of the social behavior of free-ranging monkeys and apes and various areas in psychiatry—growth and development, group structure and territoriality, and dominance behavior. (29 ref.)—D. Prager.

3814. Orians, Gordon H. & Christman, Gene M. (Museum of Vertebrate Zoology, Berkeley, Calif.) **A comparative study of the behavior of red-winged, tricolored, and yellow-headed blackbirds.** *University of California Publications in Zoology*, 1968, Vol. 84, 81 p.—Investigated the influence of differences in social organization upon behavior patterns. All displays and vocalizations in each species are described and illustrated, and a scheme for scoring displays according to conspicuousness is used. The results show sex and seasonal differences in the number of displays and

vocalizations. The amount of information transferred from male redwing displays and vocalizations is estimated. Intraspecific differences in displays and vocalizations are discussed in terms of speed of territory establishment, size of territory, and degree of polygamy; and the influence of habitat and plumage pattern is considered. The data prohibit a detailed motivational analysis of displays or vocalizations. (62 ref.)—P. L. Borchelt.

3815. Seltzer, Robert J. (Brown U.) **Effects of reinforcement and deprivation on the development of non-nutritive sucking in monkeys and humans.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 425-426.

3816. von Wright, J. M. (U. Turku, Inst. of Psychology, Finland) **Cross-modal transfer and sensory equivalence: A review.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 21-30.—Reviews recent studies of cross-modal matching and transfer in animals and human Ss and discusses some problems concerning the design of experiments to study these phenomena. Attempts to account for cross-modal effects are evaluated and the concept of sensory equivalence briefly examined. (61 ref.)—*Journal abstract*.

NATURAL OBSERVATION

3817. McCullough, Dale R. (Museum of Vertebrate Zoology, Berkeley, Calif.) **The tule elk: Its history, behavior, and ecology.** *University of California Publications in Zoology*, 1969, Vol. 88, 209 p.—Observations of wild elk in California showed linear social hierarchies in both sexes. The many visual and auditory signals which integrate the herd and the dominance behaviors of both bulls and cows are described. Behaviors of bulls during the rut are described and analyzed in terms of first appearance, variation, and frequency during the season, and physiological condition of the bull. The sensory capabilities of tule elk are also discussed. (9 p. ref.)—P. L. Borchelt.

3818. Shiovitz, Kenneth A. & Thompson, William L. (Wayne State U.) **Geographic variation in song composition of the indigo bunting, *Passerina cyanea*.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 151-158.—Samples of indigo bunting songs from Michigan, Kentucky, and New York yielded 118 different figures. A high degree of geographical figure dispersion was indicated. The average song length was slightly greater in denser areas, with repetition rate being lower in denser areas. Apparently new figures result from alterations of existing figures. "The number of existing figure-types suggests that there is available to the species a finite number of different song patterns such that each bird could conceivably have a unique song. However, in nature this limit is not realized; the same song pattern is often sung by more than 1 bird."—G. Greenberg.

EARLY EXPERIENCE

3819. Denenberg, Victor H., Rosenberg, Kenneth M., Halmeyer, Gary C., & Whimbey, Arthur E. (Purdue U.) **Programming life histories: Effects of stress in ontogeny upon emotional reactivity.** *Merrill-Palmer Quarterly*, 1970(Jan), Vol. 16(1), 109-116.—Rats were handled or shocked 3 min. daily during the 1st 20 days of life, or were nondisturbed controls. 1/2 of each group was subjected to crowding stress between 21-50 days of life;

only $\frac{1}{2}$ of the groups were subjected to food deprivation between 60-65 days; and in adulthood all Ss were evaluated for open-field activity, defecation, and adrenal activity. The open-field activity measure indicated an interaction between food deprivation and infantile treatment; Ss handled in infancy were more active than controls, and nondeprived shocked Ss, however, the shocked group was the most active of the 3 food-deprived groups; the open-field defecation measure indicated a significant interaction between crowding and food deprivation and the nondeprived, noncrowded group; the adrenal activity measure indicated that handled groups released the least amount of corticosterone while the crowding group had greater corticosterone response immediately after weaning.—R. V. Hamilton.

3820. Hutchings, Donald E. & Gibbon, John. (New York State Psychiatric Inst., N.Y.) **Preliminary study of behavioral and teratogenic effects of two "stress" procedures administered during different periods of gestation in the rat.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 239-246.—Investigated the teratogenicity of prenatal maternal stress in 36 Sprague-Dawley rats and the emotional effects produced in the offspring (N = 470). To determine whether the magnitude of these effects or the direction of emotional change in the offspring depends on differences in the severity of the maternal treatments or the period in gestation when they are administered, Ss were either handled or exposed to shock-escape during the 2nd or 3rd wk. only of gestation. Both treatments were equally effective in lowering the emotionality of the offspring irrespective of the period in gestation when treatments were administered. No appreciable teratogenic effects were produced by either treatment.—*Journal abstract*.

3821. Nielsen, Thomas C. (U. Aarhus, Inst. of Psychology, Denmark) **Early experience and explorative behavior in the white rat.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 1-6.—Reared 11 male albino rats in a cage with moving figures. 11 litter mates were reared in a similar cage but without figures. Ss from the more complex environment showed less locomotor activity in a checkerboard maze and, in a 2-lever test box, higher preference for the lever which produced complex visual stimuli. It is proposed that rearing in stimulus poverty increases locomotor activity and reduces curiosity.—*Journal abstract*.

3822. Vore, David A. & Ottinger, Donald R. (Indiana U., Inst. for Child Study) **Maternal food restriction: Effects on offspring development, learning, and a program of therapy.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 337-342.—Female Purdue Wistar rats were fed either ad lib or placed on a 50% ad-lib diet beginning 20 days prior to mating and continuing throughout gestation and lactation. At birth, offspring were cross-fostered to provide for independent evaluation of the pre- and postnatal effects of maternal malnutrition. All offspring were fed on an ad-lib diet following weaning. Offspring body weight deficits at birth were associated with maternal prenatal malnutrition. However, when weighed at weaning and 50 days, body weight deficits were associated only with maternal malnutrition during the postnatal period. In adulthood, offspring from mothers deprived pre- and/or postnatally made more errors on a T-maze and Hebb-Williams maze task. The therapeutic possibility of postweaning environmental enrichment was encouraging.—*Journal abstract*.

INSTINCTS

3823. Cloarec, Ann. (Ethology Lab., Rennes, France) **Etude descriptive et expérimentale du comportement de capture de *Ranatra linearis* au cours de son ontogenèse.** [Descriptive and experimental study of capture behavior of *Ranatra linearis* in the course of ontogenesis.] *Behaviour*, 1969, Vol. 35(1-2), 83-113.—"The catching and feeding behaviour of imagos ... preying upon Chironomus larvae is described.... The percentage of catching attempts which are successful increases with the age of the insect." Experiments with dummies showed that "weight, movement, speed and position with regard to predator prove to be important.... Colour differences have no effect.... A vertical downward movement is more efficacious than a vertical upward movement... but an irregular movement is even more efficacious."—N. M. Ginsberg.

3824. Davies, S. J. (Commonwealth Scientific & Industrial Research Organisation, Helena Valley, Western Australia) **Patterns of inheritance in the bowing display and associated behaviour of some hybrid *Streptopelia* doves.** *Behaviour*, 1970, Vol. 36(3), 187-214.—Presents an analysis of the bowing display of 5 species of *Streptopelia* doves and 8 derived hybrids. Using motion picture recordings and direct observation it was found that some F₁ hybrids exhibited a display intermediate between the 2 parents, some resembled 1 parent only, and some were exaggerated beyond either parent. The bowing cycle showed a typical intensity for all species and hybrids tested though the component elements of the display showed great variability both within and between species. Typical intensity suggests transmission by an uncomplicated genetic mechanism while variability in component elements suggests that the bowing display may function in ways additional to species identification. (German summary) (30 ref.)—S. R. Goldstein.

3825. Dewsbury, Donald A. (U. Florida) **Food hoarding in rice rats and cotton rats.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 174.—Recorded the amount of food hoarded in nesting jars by 17 rice rats (*Oryzomys palustris*) and 19 cotton rats (*Sigmodon hispidus*). Rice rats hoarded food; cotton rats did not. Hoarding in female rice rats appeared independent of whether Ss were wild-trapped or reared in the laboratory with continuous access to food.—*Author abstract*.

3826. Fox, M. W. & Apelbaum, J. (Washington U.) **Ontogeny of the orienting-jump response of the rabbit.** *Behaviour*, 1969, Vol. 35(1-2), 77-83.—"The ontogeny of a defensive-threat posture of the adult rabbit... was studied in New Zealand white rabbits from birth by stimulating 1 side of the body with a blunt probe. A number of components of this response were found to develop at different rates postnatally: oriented jump towards side of stimulation; hind limb thrust; vocalization; fore-limb stab; bite-attack; directed escape; striking ground with hind-limb.... Several components become incorporated during ontogeny into a complex species-specific response, which might, in the absence of ontogenetic evidence, be thought to be a simple fixed action pattern."—N. M. Ginsburg.

3827. Graue, Louis C. (Bowling Green State U.) **Orientation and distance in pigeon homing (*Columba livia*).** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 36-40.—Studied the role of distance in the initial orientation of homing pigeons by releasing birds from 8 sites. The sites were from 8-230 km. distance in the 4

compass directions. The "homeward component of the average heading vector for each of the 64 releases was computed and considered in relation to the distance of displacement." There was no indication of an intermediate zone of poor initial orientation. Some differences in homing behavior cannot be attributed to stock or methods and probably involve loft sites and release point interactions.—G. Greenberg.

3828. Muul, Ilar. (Inst. for Medical Research, Kuala Lumpur, Malaysia) **Intra- and inter-familial behaviour of *Glaucomys Volans* (rodentia) following parturition.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 20-25.—10 female squirrels and their litters were tested to determine the duration of the retrieving response, and the responses to strange young and nuts. Females showed no preference for their own young, retrieving them and strange pups about the same number of times, although younger pups were preferred to older pups until 40 days of age. It is suggested that odor is important in the female's ability to distinguish between her own and extrafamilial young over 40 days old, and extrafamilial young of any age after 40 days postpartum. Retrieving during food-storing periods was interfered with, the females retrieving nuts in lieu of their pups. "Females sometimes 'stored' their babies when these were presented after a sequence of nut retrieving."—G. Greenberg.

MOTIVATION & EMOTION

3829. Burghardt, Gordon M. (U. Tennessee) **Intra-specific geographical variation in chemical food cue preferences of newborn garter snakes (*Thamnophis sirtalis*).** *Behaviour*, 1970, Vol. 36(3), 246-257.—Tested the attack-releasing effectiveness of a variety of prey extracts on conspecific newborn garter snakes of parents found in 4 localities of 3 midwestern states. Attack frequency and related measures show a basic similarity in the type of stimuli attacked though the relative effectiveness of the extracts varied from region to region. Results indicate a within-species geographical difference in responsiveness to chemical cues, and are discussed in terms of evolutionary processes associated with local availability of food resources. (French summary)—S. R. Goldstein.

3830. Coppinger, Raymond P. (Amherst Coll.) **The effect of experience and novelty on avian feeding behavior with reference to the evolution of warning coloration in butterflies: I: Reactions of wild-caught adult blue jays to novel insects.** *Behaviour*, 1969, Vol. 35(1-2), 45-60.—Results indicate that: (1) The initial responses to various training diets were different; (2) the training diets had a direct effect on the reactions of the birds to new insects; (3) there was a difference in the attack responses of the birds to different novel insects; [and] (4) there was an interaction between training diets and novel insects."—N. M. Ginsburg.

3831. Galvani, Peter F. (State University Coll. New York, Brockport) **Air-puff-elicited startle: Habituation over trials and measurement of a hypothetical emotional response.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 232-233.—In Exp. I, it was demonstrated that an air puff elicited a reliable startle reflex in 8 male albino rats which showed no habituation over 50 trials. In Exp. II an attempt was made to measure an emotional response by recording startle reactions to the air puff during presentation of a

presumed fear-eliciting CS to 18 female albino rats. It is concluded that the air-puff-elicited startle reflex can be employed as an indirect measure of a hypothetical emotional response.—*Journal abstract*.

3832. Goodrick, Charles. (Baltimore City Hosp., Gerontology Research Center, Md.) **Light- and dark-contingent bar pressing in the rat as a function of age and motivation.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 100-104.—Determined the effects of age and food deprivation on operant responding for light onset or offset for 152 male Wistar albino rats after operant-level pretests. Results were: (a) light onset had a reward value which was similar to that for light offset, (b) stimulus change was an equally effective reward for food-deprived or non-deprived Ss, (c) the effects were invariant over the entire age range for mature Ss, and (d) response rates were greater for food-deprived than nondeprived Ss during all operant-level and stimulus-change tests. It is concluded that a change in light stimulation rather than a preference for some particular light intensity is positively reinforcing. (26 ref.)—*Journal abstract*.

3833. Hughes, R. N. (U. Canterbury, Christchurch, New Zealand) **A re-examination of the effects of age on novelty reactions and exploration in rats.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 197-201.—Observed 24 male and female albino Wistar rats of 2 ages (approximately 47 and 189 days) in an exploration box consisting of novel and familiar halves. Younger Ss travelled shorter distances and spent less time exploring than older Ss. Females engaged in more locomotion than males. However, there were no age or sex effects on preferences for being in the novel $\frac{1}{2}$ of the apparatus. There tended to be less exploration and locomotion and more grooming towards the end of a testing session than there was at the beginning. It is concluded that by confirming some previous findings, results more conclusively demonstrate the effects of age on the incidence of exploratory and locomotor activities in rats. (15 ref.)—*Journal abstract*.

3834. Hughes, R. N. & Swanberg, Karen M. (U. Canterbury, Christchurch, New Zealand) **Effects of food deprivation on exploration in deprivation-naïve rats.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 79-84.—30 male and 30 female deprivation-naïve hooded rats were food deprived for 2, 24, or 48 hr. prior to observation in an exploration box consisting of novel and familiar halves. Deprivation was found to increase preferences for being in the novel $\frac{1}{2}$ but decrease the frequency of walking responses. Licking a water tube increased with 24-hr deprivation and then decreased with 48 hr. Females reared more frequently but licked a water tube less often than males. Results tend to support the view that food deprivation heightens reactivity to novelty. They also emphasized the inappropriateness of measures of locomotion alone for assessing strength of exploration. (21 ref.)—*Journal abstract*.

3835. Ivinskis, A. (U. Newcastle, New South Wales, Australia) **A study of validity of open-field measures.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 175-183.—Obtained 76 open-field measures (defecation, ambulation, urination, washing, rearing, latency, and inner circle activity) using a number of different scoring methods for 84 Wistar albino and 19 hooded rats. The validity of these measures was examined using (a) day by day decrease of open-field behavior, (b) effects of retesting over a period of time, and (c) variation of

stimulus intensity (light and noise). It was found that Methods a and b do not provide satisfactory validity estimates. Method c indicates that defecation and latency can be accepted as valid indices of emotionality in rats.—*Journal abstract.*

3836. Ivinskis, A. (U. Newcastle, New South Wales, Australia) **The reliability of behavioural measures obtained in the open-field.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 173-177.—Obtained 7 open-field measures (defecation, urination, ambulation, washing, rearing, latency, and inner circle activity) using a number of different scoring methods for 45 Wistar albino and 43 hooded rats. Albino Ss were tested on 3 different occasions: at 90 days, 63 days later, and 154 days after the 2nd. Hooded rats were subjected to 1 test session when Ss were 90 days old. The reliability of these measures was examined using test-retest and odd-even day correlations. Results suggest that defecation, ambulation, and rearing provide reliable measures of behavior in the open field.—*Journal abstract.*

3837. Jenni, Donald A., van Iersel, J. J., & van den Assem, J. (U. Montana) **Effects of pre-experimental conditions on nest site selection and aggression in *Gasterosteus aculeatus* L.** *Behaviour*, 1969, Vol. 35(1-2), 61-76.—"Male 3-spined sticklebacks were held individually in compartments under 1 of 4 conditions: Total Isolation; Physical Isolation . . . Physical Isolation with Aggression Tests . . . and Physical Isolation with a Goldfish Companion . . . [Treatment differences] affected the numbers nesting, their choice of nest sites, their latency in responding to intruding male, and the amount of biting they directed against them. The differences in treatment did not affect the percent of individuals that built nests and responded to the test male."

3838. Lee, Ching-tse. **Preference behavior in relation to preparatory response hypothesis and information theory.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 132-137.—Analyzed preference behavior in 3 groups (10 Ss in each) of female rats in a 2-choice situation. Ss were run in a Y maze, each group receiving 1 of 3 shock probabilities: 100, 50, and 25%. A 3-way analysis of variance of Ss' mean free choices to the signal-shock side and to the shock-signal side of the maze during 3 periods of experimental sessions indicates only the main effect of periods was significant. No differences were found between the groups' free choices to the signal-shock side and to the shock-signal side during the 1st and 2nd periods, but a difference did emerge during the last period. Only the 50% group developed a significant preference for the signaled side. These results were compared with findings from similar studies and tend to support an information-uncertainty analysis of preference behavior more than a preparatory response interpretation.—*P. Hertzberg.*

3839. Livezey, P. J. & Egger, G. J. (U. Western Australia, Nedlands) **Age as a factor in open-field responsiveness in the white rat.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 93-99.—Scored 72 white male preweaning (18-day) to young adult (115-day) rats on ambulation and frequency of defecation in the open field on 2 consecutive days under various stimulus conditions. Young Ss, pre- and immediate postweaning, showed little variation under different conditions. Older Ss defecated significantly more often than younger and showed increased defe-

cation and decreased ambulation from Day 1 to Day 2 and over successive 1/2-min periods in the field. Results suggest that the young S becomes reactive to light stress in the open field shortly after weaning. An escape reaction to such stress is suggested by initially high ambulation and low defecation scores. When this is not successful, activity rapidly decreases and, with increasing stress, defecation rises.—*Journal abstract.*

3840. Petchkovsky, Leon & Kirkby, Robert J. (U. Sydney, New South Wales, Australia) **Individual differences, emotionality, and spontaneous alternation in mice.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 75-78.—Investigated spontaneous alternation performance in 20 Quackenbush strain mice over a series of 13 trials. Significant differences in spontaneous alternation were found between individual mice. No significant correlations were found between rate of spontaneous alternation and emotionality as measured by defecation and latency to leave the startbox. Defecation and latency to leave the startbox appeared to increase over the series of trials.—*Journal abstract.*

3841. Sale, Peter F. (U. Sydney, New South Wales, Australia) **A suggested mechanism for habitat selection by the juvenile manini *Acanthurus triostegus sandvicensis* Streets.** *Behaviour*, 1969, Vol. 35(1-2), 27-44.—"Intensity of habitat exploration is regulated through a negative feedback mechanism by the character of the immediate environment with respect to the pertinent stimuli. A fish in an inadequate environment will show a high intensity of habitat exploration. I in an adequate environment will show a much reduced level of exploration. 20 manini were exposed singly to 4 test environments of known relative value as habitats. Each fish received all 4, and order of exposure was randomized. Analysis of 13 components of behaviour showed that exploration did vary in the manner predicted."—*N. M. Ginsburg.*

3842. Strouthes, Andrew. (State U. New York, Binghamton) **Long-range two-choice saccharin and water consumption in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 123-134.—Saccharin preference by naive male albino and pigmented rats on ad-lib feeding and on long-range choice between saccharin and water was 1st an increasing and then a decreasing joint function of saccharin concentration and exposure time. Water 1st decreased and then increased but only as a function of saccharin concentration. Periodic saccharin fluctuations, function of saccharin concentration, had no detectable counterpart in the water intake of low-saccharin concentration groups but affected the water of the higher concentration group so that the periodicities of saccharin and water were of opposite phase. An accommodation process requiring water's compensatory action in the case of the high concentration was proposed. (18 ref.)—*Journal abstract.*

3843. Weiss, Ira P. (Syracuse U.) **Nutritional and non-nutritional factors underlying food-deprivation-polydipsia in the gerbil (*Meriones unguiculatus*).** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 429-430.

LEARNING

3844. Chesler, Phyllis. (New School for Social Research) **The cognitive effects of the maternal-**

infant bond on learning by observation in the kitten. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 409.

Conditioning

3845. Dua, J. K. & Stanley, Gordon. (U. New England, Armidale, New South Wales, Australia) **Reinforcement effects in differential conditioning.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 5-10.—Using a nonchain delay situation in a Skinner box, 6 groups of 8 male albino rats each were trained to press a bar in response to tones of 8000 and 2000 Hz., but were reinforced in the presence of only 1 of these tones either .5, 4, or 7 sec. after the bar press. The tone changed to 4000 Hz. after the delay interval at which time reinforcement occurred. Learning occurred in all groups though the groups with greater CS-UCS interval were slower in rate of learning. This result was considered to support the R. A. Champion and L. R. Smith modification of K. W. Spence's incentive-motivation hypothesis.—*Journal abstract*.

3846. Krickhaus, E. E. (U. Massachusetts) **"Innate recognition" aids rats in sodium regulation.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 117-122.—25 thirsty male Long-Evans rats, with no need for sodium, were taught for several wk. to run to 1 arm of a T maze for distilled water and to the other arm for a much less acceptable hypertonic sodium solution. Ss were then tested for their side preference when not thirsty, with all solutions removed and under conditions of either sodium depletion or no sodium depletion. There was a highly reliable tendency for Ss to run more often to the arm which had previously contained sodium when sodium depleted than when not sodium depleted. Ss trained in a similar manner with potassium chloride vs. water, when subsequently sodium depleted, showed no tendency to run more often to the arm which had contained potassium. Thus, a rat appears capable of learning where and what sodium is without at the time wanting sodium, and later, when he does want sodium but no sodium is available, of knowing what he wants and of attempting to procure it.—*Journal abstract*.

3847. Liu, In-mao. **Temporal course of CR formation.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 52-58.—10 goats were subjected to an avoidance conditioning procedure in which they responded to a 1200-msec light by inhibiting their legs' being pulled forward to avoid an electric shock. An external force to pull forward the Ss' legs followed the light onset by 200 msec. in 1 session and 1200 msec. in another. During each session, test trials, on which the external force followed the light onset by 0, 100, 200, and 1200 msec., were administered. It was found that a clear generalization gradient specific to each stimulus-force training interval was obtained. Another way of studying the fundamental nature of conditioning is suggested since a temporal generalization gradient exhibits a temporal course of CR formation.—*Journal abstract*.

3848. Schaefer, H. H. (Patton State Hosp., Calif.) **Self-injurious behavior: Shaping "head-banging" in monkeys.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 111-116.—Head-banging, a common phenomenon among the mentally retarded, was shaped, brought under stimulus control, extinguished, and reestablished in 2 male rhesus monkeys through

reinforcement and discrimination procedures of operant conditioning. The behavior was stable and led to lacerations, a condition that qualifies head-banging as self-injurious. The principles of the analysis of behavior used here may well be of value in the etiology and treatment of some human head-banging.—*Journal abstract*.

3849. Thorne, David R. (Arizona State U.) **An analysis of the response durations and pauses comprising interresponse times.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 428.

3850. Vitulli, William F. (U. South Alabama) **Interactive effects of shock, insulin, and food pellet properties on operant behavior.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 127-138.—Trained 2 male albino Holtzman rats on multiple and concurrent schedules of reinforcement to assess the interactive effects of shock, insulin, and food pellet properties. The intensities of shock were .4 ma. and .8 ma. The temporal intervals between pellet occurrence and shock onset were 0, .5, 1, and 2 sec. The doses of insulin were 4, 12, 20, and 28 units. The types of pellets were Noyes sucrose and Noyes standard. The effects of the parameters on these variables were studied in comparison to the steady state behavior of Ss under the multiple and concurrent schedules. Rates of responding changed systematically as a function of shock and pellet type. Insulin produced considerable variation in responding.—*Journal abstract*.

Discrimination

3851. Blake, G. M. (Agricultural Research Council, Pest Infestation Lab., Slough, England) **An incomplete randomized block design, illustrated by a study of humidity discrimination in *Anthrenus verbasci* (L.) (Col., Dermestidae).** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 96-102.—Studied the humidity preferences of both adults and young larvae in an alternative chamber. The results were analyzed by means of an incomplete randomized block design. The humidities, presented in all possible pairs in the chamber, were 30, 50, 70, and 90% relative humidity. Ss used in all 4 experiments were able to discriminate between the 4 humidity levels and generally congregated in the lower of any pair presented. The power of discrimination between any 2 humidities was proportional to the difference between them and was not dependent upon the actual values of the humidities involved.—*Journal summary*.

3852. Blough, Donald S. (Brown U.) **Attention shifts in a maintained discrimination.** *Science*, 1969(Oct), Vol. 166(3901), 125-126.—3 white Carneaux pigeons received lights of varying wavelengths paired with sounds of varying frequencies; pecking was reinforced only at 1 stimulus combination. Then either the light or the sound was held constant at its reinforced value, while the other stimulus continued to vary. Subsequent tests show that the constant stimulus lost much of its control over Ss' responses.—*Journal abstract*.

3853. Cardu, Bruno. (U. Montreal, Quebec, Canada) **Application of the method of second order sign behavior to the study of non-spatial delayed response in rhesus monkeys.** *Behaviour*, 1969, Vol. 35(1-2), 128-136.—Choice stimuli were 2 wooden objects, a square and a cross. Signal stimuli were (for 3 Ss) a pair of intermittent lights of different frequencies, and

(for 4 Ss) a pair of intermittent sounds. Following training to match the signal stimuli with the correct choice objects "an interval between the termination of the 1st signal and the moment of choice was then introduced.... All Ss succeeded in this task; the limits of the memory span ranged from 20-45 sec."—N. M. Ginsburg.

3854. Ely, David J. (U. Nevada) **Discrimination of stripes at different angles by the rat.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 411.

3855. Mackintosh, N. J. & Honig, W. K. (Dalhousie U., Halifax, Nova Scotia, Canada) **Blocking and enhancement of stimulus control in pigeons.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 78-85.—Trained 60 white Carneaux pigeons in Stage 1 on a line-tilt discrimination, while controls rested. In Stage 2, $\frac{1}{2}$ of each group was trained to discriminate between 2 wavelengths compounded with the Stage 1 lines, while the remainder were simply reinforced for responding to the positive line compounded with a single wavelength. All Ss were finally given a wavelength generalization test. Line-tilt training in Stage 1 reduced control by wavelength in Ss given discrimination training in Stage 2, but enhanced wavelength control in Ss given single-stimulus training in Stage 2. (17 ref.)—*Journal abstract*.

3856. Richardson, William K. (U. Kentucky) **An investigation of some successive and simultaneous operant discrimination procedures.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 423.

3857. Richman, Charles L. & Coussens, Wayne. (Wake Forest U.) **Undertraining reversal effect in rats.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 340-342.—4 groups of 8 male albino Sprague-Dawley rats were either undertrained, criterion trained, overtrained, or strictly overtrained in a T-maze on a simple spatial discrimination problem prior to reversal learning. As a function of increased preshift training levels, Ss reversed the problem in less days, demonstrating the overtraining reversal effect. The speed of reversal learning was inversely related to the level of spontaneous alternation behavior during the initial stages of reversal training.—*Journal abstract*.

3858. Swihart, C. A. & Swihart, S. L. (State University Coll. New York, Fredonia) **Colour selection and learned feeding preferences in the butterfly, *Heliconius charitonius* Linn.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 60-64.—Presented an array of 7 differently colored papers (plus white and gray) to the Ss inside an insectary. The most feeding attempts were made to blue/blue-green and orange/red papers. To assess learning ability in this animal, food was presented on a single color model and then testing was carried out with a multicolored array. Substantial learning was demonstrated by the butterflies increased "preference" for the colored models that previously contained food. (17 ref.)—G. Greenberg.

3859. Thomas, David R., Burr, D. E., & Eck, Kenneth O. (U. Colorado) **Stimulus selection in animal discrimination learning: An alternative interpretation.** *Journal of Experimental Psychology*, 1970(Oct), Vol. 86(1), 53-62.—In Exp. I, 8 male albino Sprague-Dawley rats were trained in an operant free-responding situation to discriminate between 2 tone-plus-light compounds in which the tones differed in frequency but the light was always the same. A 2nd group, paired with the 1st, received nondifferential training with the same 2 stimuli.

All Ss were then tested in extinction for response strength to the compound that had been the S+ for the discrimination-trained Ss and to the (relevant) tone component of that compound. Discrimination-trained Ss responded more to the compound but less to the tone-alone condition. Results are consistent with the proposition that discrimination training makes Ss more attentive to all stimulus change. Exp. II investigated whether discrimination-trained Ss would be more responsive to variations in the light stimulus which had been the irrelevant element in discrimination training. 2 groups of 6 rats each were trained as in Exp. I. Testing for response strength in extinction included each tone paired with the training light and with a novel (dimmer) light, plus the 2 light intensities presented without any tone. Discrimination-trained Ss responded less to both lights when presented alone, but neither group responded differentially to the 2-light values, whether presented alone or in combination with the tones. Exp. III tested the hypothesis that the presence of the tones during testing had masked stimulus control by light intensity in Exp. II. It was anticipated that in the absence of such masking, greater stimulus control by light intensity might be demonstrable in discrimination-trained Ss. 12 Ss, tested as in Exp. II, replicated the earlier result. Another 12 Ss, tested with the 2 lights only, yielded reliable decremental gradients which were lower and steeper for the discrimination-trained group. Results are consistent with literature demonstrating that the effects of discrimination training extend to stimulus dimensions other than those relevant in such training. (15 ref.)—*Journal abstract*.

3860. Winefield, A. H. & Jeeves, M. A. (U. Adelaide, South Australia) **The role of position responding in simultaneous discrimination acquisition and reversal.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 201-206.—Examined discriminative acquisition and reversal learning in the presence and absence of visual cues to spatial position. Ss were 20 male Wistar rats. In the discrimination learning no effect on performance was observed, but in the reversal learning several Ss for whom the spatial cues were absent, apparently developed abnormal fixations. Results are consistent with earlier studies and are interpreted in accordance with frustration theory. They confirm previous results which indicate that the commonly held view that position responding in simultaneous discrimination learning is always a source of interference may be mistaken.—*Journal abstract*.

Avoidance & Escape

3861. Bolles, Robert C., Hargrave, George E., & Grossen, Neal E. (U. Washington) **Avoidance learning as a function of CS quality and CS termination on escape trials.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 27-32.—Trained 14 groups of 8 female Wistar rats each in a shuttle box with 1 of 5 CSs and with either immediate or delayed CS termination on escape trials. An avoidance response always produced immediate CS termination. Differences among CSs were found, but with all CSs there was a decrement under the delay condition. This decrement is explained on the basis that CS termination serves as a reinforcing safety signal, and the safety signal is more effective when it is response contingent.—*Journal abstract*.

3862. Campbell, Byron A. & Moorcroft, William H.

(Princeton U.) **Relative aversiveness of subcutaneous shock and footshock in the rat.** *Behavior Research Methods & Instrumentation*, 1970(Sep), Vol. 2(5), 222-224.—Assessed relative aversiveness of subcutaneous shock and footshock in 2 adult male Sprague-Dawley rats by means of a spatial preference technique. Subcutaneous shock was less aversive than footshock by a factor of 10, except at near lethal shock intensities, where receptor-cell hyperpolarization, electrocauterization, and/or muscular tetanization may have occurred.—*Journal abstract.*

3863. Cheng, Chao-ming. **Stimulus intensity effect and response latency.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 138-143.—Describes an investigation of the relation between the response latency to CS and the stimulus-intensity effect in the escape learning situation. It was hypothesized that the stimulus intensity effect would be more pronounced under the condition of a shorter response latency than that under the condition of a longer one. The UCS was an electrical shock, and both the CS and the testing stimuli were commercial buzzing sounds. 40 white rats were divided into 2 groups, 1 was tested under the condition of .3 sec. response latency, the other was tested under the response latency of 1.2 sec. On the training trials, the termination of CS was followed immediately by the UCS onset. Results support the above hypothesis.—*Journal abstract.*

3864. Graham, Thomas M. & Longstreth, Langdon E. (U. Southern California) **The role of frustrative non-reward in instrumental escape conditioning.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 185-192.—Attempted to determine whether Amsel's frustration effect would appear in the instrumental escape situation. The usual double-alley apparatus was used, along with a within-Ss experimental design. Ss (N = 62 naive male Long-Evans rats) were always shocked in Alley 1 and in Goalbox 1 1/2 the time; when Goalbox 1 was white it was always paired with shock, and when it was black it was not paired with shock. Its color was easily observable as S approached it from Alley 1. On test trials Goalbox 1 was paired with shock regardless of color. A clear frustration effect was found: when Goalbox 1 was black-plus-shock, Ss entered Alley 2 significantly faster than when Goalbox 1 was white-plus-shock. Evidence suggestive of anticipatory responses was also observed: during training Alley 1 speed became slower if Goalbox 1 contained the color paired with shock, and during test trials Alley 1 speed increased if Goalbox 1 contained the color paired with frustration. It is concluded that Amsel's theory as applied to the escape situation was generally confirmed.—*Author abstract.*

3865. Pilley, John W. (Memphis State U.) **Spontaneous recovery of an escape response as a function of drive and length of recovery interval.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 420.

3866. Ray, A. Joseph. (Carleton U., Ottawa, Ontario, Canada) **Instrumental avoidance learning by the tiger salamander *Ambystoma tigrinum*.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 73-77.—This animal learned to anticipate and eliminate the onset of a negative stimulus (bright light) by passing into a safe compartment when an innocuous stimulus (vibration) was presented before the light. Performance of avoidance responses increased gradually until many animals were 90% correct on the last 2 days of training. All Ss that learned the avoidance

response frequently performed it. The interval between trials and between the 2 sequential stimuli did not affect the rate of learning. (15 ref.)—*Journal summary.*

Reinforcement

3867. Capaldi, Elizabeth D. (Purdue U.) **Effect of an initial reward magnitude on subsequent resistance to extinction.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 283-287.—Reward magnitude in Phase 1 (1 or 16 pellets) and Phase 2 (1 or 16 pellets) was varied in a 2 x 2 factorial design employing 48 naive female rats as Ss. Resistance to extinction (Phase 3) was influenced by Phases 1 and 2 reward magnitudes. Previous studies, employing a smaller number of trials, failed to find an influence of Phase 1 reward on extinction. The present and previous results are interpreted within sequential theory.—*Journal abstract.*

3868. Glow, P. H. (U. Adelaide, South Australia) **Some acquisition and performance characteristics of response contingent sensory reinforcement in the rat.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 145-154.—Studied the lever-pressing behavior of 2 groups of 11 female Wistar hooded rats each; the 1st group received response contingent light on and the 2nd received response contingent light off. On a variety of measures, light off stimulation was found to be more reinforcing than an equal period of light on. The 2 groups could be distinguished with respect to the shape of their acquisition and performance curves. Sensory reinforcement of bar pressing was also investigated with a requirement of 2 responses for stimulus change, and when the on- or offset of light was controlled by the S. An adequate explanation for the performance phase of sensory contingent bar pressing is that sensory change as such is reinforcing, provided that the stimulation parameters are appropriate. (20 ref.)—*Journal abstract.*

3869. Seggie, J. L. & Halford, G. S. (U. Newcastle, New South Wales, Australia) **The secondary reinforcing properties of a stimulus not associated with reward.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 185-190.—Ran 4 groups of 8 partially reinforced male hooded rats each in a T-maze. During a delay period at the choice point 1 of 2 signal stimuli was presented to all Ss. The information value of the signals was varied for each group and was a function of the reliability with which the stimuli predicted reward or location. Results indicate that the secondary reinforcement value of the signal stimuli was related to their reliability as predictors of both reward and location, rather than to their association or nonassociation with primary reinforcement.—*Journal abstract.*

Reinforcement Schedule

3870. Keehn, J. D. (York U., Toronto, Ontario, Canada) **Schedule-induced licking and polydipsia.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 155-161.—Made detailed observations of the eating and drinking behavior of a pair of hooded rats under a variable interval (VI) 1 min. schedule of food reinforcement after 1 of them had been trained alone to bar-press. Reinforcements could be consumed by either S. The executive nearly always drank after eating, the other never did. Eventually the control acquired the bar-press response. When it was then run alone it too came to drink after eating. It is argued that as drinking after

eating is a result of reinforcement scheduling it is improper to ascribe schedule-induced polydipsia to a tendency of rats to drink after eating. Instead it is suggested that a wet mouth becomes a discriminative or otherwise favorable stimulus for bar-pressing with food reinforcement.—*Journal abstract.*

Punishment & Extinction

3871. Fa-yu, Cheng. **Effect of antenatal nutrition condition on the relation between amount of effort and extinction.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 40-44.—Hypothesized that effort may be under the effect of body weight gain conditions. The methods of prenatal dietary restriction and bar press in a Skinner box were used. 40 albino rats, 20 of which were from dietary restricted ($1/2$ of usual diet from the day of gestation) mothers and the other 20 of which were from normally fed mothers, were trained to press a bar in the Skinner box. The bar weight for a $1/2$ of each group was 50 gm. and for the other $1/2$ was 10 gm. Then they were run extinction trials with the weight shifted bar (50 gm. shifted to 10 gm. and 10 gm. to 50 gm. in extinction trials). Results obtained by the total number of bar press responses in 3 extinction series on 3 consecutive days, do not support the hypothesis. Only the weight of the press-bar in extinction could have effect on the rate of extinction.—*Journal abstract.*

3872. Reynierse, James H. & Rizley, Ross C. (Hope Coll.) **Stimulus and response contingencies in extinction of avoidance by rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 86-92.—Examined extinction of shuttle-box avoidance under several extinction operations. Ss were 64 adult male albino rats. 2 groups had CS-only conditions in which CS termination was immediate or delayed, and 4 groups had CS and UCS presented randomly in which CS and UCS were both terminated immediately, CS or UCS (but not both) were terminated immediately, or both CS and UCS terminations were delayed. These operations include all combinations of stimulus and response contingencies present during extinction of avoidance. A conventional CS-only procedure in which both stimulus and response contingencies were present produced the greatest resistance to extinction. Eliminating response contingencies associated with the CS and eliminating stimulus contingencies produced intermediate effects. Finally, extinction was most rapid when response contingencies associated with the UCS (UCS delay) were eliminated. (18 ref.)—*Journal abstract.*

SOCIAL & SEXUAL BEHAVIOR

3873. Cole, L. R. (16 Chance Lane, Guilford, England) **Observations on the finding of mates by male *Phaeogenes invisor* and *Apanteles medicaginis* (Hymenoptera: Ichneumonidae).** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 184-189.—Similar mechanisms for locating mates operated in both species studied. Unmated females emitted a scent to which males responded. P. invisor males could respond over distances up to 200 cm.; A. medicaginis males could respond over distances up to 90 cm. Males that flew out of the scent range showed no consistent behavioral changes with respect to mate location.—G. Greenberg.

3874. Dunford, Christopher. (U. Arizona) **Behavioral aspects of spatial organization in the chipmunk,**

***Tamias striatus*.** *Behaviour*, 1970, Vol. 36(3), 215-231.—Investigated the role of agonistic behavior and vocalizations in maintaining the spatial organization found in a population of 12 eastern chipmunks. Agonistic encounters were observed at seed piles while vocalizations were tape recorded and converted to sonograms. It was found that dominance relations established on neutral territory could be modulated by moving a seed pile toward the hole of a given chipmunk. A vocalization termed "chipping" occurred most often within the Ss core area, while the "chip-trill" call occurred most frequently outside the core area. A preliminary experiment indicates that chipping may function as an agonistic signal, inhibiting the approach of conspecifics. The concept of loose territoriality is used, in part, to discuss the adaptive significance of chipmunk social organization. (French summary) (22 ref.)—S. R. Goldstein.

3875. Eaton, Randall L. (Purdue U.) **Group interactions, spacing and territoriality in cheetahs.** *Zeitschrift für Tierpsychologie*, 1970(Jun), Vol. 27(4), 481-491.—The spacing technique works on a time basis. Marking appears to act as a means of defending any area against intruders; the effect, however, is short. The relation between group size and mortality, and predation on cheetah as the factor most likely limiting cheetah numbers are discussed. A definition of territoriality is offered, and it is advocated that the "time-plan" of spacing is a special case of territoriality. (29 ref.)—*Journal abstract.*

3876. Ferguson, Gary W. (Kansas State U., Div. of Biological Sciences) **Mating behaviour of the side-bellied lizards of the genus *Uta* (Saural: Iguandidae).** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 65-72.—Describes 4 stages of the mating behavior: approaching, licking, neck-holding, and copulating. Some aspects of mating behavior are more stereotyped within Uta populations than between populations. However, none of the geographic differences were sufficiently great to be useful for subspecific diagnosis. Absence of "head jerk" behavior and short copulation may indicate ancestral affinity between Texas and Santa Catalina Island Uta. A higher degree of intraspecific aggression and shorter life expectancy in some Uta populations may be directly or indirectly responsible for the presence of circling behavior, longer duration of the licking stage, and the shorter duration of copulation in those populations.—*Journal summary.*

3877. Gardner, Eliot L. & Gardner, Elizabeth B. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Orientation of infant macaques to facially distinct surrogate mothers.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 409-410.—Examines the development of affective behavior in "2 infant rhesus monkeys... removed from their mothers and each placed in a cage containing 2 terrycloth covered mother surrogates" similar to those used by H. Harlow except for the faces, 1 square and 1 round. Results indicate a preference for the square face. It is concluded that the data further emphasize the importance of contact comfort and suggest that attentional variables exist in infrahuman primates.—G. Steele.

3878. Losey, George S. (Hawaii Inst. of Marine Biology, Kaheohe) **Sexual pheromone in some fishes of the genus *Hypsoblennius* gill.** *Science*, 1969(Jan), Vol. 163(3863), 181-183.—Found a pheromone in the males of some species of *Hypsoblennius* which facilitates

male courtship by releasing sexual appetitive behavior and by increasing sexual receptivity. Females and egg-guarding males were not attracted by this pheromone under experimental conditions.—*Journal abstract*.

3879. Oldfield-Box, Hilary. (U. Reading, England) **Experimental manipulation of individual performance within groups of rats engaged in a "social problem."** *Psychological Reports*, 1970(Feb), Vol. 26(1), 219-225.—5 experiments showed divisions of labor were not maintained in 3 of 4 groups of naive black hooded Norway rats with differing schedules of reinforcement. Altering schedules of Ss in established groups did not relate to later behavior. When Ss were trained on 1 task and shifted, to the other, variability increased.—*Journal abstract*.

3880. Payne, Robert B. (U. Oklahoma) **Breeding seasons and reproductive physiology of tricolored blackbirds and redwing blackbirds.** *University of California Publications in Zoology*, 1969, Vol. 90, 137 p.—In southern California, Redwing blackbirds (*Agelaius phoeniceus*) nest only in spring, whereas closely related sympatric tricolored blackbirds (*Agelaius tricolor*) nest in spring and, in smaller numbers, in autumn. Field observations show both species are polygamous, tricolors hold temporary territories while redwing territories are permanent throughout the breeding season; the nesting schedule for tricolors is shorter than for redwings; and in comparison with tricolors, redwing males have an insignificant role in feeding the young. Seasonal changes in testes, ovaries, plumage, and weight are described. Males and females of both species develop large gonads in response to long artificial day lengths. Experiments showing gonadal response to natural autumnal day length in male tricolors in which the photorefractory period is terminated early suggest that males breeding in autumn are the same males which bred successfully in early spring, since the testes of males feeding young in spring regress earlier than do testes of other males. Female tricolors developed enlarged ovaries in early autumn when fed live grasshoppers or soaked in simulated rains. (9 p. ref.)—P. L. Borchelt.

3881. Peeke, Harman V. & Peeke, Shirley C. (U. California, San Francisco) **Habituation of conspecific aggressive responses in the Siamese fighting fish (*Betta splendens*).** *Behaviour*, 1970, Vol. 36(3), 232-245.—Live male Ss were used as stimuli to study the habituation of aggressive display and biting in conspecific adult males. Of the 3 groups studied, 1 (E-15) received a daily 15-min exposure to the stimulus Ss for 20 consecutive days. Group II (C-15) received this same stimulation for the first and last 2 days of the 20-day test session. Group III (E-60) received the same total amount of stimulation as E-15 over a 5-day period by extending the daily session length to 1 hr. Groups E-15 and E-60 showed habituation of aggressive responses but Group C-15 did not. Biting, and the various components of aggressive display were also found to habituate at different rates. "Between-days persistence of the decrement and the results of the control group rule out interpretation of the results as being due to sensory adaptation or some fatigue process." (German summary) (16 ref.)—S. R. Goldstein.

3882. Preston, David G., Baker, Robert P., & Seay, Bill. (Louisiana State U.) **Mother-infant separation in the patas monkey.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 298-306.—Found that the 6

7-mo-old patas monkey infants used as Ss showed the typical initial agitation and subsequent decline in social behavior during a 3-wk separation. An increase in peer interaction, rather than the common rise in maternal interaction found in other species, followed reunion. 3 factors may interact to produce a less severe separation reaction and increased peer interaction following separation, as compared to the results of macaque studies: (a) patas tend to be more permissive mothers; (b) patas infants have a longer, more intense, early mother-infant relationship; and (c) contact play is a secondary play pattern in patas, but is the primary play pattern in macaques. (34 ref.)—*Journal abstract*.

3883. Shorey, H. H. & Bartell, R. J. (U. California, Riverside) **Role of volatile female sex pheromone in stimulating male courtship behaviour in *Drosophila melanogaster*.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 159-164.—Male fruitflies reared with females touched and oriented to other flies more than naive flies. Touching and/or orientation seemed to be essential to sex identification. The odor of females increased touching and orientation among male flies reared together. Male odors were not as effective as female odors in eliciting these behaviors. Female odors reduced the latency of courtship imitation in single males confined with 1 female.—G. Greenberg.

3884. Suomi, Stephen J., Sackett, Gene P., & Harlow, Harry F. (U. Wisconsin) **Developmental of sex preference in rhesus monkeys.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 326-336.—Tested socially unsophisticated rhesus monkeys (*Macaca mulatta*) of various ages for preference: (a) between a male and a female stimulus animal the same age as the Ss, and (b) between a male and a female adult feral-born monkey. In sex preference for age-mates: (a) Ss of both sexes under 7 mo. old failed to demonstrate consistent preferences for either sex of stimulus animal; (b) older Ss of both sexes made definite sex choices, exhibiting a chronological pattern of initial preference for own sex of stimulus animal followed by a shift of preference to opposite-sex stimulus animal; and (c) the preference shift occurred earlier for the females than for males. The specific sex preferences exhibited by Ss correspond closely to previously reported behavior patterns of socially sophisticated monkeys, and the chronological ages of preference shifts correspond to ages of physical maturation for rhesus monkeys. In sex preference for feral adults: (a) all Ss under 38 mo. preferred the adult female to the adult male, suggesting the existence of an unlearned preference for adult females by infant monkeys; and (b) all males over 40 mo. preferred the adult male, while all females over 40 mo. preferred the female. (25 ref.)—*Journal abstract*.

3885. van Dis, Huib & Larsson, Knut. (Netherlands Central Inst. for Brain Research, Amsterdam) **Spontaneous seminal discharge and preceding sexual activity.** *Physiology & Behavior*, 1970(Oct), Vol. 5(10), 1161-1163.—Inspected 60 male Wistar rats, prevented from genital grooming during a 12-day period, for the deliverance of spontaneous seminal deposits after varying amounts of preceding sexual activity. An inverse relationship was found between number of ejaculations permitted and the amount of seminal plugs delivered.—*Journal abstract*.

3886. Watson, Michael. (Princeton U.) **Significance of antiphonal song in the eastern whippoorwill, *Psophodes olivaceus*.** *Behaviour*, 1969, Vol. 35(1-2),

157-178.—Field recordings were analyzed spectrographically, showing "an overall constancy of male song and a marked geographical variation in female song. Male song is shown to consist of 2 components: the introduction, which is individually variable; and the whip-crack, which is rigidly species specific. . . . The female antiphonal component shows an individual variation but a constant pattern in any 1 area. . . . Function of antiphony in this species [is]: maintenance of contact, maintenance of the pair bond, and territorial advertisement and display."—N. M. Ginsburg.

3887. Wilz, Kenneth J. (Williams Coll.) **Causal and functional analysis of dorsal pricking and nest activity in the courtship of the three-spined stickleback *Gasterosteus aculeatus*.** *Animal Behaviour*, 1970(Feb), Vol. 18(1), 115-124.—Dorsal pricking behavior was displayed when aggressive motivation was high. By eliminating following by the female, the dorsal pricking behavior served to facilitate a switch from high aggression to high sexual motivation in the male. This behavior was apparently a motivation-adjusting mechanism. There also seemed to be a relationship between the display of certain nest activities and the adjustment in motivation in the male, (16 ref.)—G. Greenberg.

SENSORY PROCESSES

3888. Danielson, John T. (Brown U.) **Increment sensitivity in the visual system of *Limulus*.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 410.

3889. Fay, Richard R. (Connecticut Coll.) **Auditory sensitivity of the goldfish within the near acoustic field.** *U.S. Naval Submarine Medical Center Report*, 1969(Nov), No. 605, 11 p.—Investigated auditory sensitivity and discrimination of goldfish within the acoustic near field. Exp. I studied the effects of the near field on sound pressure thresholds. The sensitivity of Ss in terms of sound pressure appeared to vary with distance from the sound source. Exp. II studied stimulus generalization and frequency discrimination within the near field. A generalization gradient was observed which indicated that Ss can discriminate a frequency change as small as 12.5% without explicit differential training. Exp. III studied the effects of far field noise or near field thresholds. A masking effect was observed which appeared to be a negatively accelerated function of masker spectrum level. Exp. IV tested the ability of goldfish to localize a sound source within the near field. It was shown that Ss could discriminate between right 45° and left 45° stimulus directions. (19 ref.)—*Journal abstract*.

3890. Wasserman, Gerald S. & Patton, Danalee G. (U. Wisconsin) ***Limulus* visual threshold obtained from light-elecited unconditioned tail movements.** *Journal of Comparative & Physiological Psychology*(Oct), Vol. 73(1), 111-116.—Some naive horseshoe crab, *Limulus polyphemus*, reliably respond to sudden light onset with a downward tail movement. Not all Ss exhibit this response; the main determinant seems to be the general vigor of the S. The response is quite stable in Ss that exhibit it, and the response has been used to obtain the 1st absolute threshold from *Limulus* by means of the staircase method.—*Journal abstract*.

DEVELOPMENTAL PSYCHOLOGY

3891. Annett, Marian. (U. Hull, England) **The growth of manual preference and speed.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 545-558.—Examined hand preference, speed of movement of each hand, and vocabulary in 219 3½-15 yr. old children. The distributions of preference and relative manual speed were found unchanged during growth. Sex differences in preference and skill indicate that females are more asymmetrical to the right than males. Right-, mixed, and left-handers were found in binomial proportions in both sexes. A linear relation between degrees of preference and degrees of relative manual skill was demonstrated. The vocabulary distributions of right-, mixed, and left-handers differed; that of consistent left-handers was displaced upwards, that of mixed handers spread out to give a significant excess of mixed handers among those of lower IQ. Implications of findings for the basis of lateral asymmetry and for the relations between laterality and language development are considered. Norms for speed of movement in each hand are given which can be used to assess manual disability. (35 ref.)—*Journal abstract*.

3892. Caputo, Daniel V. & Mandell, Wallace. (Wakoff Research Center, Staten Island, N.Y.) **Consequence of low birth weight.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 363-383.—Examines the correlation of low birth weight (prematurity) with a number of deficits and debilities in development. Intellectual impairment, e.g., has been found to be significant for very low-birth-weight individuals, but not for those at the upper end of the low-birth-weight distribution. Low birth weight is relatively frequent in the histories of mental retardates, institutionalized individuals, and high school dropouts. Deviant behaviors, i.e., hyperkinesis, autism, and involvement in childhood accidents, appear to be relatively common among prematures, as are difficulties in language development, and in various areas of academic achievement. Physical growth, motor behavior, and neurological functioning are adversely affected as well. Minimal brain damage is presumed to mediate these sequelae. In turn, poor maternal nutrition, and inadequate prenatal care are viewed as causative of both low birth weight and of the attendant minimal brain damage. The difficulty of exercising proper control over potentially confounding variables is also discussed. (64 ref.)—*Journal abstract*.

3893. Goodman, Lisl M. (New School for Social Research) **Perceptual preferences in relation to aspects of personality.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 380-381.

3894. Hunt, K. W. (Florida State U.) **Syntactic maturity in school children and adults.** *Monographs of the Study for Research in Child Development*, 1970(Feb), Vol. 35(1), 67 p.—Results indicate increasing syntactic maturity with age, as was expected, and discusses the implications of these findings and their relation to current linguistic research.—A. Barclay.

3895. Irwin, Marc H. & McLaughlin, Donald H. (U. California, Berkeley) **Ability and preference in category sorting by Mano schoolchildren and adults.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 15-24.—Cards differing on color, form, and number were sorted by schoolchildren and adults of the Mano tribe of Liberia. Students were superior to adults, although adults were as good on a rice bowl sorting task

as the students on the card sorting task. All Ss were more able to sort cards by number and color than by form, and this effect was less for students in higher grades. Preference for dimensions, evidenced by order of choice in successive sorts, was 1st number, then color, then form. (17 ref.)—*Author abstract.*

3896. Krogman, W. (U. Pennsylvania) **Growth of head, face, trunk, and limbs in Philadelphia white and Negro children of elementary and high school age.** *Monographs of the Society for Research in Child Development*, 1970(May), Vol. 35(3), 80 p.—Reviews anthropometric findings from a population of white and Negro children.—A. Barclay.

3897. LaCrosse, E. Robert, et al. (Harvard U.) **The first six years of life: A report on current research and educational practice.** *Genetic Psychology Monographs*, 1970(Nov), Vol. 82(2), 161-266.—Summarizes a "state of the field" presentation to the Public Education Staff of the Ford Foundation. It reviews American literature and contemporary research projects dealing with children from birth to age 6. Topics covered are preschool education, preschool environments, social development and personality, physical development, language, attentional processes, curiosity, cognition, and measurement and assessment devices. Each of these areas is covered intensively from 1961-1967 with selected coverage of years prior to 1961. A bibliography of published work and ongoing projects (as of 1968) is included. (198 ref.)—*Author abstract.*

3898. Langer, Jonas. (U. California, Berkeley) **Theories of development.** New York, N.Y.: Holt, Rinehart, & Winston, 1969. xi, 191 p. \$5.95.—Combines the important theoretical ideas of developmental psychology into a description of the main contemporary approaches to development. 3 perspectives emerge: the psychoanalytic, the mechanical mirror, and the organic lamp. A brief presentation is included of the longitudinal empirical methods requisite to the investigation of progressive and regressive development.

3899. Phillis, Judith A. (U. Florida, Communication Sciences Lab.) **Children's judgments of personality on the basis of voice quality.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 411.—Investigated whether the responses of 240 elementary, junior high, and senior high students "to different voice types vary as a function of age." Ss were presented with 12 voices representing 3 voice types. Results indicate a significant age effect. It is concluded that "younger children are more sensitive to nonlinguistic vocal cues than are older children or adults."—G. Steele.

3900. Pratt, Robin W. (U. North Carolina, Greensboro) **Cognitive processing of uncertainty: Its effect on pupillary dilation and preference ratings.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 193-198.—The prediction of greater pupillary dilation as unpredictability (induced by random-turn shapes) increased was supported ($p < .001$) in studies involving 40 18-27 yr. old adults and 10 7-9 yr. old children. The postulated linearity of this increase found support, except in cases where apparent stimulus-selection strategies attenuated the dilation at higher levels of variability. Ss who did preference ratings concomitantly with the intake of visual unpredictability evidenced significantly greater dilation ($p < .001$) at the time of reporting the rating. Both children and adults dilated significantly less to the shapes after prolonged experience with similar stimuli, indicating development of either

ability to handle variability or to selectively filter input, but age was not a factor. The lack of any significant relationship between pupillary dilation and preference indicates the need for more definitive work in determining when these 2 indices profitably complement each other. Finally, adults dilated more to provocative auditory stimuli than to the visual shapes. (31 ref.)—*Journal abstract.*

3901. Turrill, Frank D. (Brown U.) **An analysis of the overtraining reversal effect in humans.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 429.

INFANCY

3902. Carpenter, Genevieve C., Tecce, Joseph J., Stechler, Gerald, & Friedman, Steven. (Boston U., Medical Center) **Differential visual behavior to human and humanoid faces in early infancy.** *Merrill-Palmer Quarterly*, 1970(Jan), Vol. 16(1), 91-108.—From a sample of 18 normal full-term Negro females, findings indicate active regulation of visual input differentially related to the experimental stimuli; the observed discriminative visual behavior of infants in the 1st 2 mo. of life does not appear to be determined solely on the basis of stimulus properties but seems to reflect a more complex level of information processing, including associations from past experience with the stimulus object. (19 ref.)—R. V. Hamilton.

3903. Chachava, K. V. **Reoentsefalografiya ploda i novorozhdennogo.** [Rheoencephalography of the fetus and neonate.] Tbilisi, USSR: Ganatleba, 1969. 176 p.—Presents a monograph concerning data on the characteristics and dynamics of parturitional and postparturitional rheoencephalograms of babies born normally and anormally.—I. D. London.

3904. Cravioto, J., et al. **The ecology of growth and development in a Mexican preindustrial community: I. Method and findings from birth to one month of age.** *Monographs of the Society for Research in Child Development*, 1969, Vol. 34(4), 7 p.—Reports on the condition of all children, born during 1 yr., at birth, and on their physical and behavioral progress during the 1st mo. of postnatal life. A series of reports deriving from the longitudinal study of the children in this birth cohort are included. Also, presented is the general design of the study, and the methods used for the collection of data on the community, the children, and the families from which they derive.—A. Barclay.

3905. Friedlander, Bernard Z. (U. Wisconsin) **Receptive language development in infancy.** *Merrill-Palmer Quarterly*, 1970(Jan), Vol. 16(1), 7-51.—Presents an extensive review in 4 parts: (a) a brief review of some of the recently developed data on listening and receptive language functioning in babies, (b) a discussion of the rationale of infant receptive functions as a distinctive topic of research, (c) an examination of the reasons why it may be inappropriate to lump language perception in with other perceptual processes for which visual perception is usually the principal source of psychological models, and (d) an examination of a framework of interrelated psychological domains and organismic/environmental variables that seem to constitute the main nexus within which receptive language processes develop. (45 ref.)—R. V. Hamilton.

3906. McCall, Robert B. & Melson, William H. (Fels Research Inst., Yellow Springs, O.) **Complexity, con-**

tour, and area as determinants of attention in infants. *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 343-349.—Presented a series of 4 stimuli equated for contour length and area but varying in complexity as defined by the irregularity of the arrangement of elements within a pattern to 20 5-mo-old infant girls. No differences in 1st fixation or cardiac deceleration were observed as a function of complexity. A set of 4 stimuli controlled for complexity but varying in contour length and area was presented to a separate sample of 32 5-mo-old females. Attention was greater to forms possessing relatively more black area and to those having relatively short total black-white contour. Results support the need to refine the operational definition of complexity. (19 ref.)—*Journal abstract*.

3907. Mendel, Maurice I. (Central Inst. for the Deaf, St. Louis, Mo.) **Infant responses to recorded sounds.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 811-816.—Tested 30 4-11 mo. old infants with 5 different recorded sounds that varied in bandwidth and temporal configuration: a continuous band of white noise, the same band of noise interrupted twice/sec, the crinkling of onionskin paper, a narrow band of noise centered at 3000 Hz., and a warbled 3000-Hz tone. With loudness and duration of the stimuli held constant, more responses occurred to sounds composed of a broadband spectrum than to those of a limited bandwidth. Temporal configuration of the sound had no effect on the number of responses elicited.—*Journal abstract*.

3908. Rutter, Michael. (U. London, Inst. of Psychiatry, England) **Psychological development: Predictions from infancy.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(May), Vol. 11(1), 49-62.—Discusses the level of prediction which can be made from the age of 6 mo. Some estimate of whether or not there is psychological pathology may be made, although even here an appreciable minority of children will be misdiagnosed, but no useful predictions of psychological characteristics within the normal range can be made from early infancy. A consideration of the factors which influence development and the predictions of development leads to the view that, with better instruments, improved but still very modest predictions might become possible during later infancy, but it seems unlikely that any useful level of accuracy in psychological predictions (apart from a more accurate diagnosis of abnormality) will become possible by as early as 6 mo. (3 p. ref.)—*Journal summary*.

3909. Scarr, Sandra & Salapatek, Philip. (U. Pennsylvania) **Patterns of fear development during infancy.** *Merrill-Palmer Quarterly*, 1970(Jan), Vol. 16(1), 53-90.—The findings from 91 infants observed once, of which a 34-infant subsample was observed twice in bimonthly observations, generally indicated that: (a) to a large extent fear of strangers, fear of heights, and fears of the mechanical dog, jack-in-the-box, and loud noises develop independently; (b) the fear of masks shares some common variance with each of the foregoing fears; (c) there are no outstanding relationships between perceptual-cognitive ability as measured by specific fears; and (d) there are variations in temperament, and stable differences (over a 2-mo interval) in the pattern of fears displayed by individual infants, suggesting a possible genetic role in the development of fear during infancy. (63 ref.)—*R. V. Hamilton*.

3910. Schaffer, H. R. & Parry, M. H. (U. Strathclyde, Glasgow, Scotland) **The effects of short-term famil-**

iarization on infants' perceptual-motor co-ordination in a simultaneous discrimination situation. *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 559-569.—Attempted to demonstrate that around 6 mo. of age the infant's ability visually to categorize stimuli in terms of their familiarity-unfamiliarity is not yet associated with manipulative approach-avoidance responses and that such responses come under visual control only some time in the course of the 2nd ½ yr. of life. A short-term familiarization period was administered to 72 infants aged 5-7, 8-10, and 11-13 mo., followed by a simultaneous discrimination test involving the familiar and a novel stimulus. Results indicate that the ability visually to discriminate between the stimuli occurred at all 3 age levels, but that manipulative discrimination took place only in the 2 older groups. The effects on discrimination of some parameters defining the experimental procedure, i.e., the color of the familiarized stimulus and the nature of the familiarization condition (visual-tactual or visual-only), were also investigated.—*Journal abstract*.

3911. Siqueland, Einar R. & DeLucia, Clement A. (Brown U.) **Visual reinforcement of nonnutritive sucking in human infants.** *Science*, 1969(Sep), Vol. 165(3898), 1144-1146.—Studied high-amplitude sucking as a conditioned operant response reinforced by visual feedback in groups of 4- and 12-mo-old infants. Typical response acquisition and extinction effects were obtained. With the 12-mo-old Ss, the conditioned sucking rates were influenced by amounts of redundancy in the visual reinforcers.—*Journal abstract*.

CHILDHOOD

3912. Agarwal, M. C. & Srivatsava, D. N. (Agra Coll., India) **Role of meaningful distraction on performance with special reference to age and sex difference.** *Journal of Psychological Researches*, 1969, Vol. 13(1), 13-26.—Meaningful distraction introduced with the help of songs increased errors and caused poor performance. Sex differences were observed in 8th-class Ss.—*U. Pareek*.

3913. Arbib, M. & Kahn, Roy M. **A developmental model of information processing in the child.** *Perspectives in Biology & Medicine*, 1969(Spring), Vol. 12(3), 397-415.—Describes a cybernetic approach to normal childhood mental development, noting points of similarity and differences between a cybernetic brain and a physical brain. Differentiation of function in terms of hardware and software (programming) is outlined, and a model system of evolving brain function is diagrammed. Biological development, brain language, behavior language, and the nature of memory are described in outline cybernetic terms. Analogies to Piaget's work are pointed out.—*Author abstract*.

3914. Baldwin, William R. (504 Meadow View Rd., Forest Grove, Ore.) **Optometry: Child development and educability.** *Journal of the American Optometric Association*, 1969(Feb), Vol. 40(2), 131-133.—Presents recommendations from the American Optometric Association's Committee on Research concerning the role of optometric guidance in the visual development of children. Recommendations concern scientific method, evaluation of clinical procedures, closing the gap between researchers and practitioners, reporting new clinical information, developing improved educational

programs, and broadening financial support.—P. McMillan.

3915. Beussee, Mary P., Hammes, John A., & Ahearn, Thomas R. (U. Georgia) **Child care in the community fallout shelter.** *Psychology*, 1970(Aug), Vol. 7(3), 2-6.—The Civil Defense Research Staff at the University of Georgia conducted a 1-wk simulated fallout shelter occupancy test under austere conditions with a group of 7-12 yr. old elementary schoolchildren and 2 adults. Stress conditions included restricted food and water rations, minimal living space (6 sq. ft./person), chemical commodes, absence of furniture and bedding, and minimal recreational supplies (pencils and paper). Water intake averaged 1 qt/person/day and food consumption averaged 848 calories/person/day. The results of this test, together with implications for community fallout shelter child care, are discussed.—J. A. Blazer.

3916. Carr, Gordon L. (Syracuse U.) **The effects of self-blame and other-blame instructions on frustrative non-reward with children as subjects.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 408.

3917. Chauhan, N. S. & Tiwari, G. P. (Agra Coll., India) **Psycho-physiological sensitivity as a function of sex.** *Psychological Studies*, 1969, Vol. 14 (1), 39-46.—Girls were found to have significantly better psychophysiological sensitivity in areas of tactual stimulus limen, choice RT, and intelligence, whereas boys exceeded girls significantly in sensorial RT and muscular capacity. No difference was observed in pneumatic inspiration.—U. Pareek.

3918. Clegg, Alec & Megson, Barbara. **Children in distress.** Baltimore, Md.: Penguin Books, 1968. 175 p. \$.95(paper).

3919. Krupskaya, N. K. **O doskol'nom vospitanie.** [On preschool training.] Moscow, USSR: Prosveshchenie, 1967.—Presents a collection of previously published articles and speeches by Lenin's wife.—I. D. London.

3920. Magowan, S. A. & Lee, Terrence. (Child Guidance Centre, Dundee, Scotland) **Some sources of error in the use of the projective method for the measurement of moral judgment.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 535-543.—Found that scores on a test of projective facility are associated with maturity of moral judgment. 56 9-12 yr. old children were formed into 2 x 2 groups by age and sex and matched on projective facility. Each S completed 12 stories and the number of immanent justice responses was used as a measure of moral maturity. The main independent variable was type of story, 1/2 depicting familiar situations and 1/2 originating from foreign cultures. Multiple-choice vs. open-ended forms and the sex of the central figure in the story were also systematically varied. All 3 story variables gave significantly different measures of moral maturity. Of the S variables, age was significant but sex showed no difference. It is concluded that the projective method is liable to serious imperfections and more stringent controls are urged for its future use. (29 ref.)—*Journal abstract.*

3921. Rebelsky, Freda & Dorman, Lynn. (Eds.) (Boston U.) **Child development and behavior.** New York, N.Y.: Alfred A. Knopf, 1970. xix, 399 p. \$.95(paper).

3922. Ridberg, Eugene H. (U. Wisconsin) **The modification of cognitive styles through observation of film-mediated models.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 401.

3923. Stouwie, Roger J., Hetherington, E. Mavis, & Parke, Ross D. (U. Texas) **Some determinants of children's self-reward behavior after exposure to discrepant reward criteria.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 313-319.—Investigated the effects of children's achievement orientations, sex of child, and sex of model on children's self-reward behavior. Achievement orientation was determined by performance on the Embedded Figures Test; 156 3rd and 4th graders then participated with an adult model in a bowling-game situation, during which the model used a low score as a criterion for self-reward while imposing a higher criterion on the child. High-achievement-oriented girls set the highest self-reward standards, regardless of sex of the model. Both male and female Ss who had interacted with female models took fewer rewards than those who had played with male models. A control group that was not exposed to models took markedly more rewards than did the Ss. (23 ref.)—*Journal abstract.*

3924. Wright, Herbert F. (U. Kansas) **Recording and analyzing child behavior with ecological data from an American town.** New York, N.Y.: Harper & Row, 1967. viii, 291 p.

Learning

3925. Barbanel, Laura H. (Columbia U.) **Operant discrimination in middle-class and lower-class children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 405.

3926. Belland, John C. (Syracuse U.) **Generalization of aural and visual nonverbal stimuli in a concept-association task.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5276-5277.

3927. Berry, Franklin M. & Baumeister, Alfred A. (U. Alabama) **Partial redundancy and cue selection.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 171-173.—Taught 40 3rd-6th graders either easy or hard paired-associates with or without partially relevant colored backgrounds. The partially redundant conditions produced more confusion errors at either level of trigram difficulty. Ss apparently utilized the colors for response evocation even though such a strategy could not lead to total-list learning.—*Journal abstract.*

3928. Garner, John. (U. Lancaster, England) **Age differences in the discrimination shift learning of young children.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(May), Vol. 11(1), 29-36.—Examined H. H. Kendler's hypothesis that the nature of discrimination learning changes in 4-6 yr. old children. Results indicate that within the experimental paradigm used by T. S. Kendler, H. H. Kendler, and D. Wells there are no differences with age in the relative ease of nonreversal and reversal shifts, both age groups finding reversals to be easier. Age differences were found in the ease of learning both types of shift, the explanation of which was unclear in the experiment.—*Journal summary.*

3929. Goldhaber, Dale E. (Syracuse U.) **The influence of age and pretraining on a discrimination reversal problem having one relevant and two irrelevant dimensions.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 380.

3930. Iversen, Iver A., Silberberg, Norman E., & Silberberg, Margaret C. (Kenny Rehabilitation Inst., Minneapolis, Minn.) **Sex differences in knowledge of letter and number names in kindergarten.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 79-85.—A study

of the learning of letter and number names in 59 boys and 51 girls prior to the onset of formal instruction in kindergarten indicated that there are sex differences not only in the rate of learning but in the components of learning. There is a tendency, reported earlier by A. Gates, for all children to either know the names of most letters and numbers or know only a few. Further, boys had learned their number names at least as well as girls while girls knew significantly more letter names than did boys. Findings exemplify the importance of developmental factors in learning to read which should be taken into account in the teaching of beginning reading.—*Journal abstract.*

3931. Lampel, Anita K. (Stanford U.) **Some developmental aspects of short-term memory in children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5714.

3932. Lange, Garrett W. & Hultsch, David F. (Vassar Coll.) **The development of free classification and free recall in children.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 408.—Hypothesized "that the requirement to organize stimuli overtly during presentation would facilitate the free recall of 1st, 3rd, and 5th graders" and "that 7th- and 9th-grade Ss would receive decreasing benefit from overt stimulus organization." Ss were 100 white working-class children with average intelligence. Results of the analysis of variance for free classification indicate that younger Ss "took more time and used more sorting categories." Results of free recall analysis indicate a significant grade effect, condition effect, and Grade \times Condition interaction.—G. Steele.

3933. Mallory, Sadie A. (Arizona Center for Early Childhood Education, Tucson) **Effect of stimulus presentation on free recall of reflective and impulsive Mexican-American children.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 193-198.—Identified 19 reflective and 19 impulsive 2nd grade Mexican-Americans by the Matching Familiar Figures Test. $\frac{1}{2}$ of each group was presented auditorily or audiotactually a 12-word noun list. Free recall was significantly better for clustering and total words for audiotactual reception. Reflectivity and impulsivity did not influence free recall responses.—*Author abstract.*

3934. Massari, David J. (Syracuse U.) **Reinforcer effectiveness in children as a function of stimulus satiation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 418.

3935. Paulson, Floyd L. (Stanford U.) **The effects of memory support and concept difficulty on the learning of test anxious children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5298.

3936. Piper, John J. (U. Nebraska) **The effects of extinction and information on behavior change.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 233.

3937. Rhetts, John E. (Cornell U.) **The influence of cognitive response style on discrimination and learning in second grade children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 235-236.

3938. Steln, Nancy L. (Stanford U.) **The modification of impulsivity using two types of cue discrimination training.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5303-5304.

3939. Uprichard, Albert E. (Syracuse U.) **An experimental study designed to determine the most efficient learning sequence of three set relations in**

the preschool years. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5304-5305.

3940. Vezin, Jean F. (Faculté des Lettres et Sciences Humaines, Sorbonne, France) **Procédés de démonstration chez des enfants de dix à douze ans.** [Demonstration procedures for children, ten to twelve years old.] *Journal de Psychologie Normale et Pathologique*, 1970(Jan), Vol. 67(1), 71-87.—Compared the role in learning of different symbols in the expression of their relationships and transformations—learning from one method of demonstration. 10-12 yr. old boys and girls in a Paris school served as Ss. It was found that a figurative or schematic symbolization favors assimilation in depth. Although figurative symbolism is very related to learning data, the mastery of transfer is related to a lesser extent. However, there are 2 positive outcomes of figurative symbolism: it is concise and permits an immediate view of a group of relationships and their transformations, and it makes a bond between the concrete and the abstract. In contrast, verbal symbolism was not as effective, for it was too abstract for children of this age.—L. A. Ostlund.

Concepts & Language

3941. Aaron, P. G. **Two studies on concept development and their curricular implications.** *NIE Journal*, 1969, Vol. 3(3), 28-33.—A study of time- and space-related concepts of 503 72-136 mo. old boys showed that there was a general progress in the concept development with CA. The development of the knowledge of "yesterday" preceded that of "today" which was followed by the "tomorrow" concept. "Week" was understood better than "month" which was better understood than "year." Children understood their age and father's age more than mother's age. While 36% of the 6 yr. olds could talk about "feet" and "yards" only 4% of them could apply them. Similar trends were observed with reference to size and distance. Implications of these findings for curriculum development are stressed.—U. Pareek.

3942. Berzonsky, Michael D. (Edinboro State Coll.) **Effects of probing children's phenomenistic explanations of cause and effect.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 407.—"Investigates the influence of the testing procedure" on the causal explanations of 84 middle-class 1st graders. Ss were administered 3 Piagetian-type verbal measures of causality. Results indicate significantly "more phenomenistic explanations... with the nonprobed condition than with the probed treatment" and a significant Treatment \times Measures interaction.—G. Steele.

3943. De Vries, R. (U. Chicago) **Constancy of generic identity in the years three to six.** *Monographs of the Society for Research in Child Development*, 1969, Vol. 34(3), 56-60.—Reports on "constancy of generic identity, the belief that the identity of a living being is invariant. In order to investigate whether this aspect of the child's reality could be demonstrated to be different from that of the adult, a black cat named Maynard was trained to wear a rabbit mask and a ferocious dog mask. 3 major aims of the study can be cited: (a) to extend Piaget's notions about constancy of identity, (b) to investigate the cognitive implications of the relation between verbal and emotional reactions, and (c) to bring evidence to bear on several possible interpretations of this inconstancy phenomenon."—A. Barclay.

3944. Farnham-Diggory, S. (Carnegie-Mellon U.) **Cognitive synthesis in Negro and white children.** *Monographs of the Society for Research in Child Development*, 1970(Mar), Vol. 35(2), 84 p.—Explored symbolic abilities, and their development, with a view toward the technology of pedagogy. It was found that racial differences in symbolic abilities, while present, might be remediable through various cognitive training techniques.—A. Barclay.

3945. Giebnek, John W., Neville, Annette, & Davidson, Robert E. **Acquisition of morphological rules and usage as a function of social experience.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 217-221.—60 preschoolchildren were used to test the hypothesis that social class membership effects grammatical usage. It is concluded that when a relatively specific test of standard English grammar is used, the 2 social class groups can be differentiated beyond that which occurs on the basis of intelligence alone.—H. Kaczowski.

3946. Goda, Sidney. (United Hosp., Port Chester, N.Y.) **Speech development in children.** *American Journal of Nursing*, 1970(Feb), Vol. 70(2), 276-278.—Distinguishes 5 stages of prelinguistic speech development: (a) isolated sounds, (b) syllabic utterances, (c) awareness of one's own sounds, (d) echolalia, and (e) acquisition of several meaningful words. The last stage (age 12-15 mo.) normally parallels motor development (walking). A child who begins to walk at 15 mo. should be uttering meaningful words by age 2. The average number of words in a normal child's response should be equal to CA, whereas it should be equal to MA in the retarded child. Intelligibility is another factor for speech evaluation. The speech of a child after the 1st grade should be completely intelligible. Several types of speech deviations are discussed, and the need for early treatment is emphasized.—B. A. Stanton.

3947. Halford, Graeme S. (U. Newcastle, New South Wales, Australia) **A classification learning set which is a possible model for conservation of quantity.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 11-19.—Analyzed conservation of quantity as a classification task. Quantities were classified according to height and breadth into a 2-dimensional classificatory system which corresponds to the operation of logical multiplication of heights and breadths. It is also a system in which all Ss' judgments, perceptual and cognitive, are brought into consistent relationships. The system was taught by training Ss to recognize correspondences between equivalent categories of quantities in different sets of material. Learning set training consisting of 14 problems over 7 sessions was given to 15 preschool children, to 15 nonconservation children over 5 yr. and to 15 conservation children. All Ss over 5 yr. showed improvement over problems. Preschool Ss did not. The experiment is interpreted as showing that preschool Ss cannot construct the logical basis of conservation, whereas Ss over 5 show some ability to do so. (16 ref.)—*Journal abstract.*

3948. Janes, Helen E. (Indiana U.) **Conceptual modes of children in responding to art objects.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 224.

3949. Nezvadovitz, Enrique & Pomares, Ana. (U. Havana, Cuba) **Sobre la adquisición de algunas operaciones intelectuales en niños cubanos.** [On the acquisition of some mental operations by Cuban children.] *Psicología y Educación*, 1968(Jan), Vol. 5(10),

3-13.—Describes the application of Piaget's "ball of clay" test to 2 groups of 7-yr-old Cuban schoolchildren. Group A was a control, having been taught mathematics by the traditional method; Group B had been taught by the Cuisinaire method. A 3rd group with learning difficulties was also tested. Results of 20 Ss from Groups A and B were compared with those cited by Piaget in regard to Ss' concepts of the conservation of substance (S), weight (W), and volume (V). Piaget's Ss showed a decreasing relation between S, W, and V, while Groups A and B showed a greater conservation of V. A comparison of Groups A and B favored Group B which showed better concepts of conservation. Tests of Ss with learning difficulties revealed a lack of conservation concepts which demonstrated the diagnostic value of a conservation test. The Cuisinaire method was thought to produce operationally superior results. Cases of total inversion are discussed. (English & French summaries)—P. Hertzberg.

3950. Piaget, Jean. (U. Geneva, Switzerland) **Quantification, conservation, and nativism.** *Science*, 1968(Nov), Vol. 162(3857), 976-979.—Reviews a study of cognitive capacities of young children, 2½ yr. and older, made by J. Mehler and T. G. Bever (see PA, Vol. 42:570). Additional experimental data were obtained as part of an evaluation of conclusions reached concerning the development of quantitative concepts. 29 2.3-3.1 yr. olds were interviewed with Mehler and Bever's displays of "2 rows of 4 or 6 elements in optical correspondence." It is concluded that the Mehler and Bever argument for an "innate structure" is superfluous and not justified, and that "innate functioning is sufficient."—P. McMillan.

3951. Rayburn, Carole A. (Catholic U. of America) **Socioeconomic and ethnic variables in concept formation of late childhood.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 468.

3952. Rosenthal, Ted L., Zimmerman, Barry J., & Durning, Kathleen. (U. Arizona) **Observationally induced changes in children's interrogative classes.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 681-688.—Studied a model's influence on the information seeking of 140 culturally disadvantaged 6th grade children in 4 variations. Separate groups observed 12 diverse instances within alternative question classifications based on nominal or physical stimulus attributes, functional stimulus uses, causal relationships regarding stimuli, and judgments of value or preference concerning stimuli; pictorial stimuli that varied in content, color, and number across trials were used to prevent response stereotypy. No extrinsic reward was offered. By reference to base-line responding, significant imitation of all question classes was found, and all question classes were generalized to a new set of stimulus pictures. (17 ref.)—*Journal abstract.*

3953. Savitsky, Jeffrey C. & Izard, Carroll E. (Vanderbilt U.) **Developmental changes in the use of emotion cues in a concept-formation task.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 350-357.—50 white middle-class 4-8 yr. olds chose the 2 most similar photographs of human faces from each of 96 groups of 3. It was prearranged so that 2 of the 3 photographs would contain either the common element of hats or facial expressions of emotion. Results show that there was a significant increase with age in the use of hats and facial expressions as the basis of pairing when these were the only prearranged common elements in a

given triad. There was no difference between these methods of pairing, indicating that the use of either kind of common element offered no greater difficulty than the other. However, when Ss had to choose between pairing photographs with either hats or expressions within a given triad, 4-yr-old Ss paired most frequently using hats while older Ss used emotional expressions. Also, there were found to be significant differences in the number of pairings depending on which emotion was displayed in the photographs.—*Journal abstract.*

3954. Shepard, Winifred O. (State University Coll. New York, Fredonia) **Word association and definition in middle childhood.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 412.—Investigated whether "school pressure for mature verbal behavior... would cause internal associative hierarchies to shift from syntagmatic to paradigmatic and would result in a correlation between syntagmatic associations and functional definitions" with 49 4th, 40 6th, and 48 8th graders. Ss were white and predominantly middle class. Single written word associations and their definitions were obtained. Results indicate significant grade and sex effects and Grade \times Sex interaction.—*G. Steele.*

3955. Sherman, Dorothy & Silverman, Franklin H. (U. Iowa) **Three psychological scaling methods applied to language development.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 837-841.—Compares several psychological scaling methods for usefulness in measuring language development displayed in samples of children's speech with reference to intricacy of language usage. Os rated typed samples of speech, 1 for each of 50 children, by the method of equal-appearing intervals and by the method of direct magnitude-estimation. Both equal-appearing-intervals median scale values and successive-intervals scale values were derived from the equal-appearing-intervals ratings. The 2 sets of scale values obtained from the same data by the methods of equal-appearing intervals and of successive intervals are closely related ($r = .995$). The direct-magnitude-estimation scale values also are closely related to the equal-appearing-intervals scale values ($r = .92$).—*Journal abstract.*

3956. Shriner, Thomas H. & Miner, Lynn. (U. Illinois, Champaign) **Morphological structures in the language of disadvantaged and advantaged children.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 605-610.—Compared 25 culturally disadvantaged and 25 culturally advantaged preschool children, matched by MA, in their ability to apply morphological rules to unfamiliar situations. A comparison of morphology scores revealed no statistically significant difference. Several hypotheses are advanced to account for the lack of significant differences between the 2 groups. It is suggested that when relevant variables are controlled, and with respect to the morphological language abilities measured in this study, the labels "culturally disadvantaged" and "culturally advantaged" may be misnomers.—*Journal abstract.*

3957. Teasdale, G. R. & Katz, F. M. (U. New England, Armidale, New South Wales, Australia) **Psycholinguistic abilities of children from different ethnic and socio-economic backgrounds.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 155-159.—Compared 59 1st grade children of different socioeconomic status (SES) and different ethnic background on 2 tests of language ability: the Peabody Picture Vocabulary Test (PPVT) and the Illinois Test of

Psycholinguistic Abilities (ITPA). On these tests, lower SES and part-Aboriginal Ss performed at a significantly lower level than upper SES Ss. Utilizing ITPA subtest scores, it is evident that this significant difference was the result of low achievement on subtests measuring the auditory and/or vocal components of psycholinguistic ability. On subtests measuring visual and/or motor components differences between the groups were minimal. Results support the contention that familial experiences differentially affect language skills.—*Journal abstract.*

Abilities

3958. Anandalakshmy, Subrahmanyam. (U. Wisconsin) **Effects of instructional intervention on performance of second grade children in a categorization game.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 208.

3959. Brown, Janet L. (James Jackson Putnam Children's Center, Boston, Mass.) **Precursors of intelligence and creativity: A longitudinal study of one child's development.** *Merrill-Palmer Quarterly*, 1970(Jan), Vol. 16(1), 117-137.—Felicia, 1 of 6 children in a longitudinal study, was observed from birth to 8 yr. She demonstrated unusual artistic ability and superior intelligence, and emotional factors which were precursors of her creativity. The case study emphasized her capacity for depth and focus of attention, unusual visual awareness, inner-directedness, good fine motor coordination, and humor, characteristics that find support in the literature on older gifted children and adults. (28 ref.).—*R. V. Hamilton.*

3960. Furby, Lita M. (Stanford U.) **Children's perception of words and its relation to problem solving strategies.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-B), 5710.

3961. Johnson, Roger T. (U. California, Berkeley) **A comparison of categorizing ability in high and low socioeconomic kindergarteners.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 225.

3962. Kelly, Thompson J. (Colorado State Coll.) **The ability of kindergarten children to discriminate social-nonverbal sounds.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 381.

3963. Nuttall, Ena V. (Boston U., School of Education) **Creativity in boys: A study of the influence of social background, educational achievement, and parental attitudes on the creative behavior of ten year old boys.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 231-232.

3964. Reich, John W. (Arizona State U.) **Prediction of motor performance from childhood history.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 10.—Presents data supporting prior research by J. W. Reich (see PA, Vol. 43:7798) which demonstrated significant correlations between past history and laboratory behavior, and extends that work to the area of motor performance. Based on results from a 51-item questionnaire assessing cognitive, motor, and cognitive-motor dimensions, it was found that motor experience in childhood correlates significantly with motor (pursuit rotor) performance in 44 Ss, and that the relationship is independent of cognitive factors. Results support attempts to predict laboratory behavior from previous nonlaboratory experiences.—*Author abstract.*

3965. Smith, Harry S. (U. Virginia) **An inquiry into**

the reliability and validity of certain psychomotor tasks. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 237-238.

3966. Starnes, David R. (8001 Burnet Rd., Austin, Tex.) **Visual abilities vs. reading abilities.** *Journal of the American Optometric Association*, 1969(Jun), Vol. 40(6), 596-600.—Reports a pilot study investigating the relationship between reading difficulties and certain visual-perceptual abilities. Ss were 18 3rd grade children divided into 2 groups, (8 good and 10 poor readers, as based on the Metropolitan Achievement Test). Ss were tested with a group of visual abilities tests, including form perception, hand-eye coordination, visual efficiency, and directional orientation. Results suggest no relationship between a single visual ability and a single perceptual ability. It is concluded that these functions are complex and interrelated. Implications of these findings for practicing optometrists are reviewed.—*P. McMillan*.

3967. Waddell, Kathleen J. & Caboon, Delwin D. (U. Montana) **Comments on the use of the Illinois Test of Psycholinguistic Abilities with culturally deprived children in the rural South.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 56-58.—Examined evidence of item content bias in the Illinois Test of Psycholinguistic Abilities. The instrument fails, in certain subtests, to relate to the basic communication skills of Headstart children in the rural South. Incautious application of the test to minority groups may not yield adequate functional assessment of these children's skills. It is recommended that alternative scoring procedures, local norms, or new items be developed.—*Journal abstract*.

3968. Willard, Louisa S. **A comparison of Culture Fair Test scores with group and individual intelligence test scores of disadvantaged Negro children.** *Journal of Learning Disabilities*, 1968(Oct), Vol. 1(10), 584-589.—Comparison of responses of 89 6th grade Negro Ss on the Cattell Culture Fair Intelligence (CCFI) Test and the Academic Promise Tests (APT) shows that Ss' WISC IQ, estimated from the total score on the APT, is only, on the average, 3 points lower than on the Cattell. When 83 other Negro Ss, from special classes for the mentally retarded were compared on the Stanford-Binet Intelligence Scale and the CCFI Test, the mean score on the CCFI Test was 1.9 higher than on the Stanford-Binet. Results suggest that: (a) Negro children are not at any appreciable disadvantage in taking the APT or the Stanford-Binet in preference to the CCFI Test, (b) the APT are a more effective measure for predicting school achievement and lend themselves to more effective qualitative analysis than the CCFI Test, and (c) nonverbal IQ is of no major advantage in the school situation. It is concluded that the bright Negro child does well on either a culture fair or the usual ability and intelligence tests, while those who are less well endowed do poorly on either type.—*M. Maney*.

Perception

3969. Allen, Robert M. (U. Miami) **The PPVT is not a test of visual perceptual maturation.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 262.—Criticizes R. Beck and L. W. Talkington's use of the Peabody Picture Vocabulary Test as a validity-criterion for measuring the degree of improvement due to exposure to the Frostig-Horne visual training materials.—*Author abstract*.

3970. Barabasz, Arreed F., Dodd, John M., Smith,

Manon, & Carter, Donald E. (State University Coll. New York, Buffalo) **Focal-point dependency in inversion perception among Negro, urban Caucasian and rural Caucasian children.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 136-138.—21 deprived Negro, 41 deprived rural Caucasian and 23 nondeprived Caucasian preschool children viewed 12 figure pairs and indicated which figure of each pair was upside down. Analysis of variance results demonstrate significant differences in focal-point dependency between nondeprived urban Caucasians and deprived urban Negroes, and between deprived urban Negroes and deprived rural Caucasians. No significant differences were found between nondeprived urban Caucasians and deprived rural Caucasians.—*Journal abstract*.

3971. DeLeon, J. L., Rasking, L. M., & Gruen, G. E. (Purdue U.) **Sensory-modality effects on shape perception in preschool children.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 358-362.—Investigated the relative roles of touch and vision in the shape perception of 24 3- and 24 4-yr-old children. Also shape perception based on the integrated use of both touch and vision was studied. Visual discrimination alone was superior to tactual discrimination alone in discriminating random forms. The integrated use of both touch and vision in shape discrimination resulted in no better performance than that with vision alone. An exploratory condition did suggest that visual exploration of a standard stimulus enhanced tactual discrimination. However, this condition always occurred last and, thus, is difficult to interpret because of practice effects.—*Journal abstract*.

3972. Garloff, David A. (Indiana U.) **The effect of vertical viewing height and background cues on the recognition of realistic pictures for various aged children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 218-219.

3973. Girgus, Joan S. (New School for Social Research) **A developmental study of the recognition of sequentially presented forms.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 413.

3974. Palow, William P. (U. Florida) **A study of the ability of public school students to visualize particular perspectives of selected solid figures.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 78-79.

3975. Rosner, Jerome. **A rationale for a perceptual development program.** *Journal of the American Optometric Association*, 1969(Feb), Vol. 40(2), 144-149.—Discusses methods for utilizing the child's existing performance base in a program of perceptual development. Concepts of Piaget are used as a framework for discussion. A perceptual development program should be geared to the child's readiness to operate at each stage in the developmental sequence. The overall goal is "to assist the child in developing the ability to organize and operate efficiently within a greater and more complex spatial volume." (24 ref.)—*P. McMillan*.

3976. Solso, Robert L. (Loyola U., Chicago, Ill.) **Stimulus selection by five-, seven-, and nine-year-old children.** *American Journal of Psychology*, 1970(Jun), Vol. 83(2), 216-221.—Examined functional stimulus selection by 5-, 7-, and 9-yr-old Ss (N = 180) in a paired-associate learning and recall test. The compound stimuli were of 2 classes—geometric figures and colors—and the responses were pictures of common objects. Ss seemed to select the geometric figures as

functional stimuli. Several alternative hypotheses are offered to account for the results, among them a hypothesis of stimulus-habit hierarchy and a hypothesis of alternating stimulus selection.—*Journal abstract.*

Personality

3977. Evans, James R. (George Peabody Coll for Teachers) **Relationships of psychological differentiation, emotional distance from reinforcing agent, emotional arousal, and responsiveness to social reinforcement.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 411-412.

3978. Gramza, Anthony F. (U. Illinois, Children's Research Center) **Preferences of preschool children for enterable play boxes.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 177-178.—Obtained measurements of 36 4-yr-old children's preferences for enterable play boxes having various degrees of openness. In their use of boxes, Ss strongly favored those boxes having least degrees of openness and greatest amounts of encapsulation. Consideration is given to stimulus factors possibly reinforcing the observed preferences.—*Journal abstract.*

3979. Kopfsstein, Joan H. (Georgia State U.) **Social desirability, expectancy, and success-failure-oriented behavior in children.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 428.—Investigated success-failure-oriented behavior of children with high and low social desirability (SD) characteristics. It was expected that high SD Ss would give overly cautious bids and would adopt a failure avoiding pattern on J. B. Rotter's level of aspiration task. Results from 87 8-13 yr. old boys in either normal public school, day school, or residential centers for the disturbed support the hypothesis. Of Ss receiving the Epstein Need of Approval scale of SD, nondisturbed Ss had significantly higher scores than disturbed Ss, indicating a stronger SD tendency for nondisturbed Ss.

3980. Loch, Wolfgang. **Zur Entstehung aggressiv-destruktiver Reaktionsbereitschaft.** [On the genesis of the readiness to respond aggressively-destructively.] *Psyche, Stuttgart*, 1970(Apr), Vol. 24(4), 241-259.—The decisive factor responsible for development of aggressive-destructive patterns of reaction is the long period of dependency of the human child with its protracted inequality of power which makes virtually unavoidable envy, hate, and destructive impulses. These could be mitigated if the powerful "significant others" were content to exert their influence in the service of the child's growth and autonomy alone. (61 ref.)—*English summary.*

3981. McConville, B. J., Bong, I. C., & Purohit, A. P. (Queen's U. Kingston, Ontario, Canada) **Mourning processes in children of varying ages.** *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 253-255.—Investigated qualitative and quantitative aspects of mourning in children who were residents of an institution whose director and chief psychologist had recently died in a fire. 9 5-8 yr. old and 10 9-12 yr. old Ss were interviewed 10 days-2 wk. after the deaths, followed by 2nd interviews 8 wk. later. Results show age and developmental differences in responding to grief, with younger Ss displaying more egocentricity, aggression, denial, preoccupation with the dead, and testitive dreams, and older Ss displaying more concern for others. Number of previous placements did not seem to affect the mourning pattern. Also impressive was the speed

with which Ss recovered from this traumatic event as reflected in their 2nd interview behavior. (French summary)—*P. McMillan.*

3982. Reall, Norma. (Syracuse U.) **The effect of success and failure on the reflective and impulsive child.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5299-5300.

3983. Reall, Norma & Hall, Vernon. (Boston U.) **Effect of success and failure on the reflective and impulsive child.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 392-402.—Administered 56 reflective and 56 impulsive 3rd grade boys a modified version of the Delay of Recall Test to assess the effect of success and failure on decision time and expectancy of success under varying conditions of imposed success and failure. The analysis of the expectancy of success measures showed that impulsive Ss reacted the same way to success and failure experiences as did reflective Ss, i.e., raising expectancy of success after success, lowering it after failure. Decision time measures indicated, however, that despite the conditions imposed, reflective Ss took longer to make decisions than their impulsive counterparts.—*Journal abstract.*

Social Behavior

3984. Ford, LeRoy H. (State U. New York, Buffalo) **A social desirability questionnaire for young children.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 195-204.—The Young Children's Social Desirability Scale based on the MMPI I. scale model was constructed and administered to 437 nursery school children. Split-half reliabilities were substantial for children over 4 and moderate for those under 4; test-retest reliabilities were moderate for children over 4 and mixed for those under 4. Social desirability scores increased with age, showed a low positive relationship to picture vocabulary IQ, and were unrelated to sex in a high socioeconomic sample, but were higher for girls in a more general sample. 3 construct validation studies are summarized which indicate that children who score high on the scale are more motivated than low scorers to respond positively to interpersonal demands. (23 ref.)—*Journal abstract.*

3985. Gentry, William D. (Duke U. Medical Center) **Effect of time-out from positive reinforcement on aggressive behavior in young children.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 283-288.—Explored the effect of time-out from positive reinforcement on aggressive behavior in 16 5 yr. olds. Instrumental aggressive and nonaggressive doll-play were observed prior to and immediately following time-out from CRF token reinforcement. Results indicate that, while time-out from positive reinforcement was not an effective antecedent of aggressive behavior for children in general, it did produce a notable increase in the over-all activity level of females. The fact that girls, and not boys, were aroused by the time-out procedure was discussed in terms of the relationship between activity-related cue properties of the doll-play apparatus and the normal activity of 5-yr-old girls. (19 ref.)—*Journal abstract.*

3986. Hodgkins, Betty J. (Florida State U.) **Pre-adolescent awareness of clothing and appearance as related to age and sex.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 494.

3987. Hrab, Joseph & Grant, Geoffrey. (Iowa State U.) **Black is beautiful: A reexamination of racial**

preference and identification. *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 398-402. —Duplicated the 1939 K. B. Clark and K. M. Clark doll study in an interracial setting with 89 Negro and 71 white 4-8 yr. old Ss. Unlike the previous study, it was found that the majority of the black Ss preferred the black dolls. Like the blacks, the majority of the white Ss preferred the doll of their own race. The racial identifications of both black and white Ss are reported, and the effects of age and skin color on racial preference and identification are compared with those reported by Clark and Clark. A control for the race of interviewers showed that this variable did not have a significant effect upon the dependent variable. The correspondence between doll choice and friendship was ambiguous. (21 ref.) —*Journal abstract.*

1988. Lepper, Mark R. (Yale U.). **Anxiety and experimenter valence as determinants of social reinforcer effectiveness.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 704-709. —Assessed the interactive effects of E valence and the S's anxiety level on social reinforcer effectiveness in a 2 x 2 (High-Low Anxiety x Positive-Negative Valence) design. 40 preschool Ss experienced a 10-min positive or negative interaction with E 1. 1 wk. later, the S's anxiety level was independently manipulated by films shown to the S by E 2; and immediately following these films, S was tested on a social reinforcement task by E 1. 20 control Ss were tested without prior contact with E 1. Results from both rate-change ($p < .001$) and persistence ($p < .10$) measures of reinforcer effectiveness demonstrate the predicted interaction. Under high anxiety, the negative E was more effective than the positive, while under low anxiety, the positive E was the more effective. Results are explained in terms of the S's active compliance, and other data relevant to this analysis are discussed. (16 ref.) —*Journal abstract.*

1989. Leventhal, Richard B. (Indiana U.). **The treatment of more and less differentiated social rejectees.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 155-156.

1990. Lindskold, Svenn; Cullen, Phyllis; Galagan, James, & Tedeschi, James T. (Ohio U.). **Developmental aspects of reaction to positive inducements.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 277-284. —Modified the Prisoner's Dilemma game so that 72 male and 72 female 5th and 6th graders played a simulated player who communicated occasional promises of a extra reward if the cooperative choice was made on the next trial. Ss were assigned to promise credibility conditions of 10, 50, and 90% reward levels of \$5, \$10, and \$20, and simulated strategies which were either 50 or 90% cooperative over the 100 trials. There was less compliance to the promise when it was only 10% credible, compliance was greater when the \$20 reward was offered. Ss were more cooperative overall when the simulated player was 90% cooperative. Males were more cooperative than females, especially when the simulated player was 90% cooperative. The development of moral considerations and the capacity to take the other's viewpoint, as proposed by Piaget, were suggested to explain the results when no such effects had been found in a previous study using adult Ss who uniformly reciprocated the simulated player's helpfulness. The S's behavioral sensitivity to variation in reward probability and magnitude were consistent with H. A. Witkin's conclusions regarding the field dependence of children. (17 ref.) —*Journal abstract.*

1991. Meltzer, Carol G. (U. Wisconsin). **The effects of age, race of victim, and ability to take another's role in helpfulness and sharing in children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 399-400.

1992. Messer, Stanley B., Kagan, Jerome, & McCall, Robert B. (Rutgers State U.). **Psychological Clinic) Fixation time and tempo of play in infants.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 406. —Alternately presented 24 white lower-class and 24 white middle-class 13-mo-old infants slides of 3 human faces and 3 objects for 15 sec. and a rest interval of equal length. An index of habituation was derived and "correlated with the number of act changes displayed during the free play session for each sex by class group." Results indicate sex and class differences. —G. Steele.

1993. Rickard, Henry C., Ellis, Norman R., Barnhart, Sharon, & Holt, Michael. (U. Alabama). **Subject-model sexual status and verbal imitative performance in kindergarten children.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 405. —Examined the performance of 10 white middle-class kindergartners on a word modeling task in an attempt to determine possible personality correlates. Results indicate "a significant trials effect" for all groups but "no significant effects due to sex of model, sex of S, or their interaction." A replication controlling for effects of sex of 1 and model indicate only a significant trials effect. —G. Steele.

1994. Schneider, Frank W. (U. Windsor, Ontario, Canada). **Conforming behavior of black and white children.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 466-471. —Used the R. S. Crutchfield technique to measure the conforming behavior of 48 black and 48 white junior high school children. Whites conformed less to black peers than to white peers, whereas the conformity of blacks was not differentially influenced by the ethnicity of the source of influence. Whites conformed more to their own ethnic group than blacks conformed to their own ethnic group, with the difference largely attributable to the magnitude of the white females conformity. There was no strong evidence for a relationship between ethnic attitudes and overt behavior. The failure to support experimental predictions based on findings from studies employing undergraduates is noted. (17 ref.) —*Journal abstract.*

1995. Stenroos, Roger J. (U. Wisconsin). **The effects of inconsistent verbal instructions and experimenter personality characteristics upon children's resistance-to-temptation behavior.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 427.

Parent-Child & Family Relations

1986. Herrmann, T., Schellhauert, E., & Ahrens, H. J. (Inst. für Psychologie, U. Marburg, W. Germany). **Untersuchungen zum öffentlichen Erziehungsstil: Strenge und Unterstützung.** [Investigations concerning parental behavior: Severity and support.] *Archiv für die gesamte Psychologie*, 1966(Aug), Vol. 12(1), 54-105. —Presents theoretical considerations concerning dimensions of parental behaviors and attitudes and reports on empirical studies of parental child rearing practices as perceived by children. 2 independent scales were constructed hypothesizing a 2-dimensional model of reinforcement of parental child rearing behavior employing a questionnaire by U. Bronfenbrenner. These

scales, identified as "severity" and "support," were administered to 614 5th and 6th graders. Analyses of variance and discriminant analyses show associations between perceived parental severity and support, intelligence, sex, type of school, confession of faith of children, sex and socioeconomic status of their parents. Discriminant functions combining linearly severity and support discriminate children with respect to sex, confession of faith, and status. Results indicate that these 2 techniques of parental social reinforcement are not related to each other in a summative but in a subtractive way. This effect of the 2 described components of perceived parental behavior may be regarded as difference of reinforcement strength. (French summary) (51 ref.)—*English summary*.

3997. Schludermann, Eduard & Schludermann, Shirin. (U. Manitoba, Winnipeg, Canada) **Replicability of factors in children's report of parent behavior (CRPBI).** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 239-249.—Modified the Children's Reports of Parental Behavior Inventory (CRPBI) as developed by E. S. Schaefer, to make the inventory suitable for use in cross-cultural research. The inventory was administered 6 mo. apart to 2 independent samples of college students ($N = 294$ and 398). 3 factors were obtained across samples, sex groups and parent-forms. The factors replicated were the same as in Schaefer's studies.—*Author abstract*.

3998. Schludermann, Shirin & Schludermann, Edward. (U. Manitoba, Winnipeg, Canada) **A methodological note on conceptual frames of parental attitudes of fathers (PARI).** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 145-148.—Attempted to delineate the major dimensions underlying the reversed and unreversed forms of Father's form of the Parental Attitude Research Instrument (PARI). The 2 forms of the questionnaire were administered with an interval of 1 wk. to 269 college males. Factor analysis of 20×20 scale with an eigenvalue cut-off point of 2, yielded basically the 2 major dimensions previously obtained on Mother's form of the PARI.—*Author abstract*.

ADOLESCENCE

3999. Ikonnikova, S. N. & Lisovskii, V. T. **Molodězh o sebe, o svoikh sverstnikakh.** [Youth about himself and his peers.] Leningrad, USSR: Lenizdat, 1969. 132 p.—Analyzes the results of a social psychological investigation of the "public opinion, moods, life plans, and ideals of Soviet youth." "Life plans" are not equated with "vocational choice" alone, but are viewed more widely, including "goal and meaning of life, needs, and interests."—*I. D. London*.

4000. Jepson, Peter. (United States International U., San Diego, Calif.) **Some effects of self-actualizing growth psychology on teenagers.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 224-225.

4001. Libby, William L. (Ohio State U.) **Reaction time and remote association in talented male adolescents.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 285-297.—Found differences between good and poor remote associators on an irregular RT task in which a stimulus was preceded at various preparatory intervals by a warning. 32 high school students, mean age 14.9 yr. and mean IQ 130.7 served as Ss. These differences were related to a model of the remote

associational process postulating fluctuations of attention among 3 states: (a) attention to a broad range of environmental information, (b) focus on task-relevant external cues, and (c) attention inward. As predicted, good remote associators had more variable RTs and were more responsive to irrelevant cues provided by the previous preparatory interval. Differences between good and poor remote associators were traced to short and long preparatory intervals, respectively, suggesting that good remote associators, somewhat like schizophrenics, have difficulty establishing an initial set to respond quickly while poor remote associators have more difficulty maintaining an established set. (22 ref.)—*Journal abstract*.

4002. McBride, John W., Eisenman, Russell, & Platt, Jerome J. **Dependence, independence, symbiosis, and therapy.** *Psychology*, 1970(Aug), Vol. 7(3), 7-14.—Analyzes the dependence-independence conflict, with special emphasis on problems the adolescent faces in attempting to define a separate self, with relatively greater reliance on his own personal standards instead of those of his parents. Symbiotic ties with parents and other authority figures are seen as standing in the way of individualization. After an eclectic view of the interdependency struggle of adolescents, a case history of a student undergoing short-term therapy is presented. The dependence-independence issue is considered in therapy, and the patient's struggle toward greater independence is traced.—*J. A. Blazer*.

4003. Oscarson, Janice M. (Indiana U.) **A study of adjustment, body cathexis, perceived ideal body type, and objective body type in pre-, mid-, and post-pubescent girls.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 232.

4004. Steele, Carolyn I. (Smith Coll., School for Social Work) **Institutional placement during adolescence and its relationship to the girl's task of sexual identification.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 474-475.

4005. Wagner, Rudolph F. (Public Schools, Richmond, Va.) **Levels of symbolization in adolescent adjustment patterns.** *International Journal of Symbolology*, 1969(Aug), Vol. 1(1), 67-74.—A sample of adolescents representing 238 referred cases and 24 nonreferred cases in a school setting was analyzed for differences and characteristics regarding levels of symbolization. The Kahn Test of Symbol Arrangement was used for this purpose. Results isolated 17 categories of adjustment. Different types of students vary in their levels of symbolization according to their different maladjustive patterns.—*Journal summary*.

4006. Werdelin, Ingvar. (School of Education, Malmö, Sweden) **Factor analyses of an inventory of behavior in social situation.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 54-64.—2 samples of 178 male and 238 female 9th graders answered a questionnaire dealing with nervous behavior in social situations. Factor analyses gave 5 factors in the study of boys and 4 in the study of girls. Rotation to a common structure showed at most 4 common congruent factors, which are interpreted and discussed.—*Journal abstract*.

4007. West, Lloyd W. (U. Calgary, Alberta, Canada) **Sex differences in the exercise of circumspection in self-disclosure among adolescents.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 226.—Administered L. W. West and H. W. Zingle's (see PA, Vol. 43:15015), a self-disclosure inventory for adolescents to 271 9th

graders. Indices of circumspection exercised by Ss in disclosing personal information to various confidants were obtained. It was found that girls exercised significantly greater circumspection with respect to confidants than did boys, but boys exercised significantly greater circumspection with respect to content of disclosure than did girls.—*Author abstract.*

4008. Kandel, Denise B. & Lesser, Gerald S. (Harvard U., Lab. of Human Development) **Parental and peer influences on educational plans of adolescents.** *American Sociological Review*, 1969(Apr), Vol. 34(2), 213-223.—The notion of a separate adolescent subculture totally isolated from parental influence is not supported by data on educational plans based on triads of adolescents matched with their mother and their best friend in school. It was found that concordance on educational goals is higher with mother than with best-school-friend and is not explained by the common social class which adolescents share with parents and friends. While concordance with friend increases with greater intimacy, concordance with mother remains at the same level, irrespective of the adolescent closeness to his parents. (38 ref.)—*Journal abstract.*

ADULTHOOD & OLD AGE

4009. Buhler, Charlotte. (U. Southern California) **Loneliness in maturity.** *Journal of Humanistic Psychology*, 1969(Fal), Vol. 9(2), 167-181.—Discusses the modern concept of loneliness as being more an existential problem than one of self-alienation in a neurotic sense. Loneliness appears in the identity crises of adolescents, continues to find expression in problems associated with achieving the idealized image of the adult, and becomes more acute during the aging period. The neurosis of our time is conceived as a loss of identity, and it is suggested that today "psychotherapy, especially group therapy, has become a necessary adjunct to education." The religious and metaphysical aspects of loneliness in the aged are discussed, including ways in which old people successfully combat loneliness through a belief in an afterlife, a continuing satisfying occupation, or through working for and with people. It is suggested that an approach to existential loneliness increasingly used today lies in "the experience of mystical oneness with all men and with the universe." References from contemporary literature and the arts are included. (23 ref.)—*P. McMillan.*

4010. Butler, Robert N. (George Washington U., Medical School) **Age-ism: Another form of bigotry.** *Gerontologist*, 1969(Win), Vol. 9(4, Pt. 1), 243-246.

4011. Cameron, Paul. (U. Louisville) **The generation gap: Which generation is believed powerful versus generational members' self-appraisals of power.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 403-404.—Assesses Ss' "beliefs about his own wealth and power and how he believed the generations compare" using a 3-way fixed-effect analysis of variance (3 levels of generation \times sex \times 2 levels of socioeconomic status). Results indicate agreement between generations that "the middle-aged are the wealthiest and most powerful and young adults the poorest and least powerful," and that those "higher in socioeconomic status" believe "themselves more wealthy while males tended to judge themselves more powerful and wealthy."—*G. Steele.*

4012. Horrocks, John E. & Mussman, Milton C. (Ohio State U.) **Middlence: Age related stress periods during adult years.** *Genetic Psychology Monographs*, 1970(Nov), Vol. 82(2), 119-159.—Tested hypotheses of age-related stress periods in normal adulthood by the mailing of a 7-concept, 21-item semantic differential scale to 3000 public school employees. The 41% return for teachers permitted computer analysis of attitude intensity decreases between successive pairs of 5-yr interval age groups from 20-70 yr. Using the assumption that a significant decrease in intensity of affect toward central social objects suggests personal disequilibrium, support for age-related stress periods was found for female teachers in their late 20s, female married teachers in their early 40s, and female married nonteachers and male married teachers in their early 50s. (56 ref.)—*Author abstract.*

4013. Howell, Sandra C. & Loeb, Martin B. (St. Louis U., Medical School) **Nutrition and aging: A monograph for practitioners.** *Gerontologist*, 1969(Aug), Vol. 9(3, Pt. 2), 1-122.—Reviews current research activity on aging to integrate "social, cultural, economic, psychological, and bionutritional research information" thereby facilitating the development of programs "to promote improved nutrition and social health for aging adults." The studies described "report recent nutritional histories of sample groups of older individuals in terms of their current income levels." Because of the extreme variation among the population, generalization is cautioned against. (5 p. ref.)—*G. Steele.*

4014. Lysaght, Carol E. (Boston U., School of Education) **Geriatrics: Effect of speech rate and pacing procedures upon the responses to verbal stimuli by three age groups.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 434.

4015. Palmore, Erdman. (Duke U., Center for the Study of Aging & Human Development) **Predicting longevity: A follow-up controlling for age.** *Gerontologist*, 1969(Win), Vol. 9(4, Pt. 1), 247-250.—Presents findings from a longitudinal study of 268 60-94 yr. old Ss which suggest that, in general, the most important ways to increase longevity are to (a) maintain a useful and satisfying role in society, (b) maintain a positive view of life, (c) maintain good physical functioning, and (d) avoid smoking.—*Journal summary.*

4016. Schonfield, David. (U. Calgary, Alberta, Canada) **Family life education study: The later adult years.** *Gerontologist*, 1970(Sum), Vol. 10(2), 115-118.

—Traditional children's stories rarely contain descriptions of older people and school curricula seldom include references to the topic of aging. Universities should be considered as a focal point for increasing awareness and sympathetic understanding of aging processes. Professional activities in these fields are likely to be seminal.—*Journal abstract.*

4017. Youmans, E. Grant. (U. Kentucky) **Some perspectives on disengagement theory.** *Gerontologist*, 1969(Win), Vol. 9(4, Pt. 1), 254-258.—Discusses perspectives on disengagement theory—the need for modifications, the lack of empirical support, and inadequate recognition of social change—which suggest a lack of confidence in its usefulness as a general theoretical explanation of the social psychological aspects of human aging. It is suggested that a developmental concept, i.e., the life course, offers a more comprehensive and promising framework for research and application in social gerontology. (35 ref.)—*Journal summary.*

SOCIAL PSYCHOLOGY

4018. Atteslander, P. *Methoden der empirischen Sozialforschung*. [Methods of empirical social research.] Berlin, W. Germany: Walter de Gruyter, 1969. 313 p.—Analyzes the theory and strategy of social research as well as its practical application within the context of empirical sociology and social psychology.—*I. D. London*.

4019. Blair, Margaret. (Palo Alto, Calif.) *Meditation in the San Francisco Bay area: An introductory survey*. *Journal of Transpersonal Psychology*, 1970, Vol. 2(1), 61-70.—The practice of meditation has been "an integral part of Asian religious, philosophical, and metaphysical teachings." In the San Francisco Bay Area many groups are meeting to learn about and practice meditation. While classical forms of meditation are practiced, new forms are emerging which seem to be suitable to the American culture. Meditation is defined as a highly dynamic state which is nonselfish in its highest forms. Several meditation centers in the San Francisco Bay Area are described and there is a listing of courses and classes being offered. The conclusion is drawn that the practice of meditation has taken a firm hold in the area, that courses are being included in college curricula, that meditation may be used for therapeutic benefit, and the practice of meditation is stimulating interest in Eastern psychological and philosophical concepts. (17 ref.)—*P. E. Lichtenstein*.

4020. Bueva, L. P. *Sotsial'naya sreda i soznanie lichnosti*. [Social environment and the consciousness of the individual.] Moscow, USSR: Moscow U., 1968. 268 p.—Presents an analysis of (a) the conditions influencing the "formation of the individual, his activity and spiritual world" and (b) "the social group and its place in the structure of society."—*I. D. London*.

4021. Lindesmith, Alfred R. & Strauss, Anselm L. (Indiana U.) *Readings in social psychology*. New York, N.Y.: Holt, Rinehart, & Winston, 1969. ix, 357 p. \$6.95 (paper).—A collection of readings by various authors designed for use with the text, *Social Psychology*, also by A. R. Lindesmith and A. L. Strauss. Areas covered include symbolic processes, differentiation and internalization, socialization and interaction, and deviance.

4022. Ryvkina, R. V. & Vinokur, A. V. *Sotsial'nyi eksperiment*. [The social experiment.] Moscow, USSR: Nauka, 1968. 172 p.—Examines the problems connected with the organization, significance, and goals of the social experiment. Experiment in the social context is viewed as a means of "social direction," i.e., as a "social-transformational activity."—*I. D. London*.

4023. Stark, Stanley. (Michigan State U.) *Gemeinschaft, inner creation, and role-taking (empathy)*. Ill. Charles Horton Cooley on "social" vs "spatial" ("material") knowledge. *Psychological Reports*, 1970 (Feb), Vol. 26(1), 183-210.—Presents the 3rd of a series intended to relate F. Toennies' distinction between Gemeinschaft and Gesellschaft to the difference between: (a) intuitional and inferential role-taking (empathy), (b) Erlebnis and Erfahrung experience, and (c) Rorschachian inner creation and rationality. C. H. Cooley's concepts of social knowledge and spatial knowledge are interpreted as intuitional and inferential, respectively. It therefore clusters social knowledge with Gemeinschaft, Erlebnis, and inner creation; and spatial knowledge with Gesellschaft, Erfahrung, and rationality.

G. H. Mead's concept of attitude-taking is also examined. It considers Mead to have confounded intuition and inference, with the result that contemporary Meadians may mean qualitatively different psychological processes when they speak of role-taking or empathy. It is suggested that this is due to his concept's large, sometimes exclusive, inferential component, and that it is this inferential component that has been exploited by the psychometric approach of the past 20 yr. Empathy tests are tests of an interpersonal version of what Cooley meant by spatial knowledge. Gouldner's analysis of the role-taking of Epaminondas planning a battle and Plato plotting a dialogue is used as a basis for these suggestions. Gouldner's dialogist-as-dramatist illustrates Cooley's social knowledge, and his general, Cooley's spatial knowledge. (50 ref.)—*Journal abstract*.

CULTURE & SOCIAL PROCESSES

4024. Artanovskii, S. N. *Istoricheskoe edinstvo chelovechestva i vzaimnoe vliyaniye kul'tur*. [The historical unity of mankind and the mutual influence of cultures.] Leningrad, USSR: Prosveshchenie, 1967. 268 p.—Presents a critical "philosophico-methodological" analysis of contemporary bourgeois conceptions of human culture at the ethnographic-sociological level.—*I. D. London*.

4025. Davis, Clive M. (Syracuse U.) *Education and susceptibility to the Muller-Lyer illusion among the Banyankole*. *Journal of Social Psychology*, 1970 (Oct), Vol. 82(1), 25-34.—In 2 of 3 comparisons a significant negative relationship between susceptibility to the Muller-Lyer illusion and yr. of education of adult male Banyankole (western Uganda) was obtained. This finding of decreased susceptibility with increasing education is in accord with the "sophistication" hypothesis suggested by M. H. Segall, D. T. Campbell, and M. J. Herskovits to explain age differences in Muller-Lyer illusion susceptibility.—*Author abstract*.

4026. Hofmeijer, D. H. (Nederlandse Emigratiedienst, Hague, Netherlands) *Lokkende verten*. [Enticing distances.] *Mens en Onderneming*, 1970 (May), Vol. 24(3), 176-193.—Describes the pattern of emigration from the Netherlands. The high point of emigration occurred in 1951 when 48,000 left their native land. Because of the increase in industrialization in the Netherlands, the rate of emigration has steadily decreased to about 9500 in 1968. About 2/3 of the emigrants moved to Canada and Australia. The motives for the emigration usually were personal, e.g., joining relatives already migrated, escaping crowded conditions, and availing themselves of a greater opportunity to develop a business in the "new land" than in the "old country." The achievements of the emigrants in their adopted lands were generally favorable. About 20% of the emigrants were very successful. (19 ref.)—*A. J. Ter Keurs*.

4027. Lem, S. *Model' kul'tury*. [A model of culture.] *Voprosy Filosofii*, 1969, Vol. 23(8), 49-62.—Culture is viewed in terms of a "system of games." Within this context, the problems of "cultural codes" and "culture as a meta-game" are considered, and a "model of culture" is proposed.—*I. D. London*.

4028. McKinney, John C. (Duke U.) *Social structure and sociometry*. *Group Psychotherapy*, 1968, Vol. 21(2-3), 113-120.—Explores the role of sociometry in the explication of social structure. Sociometry can contribute meanings to structural characteristics. It has the advan-

tage of extracting individual preference while delineating the networks of relationships indigenous to the social structure.—A. Krichev.

4029. Pakrasi, Kanti & Halder, Ajit. (Indian Statistical Inst., Calcutta) **Polygynists of urban India, 1960-61.** *Indian Journal of Social Work*, 1970(Apr), Vol. 31(1), 49-62.—Polygyny as an established social practice is still in existence even in urban areas of India. The prevalence rate is 6.65 for urban Hindus and 8.61 for urban Muslims. It is favored by people in almost all occupation classes. Girls below 16 are usually selected in the cases of 1st marriages, but older females are preferred relatively more at the time of the 2nd marriage. It is felt that incidents of polygyny will diminish as a result of the 1955 Hindu marriage laws in Hindu society, but will continue as before in Muslim society.—I. W. Kidorf.

4030. Ramachandran, P. (Tata Inst. of Social Sciences, Bombay, India) **Modern-traditional social values: Analytical procedures.** *Indian Journal of Social Work*, 1970(Apr), Vol. 31(1), 63-73.—Attempted to ascertain the social values (modern or traditional) of students, teachers, institutional chiefs, and parents of students in India. The study was based on responses to a questionnaire. The present paper discusses the analysis of the responses, weighs the merits and demerits of the method, provides a rationale for the method used, and offers implications for the applicability of the present procedure to other similar questionnaires.—I. W. Kidorf.

Ethnology

4031. Berry, J. W. (Queen's U., Kingston, Ontario, Canada) **Marginality, stress and ethnic identification in an acculturated aboriginal community.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 239-252.—Measures of psychological marginality, alienation, social deviance, psychosomatic stress, attitudes to white society, westernization, personal barriers, and ethnic identification were administered to 31 Australian aborigines in an acculturated community. The pattern of results supported the theory of marginality but which also showed more marginality, deviance, and stress for those rejecting the dominant white society. Interpretation is in terms of reaffirmation of traditional values. (26 ref.)—A. Krichev.

4032. Crandall, Faye E. (Clark U.) **A cross-cultural study of Ahtena Indian and non-Indian high school students in Alaska on selected value orientations and measured intellectual ability.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 214-215.

4033. Lent, Richard H. (Northeastern U.) **Binocular resolution and perception of race in the United States.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 521-533.—Employed 66 whites, 28 Mexicans, 13 light Negroes, and 13 dark Negroes to extend the broad conclusion that group memberships play a part in the resolution of binocular conflict beyond the single geographic entity and the specific ethnic groups with respect to which it was derived. The variant forms in which the resolutions of binocular conflict was manifested, and the failure to provide an explanation of the descriptive results by introducing certain conceptually associated variables, suggest the need for an experimental design in which relevant social situational variables complement those with specifically individual reference. (36 ref.)—*Journal abstract.*

4034. Neuwirth, Gertrud. (Carleton U., Ottawa,

Ontario, Canada) **A Weberian outline of a theory of community: Its application to the "Dark Ghetto."** *British Journal of Sociology*, 1969(Jun), Vol. 20(2), 148-163.—Reviews the main arguments of M. Weber's theory of community and applies his viewpoint to the "dark ghetto." It is demonstrated that Negroes living in urban slums have the attributes of a negatively privileged status community, are "excluded from economic and political privileges, deprived of social esteem and unable to influence the imposition and application of rules which define their participation within the larger community." It is therefore shown that they are also "unable to effect their own community closure and are prevented from achieving such closure by representatives of the white community." Certain features of the Black Power movement are interpreted within this framework as "attempts to produce the necessary conditions for community closure and to attain thereby economic and political power." It is concluded that although incomplete, the application of the Weberian framework demonstrates the usefulness of this approach for the analysis of ethnic groups.—M. Maney.

4035. Worthy, Morgan & Markle, Allan. (Georgia State U.) **Racial differences in reactive versus self-paced sports activities.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 10(3), 439-443.—Hypothesized that black athletes perform better, relative to white athletes, in sports activities that are reactive in nature than in sports activities that are self-paced in nature. Evidence in support of this hypothesis is presented from the fields of professional baseball, professional basketball, and college basketball. These differences are apparently independent of differences in socioeconomic class. Some evidence indicates that early father absence is related to poorer self-paced performance.—*Journal abstract.*

Social Structure & Social Role

4036. Panda, K. C. & Das, J. P. (Indiana U.) **Acquisition and reversal in four subcultural groups generated by caste and class.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 267-273.—Tested whether belonging to a high caste in a traditional Hindu social system may offset the ill effects of cultural deprivation associated with poverty. 116 8-10 yr. old poor and rich boys, who belonged to either the highest or the lowest caste, were compared in 2 verbal conditioning experiments and on word reading speed. High-caste Ss, irrespective of economic class, were superior to low-caste Ss in acquisition and reversal of verbal response. In reading speed, both caste and economic class were relevant: high caste or rich Ss, or both, were superior. (French summary)—*Journal abstract.*

4037. Poitou, Jean P. (Lab. of Social Psychology, Aix en Provence, France) **Status congruence as a cognitive bias.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 592-597.—Conducted an experiment on the learning of hierarchical structures to examine if status congruence constitutes a cognitive bias. 2 types of material (individual names and nonsense syllables) were compared by 36 male undergraduates to test whether such a bias results from the abstract properties of complete ordering and congruent mapping, or from the individuals' familiarity with status congruent

social organizations. D. B. De Soto's technique for the learning of social structures was used in both stages of the experiment. In the 1st stage $\frac{1}{2}$ of the Ss learned a completely ordered influence structure among 4 hypothetical persons, while the other $\frac{1}{2}$ was presented with an identical ordering of nonsense syllables. In the 2nd stage Ss from the 1st group learned the matching of the list of names with an ordered list of army officers' ranks, while for the other group of Ss the nonsense syllables were matched with a list of integers. In each group $\frac{1}{2}$ of the Ss were presented with a congruent and the other $\frac{1}{2}$ with a noncongruent mapping. Results show that noncongruence is as detrimental to the learning of a social status structure as to the learning of an abstract one. This result is discussed in terms of E. Sampson's model of congruence expectancy. (20 ref.)—*Journal abstract*.

4038. Popov, S. *Sotsializm"t, otchuzhdenieto i svobodata*. [Socialism, alienation and freedom.] Sofia, Bulgaria: Bulgarian Academy of Science, 1968. 254 p.—Presents a Marxist treatment of the issues. Freedom is seen as the "recognition and assimilation of necessity." Criticized are both those who consider the problem of alienation as of prime importance under the conditions of socialism and those who would deny the existence of any elements of alienation whatsoever under socialism.—*J. D. London*.

4039. Winch, Robert F., Mueller, Samuel A., & Godiksen, Lois. (Northwestern U.) **The reliability of respondent-coded occupational prestige**. *American Sociological Review*, 1969(Apr), Vol. 34(2), 245-251.—If Duncan's Socio-Economic Index is accepted as a measure of socioeconomic status, it is possible to have untrained Ss code occupations (e.g., their fathers') and for a computer to convert such codings into socioeconomic scores. 327 undergraduates served as Ss. This procedure eliminates the need for the researcher to code occupations into occupational prestige scores. With respondents from 5 campuses of diverse ethnicities, S-coder correlations on prestige equivalents of the occupations correlated .85, and it is estimated that Ss' codings yielded 93% relative efficiency in estimating socioeconomic prestige scores.—*Journal abstract*.

Religion

4040. Havens, Joseph. (U. Massachusetts) **The course of college religious conflict**. *Religious Education*, 1970(May), Vol. 65(3), 257-264.—Clinical material drawn from 32 college Ss provides longitudinal data concerning religious conflict handled in 4 ways: loss of ultimate concern, short-circuiting of the religious impulse, intellectual resolutions, and broad integrative restructuring. Factors involved in integrative restructuring, founded upon good mental health, include: a broad view of religion; a sense of religion as a direction of movement, more than a high-water mark of achievement; and an openness to innovation or new creation in personal religion.—*S. E. Gavin*.

4041. Jonsen, Albert R. (U. San Francisco) **Moral theology and the modern Catholic college**. *Religious Education*, 1970(May), Vol. 65(3), 245-251.—Through explicit teaching and other cultural influences, "the general atmosphere and attitude of the American Catholics of the past and, in part, present generation reflect the style and content of classical moral theology: insistence on careful observation of law, profound respect for authority, distrust of ideas from without the

system, tendency to reduce new problems to old, already answered questions." Since today's students must be able to live creatively with questions, current changing perspectives in moral theology prove advantageous. Themes of contemporary moral theology cast problems in a vastly different light, leading to different solutions. For instance, beneath sexual problems may lie not lust, but loneliness; revolt may result not from disobedience, but from nonresponsibility.—*S. E. Gavin*.

4042. Kilpatrick, Dean G., Sutker, Louis W., & Sutker, Patricia B. (Veterans Administration Hosp., New Orleans, La.) **Dogmatism, religion, and religiosity, a review and re-evaluation**. *Psychological Reports*, 1970(Feb), Vol. 26(1), 15-22.—A review of the literature concerning religious preference, religiosity and dogmatism shows that Catholics consistently had been found to be more dogmatic than members of other religious groups. Since no Southern sample had been reported, 245 male and 250 female Southern undergraduates were administered Form E of the Dogmatism Scale. Ss were Catholics, Protestants, Jews, and nonbelievers and were asked their average monthly church attendance. Churchgoers were generally more dogmatic than nonchurchgoers. Catholics and nonbelievers were less dogmatic than Jews and Protestants. Differences between these and previous findings are discussed, and possible explanations are given. Several methodological suggestions are made concerning future research. It is concluded that speculations about the relative dogmatism of religious groups as a whole are inappropriate.—*Journal abstract*.

4043. McClain, Edwin W. (U. Tennessee) **Personality correlates of church attendance**. *Journal of College Student Personnel*, 1970(Sep), Vol. 11(5), 360-365.—The 16 PF and the EPPS were administered to 292 students who were classified in 1 of 5 categories indicating their frequency of church attendance. It was found that the more regularly the male Ss attend church the greater their preoccupation with inner experience whereas the opposite was found to be the case for female Ss. The results of the regular church attenders is very similar to the norms of college students in general. However, nonattendance is strongly associated with acceptance of the Freudian concept of the pleasure principle and with rejection of the reality and morality principles. Support was also found for the notion that creative people are likely to be found among those who are not regular church attenders. (29 ref.)—*R. H. Mueller*.

Cross Cultural Comparison

4044. Cambier, Anne & Titeca, Danièle. **Dessin et apparence nationale**. [Drawings and national affiliation.] *Revue de Psychologie des Peuples*, 1970(Jun), Vol. 25(2), 174-189.—Studied national differences and peculiarities through the analysis of drawings done by 50 girls and 50 boys, divided into 10 groups according to sex. The Ss represented Germany, Belgium, France, Italy, and the Netherlands. Ss were homogenous in regard to age (8-10 yr.), time of residence in native country, time of residence in Brussels, education, and socioeconomic level. Each S drew (a) a tree, (b) a human being of each sex, and (c) a walk in the country with friends. 400 pictures were collected. Detailed analyses were made of the drawings with the help of Latscha tables. No significant national differences were noted in regard to the tree drawing. However, significant differences were

observed in the drawing of masculine and feminine figures. The most significant differences were found between Germans and Italians. The drawing test was considered to be an effective research instrument where verbal comprehension is not a necessity. Representative drawings are included.—P. Hertzberg.

4045. Davis, Clive M. & Carlson, Julia A. (Syracuse U.) **A cross-cultural study of the strength of the Müller-Lyer illusion as a function of attentional factors.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 403-410.—Administered 2 types of Müller-Lyer stimuli to several samples of adult male Ss in Uganda (N = 271) and the United States (N = 128) under 2 instructions: (a) to attend to the horizontal lines and withhold attention from the angled lines, and (b) to report which of the 2 horizontal lines was longer. When the horizontal and oblique segments were separated and of different colors, there were no instructional differences. When the angled lines joined the horizontals and the stimuli were all of 1 color, instructional differences were obtained, but the relative change in illusion susceptibility as a function of 2 types of instructions differed for the 4 samples tested. This finding was interpreted as partially supporting an attentional interpretation of the cross-cultural difference. The previously reported lesser susceptibility of the African Ss to the Müller-Lyer illusion was not replicated when the set of stimuli employing connected horizontal and oblique lines and a single color was employed, calling into question the generality of the earlier findings. (18 ref.)—*Journal abstract*.

4046. Doob, Leonard W. (Yale U.) **Correlates of eidetic imagery in Africa.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 223-230.—Established the presence of eidetic imagery (EI) in a sample (N = 36) of an African society, the Hutu of Rwanda. Among Tanzanian children and young Ganda adults no link between EI and kwashiorkor could be tentatively ascertained. Secondary-school students from a variety of tribes in Tanzania (N = 401) and primary-school pupils among the Kamba of Kenya (N = 213) experienced little or no difficulty in replying to questions about their EI and other images. For 15 matched pairs of the latter, a significant relation was noted between replies in an interview concerning EI and an actual test 3 mo. later. In each of the studies no consistent or impressive relation between EI incidence and demographic data was ascertained other than a slightly negative association with age and acculturation. Incidental evidence for the subjective reality of the EI phenomenon appeared, but the correlates remain elusive.—*Author abstract*.

4047. Engebretson, Darold & Fulmer, Daniel. (U. Hawaii) **Cross-cultural differences in territoriality: Interaction distances of native Japanese, Hawaii-Japanese, and American Caucasians.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 261-269.—An adaptation of the felt figure technique was used to investigate distance between dyads as a function of relationship, culture, sex, and conversational content. Relationship was the most powerful determinant. Other significant results were scattered.—A. Krichew.

4048. Jakobovits, Leon A. (U. Illinois, Center for Comparative Psycholinguistics) **The affect of symbols: Towards the development of a cross-cultural graphic differential.** *International Journal of Symbolology*, 1969(Aug), Vol. 1(1), 28-52.—Previous research with the semantic differential technique has established the

cross-cultural generality of 3 basic affective dimensions identified as evaluation, potency, and activity. An attempt was made to develop a graphic equivalent of the pan-cultural short form semantic differential. This "graphic differential" is composed of bi-polar scales made up of pictographic opposites on which Ss rate a concept by placing a check mark on the 7-point scale. Such a nonverbal instrument would be culture free and would, under several conditions, have certain distinct advantages over the verbal semantic differential form. Data are reported for a pretest of the graphic instrument in 5 language/culture communities (American English, Delhi Hindi, Finnish, German, and Japanese). Several graphic scales are identified that provide reliable and effective indices of the evaluation dimension of affect. With respect to the potency and activity dimensions, the results are less satisfactory, although some of the graphic scales can be used for this purpose when chosen indigenously, i.e., independently for each culture.—*Journal abstract*.

4049. Kagitcibasi, Cigdem. (Middle East Technical U., Ankara, Turkey) **Social norms and authoritarianism: A Turkish-American comparison.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 444-451.—Examines the influence of social norms on the patterning of authoritarian attitudes. Higher intercorrelations of the various components of authoritarianism were found among American (N = 301) than among Turkish (N = 332) high school students, supporting the view of authoritarianism as a relatively coherent and consistent syndrome in the United States but not in Turkey. Mean values of most of the authoritarian variables, however, were higher in Turkey than in the United States, which was attributed to the presence in Turkey of 2 strong social norms, i.e., respect for authority and patriotism. These norms may serve to sharpen and increase those components of authoritarianism to which they are relevant, at the same time weakening the coherence of the whole syndrome in Turkey. (19 ref.)—*Journal abstract*.

4050. Levin, Joseph & Karni, Eliezer S. (Tel-Aviv U., Israel) **Demonstration of cross-cultural invariance of the California Psychological Inventory in America and Israel by the Guttman-Lingoes smallest space analysis.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 253-260.—The smallest space analysis of proximities was applied to the intercorrelations matrix of CPI scales in the manual and to a matrix for 550 male Israeli medical school applicants. Cross-cultural invariance of the pattern of scale intercorrelations led to a correlation of .92.—A. Krichew.

4051. Nakanishi, Nobuo. (Osaka U., Japan) **Symbol perception of the Kahn Test of Symbol Arrangement among four cultures.** *International Journal of Symbolology*, 1969(Aug), Vol. 1(1), 20-24.—Presents a cross-cultural study of enculturation and acculturation processes as they are reflected in the learning of visual symbols. Popular responses of naming to the Kahn Test of Symbol Arrangement showed enculturation differences between the Christian country of America, the Buddhist country of Japan, the Taoist-Buddhist country of China (Formosa), and the Islamic country of East Pakistan as the people drew in their learning from very different cultural sources.—*Journal abstract*.

4052. Pratz, Owen R. (U. Texas) **A study of the affective correlates of academic achievement in school children of different countries.** *Dissertation*

Abstracts International, 1970(Jun), Vol. 30(12-A), 5299.
 4053. St. George, Ross. (U. Waikato, School of Social Sciences, Hamilton, New Zealand) **The psycholinguistic abilities of children from different ethnic backgrounds.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 85-89.—Compared ethnically different children from similar low socioeconomic backgrounds on the Illinois Test of Psycholinguistic Abilities (ITPA). On the ITPA, Maori children ($N = 18$) performed at a significantly lower level than European children ($N = 14$). ITPA subtest differences did not entirely support the view that poor performance for the Maori Ss was the result of deficits on subtests measuring auditory and/or vocal aspects of psycholinguistic ability. Results support the view that familial experiences differentially affect language skills. The possibility that, culturally, the European children have more in common with the world of the school is also considered.—*Journal abstract*.

4054. Sundberg, Norman D., Rohila, Pritam K., & Tyler, Leona E. (U. Oregon, Wallace School of Community Service & Public Affairs) **Values of Indian and American adolescents.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 374-397.—Derived 17 hypotheses about Indian-American differences from a literature review. 9th grade Ss representing school populations in towns in Northern India ($N = 48$) and Western United States ($N = 48$) answered 90 Q-sort items. As expected, Indian Ss scored higher on deference and conformity, external control, extrinsic work values, and planning; Americans scored higher on sociability, sensuous enjoyment, and religiosity. Contrary to expectations, no differences were found on areas, i.e., individuality, free will, and democratic values. When items were dichotomized into endorsement and rejection, the 2 groups showed 4 times as much communality as divergence. Similarity was greater between sexes within the cultures than across cultures. Findings imply more complexity than is suggested by the distinction between traditional and modern values. (44 ref.)—*Journal abstract*.

4055. Thelner, Eric C. **Current approaches to symbolization: The Kahn Test of Symbol Arrangement.** *International Journal of Symbolism*, 1969(Aug), Vol. 1(1), 52-58.—The Kahn Test of Symbol Arrangement represents a basically projective test employing objective scoring criteria. It provides a template for evaluating symbolic productions according to 9 different levels of abstraction. Study I sought to assay potential difference in thought processes among 3 variant cultures, American, German, and Vietnamese. Findings suggest that the Vietnamese demonstrated less reliance on formal objective characteristics, whereas the German and American samples employed more. The Vietnamese, conversely, showed greater reliance on abstract associations. Study II was an assessment of thought processes among ghetto resident, Negro males. Findings suggest that this population was more conceptually concrete, rigid, and structure-seeking than either a normative population or the 3 experimental populations. Conversely, variation was not great, both studies therefore supporting the hypothesis that emotionally healthy men, regardless of culture, possess relatively comparable capacities to employ abstraction in thought.—*Journal summary*.

4056. Welsh, George S. (U. North Carolina) **Preferences for basic geometric shapes by American**

and Egyptian subjects. *International Journal of Symbolism*, 1969(Aug), Vol. 1(1), 58-66.—The Welsh Figure Preference Test was used to determine whether there is a consistent order of preference for 5 basic geometric shapes: circle, triangle, square, pentagon, and Greek cross. Results were obtained for 14 groups of American Ss and 16 groups of Egyptian students. It was found "that the Egyptian and the American orders of preference differ only for the cross and the circle which are either 1st or 2nd for both cultural samples." The remaining shapes fall in the order triangle, pentagon, square, and in this sense there is an order of preference common to Americans and Egyptians. Some minor inconsistencies appear when individual group orders are examined. Cultural explanations of the results are held to be inadequate and it is suggested "that the symbolism of geometric shapes may be approached through the psychology of individual personality." (34 ref.)—*P. E. Lichtenstein*.

4057. Williams, John E., Morland, J. Kenneth, & Underwood, Walter L. (Wake Forest U.) **Connotations of color names in the United States, Europe, and Asia.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 3-14.—Explored the hypothesis of cross-cultural generality in the connotative meanings of common color names via semantic differential ratings by 6 groups of college students: American Caucasians, American Negroes, Germans, Danes, Hong Kong Chinese, and Asiatic Indians. The hypothesis was supported by the finding of general agreement in the rank-order placement of the 10 color names along the evaluation, potency, and activity dimensions. On evaluation, "white" was rated most positively by all 6 groups, while "black," "brown," and "gray" were rated most negatively. Some possible explanations of these cross-cultural meanings are discussed.—*Author abstract*.

Family

4058. Leventhal, Gerald S. (Wayne State U.) **Influence of brothers and sisters on sex-role behavior.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 452-465.—It is often assumed that children imitate their siblings' behavior. This view implies that men with sisters display a less masculine behavior pattern than men with brothers. In an investigation of 218 male undergraduates with 1 sibling, results from the femininity scale of the CPI indicate that men with older sisters display more masculine behavior than men with older brothers. Men with older sisters displayed greater interest in outdoor and technical activities, greater athletic skill, and greater desire for membership in all-male peer groups than men with older brothers. Findings indicate there are trait dimensions on which 2nd-born males in a 2-child family adopt behavior patterns opposite those of their older sibling. 2 possible mechanisms are proposed to account for this tendency: (a) the younger of 2 male children may try to behave differently from his older brother in order to prevent himself from being compared unfavorably to his more advanced older sibling; and (b) following an initial period during which a younger male imitates his older sister, he may try to behave differently from her in order to avoid parental and peer disapproval. (33 ref.)—*Journal abstract*.

4059. Osborne, R. T. (U. Georgia, Testing & Evaluation Center) **Population pollution.** *Journal of Psy-*

chology, 1970(Nov), Vol. 76(2), 187-192.—Nobel Laureate William Shockley 1st used the term "population pollution" in referring to the negative correlation between measured intelligence of children and the size of the families they represent. In 1314 children representing 669 families, differential fertility rates were examined by race and by level of test IQ. There is a significant negative correlation of $-.367$ between family size and IQ of school age children representing that family. In the present sample, which is limited to the school age population of one Southern rural county, the family reproductive rate for children with IQ's below 70 is 12 times as great for Negro as for white families. Overall generalizations to other geographic areas and to other populations cannot be made until the study is replicated in other schools. Results indicate that J. Higgins' optimistic explanation of "Cattell's paradox" seems applicable only to the white population, leaving unanswered Shockley's question concerning the possibility of dysgenics caused by a disproportionately high birth rate of the most disadvantaged.—*Author abstract.*

4060. Schoicket, Sally G. (Columbia U.) **Affinal relationships of the divorced mother.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 469.

4061. Simmons, Jean. (Cornell U.) **Why do they want to stay home? A study of career oriented mothers with preschool children.** *Cornell Journal of Social Relations*, 1970(Spring), Vol. 5(1), 29-39.—Tested the norm against mothers of preschool children working ($N = 8$) by interview and questionnaire. 5 professionally trained and/or career-oriented mothers reasoned why they were not in favor of working due to effects: (a) of mother's working on the child, (b) on the mother of the separation from her child, and (c) of separation on the bond between mother and child. 3 mothers who favor working had strong desires to work and weaker fears about their child's security and their own security in the mother-child relationship. Nye and Hoffman hypothesize that if a mother perceives that her child's personality is a product of his interaction with his total environment and not just with his mother, she will be more likely to believe that stimulation in all areas is necessary for his psychological growth.—*J. DiGiovanni.*

Social Change & Social Programs

4062. Halmos, Paul. (University Coll., Cardiff, Wales) **The personal service society.** New York, N.Y.: Schocken, 1970. vi, 215 p. \$6.

4063. Karr, Stephen D. & Dent, Oran B. (Miami U.) **In search of meaning: The generalized rebellion of the hippie.** *Adolescence*, 1970(Sum), Vol. 5(18), 187-196.—Presents a description of the antecedents and characteristics of the hippie personality contrasted with the activist.—*A. B. Warren.*

4064. Klein, Alexander. (Ed.) **Natural enemies: Youth and the clash of generations.** Philadelphia, Pa.: J. B. Lippincott, 1969. xli, 533 p. \$8.95.—Deals with the rebellion of youth and the generation gap in a series of articles by 79 psychologists, sociologists, anthropologists, historians, social analysts, authors, critics, spokesmen for youth, and public figures.

4065. Klitzke, Louis L. (Stout State U.) **Students in emerging Africa: Humanistic psychology and logotherapy in Tanzania.** *Journal of Humanistic Psychology*, 1969(Fal), Vol. 9(2), 105-126.—Considers the demands on Tanzanian college students which result

from "paradoxes created by transition from domination to freedom, via education." 3 interrelated concepts are discussed concerning the role of the student: (a) self-identification (the student sees himself "hung-up between the 3 worlds of his family, clan or tribe, his school, and his nation); (b) self and society (the student's awareness of his relationship and responsibility to others); and (c) individual development ("an interplay between social order and being, social change and becoming"). Evidence is presented to suggest that principles of humanistic psychology may be "more relevant in this emerging country than the deterministic explanations of human behavior." (15 ref.)—*P. McMillan.*

SEXUAL BEHAVIOR

4066. Paul, Leslie. (Queen's Coll., Birmingham, England) **Eros rediscovered: Restoring sex to humanity.** New York, N.Y.: Association Press, 1970. 191 p. \$5.95.

4067. Phillips, James K. (U. Virginia) **A study of the sexual attitudes, behavior patterns, and attitude-behavior pattern inconsistencies of graduate students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 159-160.

4068. Wood, Carl; Shanmugam, N., & Mrederith, E. (Monash U., Queen Victoria Hosp., Melbourne, Australia) **The risk of premarital conception.** *Medical Journal of Australia*, 1969(Aug), Vol. 2(5), 228-232.—Attempted to determine the number of women considered to be "at risk" of premarital pregnancy by surveying 200 mothers by a postpartum questionnaire. 142 Ss admitted to premarital coitus and only 11 had used effective contraception; therefore, 131 were "at risk" of premarital conception. The significance of the findings are discussed and some recommendations are made to avoid the sequelae of this behavior.—*Journal abstract.*

Birth Control & Abortion

4069. Caccavale, J. L. & Bonura, J. V. (California State Coll., Los Angeles) **Relation of guilt to the use of contraceptives.** *Research Bulletin*, 1969, Vol. 5, 1-14.—A study of 45 women using artificial contraceptives (Group A), 45 unwed mothers (Group B), and 45 mothers who rejected the use of artificial contraceptives (Group C) on 30 items selected from the MMPI to measure guilt feelings and a 10-item questionnaire to elicit information on causal factors of guilt showed that Group A had a significantly less number of sexual intercourses and less initiation from their side to sexual intercourse than Group C. Group A mothers used contraceptives because they could not afford to have more children though they wished to have. 92% of Group A felt that they were not going against their religion, while the rest did not bother about it. All Group A Ss reported experiencing vague symptoms, migraine, and eye trouble while very few of Groups B (17%) and C (4.4%) experienced these. Group A obtained a significantly higher mean score than groups B and C in the composite scores of MMPI subtests, revealing high guilt feelings. Differences between the groups were interpreted as the behavioral manifestations of the blocked libidinal energy caused by the conflict between a biological drive to reproduce and the social and economic pressures of

Western society. The result of this conflict is an extreme feeling of guilt.—U. Pareek.

ATTITUDES & OPINIONS

4070. Berry, J. W. (Queen's University, Kingston, Ontario, Canada) **A functional approach to the relationship between stereotypes and familiarity.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 29-33.—Used data from J. W. Berry's (See PA, Vol. 45:Issue 4) study of Australian state stereotypes to test predictions derived from a functional theory of stereotypes. Both uniformity and differentiation appear to co-exist in a single stereotype, and both were positively related to familiarity among states. However, where a measure of guessing was employed, differentiation increased greatly in stereotypes among least familiar states. Confirmation of the predictions was considered to support the hypothesized function of stereotypes as both efficient and accurate tools in intergroup relations.—*Journal abstract*.

4071. Cottle, Thomas J., Edwards, Carl N., & Pleck, Joseph. (Massachusetts Inst. of Technology) **The relationship of sex role identity and social and political attitudes.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 435-452.—Studied the relationship between conscious social role preferences, unconscious sexual identifications, and attitudes toward 5 categories of social and political issues. Based on factor scores of inventory items, the categories include political liberalism, birth control, sex-role morality, racial discrimination, and the achievement ethic. The population studied consisted of men and women from communities designated working class, middle class, and upper class. Controlling for the effects of age, sex, marital status, occupation, education, and political party preference, results indicate statistically significant associations between conscious and unconscious masculinity and femininity and attitudes toward all 5 categories of issues. The patterns of associations, however, are not always consistent. Discussion includes a consideration of sex-role identity as a value and the implication of sex-role differentiation for the integration of personality as well as social institutions. (30 ref.)—*Journal summary*.

4072. Goding, William E. (U. Denver) **The power and hostility dimensions of free speech attitudes.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5523.

4073. Goldstein, Marvin W. (New School of Social Research) **Race and belief prejudice: A further interpretation concerning the relationship between norms and behavioral intentions.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 465.

4074. Kerlinger, Fred N. (New York U.) **Comment on Zdep and Marco's "Commentary on Kerlinger's structural theory of attitudes."** *Psychological Reports*, 1970(Feb), Vol. 26(1), 289-290.—S. M. Zdep and G. L. Marco's (see PA, Vol. 44:18531) criticisms of F. N. Kerlinger's (see PA, Vol. 41:5885) criterial referent theory of attitudes, with 1 exception, lack validity. The criterial referent notion is misconstrued, attitudes are defined too narrowly, bipolarity of attitudes is plucked out of an unrotated factor matrix, and the nature and purpose of scientific theory seem to be misconceived.—*Journal abstract*.

4075. Krystall, Eric R., Friedman, Neil; Howze, Glenn, & Epps, Edgar G. (Cornell U.) **Attitudes toward**

integration and black consciousness: Southern Negro high school seniors and their mothers. *Phylon*, 1970(Sum), Vol. 31(2), 104-113.—Results of the 1967 Tuskegee Area Study, an annual social survey conducted by junior and senior social science majors at Tuskegee Institute, indicate that high school seniors, compared with their parents, are (a) more favorable toward integration, (b) more strongly identified with "blackness," and (c) more willing to join or participate in a black power movement. "The parents are pro-integrationist, but not pro-black consciousness."—A. R. Howard.

4076. Larue, Janine. **Dix entretiens sur la culture: Quelques hypothèses concernant la composition et la différenciation sociale des représentations.** [Ten interviews on culture: Some hypotheses concerning the composition and social differentiation of representations.] *Journal de Psychologie Normale et Pathologique*, 1970(Jan), Vol. 67(1), 37-69.—Recorded 10 structured interviews, with open-ended responses from people of various socioeconomic levels. The key term was culture. 25 hr. of recordings were systematically analyzed. The following themes emerged concerning culture: it is an object of thinking and reflection; culture is geographically or territorially limited; culture is diversified in time, space, etc.; culture is evolving; culture imposes certain demands, i.e., universality, truth, etc.; culture arouses man; culture serves as a pole of reference and orientation; culture transmits shares, and offers; and culture transforms the individual.—L. A. Ostlund.

4077. Lieberman, Lewis R. (Charles L. Mix Memorial Fund, Inc., Americus, Ga.) **Attitudes toward the mentally ill, knowledge of mental illness, and personal adjustment.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 47-52.—Investigated correlates of attitudes toward the mentally ill. In Exp. I, 121 undergraduates in 3 states were given the Opinions about Mental Illness questionnaire (OMI) and a test of knowledge about mental illness devised by J. C. Nunnally. Results show that Ss were better informed about mental illness than the general population. Also those who were less authoritarian toward the mental patient were better informed than the more authoritarian. In Exp. II, 67 male students were given the OMI and the MMPI. Results show that those who were less authoritarian on the OMI were more deviant on the MMPI.—*Journal abstract*.

4078. Mascaró, Guillermo F. (U. Florida) **Correspondence between evaluative expectations and attitudes.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 115-125.—Explained the concept of attitude (and its measurement) in terms of expectancy-value theory and tested the hypothesis that attitudes are enduring evaluative expectations towards an object. A disguised measure of evaluative expectations on the Vietnam war based on a category-width task, 2 further category width scales on different issues, and 2 attitude measures (a Thurstone and a semantic-differential scale on Vietnam) were administered to 87 male undergraduates. Degree of structure (information) was manipulated in all categorization measures. As predicted, evaluative expectations were significantly related to attitude scores. The structure variable affected relationships among categorization variables but not the relationship between evaluative expectations and attitudes. Also it was found that generalization of categorization tendencies decreased as the attitudinal

relevance of the issue increased. (28 ref.)—*Journal abstract.*

4079. Mol, Hans. (Australian National U., Canberra, Australian Capital Territory) **Religion and sex in Australia.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 105-114.—In a social survey of the states of New South Wales, Victoria and Tasmania religious variables were shown to be related to the sexual attitudes of the respondents. The explanation given is that religion and sex are alternative forms of commitment: religious believers perceive sexual activity differently from non-believers, and perhaps need it less for their personality integration. It is suggested that Christianity has set up strict norms regarding sexual activities and attitudes because sex is seen as a possible threat to its major function. (23 ref.)—*Journal abstract.*

4080. Nordenstreng, Kaarle. (Finnish Broadcasting Co., Helsinki) **Changes in the meaning of semantic differential scales measurement of subject-scale interaction effects.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 217-237.—The concept "work" was rated by 720 Finnish adults and by American and English students and adults. The influence of the Ss' backgrounds were evaluated by transformation analysis. "The results showed that the interaction effects... provide useful information for further interpretation."—A. Krichev.

4081. Sarbin, Theodore R. & Mancuso, James C. (U. California, Santa Cruz) **Failure of a moral enterprise: Attitude of the public toward mental illness.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 159-173.—Presents a critical analysis of published reports on the public's attitudes toward mental illness and toward deviant conduct. The mental health movement fits the defining criteria for a moral crusade, motivated and supported by moral entrepreneurs. The reported data indicate that the mental illness paradigm, as a formula for understanding and controlling deviant conduct, has not been widely accepted by the public. The central objective of the mental health movement has been to influence the general public to regard mental illness with the same nonrejecting valuations as somatic illness. Social survey reports and other data point to the conclusion that the public tends to declare negative (rejecting) valuations on persons diagnosed as mentally ill. However, the public tends to be more tolerant of deviant conduct when it is not described with mental illness labels. (37 ref.)—*Journal abstract.*

4082. Schufletowski, Frank W. & Reed, Robert L. (U. Kansas) **Value structure: Another dimension to attitude measurement?** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 127-129.—Rationales of the various procedures used in attitude scaling have not accounted for the individual's value structure and its relationship to his responses. An approach to differing value structures was the use of an item which indicated the degree of importance the attitude statement had for the respondent. With the employment of Likert and Guttman scaling, no significant difference was found in either technique for capacity to select or reject items on the basis of importance to respondents. The measurement of value structure by the use of the importance continuum should be considered a necessary but not a sufficient condition for item selection. However, an item does not offer much predictive power unless it is a relevant criterion in the value structure of the sample.

—*Author abstract.*

4083. Szalay, Lorand B., Windle, Charles, & Lysne, Dale A. (American U., Center for Research in Social Systems) **Attitude measurement by free verbal associations.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 43-55.—Studied attitudes of various American and foreign student groups (N = 50) as components of the total subjective meaning content reflected by free verbal associations. To measure the attitudinal meaning, indexes of associations with positive and negative connotations were calculated. These indexes for groups were highly correlated with semantic differential evaluations and with responses to direct questions about attitudes. The distribution of associative responses in content categories reveals characteristic differences in cognitive organization between groups with positive and negative attitudes. Comparisons with the direct methods suggest that association-based attitudinal inferences may offer a new type of attitudinal information focusing on the affective-emotional content. (19 ref.)—*Author abstract.*

4084. Treichel, Bruce & Nance, Dale. (U. Wisconsin, Milwaukee) **Attitudes of educated young adults toward child rearing.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 53-54.—Examined whether or not differences existed between 30 educated young men and 46 women in attitudes related to child rearing. Each ranked 50 behavior items for degree of concern using a Q-sort approach. Some differences between the groups were found, although none were statistically significant.

—*Journal abstract.*

4085. Vogel, Susan R., et al. (Worcester State Hosp., Mass.) **Maternal employment and perception of sex roles among college students.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 384-391.—Examined sex-role perceptions held by male and female college students with reference to the students' mothers' employment history. 120 undergraduates rated men, women, and themselves on an inventory of bipolar phrases describing sex-role relevant characteristics. Results of t-test comparisons indicate that both men and women with employed mothers perceive significantly smaller differences between masculine and feminine roles than do men and women with homemaker mothers. The women's perceptions of the sex roles are more strongly influenced by the mother's employment than are the men's perceptions. Maternal employment also tends to raise the estimation of one's own sex concerning those characteristics that are seen as socially desirable for the opposite sex. (15 ref.)—*Journal abstract.*

4086. Wish, Myron; Deutsch, Morton, & Biener, Lois. (Bell Telephone Lab., Murray Hill, N.J.) **Differences in conceptual structures of nations: An exploratory study.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 361-373.—Explored the ways different people conceive of nations, the conditions which give rise to different conceptions of nations. Primary attention is focused on a task in which 75 students from 8 countries, but all studying at a university in the United States, gave pairwise ratings of overall similarity with respect to a set of 21 nations. An INDSCAL analysis, a multidimensional scaling procedure developed by J. D. Carroll and J. J. Chang, of the similarities data revealed 4 dimensions which were interpreted as: political alignment and ideology, economic development, geography and population, and culture and race. Economic development was more important than political alignment to doves, males, and

Ss from developed countries, whereas the opposite was true for nondoves, females, and Ss from underdeveloped countries. Differences in the Ss' conceptions of nations appeared to be of degree rather than kind. (32 ref.)—*Journal abstract.*

Formation & Change

4087. Friedman, Philip H., Buck, Ross, & Allen, Vernon L. (Temple U., Medical School) **Arousal, anxiety, aggression, and attitude change.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 99-108.—Investigated the effects of an aggressive habit and emotional arousal, measured by heart rate, blood pressure and self-report, on 2 types of attitude change. 36 male undergraduates were injected with epinephrine or placebo, and acquired an aggressive or nonaggressive habit. Then Ss read an article attacking teaching machines and were told that the injected "vitamin" would relax them. Results show that psychological arousal was positively related to degree of influence by the "relaxation" communication, but physiological arousal and an aggressive habit were not. Aggressive habit Ss and to a lesser extent physiologically aroused Ss were most influenced by the teaching machine article.—*Journal summary.*

4088. Fromkin, Howard L. (Purdue U.) **Effects of experimentally aroused feelings of undistinctiveness upon valuation of scarce and novel experiences.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 521-529.—Tested the hypothesis that preferences for scarce experiences relative to plentiful experiences will become more pronounced as feelings of undistinctiveness increase, independent of the expected novelty of the experience. 29 male and 30 female undergraduates received bogus test results which described them as either extreme, high, or low in uniqueness, the 1st independent variable. After obtaining test feedback concerning their uniqueness, Ss were informed that they would be able to spend time in 1 of 4 psychedelic chambers. The 4 psychedelic chambers were described as either available or unavailable to others and as producing novel or familiar feelings, the 2nd and 3rd independent variables. Sex of S was also treated as an independent variable. Ss indicated their valuation (the dependent variable) of the 4 different chambers. The hypothesis is confirmed on 3 different measures of valuation. (16 ref.)—*Journal abstract.*

4089. Goldberg, Carlos I. (City Coll., City U. New York) **Attitude change as a function of source credibility, authoritarianism, and message ambiguity.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 464-465.

4090. Holt, Lewis E. (U. Lethbridge, Alberta, Canada) **Resistance to persuasion on explicit beliefs as a function of commitment to and desirability of logically related beliefs.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 583-591.—Tested the anchoring method of increasing resistance to persuasion through the establishment of prior linkages between the belief to be attacked and logically related beliefs. It was hypothesized that the direct impact of a persuasive communication would be inversely related to the degree of resistance to change on the related beliefs. The anchoring strength of the related beliefs was manipulated by employing 2 levels of commitment to the derived conclusions, and by varying the desirability of

the related beliefs. Ss were 83 undergraduates. For the direct impact of the messages, a main effect of desirability was obtained, with Ss for whom undesirable related issues were made salient changing less on the target beliefs. The Desirability \times Commitment interaction was also significant. The main effect of commitment, although in the predicted direction, fell short of conventional levels of significance ($p < .10$). Findings are discussed in terms of consistency and hedonic principles. (28 ref.)—*Journal abstract.*

4091. Sherman, Steven J. (Indiana U.) **Attitudinal effects of unforeseen consequences.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 510-520.—Investigated whether the introduction of previously unforeseen consequences following a counter-attitudinal act can affect the level of dissonance arousal. Exp. I with 70 male undergraduates, indicated that when the initial decision was made freely by Ss, the offer of incentive (whether prior to the decision or fait accompli) reduced subsequent attitude change. Such effects were not observed when the decision involved no choice. In Exp. II with 50 Ss, unforeseen negative consequences increased attitude change, but only under high choice. It is concluded that fait accompli manipulations can affect the level of cognitive dissonance, but only when dissonance previously has been aroused. (20 ref.)—*Journal abstract.*

4092. Stroebe, Wolfgang; Thompson, Vaida D., Insko, Chester A., & Reisman, Stephen R. (U. North Carolina) **Balance and differentiation in the evaluation of linked attitude objects.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 38-47.—Exposed 267 undergraduates to information regarding whether a Dr. M. supported or attacked a theory, married or divorced a wife, was an expert or inexperienced scientist, and was a nice or awful person. Major results indicate a significant overall average tendency for the theory to be evaluated more highly when supported by an expert scientist or attacked by an inexperienced scientist than in the 2 mixed-sign conditions. Similarly, the wife was evaluated more highly when married by a nice person or divorced by an awful person than in the 2 mixed-sign conditions. This general pattern of results was interpreted as indicating that Dr. M. as a scientist was differentiated from Dr. M. as a person. In addition, a significant agreement effect was obtained for both theory evaluation and wife evaluation, and a significant positivity effect for just theory evaluation. Overall theoretical speculation is offered that balance theory could account for all the obtained effects.—*Journal abstract.*

4093. Watts, William A. & Holt, Lewis E. (U. California, Berkeley) **Logical relationships among beliefs and timing as factors in persuasion.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 571-582.—Studied the effects of integration of beliefs, salience of the interrelationships, and time of opinion measurement upon persuasion with 97 undergraduates. Integration of beliefs was manipulated by R. B. Zajonc's cognitive tuning method and salience through presence or absence of a pretest. Opinions were measured either immediately following the communications or after a 10-min delay. The pretest inhibited change in the specific belief attacked ($p < .01$), but had no main effects on the logically related, but unmentioned, beliefs. Ss in the high-integration condition, compared to the low, changed more in the target ($p < .01$) and related ($p < .05$) beliefs and achieved a higher level of internal

consistency among their beliefs ($p < .05$), although the latter was, in part, dependent upon their having been pretested (interaction F ratio = 4.74, $p < .05$). Change in the related beliefs was greater in the delayed than in the immediate-measurement condition ($p < .05$). (15 ref.)—*Journal abstract.*

4094. Wenburg, John R. (Michigan State U.) **The relationships among audience adaptation, source credibility and types of message cues.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5555-5556.

4095. Wyer, Robert S. (U. Illinois, Chicago Circle) **Quantitative prediction of belief and opinion change: A further test of a subjective probability model.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 559-570.—Tested implications of the hypothesis that relations among beliefs, if defined in terms of subjective probabilities, are predictable by applying the laws of objective probability. Of particular interest was the extent to which change in 1 belief would predictably affect other beliefs which were related to it. 9 hypothetical situations were constructed, each of which pertained to an event (A) and its relation to a 2nd event (B). Descriptions of each situation were presented to 49 undergraduates in 2 parts: the 1st to produce a low estimate of the likelihood of occurrence of A, and the 2nd to increase this estimate. Ss estimated various probabilities associated with occurrence of A and B after reading each part of the communication. Estimates of the probability of B and the change in these estimates after reading the 2nd part of the communication were both predicted accurately by applying the laws of objective probability. These predictions were more accurate than those generated by the 1960 model proposed by W. J. McGuire. Obtained and predicted estimates of the conjunctive and disjunctive probabilities of A and B were also compared. In general, the hypothesis appeared to be of substantial value in generating accurate quantitative descriptions of the relations among beliefs.—*Journal abstract.*

4096. Zimbardo, Philip & Ebbesen, Ebbe B. (Stanford U.) **Influencing attitudes and changing behavior: A basic introduction to relevant methodology, theory, and applications.** Reading, Mass.: Addison-Wesley, 1969. ix, 148 p. \$1.95(paper).

4097. Zimbardo, Philip, et al. (Stanford U.) **Modifying the impact of persuasive communications with external distraction.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 669-680.—Engaging in an irrelevant, distracting activity while simultaneously processing a persuasive communication has a salutary effect upon attitude change if the audience is set to attend primarily to the message, but the opposite effect if they are set toward the distracting activity. The conditions necessary for demonstrating this relationship are sensitive to operational details which were not sufficiently well controlled in previous research (nor in the 1st 2 of 3 studies reported here). Additional results seriously challenge the adequacy of earlier conceptual and empirical treatments of mediators of attitude change, including attention, effort, learning, and counterarguing.—*Journal abstract.*

Influence & Behavior

4098. Diamant, Louis. (U. North Carolina, Charlotte) **Premarital sexual behavior, attitudes, and emotional**

adjustment. *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 75-80.—To examine relationships between premarital sexual behavior, attitudes and emotional adjustment, MMPI's Attitude Scales on Sexual Permissiveness and Sexual Behavior Questionnaires were administered to 54 male and 62 female college students. No relationship was found between adjustment and premarital sexual intercourse for either male or female Ss, nor was any relationship found between the number of partners and adjustment. The possible relationship in males between dissonant context as reflected in low scores on attitude scales on sexual permissiveness and adjustment was also investigated. As hypothesized, low permissiveness scores were related to maladjustment in males.—*Author abstract.*

4099. Dowell, Linus J. (Texas A & M U.) **Comparison of the health attitudes of active and inactive adult men and women.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 209.—Developed a health attitude inventory to compare health attitudes of active ($N = 40$) and inactive ($N = 40$) adult men and women. It was found that active men possess a more favorable attitude toward physical activity than inactive men, while active women possess a more positive attitude toward use of drugs than inactive women. In general, active adults have a more positive attitude toward physical activity and have a better total health attitude than do inactive adults.—*Author abstract.*

4100. Jamieson, Bruce D. (U. Canterbury, Christchurch, New Zealand) **Attitude, plausibility, and the learning and recall of controversial material.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 169-174.—Tested the effects of attitude and plausibility upon the learning and recall of controversial religious material with groups of pro-Catholic and anti-Catholic Ss. The finding of previous studies, that Ss learn plausible pro- and implausible antistatements more easily than implausible pro- and plausible antistatements was confirmed for pro-Catholic Ss but not for anti-Catholic Ss. A similar result was obtained when recall data were analyzed.—*Author abstract.*

4101. Rosen, Alexander C. (U. California, Neuropsychiatric Inst., Los Angeles) **Changes in the perception of mental illness and mental health.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 203-208.—Investigated changes in the perception of models of mental illness and mental health on the responses to a 25 item semantic differential scale in groups of Ss in a course in abnormal psychology ($N = 34$) and in several encounter-sensitivity training groups ($N = 139$). Test findings before and after the experience indicate that the participative emotional experience and intellectual cognitive experiences did not modify abstract models held by individuals concerning mental illness and normality. These findings have implications for community mental health services. Placing greater emphasis on direct community services and less emphasis on public education and public information is suggested.—*Journal abstract.*

4102. Warner, Lyle G. & DeFleur, Melvin L. (Washington State U.) **Attitude as an interactional concept: Social constraint and social distance as intervening variables between attitudes and action.** *American Sociological Review*, 1969(Apr), Vol. 34(2), 153-169.—Investigates the effect of selected situational variables on the relationship between a verbal attitude and overt behavior toward the object of that attitude. Data suggest

reformulation of 2 theoretical schemes describing the relationship between prejudice, discrimination, and the situation of action. In a relatively large-scale field experiment in a university setting, 2 multidimensional factors, social constraint and social distance, were systematically introduced as intervening conditions to assess the degree to which they reduced correspondence between verbal attitudes toward Negroes and overt acts of acceptance or rejection of Negroes. Generally, these intervening factors had different mediating influences on different types of Ss. (26 ref.)—*Journal abstract*.

GROUP & INTERPERSONAL PROCESSES

4103. Angell, Jimmie D. (U. Nevada) **The effects of social success and social failure on the humor productions of wits.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 375-376.

4104. Baker, Keith A. (U. Wisconsin) **An experimental analysis of third party justice behavior.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5521.

4105. Ball, Donald W. (U. California, Los Angeles) **Biography, attitude or situation: Approaches to standing, sitting, and definitions of self.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 461-462.

4106. Baxter, James C. & Deanovich, Bettye F. (U. Houston) **Anxiety arousing effects of inappropriate crowding.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 174-178.—Evaluated the anxiety arousing effects of inappropriate crowding in a dyadic experimental setting. 48 female undergraduates were presented 8 Make A Picture Story test settings, containing 2 doll figures accompanied by a brief narrative describing the situation. Ss rated the amount of dysphoria they believed the female figure would feel in each setting. Ss were run under either an inappropriately crowded or appropriately spaced seating arrangement. Results indicate that crowded Ss projected more anxiety in their ratings of the figures than did the uncrowded Ss, with the effects becoming more pronounced during the latter 1/2 of the experimental period. (22 ref.)—*Journal abstract*.

4107. Bishop, Doyle W. & Witt, Peter A. (U. Illinois) **Sources of behavioral variance during leisure time.** *Journal of Personality & Social Psychology*, 1970(Oct), Vol. 16(2), 352-360.—2 samples of 49 and 91 undergraduates rated how much they would feel like participating in each of a set of leisure activities in each of 10 hypothetical situations. The resulting matrices of responses were analyzed into the estimated variance components associated with persons, situations, modes of response, and their various interactions. These sources of variance in leisure behavior were compared to those reported by N. S. Endler and J. Hunt for hostility and anxiety. The results show major differences between the relative contributions of the sources of variance to leisure behavior and their contributions to hostility and anxiety. There were also some differences between the sexes in sources of variance, both within and across the 3 domains of behavior. In addition, the implications of 2 classical views of leisure behavior were tested by comparing the Persons \times Modes of Response and Situations \times Modes of Response interaction variances. Results support both views, although sex differences suggest that these classical views might be differentially applicable to males and females.—*Journal abstract*.

4108. Bridges, Judith G. (U. North Carolina) **Validation of a theory of interpersonal trust behavior.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 462-463.

4109. Brown, Bert R. (Columbia U.) **The effects of need to maintain face on interpersonal bargaining.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 463.

4110. Centers, Richard; Shomer, Robert W., & Rodrigues, Aroldo. (U. California, Los Angeles) **A field experiment in interpersonal persuasion using authoritative influence.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 392-403.—A cross-sectional adult sample of 1275 persons, after committing themselves on the question of how the legal machinery should deal with a specific case of a juvenile lawbreaker, were given an argument presented as the view of an expert and contrary to their own. It was hypothesized and confirmed that Ss scoring higher on a scale measuring authoritarianism would more commonly change their opinion in the advocated direction than would those scoring lower. 2 secondary hypotheses also were sustained: (a) that persons assigning the locus of causality of juvenile delinquency to the individual himself rather than to circumstances beyond his control would have higher scores on authoritarianism than persons assigning causality to these latter conditions; and (b) that persons scoring higher in authoritarianism would initially more commonly recommend a harsher treatment of the delinquent than would those scoring lower in this trait. (15 ref.)—*Journal summary*.

4111. Daniel, Steven J. (Michigan State U.) **The influence of leader empathy (affective sensitivity), participant motivation to change and leader-participant relationship on changes in affective sensitivity of T-group participants.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5229-5230.

4112. Davis, Murray S. (Brandeis U.) **Intimacy: Dispassionate explorations of personal relation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 479.

4113. Elbert, Weldon E. (East Texas State U.) **Changes in self-concept, self-actualization, and interpersonal relations as a result of video feedback in sensitivity training.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5233.

4114. Fadale, Vincent E. (East Texas State U.) **An experimental study of the effects of videotape feedback in a basic encounter group.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5234-5235.

4115. Fugita, Stephen S. (U. California, Riverside) **The effects of anxiety and approval on visual interaction.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 464.

4116. Goranson, Richard E. (U. Wisconsin) **Observed violence and aggressive behavior: The effects of negative outcomes to the observed violence.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 381.

4117. Harshbarger, David D. (U. North Dakota) **An investigation of a structural model of small group problem solving.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 465-466.

4118. Hogan, Robert & Mankin, Donald. (Johns Hopkins U.) **Determinants of interpersonal attraction: A clarification.** *Psychological Reports*, 1970(Feb),

Vol. 26(1), 235-238.—Discussions of interpersonal attraction should attend to the manner in which likability is operationalized. In accordance with T. M. Newcomb's (see PA, Vol. 31:7607) original distinction, evidence is provided that the determinants of general liking are different from those of clique measures of likability. While clique measures are possibly related to similarity of personality, general liking reflects distinctive features of a personal interaction style.—*Journal abstract.*

4119. Jones, Mark J. (Para-Professional Training Inst., Clearfield, U.) **Human awareness exercises in human relation groups.** *Psychology*, 1970(Aug), Vol. 7(3), 26-33.—Supports the utilization of "human-awareness" exercises as auxiliary procedures in the basically unstructured setting of the "intensive small group." Such exercises can greatly enhance the self-learning process and interpersonal awareness as well as providing for a myriad of group and individual needs including: (a) built-in modifying factors that limit possible traumatic impact in person-to-person confrontation, (b) encouragement and provision for an active involvement by the entire group, and (c) alteration of the expected social structure of a learning situation.—*J. A. Blazer.*

4120. Justice, Marcus T. (U. Florida) **Field dependency, intimacy of topic and interperson distance.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 395-396.

4121. Kelley, H. H., et al. (U. California, Los Angeles) **A comparative experimental study of negotiation behavior.** *Journal of Personality and Social Psychology*, 1970(Nov), Vol. 16(3), 411-438.—Studied interpersonal negotiation at 8 laboratories, 3 in Europe and 5 in the United States. The negotiation task was designed to investigate the various ways in which persons deal with a mixed-motive, incomplete-information problem which involved both distributive and integrative bargaining. Results for the 3 independent variables show that: (a) increasing the difficulty of the bargaining problem, increased trial time and reduced frequency of agreement; (b) in a comparison of money and points incentives, the former had positive effects on the negotiation, both in terms of preinteraction attitudes and in terms of subsequent interaction and negotiation outcomes; and (c) the creation in 1 condition of an unequal dependence of the 2 parties upon agreement did not have the anticipated disruptive effect upon the interaction. Analysis of differences among the sets of data from the 8 research sites suggests that the negotiation situation was defined in 2 ways. This was reflected in different meanings given to the dimension of cooperation vs. competition in the interaction. At some sites, this dimension was given an evaluative meaning—good vs. bad; at other sites, it was given a dynamism meaning—weak and passive vs. strong and active. These 2 meanings had different implications for the process and outcomes of the negotiation and for the relation between the Ss' pregame attitudes and their subsequent behavior. (32 ref.)—*Journal abstract.*

4122. Kersey, Joseph F. (U. Florida) **Eye-contact phenomena related to choice of partner and aggressive/passive role playing.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 466.

4123. Langelar, J. W. (Rijks Psychologische Dienst, Hague, Netherlands) **Is "brainstorming" werkelijk effectief?** [Is brainstorming really effective?] *Mens en Onderneming*, 1970(May), Vol. 24(3), 194-201.—Identifies desirable outcomes of brainstorming by a group:

(a) the development of new ideas, (b) the examination of new ideas, (c) the possibility of creating new ideas, and (d) the harmonization of the new ideas. Ss were 48 students in psychology, divided into a nominal and a working group. Nominal Ss worked individually and working Ss worked in 4 groups of 4 Ss each and in 2 groups of 8 Ss each. The results from the nominal group were tabulated into 4 Ss each in 4 groups. Problems discussed were (a) what means could a hotel manager employ if a surplus of guests should arrive, and (b) what can be done to increase traffic safety. Time limit was 30 min. Nominal Ss made significantly more suggestions at the .01 level. Also, the quality of the suggestions were appraised independently by professors from a hotel management school and from a traffic education school, respectively. The nominal group was superior in quality of suggestions. No difference was apparent between the sizes of the working groups with respect to the quantity and quality of the suggestions. Based on the results, the value of brainstorming is questionable.—*A. J. Ter Keursl.*

4124. Lebedun, Morty. (Mid-Missouri Mental Health Center, Columbia) **A technique for insuring good group attendance.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 138.—Persons wishing to attend a "smoker's" discussion group were required to provide a refundable deposit of \$20, of which \$5 would be deducted for every absence from a group session. 11 Ss met for 6 weekly sessions. Only 2 absences (4%) occurred with this approach.—*P. McMillan.*

4125. Loomis, Charles P. (Michigan State U.) **Wanted: A model for understanding and predicting change in natural and therapeutic groups and systems which are Gemeinschaft-like.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 131-136.—Bargaining, conflict, and game theories do not have the universal applications which analysts of the free world would have us believe. Models and procedures are needed which will explain the Gemeinschaft-like activity so that more perfect individuals and groups can be created.—*A. Krichew.*

4126. Marlatt, G. Alan. (U. Wisconsin) **A comparison of vicarious and direct reinforcement control of verbal behavior in an interview setting.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 695-703.—96 undergraduates were assigned to 3 experimental groups and 1 control group for the vicarious reinforcement variable. Ss were 1st exposed to a tape-recorded model, which described personal problems to an interviewer. Vicarious reinforcement was either positive, neutral, or negative; controls did not receive the model. For the test interview, Ss were assigned to 1 of 3 identical direct reinforcement conditions for their discussion of problems. Results show that all Ss who observed the model gave significantly more problems in the test interview than did control Ss. Both vicarious and direct reinforcement treatments were significant, but the vicarious condition produced the greatest effect (positive > neutral > negative). In a 2nd extinction interview, given 1 wk. later, only vicarious reinforcement remained a significant factor. Results are interpreted within a theoretical framework highlighting the information (instructional) aspects of verbal reinforcement. (17 ref.)—*Journal abstract.*

4127. Mausner, Bernard & Graham, Judith. (Beaver Coll.) **Field dependence and prior reinforcement as determinants of social interaction in judgment.**

Journal of Personality & Social Psychology, 1970(Nov), Vol. 16(3), 486-493.—Examined the relation of 1 situational manipulation and 2 measures of individual characteristics of the S, anxiety and field dependence, to behavior in a social interaction. 36 male high school Ss made judgments of rate of alternation of flickering light, 1st as ratings and then as absolute judgments. In the rating series each S was either positively or negatively reinforced and observed a fellow S receive a schedule of reinforcement opposite to his own. There were no main effects; neither the manipulation of prior reinforcement nor the measures of individual differences were associated with convergence by the S toward purportedly different judgments made by the fellow S. There was a significant interaction between prior reinforcement and field dependency. Field-dependent Ss responded in accordance with prior reinforcement; field-independent Ss did not. (29 ref.)—*Journal abstract*.

4128. McDowell, Kenneth V. (U. California, Riverside) **Violations of personal space.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 467.

4129. McKeigney, Alexander F. (U. North Carolina) **Reward and power acquisition and relinquishment in dyads.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 467.

4130. Myers, David G., Murdoch, Peter, & Smith, Gene F. (Hope Coll.) **Responsibility diffusion and drive enhancement effects on risky shift.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 418-425.—Small group discussion produced expected risky and cautious shifts on choice dilemma items. It was predicted from responsibility diffusion theory that, compared with low-anxious, high-defensive groups, high-anxious, low-defensive groups produce greater risky shift. It was predicted from drive enhancement theory that, compared with low-anxious groups, high-anxious groups produce greater risky shift on risk-dominant items and greater cautious shift on caution-dominant items. The results of 2 experiments failed to confirm either interpretation. Significant shifts were obtained in a control condition. (19 ref.)—*Journal summary*.

4131. Nemeth, Charlan. (U. Chicago) **Bargaining and reciprocity.** *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 297-308.—Numerous studies in the area of bargaining have attempted to raise the usual low level of cooperation between players by programing 1 person's play as cooperative. Implicit in the design of such studies is a notion of reciprocity, i.e., that Ss will feel obligated to return benefits. The failure of such attempts to raise the level of cooperation suggests an apparent contradiction between the norm of reciprocity, which is postulated as a universal norm, and findings of the bargaining studies which show little or no reciprocity. An attempt is made to resolve such a contradiction by addressing several variables intrinsic to the particular paradigm used in the bargaining studies. A selective review of the 2 literatures suggests that such variables intrinsic to the paradigms all operate in such a way as to inhibit a norm of reciprocity, and indeed help giving in general. It is concluded that the lack of reciprocity typically found in bargaining games is not because reciprocity is inoperative, but is rather due to the paradigms normally employed for the study of cooperation and competition. (38 ref.)—*Journal abstract*.

4132. Niedorf, Hannah R. (Washington U.) **Level of self-esteem and type of harm as determinants of a harmdoer's reaction to his victim.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5526.

4133. Northway, Mary L. **What is sociometry?** *Group Psychotherapy*, 1968, Vol. 21(2-3), 110-112.—Postulates that there are basic laws to social groupings and that these laws can be discovered through more refined uses of the basic Moreno sociogram.—*A. Krichev*.

4134. Peabody, Dean. (Swarthmore Coll.) **Symmetry and asymmetry in interpersonal relations: With implications for the concept of projection.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 426-434.—Interpersonal relations tend to be "symmetrical" or "asymmetrical," i.e., involve similar or dissimilar characteristics for the 2 parties, depending on the characteristics. Certain characteristics (e.g., love-hate) are, and are perceived to be, symmetrical, and others (e.g., dominance-submission) asymmetrical. A process of attributing to others characteristics that "explain" one's own would account for symmetrical projection for certain characteristics and asymmetrical projection for others. This reformulation can provide a simpler and more unified account for cases that are traditionally treated separately as "supplementary" and "complimentary" projection. (17 ref.)—*Journal summary*.

4135. Peters, David R. (U. California, Graduate School of Business Administration, Los Angeles) **Self-ideal congruence as a function of human relations training.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 199-207.—Examined the phenomenal self, and self-regard of 57 participants undergoing an intensive 2-wk human relations (laboratory) training program, using a 49-scale semantic differential instrument. Results indicate increases in participants' self-ideal congruence which were significant in 4 of the 6 T-groups, and in contrast to a comparison group of students in a human behavior seminar. Results were then compared and integrated with earlier conflicting studies. However, the increases in self-regard were not related to either outcome criteria of overall personal learning and change during the laboratory raising questions about (a) the validity of a self-ideal change index among normals, and (b) the sole reliance upon self-concept measures in assessing change. (23 ref.)—*Author abstract*.

4136. Pierce, Robert A. (U. Rochester, School of Medicine & Dentistry) **Need similarity and complementarity as determinants of friendship choice.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 231-238.—39 pairs of mutual-choice friends filled out the Jackson Personality Research Form A prior to becoming acquainted. A small but real effect of needs on friendship choice was demonstrated and the needs most relevant to friendship choice were isolated. Factors of "order vs. impulsivity," and "turning toward people vs. turning away from or against people" were found to be related to dyad formation, while factors relating to achievement, dominance, and understanding were found to be irrelevant. The 2 hypotheses previously advanced to explain the relation of needs to friendship choice were examined in the light of these data and the similarity hypothesis was found to be a more accurate predictor than the complementarity hypothesis. (28 ref.)—*Journal summary*.

4137. Post, Harry H. (Boston U., School of Education) **Self-actualization and the interpersonal relationship environment.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 383-384.

4138. Stevens, Owen J. (U. Washington) **Behavior patterns in power-nonsymmetric simulated conflict**

models: An experimental investigation. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5527.

4139. Tornatzky, Louis G. (Stanford U.) **The effects of threat, attraction, and balance on interpersonal bargaining.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5527-5528.

4140. Tumin, Melvin M. (Ed.) (Princeton U.) **Research annual in intergroup relations: 1970.** Chicago, Ill.: Quadrangle, 1970. x, 310 p. \$10.

4141. Wichman, Harvey A. (Claremont Graduate School & University Center) **Effects of isolation and communication on cooperation in a two-person game.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 471.

4142. Wyer, Robert S. & Lyon, John D. (U. Illinois, Chicago Circle) **A test of cognitive balance theory implications for social inference processes.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 598-618.—95 undergraduates inferred the likelihood of positive, neutral, and negative relations between elements in a triad both in the absence of prior information about other relations involving these elements and in the context of various information combinations differing in their affective quality. The stability of a situation in which the 3 relations occurred was also estimated. Data obtained in the absence of knowledge about other relations in the triad were used as norms relative to which inferences and stability ratings in the context of various relations were compared. When Ss were asked to infer all 3 of the relations in a triad, balanced sets generally occurred more frequently than would be expected by chances, but imbalanced relations did not occur less frequently than expected. Inferences under these conditions appeared to be primarily affected by a tendency to construct sets of relations that were similar to one another in affective quality. When Ss were asked to infer the 3rd relation in a triad given knowledge of the other 2 relations, balance theory was consistently supported only when the context consisted of 1 positive and 1 negative relation. In the context of 2 negative relations, results were frequently opposite to those predicted by balance theory. Results were often contingent upon both the type of elements (persons or objects) in the configuration and the type of inference required. However, the nature of these contingencies varied over context conditions. Stability ratings generally paralleled inference data. Results are taken as generally nonsupportive of balance theory. An alternative approach to the study of social inference processes is suggested. (21 ref.)—*Journal abstract.*

Influence & Communication

4143. Bhushan, L. I. (Bhagalpur U., India) **A scale of leadership preference.** *Psychological Studies*, 1969, Vol. 14(1), 28-34.—Reports the construction and standardization of a Likert-type 5-point scale to measure democratic and authoritarian leadership preferences. The final instrument consists of 30 items with percentile norms, and means and standard deviations based on 400 college students. Coefficient of internal consistency computed from the responses of 100 students was .74, and a retest reliability after 4 wk. on 50 Ss is reported as .79. Content and construct validity were used for validation. Item analysis is described in detail.—*U. Pareek.*

4144. Blake, Brian F. & Tesser, Abraham. (Purdue U.)

Interpersonal attraction as a function of the other's reward value to the person. *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 67-74.—Based upon a theory of interpersonal rewards, hypotheses were offered about the effects of 4 factors upon an S's attraction to an O: the importance of the interaction between S and O to S, S's control over O, the extent to which O complied with S's influence attempt, and O's attraction to S. 64 males took part in a simulated "management game" in which they were to influence 2 bogus subordinates. It was found that the effects of the independent variables were dependent upon the dimension on which the S evaluated the O. Results are discussed in terms of social comparison theory.—*Author abstract.*

4145. Glinski, Richard J., Glinski, Bernice C., & Slatin, Gerald T. (U. California, Graduate School of Education, Los Angeles) **Nonnaivety contamination in conformity experiments: Sources, effects, and implications for control.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 478-485.—By means of an expanded R. J. Crutchfield apparatus, 55 undergraduates were processed in 2 sessions of a conformity experiment designed to explore the sources and effects of S nonnaivety. Nonnaivety was found to originate in the preexperimental, intra- and intersession periods, and to derive, respectively, from prior knowledge, characteristics of the apparatus, task, and experimentally created group, and intersession contamination by previous Ss. Nonnaive Ss exhibited significantly less conformity than naive ones. Intersession contamination distorted the results of the conformity experiment.—*Journal abstract.*

4146. Lupfer, Michael. (Memphis State U.) **The effects of risk-taking tendencies and incentive conditions on the performance of investment groups.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 135-136.—A total of 36 3-member teams met for 6 sessions to play a modified version of the Project SOBIG Stock Market Game. Teams differed in their risk-taking disposition (either low-, moderate- or high-risk; 1/3 of the teams invested their own money; 1/3 were given money to invest. Teams of differing risk-taking disposition did not utilize different investment strategies. Teams investing their own money (a) transacted fewer lots of stock, (b) requested more market information, (c) accumulated a larger profit, and (d) exhibited a less stable influence hierarchy than teams investing another's money.—*Author abstract.*

4147. Mulder, Mauk & Wilke, Henk. (Utrecht U., Inst. of Social Psychology, Netherlands) **Participation and power equalization.** *Organizational Behavior & Human Performance*, 1970(Sep), Vol. 5(5), 430-448.—Criticizes the belief that participation in decision making will result in power equalization between "haves" and "have-nots." It is hypothesized that when great differences exist in the expert power (availability of relevant information) of group members, the participation process will provide the more powerful persons with greater opportunities for using their power, resulting in greater effective influence on the less powerful. An experiment was designed in which 2 variations of Other's expert power and 2 variations of S's extent of participation with Other (Other being a paper stooge) were manipulated. Measures included pre- and postmeasures of S's preference for a certain solution of a complex problem. E could determine whether or not S had changed his initial point of view to one similar to that advanced by Other and could discover S's reactions to

Other and to the influence process. 2 hypotheses were tested: (a) a higher degree of expert power of Other will result in more effective influence by Other on S than lower expert power; and (b) the more expert power possessed by Other, and the greater the extent of S's participation with Other in the decision-making processes, the greater Other's effective influence on S. Both hypotheses were strongly supported. The relevance of the tested theory and of other empirical data for "democratization processes" is discussed. (37 ref.)—*Journal abstract.*

4148. Napier, Herman S. (U. Arkansas) **Group learning: Divided task information and response capability.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 175-180.—Performed 2 experiments to test hypotheses developed from a simplified group learning model. Results support the view that both divided task information and response capability significantly reduce group effectiveness, particularly in the early stages of group development. The possibility was offered that this reduction may be due to a loss in communication and information gathering potential rather than the simple result of a reduction in physical response capability.—*Author abstract.*

4149. Rounow, Ralph L. (Temple U.) **Adding and averaging effects in impression formation as a function of the situational context.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 127-135.—66 male and 66 female undergraduates made comparative judgments of paired sets of simultaneously presented income stimuli. The pairs were constructed so that the sum of the values was higher in 1 set than in the other, while the mean income was simultaneously higher in the latter set than in the former. When the incomes within a set were represented as all belonging to the same person or when the incomes were attributed to different members of a family, both men and women tended to rate higher in economic status whichever sets of stimuli had the higher sums in direct relation to the manipulated discrepancy between sums. When the same stimuli were attributed to different members of a group, both sexes rated higher in economic status whichever sets had the higher arithmetic mean values in direct relation to the manipulated discrepancy between arithmetic means. The significance of this finding is in demonstrating that the stimulus-combination rule in impression formation is at least partially predicated upon situational determinants and that neither simple summation nor simple averaging is an exclusively valid or invalid combinatory principle. (35 ref.)—*Journal abstract.*

4150. Solomon, Arthur; Perry, Steven, & Devine, Robert. (Antioch Coll.) **Interpersonal communication: A cross-disciplinary approach.** Springfield, Ill.: Charles C. Thomas, 1970. vii, 108 p. \$8.50.

4151. Stricker, Lawrence J., Messick, Samuel, & Jackson, Douglas N. (Educational Testing Service, Div. of Psychological Studies, Princeton, N.J.) **Conformity, anticonformity, and independence: Their dimensionality and generality.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 494-507.—Examined the dimensionality of responses of high school students to group pressure and its generality across procedures employing different kinds of social situations and experimental tasks. 2 group pressure procedures were based on the Asch situation (counting clicks and responding to attitude items), and 2 others involved questionnaires with fictitious average answers (estimat-

ing probabilities of events and responding to attitude items). Conformity, anticonformity, and independence responses on each of these 4 procedures were factor analyzed, separately for Ss unsuspicious (N = 43) about the deceptions employed in these devices and for suspicious Ss (N = 67). Conformity and anticonformity appeared to represent 1 bipolar dimension, and conformity and independence seemed to involve another bipolar dimension. These responses were not consistent across procedures; the devices functioned differently, particularly for unsuspicious Ss. (61 ref.)—*Journal abstract.*

4152. Willis, Richard H. (U. Pittsburgh) **The conscientious cartographers: A fable inspired by Stricker, Messick, and Jackson.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 508-509.—Presents a mythical illustration to demonstrate the necessity for distinguishing between Cartesian coordinates and test (or score) vectors, with special reference to an interpretation given by L. J. Stricker, S. Messick, and D. N. Jackson (see PA, Vol. 45:Issue 3) to R. H. Willis' diamond model of conformity and nonconformity. A reply by Stricker, Messick, and Jackson follows.—*Journal abstract.*

4153. Willis, Richard H. & Willis, Yolanda A. (U. Pittsburgh) **Role playing versus deception: An experimental comparison.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 472-477.—Ran 96 male and female undergraduates in 6 replications of a 2^d design. Independent variables were level of disclosure (deception vs. role playing), perceived relative task competence, instructional set, and sex of Ss. The dependent variable was net conformity. Data were analyzed as 2 separate 2³ subexperiments. An obvious main effect exhibited by deceived Ss was nicely duplicated by the role-playing Ss. However, a more subtle interaction effect, also clearly exhibited by deceived Ss, was not apparent in any degree in the behavior of role-playing Ss. (21 ref.)—*Journal abstract.*

Social Perception & Motivation

4154. Bartel, Helmut W. (Indiana U.) **Attributions of ability and motivation in person perception and the locus of control of the perceiver.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 462.

4155. Berkowitz, Leonard. (U. Wisconsin) **Aggressive humor as a stimulus to aggressive responses.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 710-717.—To test the notion that the witnessing of aggressive humor can produce a cathartic purge of the O's aggressive inclinations, 80 female undergraduates were 1st either angered or not aroused by having them hear a job applicant's statements about university women. In a factorial design, Ss then listened to a 4-min tape recording, either of a nonhostile or a hostile comedian. When Ss rated the job applicant on several measures immediately afterwards, knowing their comments might affect the applicant's chances of getting the job, the women who had heard the aggressive humor were more aggressive toward the applicant than were the women who had listened to the neutral humor. Several other studies purporting to demonstrate the cathartic influence of aggressive humor are discussed. (19 ref.)—*Journal abstract.*

4156. Boulware, Donald W. & Holmes, David S. (Community Mental Health Services, Flint, Mich.)

Preferences for therapists and related expectancies. *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 269-277.—60 male and 60 female undergraduates were shown slides of the faces of potential therapists, older males, younger males, older females, and younger females. Ss indicated how much they would like to talk to each individual if they had a personal or vocational problem. They also indicated how they thought each therapist would act in a discussion and what each was like as a person. Older males were the preferred therapists in all cases except for women with personal problems who tended to prefer older women. Preferences seemed to be related to high expectancies on therapy relevant variables, especially understanding, rather than to similarity to the students. Students' social classes and parent-child relationships were not related to preferences. (23 ref.)—*Journal abstract*.

4157. de Mille, Richard. (General Research Corp., Santa Barbara, Calif.) **Logical and empirical oppositeness in value responses.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 143-154.—Analyzed free value responses from 555 Ss in 16 domestic and foreign samples to see whether good and bad behaviors named by Ss would fall into logically opposite categories and whether logically opposite categories would be correlated across the numbers of Ss represented in them. It is concluded that free responses about good behaviors should not be mixed with those about bad behaviors, because good and bad are not necessarily empirical opposites even when they are logical opposites. (15 ref.)—*Journal abstract*.

4158. DiStefano, Joseph J. (Cornell U.) **Interpersonal perceptions of field independent and field dependent teachers and students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 463-464.

4159. Doise, Willem. **Les stratégies de jeu à l'intérieur et entre des groupes de nationalité différente.** [Interplay strategies internally and between groups of different nationalities.] *Bulletin Centre d'Études et Recherches Psychotechniques*, 1969(Jan), Vol. 18(1), 13-26. Attempted to verify the theory that: (a) the temporary belonging to 2 groups of conflicting interaction may coincide with previous belonging to different social groups, and (b) the discrimination toward the other group will be greater than in the case where no previous ties exist, and in the case where these ties are again present within the temporary interest group. A non-O situation within and between couples composed of young French and German Ss was employed. A discrimination was consistently observed toward the other couple on the behavioral level and on the level of the projection of expressed motivations and expectations. Behavioral discrimination was most pronounced when the 2 couples were of different nationality. (Spanish summary)—*English summary*.

4160. Duflos, André; Zaleska, Maryla, & Desportes, Jean P. (Centre National de la Recherche Scientifique, Paris, France) **La facilitation sociale: Un vieux problème toujours sans solution.** [Social facilitation: An old problem remaining without solution.] *Bulletin Centre d'Études et Recherches Psychotechniques*, 1969(Jan), Vol. 18(1), 27-42.—Compares the influence exerted by individuals and by interference activity on the performance of 14 male and 46 female isolated, observed, and perturbed undergraduates who were required to recall nonsense syllable words. Results failed to support Zajonc's hypothesis of increased drive level and

of perturbation produced by the presence of other individuals. The lack of validity of Zajonc's hypothesis is discussed. (Spanish & English summaries) (15 ref.)—*B. A. Stanton*.

4161. Halcomb, Charles G., McFarland, Barry P., & Waag, Wayne L. (Texas Technical Coll.) **Motivation and the human monitor: II. Source of instructions.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 145-146.—Tested the hypothesis that Ss identifying with or having high admiration for E would perform better in a vigilance task than control Ss to which E was unknown. Results from 24 undergraduates are insufficient to support the prediction, but it is hypothesized that this failure may be due to the original level of motivation of the individual Ss.—*Journal abstract*.

4162. Hamilton, David L., Thompson, John J., & White, Andrew M. (Yale U.) **Role of awareness and intentions in observational learning.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 689-694.—37 male undergraduates observed confederates in a verbal conditioning experiment. The E either gave social reinforcement whenever a confederate used a critical word category (models-reinforced condition) or gave no reinforcements at all (models-not-reinforced condition). Significant pre- to postobservation performance changes were found only for Ss in the models-reinforced condition who (a) were aware of the contingency between models' responses and E's reinforcements, and (b) expressed a positive intention to imitate the models' behavior. Alternative theoretical interpretations of the data are discussed.—*Journal abstract*.

4163. Hartnett, John J., Bailey, Kent G., & Gibson, Frank W. (Virginia Commonwealth U.) **Personal space as influenced by sex and type of movement.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 139-144.—Concentrated on sex-of-S, sex-of-object, and type of movement on personal space behavior. 64 undergraduates served as Ss. The distance measures were based on S movement toward the object person and the object person's movement toward the S. The type of movement variable was significant, showing that Ss, especially the females, allowed the object person to move closer to them than vice versa. Correlations between the opposite-sex movement conditions and a measure of heterosexuality showed a slight trend for smaller distances to be associated with high heterosexuality. The highest correlation was obtained on the female object approaching the male S condition. It is concluded that the obtained personal space behaviors are best interpreted in terms of sex-role factors rather than any "human territorial" concept.—*Author abstract*.

4164. Henshel, Richard L. (Cornell U.) **Early impressions in the perception of persons: The effects of cue presentation time and sequence upon group structure and personality.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5524.

4165. Houston, B. Kent & Hodges, William F. (U. Kansas) **Situational denial and performance under stress.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 726-730. Reanalyzed the data for 2 stress groups of 54 undergraduates each from a previously conducted experiment by W. F. Hodges (see PA, Vol. 42, 8262) 3 coping groups, denial, neutral, and accentuator, were defined on the basis of discrepancies between self-report and physiological measures of stress. As predicted, Ss in the denial group performed better

under stress than Ss in the accentuator group, and Ss in the neutral group performed in a manner intermediate between the other 2. Differences between this study and studies in which defensiveness was measured by questionnaires are discussed, as are possible reasons why Ss in the accentuator group seem to be particularly vulnerable to adverse effects of stress. (16 ref.)—*Journal abstract*.

4166. Kohn, Paul; Waxer, Peter; Baumanis, Kyle, & Ruggles, Robin. (York U., Toronto, Ontario, Canada) **Person comparison and the set-size effect in impression formation.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 307-321.—Exp. I with 46 undergraduates, and 2 replications with an independent-groups design failed to demonstrate a set-size effect. Subsequent experiments explored the roles of person comparison and demand characteristics in the set-size effect. Exp. II, with 84 Ss, showed a highly significant, largely linear set-size effect for simultaneous exposure to several sketches, but not for exposure to a single sketch. In Exp. III, with 98 Ss, which featured successive exposure to several sketches, significant linear set-size effects were obtained in the target-1st and -2nd conditions; however, the significant set-size effect for target-3rd was quadratic. Dry-run simulations of Exp. II and III, respectively, failed to support a demand-characteristic interpretation. It is concluded that the magnitude and form of set-size effects depend on (a) whether person comparison is available, and (b) whether the comparative information is exposed simultaneously or successively. (French summary) (25 ref.)—*Journal abstract*.

4167. Podd, Marvin H., Marcia, James E., & Rubin, Barry M. (State U. New York, Psychological Clinic, Buffalo) **The effects of ego identity and partner perception on a Prisoner's Dilemma game.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 117-126.—Interviewed 56 male and 56 female undergraduates to determine their identity status, and then played a Prisoner's Dilemma game with either a high or low authority opponent under feedback that changed either from cooperation to competition or from competition to cooperation. Moratorium (in crisis) Ss cooperated less with high than low authority opponents—interpreted as rebellion—and also matched their responses to their opponents' more often than the other statuses (interpreted as need for guidance in decision-making). Moratoriums' high anxiety manifested itself in longer response latencies under increasing competition. Partner perception as high as opposed to low authority yielded significantly longer response latencies. A previously established order effect was replicated and then shown to be accounted for primarily by the moratoriums. (27 ref.)—*Author abstract*.

4168. Rosenberg, Seymour & Olshan, Karen. (Rutgers State U.) **Evaluative and descriptive aspects in personality perception.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 619-626.—Investigated the dimensions underlying person perception, with special attention given to the evaluative dimension. Each of 30 undergraduates described approximately 10 individuals he knew by assigning a subset of 60 personality traits to each individual. The traits supplied to the Ss in this trait-sorting task were selected from a trait-inference study by D. Peabody. The 60 traits were scaled by J. B. Kruskal's program, with a cooccurrence measure for each pair of traits serving as input data. Linear multiple regression was then used to locate an axis in the

3-dimensional space for each of 9 independently rated properties of the traits; 3 of these properties are evaluative. The correlations between each of the 9 properties and the trait space are all at least .75 and are all significant beyond the .001 level. A scoring artifact was discovered in Peabody's data analysis, which accounts for the absence of an evaluative dimension in his study. A reanalysis of his data with artifact removed reveals the presence of a strong evaluative dimension, independent of any particular descriptive dimension. The reanalysis is consistent with the trait-sorting results and with previously published findings by other investigators. (15 ref.)—*Journal abstract*.

4169. Soucar, Emil. (Temple U.) **Students' perceptions of liked and disliked teachers.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 19-24.—Investigated 50 high school seniors' perceptions of liked and disliked teachers, using a variation of Kelly's Repertory Test. It was predicted that disliked teachers would be differentiated more than liked teachers and that female Ss would differentiate more among disliked teachers than would male Ss. For the total sample, negatively valued persons were differentiated more than positively valued persons, but there were no significant sex differences with regard to negatively valued persons. Male Ss differentiated all teachers, irrespective of value, significantly more than female Ss did. The significant difference between liked and disliked teachers supports the vigilance hypothesis suggested by H. Miller and J. Bieri. There was no readily apparent explanation why male Ss were more cognitively complex than female Ss. That male Ss designated more male than female teachers as both liked and disliked is discussed.—*Journal abstract*.

4170. Taber, Edith S. (Illinois Inst. of Technology) **Decoding of consistent and inconsistent attitudes in communication.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 386-387.

COMMUNICATION

4171. MacKay, Donald M. (U. Keele, England) **Information, mechanism and meaning.** Cambridge, Mass: Massachusetts Inst. of Technology Press, 1969. viii, 196 p. \$2.95(paper).

4172. McGuigan, F. J. (Hollins Coll.) **Covert oral behavior during the silent performance of language tasks.** *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 309-326.—Summarizes and evaluates research in which covert oral responses were recorded. In early studies mechanical sensing devices were used while later research has exclusively employed EMG. 3 major criteria were used in evaluating research on the silent performance of language ("thinking") tasks, leading to the following conclusions: (a) covert oral behavior significantly increases over base line; (b) increased covert oral behavior is accompanied by increased respiration rate and increased amplitude of EMGs in the preferred (writing) arm, but appears to be relatively independent of other nonoral behavior; and (c) covert oral behavior does not appear to typically increase during the performance of nonlanguage tasks. A set of 5 directly relevant findings leads to the conclusion that covert oral behavior during the silent performance of language tasks serves a language function; mediational theories, built on overt behavior, help to suggest more precisely that the covert oral response facilitates the reception of external language stimuli and the internal processing of that

information. Physiological considerations indicate complex and rapid feedback loops between speech regions of the brain and the speech musculature. These loops may function in the process of internal communication. (53 ref.)—*Journal abstract.*

4173. Mehrabian, Albert. (U. California, Los Angeles) **A semantic space for nonverbal behavior.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 248-257.—Reviews evidence relevant to the conceptualization of the referents of nonverbal behavior. 3 dimensions seem to evolve consistently from studies of both verbal and nonverbal behavior to account for the bulk of the variability of the referents. These are evaluation; potency or status, and responsiveness. Increases in positive evaluation are denoted by immediate positions and postures (e.g., a closer position, more forward lean, more eye contact, and more direct orientation); increases in potency or status are denoted by greater degrees of postural relaxation; and increases in responsiveness by greater activity (e.g., facial activity, speech intonation, or speech rate). (36 ref.)—*Journal abstract.*

4174. Television Research Committee. **Second progress report and recommendations.** Leicester, England: University Press, 1969. 106 p.

Language

4175. Bradshaw, John L. (Monash U., Clayton, Victoria, Australia) **Phonetic homogeneity and articulatory lengthening.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 499-507.—Performed 2 experiments with 20 undergraduates to determine the extent of increase in articulation times with nonsense words containing strings of phonetically similar consonants, compared with when the successive consonants belonged to different articulatory categories. An average increase in excess of 33% was found even when stuttering and other speech prolongations were controlled. This figure exceeded the increase in articulation times obtained under delayed auditory feedback. The absence of an interaction between the latter and the degree of articulatory difficulty of the material was considered consistent with a motor hypothesis, rather than with a model emphasizing such sensory effects as feedback or trace monitoring. Articulation is considered as a complex motor skill subject to such phenomena as interference between components and process overlap.—*Journal abstract.*

4176. Brislin, Richard W. (Penn State U.) **Back-translation for cross-cultural research.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 185-216.—Translation or back-translation of 6 essays with 3 content areas and 2 levels of difficulty were performed by 94 bilinguals representing 10 languages. Content, difficulty, language, and content-language interaction all significantly affected translation quality. (35 ref.)—*A. Krichew.*

4177. Coston, Gale N. (U. Georgia) **A study of the effects of omissions and substitutions of selected consonants on intelligibility.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 433.

4178. Gougenheim, G. **Modalités et modes verbaux en français.** [Verbal modalities and modes in French.] *Journal de Psychologie Normale et Pathologique*, 1970(Jan), Vol. 67(1), 7-17.—Presents a historical resumé of French literature, including plays, poems, and novels

which provides examples to point out various usages of style from a technical, grammatical viewpoint. It is concluded that the system of expression of modalities appears much more complex than believed, and that the idea of a "verbal mode" is neither clear nor homogeneous.—*L. A. Ostlund.*

4179. Heise, David R. (Queens Coll., City U. New York) **Potency dynamics in simple sentences.** *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 48-54.—Reports a study to develop prediction equations for potency. Results from ratings by 90 undergraduates show that original impressions of potency associated with words combine in predictable ways when the words are entered into sentences. The subject of the sentence takes on the potency characteristic of the verb and object, whereas the object word takes on some characteristics of the subject and verb, but also is reduced in potency merely by virtue of its object position.—*Journal abstract.*

4180. Huttar, George L. (Speech Communications Research Lab., Santa Barbara, Calif.) **Relations between prosodic variables and emotions in normal American English utterances.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 481-487.—The emotional states of an adult male American speaker, as reflected in 30 utterances, were evaluated by 12 Ss on 9 7-point semantic differential scales. Ss also evaluated the utterances on similar scales for pitch, loudness, and speed. Significant correlations were found between some acoustic variables and the judgments of some types of emotion. Higher correlations were found between the acoustic variables and judgments of degree of emotion. Correlation coefficients between judgments of emotion and of prosodic features were in general higher than the correlations involving the acoustic variables. Degree of perceived emotion was found to be highly and positively correlated with fundamental frequency range and intensity range. A causal explanation of these relations in terms of human physiology is suggested. (23 ref.)—*Journal abstract.*

4181. Impellizzeri, Irene. (Brooklyn Coll., City U. New York) **Use of the verbal summator technique with language and nonlanguage majors in college.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 143-149.—A set of meaningless vowel patterns presented on the "tautophone" was used to study latent speech with 40 college students. 10 Ss were drawn from each of 4 majors: English, foreign languages, mathematics, and social studies. Foreign language majors, each of them fluent in at least 2 foreign languages, demonstrated greater capacity for storage and retrieval of verbal material than did majors in other disciplines. Their responses also showed greater variety and rhythmic and phonetic congruence with the stimulus.—*Author abstract.*

4182. Ludwig, David & Moore, Michael. (Concordia Senior Coll.) **Language and gender shaping.** *International Journal of Symbolism*, 1969(Aug), Vol. 1(1), 25-27.—In order to determine the extent to which a specific language influences the way a person perceives a certain object or concept, the semantic differential was used to determine whether German-language students perceive the gender of common English words significantly different than do students with little German background. The results showed significant, positive differences in 29 out of 50 words, and this was construed to be an affirmation of the hypothesis.—*Journal abstract.*

4183. Pandey, R. E. (Lincoln U.) **A study of word**

transformation. *Psychological Reports*, 1970(Feb), Vol. 26(1), 295-298.—Investigated word-transformation ability in 37 undergraduates on probation. Tests for 3-, 4-, and 5-letter words which had only 1 possible transformation were constructed. There were 24 items in each category. Results indicate that it is easier to transform 3-letter words than 4-letter words which in turn are easier to transform than 5-letter words. The mean differences and correlations among these categories are significant ($p = .01$). The ability to transform words of various lengths is not several separate abilities, but one.—*Journal abstract*.

4184. Schaeffer, Benson & Wallace, Richard. (U. Oregon) **Semantic interference: Obligatory or optional?** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 335-337.—Demonstrated that semantic similarity interference in different meaning judgments is a function of obligatory memory processes, not of optional ones. 40 undergraduates served as Ss. When the judgment task was embedded in a larger memory task, so that Ss' information-processing capacities were taxed, semantic interference was greater than it was when processing capacities were not taxed. Results argue that interference was obligatory. If interference were optional, taxing Ss' processing capacities should have lessened it, i.e., made the retrieval and use of the interfering information more costly. Because interference increased when capacities were taxed, it is concluded that the interference was a function of obligatory processes over which Ss had no control.—*Journal abstract*.

4185. Schaeffer, Benson & Wallace, Richard. (U. Oregon) **The comparison of word meanings.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 144-152.—Argues that data on 2-word meaning comparisons reflect only the comparison process, not the retrieval from or the organization of semantic memory. A model of comparison is proposed which handles the available data without making assumptions about retrieval or organization. 8 undergraduates served as Ss in 5 experiments. Exp. I supports the model by showing that semantic similarity interferes with the judgment that 2 words have different meanings, and disconfirms A. M. Collins and M. R. Quillian's major alternative model, which assumes that the data on 2-word comparisons reflect retrieval and organization. Exp. II-V demonstrate an important boundary condition for the proposed model: when Ss respond only to the names of words, formal semantic similarity has no effect on the judgment that 2 words have different meanings.—*Journal abstract*.

4186. Taylor, Linda L., Guiora, Alexander Z., Cafford, John C., & Lane, Harlan L. (U. Michigan, Center for Research on Language & Language Behavior) **The role of personality variables in second language behavior.** *Comprehensive Psychiatry*, 1969(Nov), Vol. 10(6), 463-474.—Attempted to construct a unique and direct method of measuring empathy, i.e., the micro-momentary-expression technique, which consists of selecting 30-sec sequences from a 16-mm film of a patient in an interview situation. Results from testing 31 controls and 28 experimental Ss, all undergraduates, indicate that the technique was not successful. However, "important and significant relationships between authenticity of pronunciation of a 2nd language and constellations of factors representing the personality variables of empathy and intuition have been found, confirming the hypothesis under investigation and the underlying psychological

theory. It has been shown that personality characteristics interacting with the interpersonal situation of language learning result in differences in language performance, specifically in the authenticity of pronunciation." The empathy dimension is significantly related to the ability to learn and recall exact details in the pronunciation of a 2nd language, accounting for more than $\frac{1}{2}$ the variance of this skill. Fluency in 2nd-language pronunciation often seems to reflect self-confidence and a degree of narcissism, and the ability to mimic well seems void of empathic understanding.—*D. Prager*.

4187. Yu, Kay C. **Language sounds as cues in judging characteristics of national groups.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 120-131.—Investigated whether language sounds of a given national group could be significant cues for judging characteristics of that group by people from a different culture. Korean and Hindi were employed as stimulus languages on 136 undergraduates, divided randomly into 5 groups. 2 groups of Ss were presented with the sounds of the languages, 2 groups with the sounds and the names of the languages, and 1 with the names of the national groups. Ss were asked to rate the characteristics of the national groups on 20 semantic differential scales. Results showed no significant differences. Korean and Hindi language sounds produced very similar judgments on the characteristics of the speakers. However, different scales were judged significantly in a given direction under different stimulus conditions, and the sounds of the languages resulted in more directional judgments than those of the names of the national groups.—*Journal abstract*.

Psycholinguistics

4188. Drinkwater, Betty A. (U. Queensland, St. Lucia, Australia) **Generalization of responses to verbal stimuli.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 179-183.—Employed a lever-pressing technique with 30 undergraduates to investigate the hypothesis that affective intensity contributes to the strength of the associative connection between words and influences semantic generalization. Motor responses to high affect stimuli and their dominant associates were compared with responses to low affect stimuli and their dominant associates (the associative frequency being matched for both groups). There was significantly more response, and generalization of response, to high affect than to low affect stimuli. In the initial, incidental learning situation, associative frequency was an important factor in generalization, but this effect declined in the retest. It is concluded that affective intensity is a significant variable in both the incidental and the controlled learning of meaningful words, and in semantic generalization.—*Journal abstract*.

4189. Fonagy, Ivan. **Les bases pulsionnelles de la phonation.** [The instinctual bases of phonation.] *Revue Française de Psychanalyse*, 1970(Jan), Vol. 34(1), 101-136.—Metaphors used to qualify sounds common to most languages (e "clear," o "grave," k,t,p "hard," m,l,n, "soft," etc.) cannot always be explained by their acoustic quality, or by tactile and muscular sensations produced by the movements of the tongue. The key to the seemingly unexplainable metaphors in unconscious associations of the phonic act (the act of uttering a sound) to various drives is presented. The proposition is supported by tests with children and adults of different

nationalities, with deaf and blind children, and examples from world literature and actors' use of pronunciation and facial gestures to emphasize different emotions (aggression, tenderness, eroticism).—*A. Doman.*

4190. Hartsough, Ross & Laffal, Julius. (U. Scranton) **Content analysis of scientific writings.** *Journal of General Psychology*, 1970(Oct), Vol. 83(2), 193-206.—Explored whether scientists who have been described as visual imagists (biologists and experimental physicists) will differ from scientists who have been described as verbal imagists (social scientists and theoretical physicists) in the typical content of their writing. Writings of such scientists were analyzed by computer for content, and profiles of content were factor analyzed. Highly represented on Factor I were anthropologists (representing social science) and theoretical physicists. This "verbal" factor contains content suggestive of a humanistic orientation, with many words relating to knowledge and thinking, to groups, to giving and receiving help, and to what is good. Factor II was related to the writings of physicists, both theoretical and applied. Biological writings loaded highest on Factor III. There was no factor that could be identified as a "visual" one. This suggests that the contrast between verbal and visual cognitive orientations may actually be a contrast between those with a central humanistic concern and those who do not have this same central interest. (21 ref.)—*Author abstract.*

4191. Panagos, John M. (Ohio U.) **A psycholinguistic study of phonetic adaptation and phonological interference.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 420.

AESTHETICS

4192. Bush, Lewis M. (U. Maryland) **The genesis of the American psychological novel.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 352.

4193. Francès, R. **Intérêt et préférence esthétique pour des stimuli de complexité variable.** [A comparative study of interest and esthetic preference for stimuli of variable complexity.] *Journal de Psychologie Normale et Pathologique*, 1970(Apr), Vol. 67(2), 207-224.—Ss were 30 students and 30 workers of the same age. Linear figures were presented by pairs in 2 scales for students and workers, respectively. The variable manipulated was complexity, and the time of exploration was measured. Ss chose the figure of the pair that they preferred and judged most interesting. It was found that students showed a greater tolerance for complexity than workers, and associated less frequently than workers both preference and interest in the same figures. It was also found that complexity has more distinctly differentiating effects for both students and workers than does preference and interest.—*L. A. Ostlund.*

4194. Gregson, R. A. (U. Canterbury, Christchurch, New Zealand.) **An aesthetic hedonic contrast paradox.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 225-232.—Reported a paradox in the relative hedonic evaluation of pictures, and distinguished 2 forms of the paradox: strong and weak. Sequences of gradually changing pictures were valued by 48 high school students on a scale from 1-100 relative to the 1st member of the sequence with a fixed value of 10. Pooled results show the last picture in a sequence was always valued more highly than the 1st, even if the identity of the pictures involved was reversed; individual analyses reveal a less

consistent and more complex pattern of responses. The paradox may be resolved by an explanation in terms of individual Ss shifting their frames of reference with successive stimuli. (20 ref.)—*Journal abstract.*

4195. Plunkett, James T. (U. Minnesota) **The quest for a father-God in the fiction of Thomas Wolfe.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 399.

4196. Roddey, Gloria J. (U. Kentucky) **The metaphor of counsel: A shift from objective realism to psychological subjectivism in the conceptual cosmology of Puritanism.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 367-368.

4197. Smits, W. C. **Ervaringen in de experimentele esthetika.** [Experience in experimental esthetics.] *Gawein*, 1969(Mar), Vol. 17(2-3), 134-142.—Distinguishes between empirical and experimental esthetics on the basis of purpose, i.e., evaluative and developmental. The fact that art can be useful in applied psychology, i.e., the restoration of disturbed psychofunctions, is emphasized. (26 ref.)—*English abstract.*

4198. Tyrner-Stastny, Alice G. (Cornell U.) **Indo-Anglian literature and the Colonial Indian elite.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 470-471.

SMOKING & DRUG & ALCOHOL USE

4199. ———. **Seminar on Drugs for Escape or Religious Experience: Report from Religious Education Association Annual Convention.** *Religious Education*, 1970(Mar), Vol. 65(2), 176-183.—Using a chemical or drug in such a way that it interferes with normal functioning defines drug abuse. 5 classes of psychopharmacological agents having different and varying effects include: sedatives (primarily barbiturates and alcohol); narcotics, such as the opiates; tranquilizers; energizers; and psychedelics. Discussion concerned drug management, hypothesized motivation of drug users, and unique effects of psychedelic drugs (including psychotic experience, extreme mental clarity, esthetic experience, reliving the past, and peak experiences). Aspects of counseling drug users, legal implications of drug use, appropriate drug uses, and recent sources dealing with drug use and abuse received consideration.—*S. E. Gavin.*

4200. Barron, Stanley P., Lowinger, Paul, & Ebner, Eugene. (Community Psychiatric Consultants, Scarborough, Ontario, Canada) **A clinical examination of chronic LSD use in the community.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 69-79.—Of 20 LSD users examined, most chronic users had long-standing personality disorders antedating the use of the drug and apparently not made worse by 2-3 yr. of LSD use. At the same time there was no evidence of significant benefit from the use of the drug. There is a strong tendency to decreasing use among the chronic users. A need and demand for information about LSD is still present despite a virtual ban on such research in the United States since 1966. (18 ref.)—*D. Prager.*

4201. Dolke, A. M. (Textile Industry's Research Assn., Ahmedabad, India) **Extraversion, neuroticism and cigarette smoking in India.** *Journal of the Indian Academy of Applied Psychology*, 1969, Vol. 6(2), 38-42.—Smokers showed significant positive correlations with extraversion (.68 to .71), while negligible correlations were observed with neuroticism scores. The

highest smoking group scored high and the lowest smoking group scored the lowest on extraversion. F ratios on neuroticism, age, as well as income of the 4 groups (3 smokers and 1 nonsmoker) were not significant, indicating that these groups do not differ much in these factors.—U. Pareek.

4202. Harris, Robert T., McIsaac, William M., & Schuster, Charles R. (Eds.) (Texas Research Inst. of Mental Sciences, Houston) **Advances in mental science: II. Drug dependence.** Austin, Tex.: U. Texas Press, 1970. xiv, 342 p. \$10.—Presents 24 papers read at the 2nd annual symposium sponsored by the Texas Research Institute of Mental Sciences. Various authors including physicians, lawyers, research scientists, and social workers deal with physical and psychological dependence resulting from drug abuse, its causes, treatment, and social consequences. Work concerned with treatment of addicts by use of narcotic antagonists and strong analgesics with reduced dependence capacity is also included.

4203. Manheimer, Dean I., Mellinger, Glen D., & Balter, Mitchell B. (Langley Porter Neuropsychiatric Inst., Family Research Center, Berkeley, Calif.) **Marijuana use among urban adults.** *Science*, 1969(Dec), Vol. 166(3912), 1544-1545.—Interviewed 1104 men and women, 18 yr. of age or older, to determine the generality of marihuana use in a large metropolitan city among older persons and young adults. Results indicate that a relatively high proportion of young adults (as many nonstudents as students) have used marihuana 1 or more times. Almost no adults over 30 reported using LSD, and only 9% of men and 1% of women over 35 reported having used marihuana.—*Journal abstract.*

4204. McFall, Richard M. (U. Wisconsin) **Effects of self-monitoring on normal smoking behavior.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 135-142.—16 Os unobtrusively monitored 16 undergraduates' smoking frequency and duration throughout base-rate, experimental, and return-to-base periods. In the experimental period, Ss self-monitored either their frequency of smoking or not smoking. Smoking frequency and duration were significantly affected by such self monitoring, indicating that self-monitoring is a reactive data-gathering procedure. (15 ref.)—*Journal abstract.*

4205. Mitchell, Kenneth R., Kirkby, Robert J., & Mitchell, Daphne M. (U. New South Wales, Sydney, Australia) **Drug use by university freshmen.** *Journal of College Student Personnel*, 1970(Sep), Vol. 11(5), 332-336.—Investigated the incidence of drug use and age of initial drug contact, source and reason for taking drugs, and the relationship between drug use and perceived harmony of the parents' marital relationship for 71 off-campus freshmen at the University of Sydney. As expected, the use of tobacco and alcohol was considerably higher, while the age of initial contact was much younger, than for all other drugs. Large differences were found with results of reports of related research. Curiosity, academically related stress, and conformity were the major motivating factors cited by the drug users sampled.—R. H. Mueller.

4206. Orne, Martin T. (Pennsylvania Hosp., Philadelphia) **From the subject's point of view, when is behavior private and when is it public: Problems of inference.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 143-147.—Raises methodological questions concerning R. M. McFall's (see PA, Vol.

45:Issue 3) study of the effect of self-monitoring on smoking behavior. It is emphasized that results of such studies should be evaluated from the viewpoint of the S rather than the investigator. Some measures assumed to be unobtrusive by the investigator share qualities of deception experiments, and, therefore, it must be determined whether it is the S or the E who is deceived. Procedures that may be helpful in clarifying such questions and the difficulties of generalizing results to other contexts are discussed.—*Journal abstract.*

4207. Smith, Roger C. (U. California, Berkeley) **The marketplace of speed: Compulsive methamphetamine abuse and violence.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 492-493.

4208. Swisher, John D. & Horman, Richard E. (Pennsylvania State U.) **Drug abuse prevention.** *Journal of College Student Personnel*, 1970(Sep), Vol. 11(5), 337-341.—Discusses the effect of a federally granted program entitled "A Retreat on the Hazards of Drug Abuse" in which undergraduate and graduate students as well as administrative staff members were invited to attend. Results indicate that the program was particularly effective in increasing the participant's level of information regarding drugs, had a favorable impact on the attitudes of undergraduate students particularly with regard to marihuana, and stimulated the participants to further acquire and disseminate information related to drug education.—R. H. Mueller.

4209. Taylor, Robert L., Maurer, John I., & Tinklenberg, Jared R. (5454 Wisconsin Ave., Chevy Chase, Md.) **Management of "bad trips" in an evolving drug scene.** *JAMA: Journal of the American Medical Association*, 1970(Jul), Vol. 213(3), 422-425.—Discusses the problems created by the rising incidence of psychedelic drug usage and the evolution of new drugs. Diagnostic complications from indiscriminate ingestion, contamination, and adulteration are considered, along with serious treatment problems which may arise. Suggestions are made for treating the "bad tripper," emphasizing that "protection of the individual from dangerous behavior either to himself or others should be a fundamental concern in treating the bad trip." In managing bad trips, the establishment of verbal contact with minimal use of tranquilizers is suggested. Types and doses of medication to help cases where severe ego disruption has occurred are discussed. Suggestions are made for physician counseling and physical and mental examinations, including follow-up treatment.—P. Hertzberg.

4210. Vaillant, George E., Brighton, Jane R., & McArthur, Charles. (Tufts U., Medical School) **Physicians' use of mood-altering drugs: A 20-year follow-up report.** *New England Journal of Medicine*, 1970(Feb), Vol. 282(7), 365-372.—A prospective study carried out over a 20-yr period showed that a group of 45 physicians took more tranquilizers, sedatives, and stimulants than 90 matched controls. As college sophomores both groups had been selected for the study because of better than average physical and psychological health. The physicians drank alcoholic beverages and smoked cigarettes to the same extent as the controls. Possible steps to mitigate the occupational hazards of drug use in physicians are suggested.—*Journal abstract.*

4211. Weech, Alexander A. & Bibb, Richard E. (U. Cincinnati, Medical School) **Toward a rational approach to psychedelics: The controversy over popular use from a clinical viewpoint.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 57-68.—The propo-

nents of psychedelic drugs are often among those youth involved in active social protest while the antagonists are largely from the alarmed segments of older generations. "The major purpose of this essay is to review the effects of LSD and other psychedelics on human behavior, including some of the medical complications of their use and some sociologic and psychologic aspects of their abuse." Legal aspects of the drug situation are briefly discussed. The use of a psychedelic may represent a serious need for professional guidance. Current obstacles to obtaining such help are briefly reviewed. (32 ref.)—D. Prager.

PERSONALITY

4212. Amat, Enrique. (Valencia Medical School, Spain) **Tendencias actuales en los estudios caracterológicos en psiquiatría.** [Current tendencies in the study of personality in psychiatry.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jan), Vol. 28(1), 1-9.—Reports that from 1963-1966 54 works were published which treated the problem of character in relation to psychiatry—a rate of 39 for every 100 psychiatric publications. The ambiguity of the actual meaning of character is discussed, and the possibilities of somatic, atomistic, and individualistic applications as well as psychological, genetic, and sociogenic applications are noted. Although it was agreed that character can not be statistically evaluated, characterological implications were derived from 175 articles which were grouped into psychiatric categories: adolescent psychology, behavior disorders, depression, neuroses, schizophrenia, and psychopathology. It is concluded that character is a dynamic entity, comprising the non-physical, individual part of man which escapes empirical definition. (89 ref.)—P. Hertzberg.

4213. Buhler, Charlotte & Massarik, Fred. (Eds.) (U. Southern California) **The course of human life: A study of goals in the humanistic perspective.** New York, N.Y.: Springer, 1968. ix, 422 p. \$10.

4214. Cassel, Russell N. (U. Wisconsin, Milwaukee) **Critical stages in man's ego-ideal or conscience development.** *Psychology*, 1970(Aug), Vol. 7(3), 15-25.—Describes a series of sequential stages for the development of man's ego-ideal or conscience. The ego-ideal is defined as the rewarding aspect of man's psychic structure; while the conscience is the punishing aspect. Stages described are: embryo, birth trauma, genetic epistemology, imprinting, sex typing, trust and hope, basic personality formation, moral realism, self-identification, existential fidelity, intimacy, generativity, functional autonomy, integrity, and self-actualization. The ego-ideal and conscience are described as the means for determining the behavior of man, and for relating man to the society of which he is a part. The logic contained in the described stages forms the basis for an "ego-psychology" approach to the problem of delinquency prevention and correction. Emphasis in the approach is placed on congruence between the individual and society, in terms of the resolution of social day-to-day problems, and in relation to what constitutes an ideal response for such problems. The procedure entails computer assist counseling (COASCON). (17 ref.)—J. A. Blazer.

4215. Leongard, K. **Akzentuierte Persönlichkeiten.** [Accented personalities.] Berlin, W. Germany: VEB

Volk und Gesundheit, 1968. 287 p.—Presents an exposition and generalization on the problems of characterology and the "systematics of characterological anomalies," where the "individual traits [Wesenszüge]" still do not constitute a pathological deviation from the "average" structure of the human personality.—I. D. London.

4216. Sagarra Solé, J. (Hosp. Clínico Barcelona, Spain) **Los estudios caracterológicos en España.** [Character studies in Spain.] *Revista de Psicología Normal e Patológica*, 1968(Jan), Vol. 14(1-2), 67-73.

4217. Szyper-Perl, Sylvie. (Free U. Brussels, Lab. of Industrial Psychology, Belgium) **Approche de la dynamique comportementale du représentant de commerce et étude de l'empathie comme variable de personnalité dans une batterie de tests.** [Approach to the behavior dynamics of salesmen and investigation of empathy as a personality variable in a battery of tests.] *Bulletin Centre d'Etudes et Recherches Psychotechniques*, 1969(Jan), Vol. 18(1), 65-78.—Reviews various tests which can be of use in measuring empathy, and discusses the value of empathy in salesmanship. (62 ref.)

4218. Wrenn, Robert L. & Ruiz, Rene A. (Eds.) (U. Arizona) **The normal personality: Issues to insights.** Belmont, Calif.: Brooks/Cole, 1970. ix, 361 p.—Contains selected readings by various authors intended to help the teacher of normal and abnormal personality courses to slant his class toward a more personal involvement in the issues of everyday living. Topical areas were derived from questions raised during class discussions. Chapter format typically includes an introduction, a reading, and problem situations.

PERSONALITY TRAITS & PROCESSES

4219. Bronfenbrenner, Urie. (Cornell U., New York State Coll. of Human Ecology) **Some reflections on "Antecedents of optimal psychological adjustment."** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 296-297.—E. Siegelman, J. Block, J. Block, and A. von der Lippe (see PA, Vol. 45:Issue 3) are complimented for exploiting an important research opportunity, but also criticized for employing a relatively inefficient design, equating clinical judgments with objective reality, and failing to examine possible components in the global index of optimal adjustment. It is noted that most of the shortcomings can be rectified in subsequent analyses.—*Journal abstract.*

4220. Dreiling, Douglas H. (Texas Technological U.) **The effects of dogmatic and non-dogmatic feedback upon self-ideal discrepancies of repressors and sensitizers.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 391-392.

4221. Felipe, Abraham I. (U. Philippines, Quezon City) **Evaluative versus descriptive consistency in trait inferences.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 627-638.—Critically compared predictions of evaluative and descriptive consistency theories in tasks involving trait inferences. Trait terms that avoid the usual confounding of evaluative and descriptive aspects were used in inferences between terms that had high or low descriptive overlaps. Inferences were done onto 3 types of bipolar scales which differed according to which aspect (descriptive or evaluative) of their defining terms was varied. Results indicate 2 consistency-achieving mech-

anisms, appearing in a definite order of priority: descriptive consistency is 1st attempted, then evaluative consistency. A model to reconcile evaluative and descriptive consistency theories on the dynamics of trait inferences is proposed, and its implication to cognitive dynamics is discussed.—*Journal abstract.*

4222. Hofstee, Willem K. (U. Groningen, Netherlands) **Comparative vs. absolute judgments of trait desirability.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 639-646.—Each of 16 lists containing 25 pairs of equally desirable and 26 pairs of equally undesirable traits were administered to 1000 males being screened for military fitness in Holland. $\frac{1}{2}$ of the lists were formed by reversing members of a pair and reversing the order of pairs. The obtained comparative data were contrasted with data from a study of absolute judgments. Of the 408 pairs of traits, 246 had 1 member judged significantly higher than the other. For desirable traits, the 1st term was chosen most frequently; for undesirable, the 2nd term was rejected most frequently. Terms suggesting conservatism were judged more desirable in the comparative method; terms suggesting dynamic behavior were from the absolute judgment method.—*N. M. Chansky.*

4223. King, Mark; Walder, Leopold O., & Pavey, Stanley. (Iowa State U.) **Personality change as a function of volunteer experience in a psychiatric hospital.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 423-425.—Tested 416 college students for degree of moral tolerance and self-acceptance before and after completing undergraduate psychology courses. 16 of the students concurrently did volunteer work in mental hospitals. The within-Ss analysis indicates the volunteer experience did not significantly change the moral tolerance scores, whereas it did result in greater self-acceptance scores.—*Journal abstract.*

4224. Lawrence, Philip S. (Arizona State U.) **The assessment and modification of assertive behavior.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 396-397.

4225. MacNeil, Lawrence W. & Rule, Brendan G. (U. Alberta, Edmonton, Canada) **Effects of conceptual structure on information preference under sensory deprivation conditions.** *Journal of Personality & Social Psychology*, 1970(Nov), Vol. 16(3), 530-535.—Investigated whether persons varying in conceptual structure differed in their preferences for simple or complex messages under sensory-deprivation conditions. $\frac{1}{2}$ of 20 undergraduates classified as concrete and $\frac{1}{2}$ of 20 Ss classified as abstracts were randomly assigned for 4 hr. to either a sensory-deprivation or a nondeprivation condition. By pressing an appropriate button, an S chose to hear either a simple or a complex message. Among several significant effects, the major prediction was supported by the data. During sensory deprivation, the concrete Ss requested the simple message more than the complex message, whereas the abstract Ss requested the complex message more than the simple message. Abstract and concrete Ss did not differ in their requests for a specific type of message under nondeprivation conditions. Data are discussed in terms of the H. Schroder, M. Driver, and S. Streufert contention that the information orientation of persons varying in conceptual structure differs, and in terms of implications for attitude change studies. (24 ref.)—*Journal abstract.*

4226. Meyer, Wulf U. (U. Ruhr, Psychologische Inst.,

Bochum, W. Germany) **Bemerkungen zur inhaltsanalytischen Erfassung der Leistungsmotivation: Kritische Anmerkungen zu einer Arbeit von Sader und Keil.** [Observations concerning content analytic measures of achievement motivation: Critical remarks concerning a work by Sader and Keil.] *Archiv für die gesamte Psychologie*, 1969(Aug), Vol. 121(1), 55-67.—Criticizes an investigation by M. Sader and W. Keil (see PA, Vol. 45:Issue 3) with particular emphasis on their treatment of conflict analysis in TAT and their critique of the content analytic measure of achievement motivation developed by H. Heckhausen. (French summary) (33 ref.)—*English summary.*

4227. Miller, Alan R., Woo-Sam, James; Zavos, Harry, & Barker, Barbra. **An objective measure of induced aggression.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 11-14.—Describes a method of objectively measuring induced aggression in 67 undergraduates. Those in the verbally threatened group expressed aggression by sabotaging E's research project. The extent of aggression was measured by the number of Ss making errors and the total numbers of errors made by Ss as compared to controls. More Ss than controls made errors. (23 ref.)—*Journal abstract.*

4228. Ozehosky, John R., McCarthy, James B., & Clark, Edward T. (St. John's U., New York, N.Y.) **Manifest needs among ROTC and non-ROTC undergraduates.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 299-301.—Studied manifest needs of ROTC and non-ROTC undergraduates utilizing the EPPS. It was hypothesized that the ROTC Ss would be higher than non-ROTC Ss on order and lower on autonomy and aggression. The EPPS was administered to 20 ROTC undergraduates and to a randomly selected sample of 20 male undergraduates. None of the hypothesized differences in manifest needs were found, but the ROTC Ss were significantly lower on intraception and significantly higher on heterosexuality than the non-ROTC Ss.—*Journal abstract.*

4229. Sader, Manfred & Keil, Wolfgang. (U. Mainz, Psychologische Inst., W. Germany) **Faktorenanalytische Untersuchungen zur Projektion der Leistungsmotivation.** [Factor analytic investigations concerning the projection of achievement motivation.] *Archiv für die gesamte Psychologie*, 1968(Aug), Vol. 120(1), 25-53.—Investigated factor analytic relationships among data of achievement motivation by H. Heckhausen, a psychometric consolidated method developed in Mainz, and certain reference variables (Cattell and Guilford's questionnaire on estimation of values, and Amthauer's Intelligence Structure Test, a questionnaire on achievement motivation) with 321 Ss. Factor analyses of the fantasy production in response to TAT plates evoking success or failure demonstrated 2 independent dimensions: fear of failure and hope of success. These independent factors of the specific picture production can be explained by overlapping of the inhibitory gradient over the expressive gradient (analogous to the conflict model of N. E. Miller). Similar factors as used in the method of Heckhausen can be proven in the cognitive orientated objective key procedure measuring the achievement motivation. Here Ss relate to each TAT picture, 8 neutral and 12 achievement orientated responses, as correct or not. Analogous results are reproduced when the series of pictures are changed. (French summary) (56 ref.)—*English summary.*

4230. Shortell, Jae J., Epstein, Seymour, & Taylor,

Stuart P. (Mid-Fairfield Child Guidance Center, Norwalk, Conn.) **Instigation to aggression as a function of degree of defeat and the capacity for massive retaliation.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 313-328.—48 Ss, $\frac{1}{2}$ of whom were assigned to a condition of massive retaliation (MR) and $\frac{1}{2}$ of whom were not (NMR), competed against a presumed opponent. The loser on each trial received a shock of intensity level selected by the winner at the beginning of a trial and, simultaneously, feedback on the opponent's shock setting. The winner received only feedback on the opponent's shock setting. Defeat and feedback of aggressive intent (opponent's shock setting) were varied independently. In the MR condition, an extreme level of shock could be selected. Although its use was avoided, its psychological presence influenced perception of the opponent, aggressive behavior, and physiological arousal. Consistent with previous findings, primary frustration was found to be a relatively inconsequential instigator to aggression compared to learned social attitudes.—*Journal summary.*

4231. Shrauger, J. Sidney & Rosenberg, Saul E. (State U. New York, Buffalo) **Self-esteem and the effects of success and failure feedback on performance.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 404-417.—High and low self-esteem Ss received success or failure feedback regarding their performance on a task described as measuring their sensitivity to other people. Presumably as part of another study, changes in their self-perceptions regarding sensitivity to others were assessed, as well as changes in their performance on a different task. Changes in self-perception were greater when the feedback was consistent with Ss' overall level of self-evaluation. Task performance following failure was poorer than that following success. High self-esteem Ss performed better following success feedback, and low self-esteem Ss performed more poorly following failure. There were no significant performance changes for the high self-esteem failure and low self-esteem success Ss. The degree of change in self-perception of sensitivity to others was highly correlated with the magnitude of performance changes.—*Journal summary.*

4232. Siegelman, Ellen; Block, Jack; Block, Jeanne, & von der Lippe, Anna. (U. California, Berkeley) **Antecedents of optimal psychological adjustment.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 283-289.—Attempts to develop some understanding of the antecedents of psychological health from a major set of longitudinal studies. 171 adult Ss were described by means of the California Q set. These empirical descriptions were compared with an independent hypothetical Q description of the optimally adjusted personality. A number of measures were analyzed to identify the antecedent circumstances that differentiated the 48 high optimal adjustment from the 50 low optimal adjustment adults of both sexes. Although obtained by different techniques and at widely different times, the findings univocally indicate healthy, democratic, value-oriented homes among high optimal adjustment Ss. Good adult adjustment was associated with a cognitively competent and integrated mother. Poor adult adjustment was associated with a neurotic, anxious mother for both boys and girls, and additionally with a neurotic father for girls.—*Journal abstract.*

4233. Strickland, Bonnie R. (Emory U.) **Individual differences in verbal conditioning, extinction, and awareness.** *Journal of Personality*, 1970(Sep), Vol. 38(3),

364-378.—Examined the relationship of need for approval, a belief in internal vs. external control of reinforcement, and verbal intelligence to acquisition, extinction, and awareness in a verbal conditioning task. Based on a postexperiment interview and recognition task, Ss were grouped according to their awareness of the response-reinforcement contingencies and the degree to which they admitted influence by the E. Approval-motivated Ss were more likely to acquire the reinforced response regardless of awareness levels than were low need for approval Ss. Ss assessed as internal were more likely to deny influence by the E and in some instances were more resistant to extinction than Ss called external. Ss higher in verbal intelligence evidenced more awareness than Ss with lower intelligence scores. (28 ref.)—*Journal summary.*

4234. Tiffany, Donald W., Salkin, Gail G., & Cowan, James R. (Inst. for Community Studies, Kansas City, Mo.) **Generalized expectancies for control of reinforcements compared to experienced control.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 519-520.—Rotter's Internal-External (I-E) Control Scale and the Experienced Control (EC) Scale were administered to 74 unemployed males. The I-E scores were correlated with the EC constructs. 5 of 90 correlations were significant at the .01 or .05 level. It is concluded that there was an absence of agreement between expectancies for control of reinforcements and experienced control as measured by the I-E and EC scales.—*E. J. Kronenberger.*

Behavior Correlates

4235. Connor, George N. & Boblitt, W. Edgar. (U. South Carolina) **Reported frequency of dream recall as a function of intelligence and various personality test factors.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 438-439.—Pearson product-moment correlations were computed between scaled responses to a dream recall questionnaire and various instruments. Ss were 149 undergraduates and 1st-yr graduate students from 2 universities. Shipley Institute of Living (IQ measure) scores, and Institute for Personality and Ability Testing anxiety and intelligence (Scale B) scores were positively correlated to dream recall. Ego strength scores were negatively correlated to dream recall. Earlier similar findings were supported.—*E. J. Kronenberger.*

4236. Dies, Robert R. (U. Maryland) **Need for social approval and blame assignment.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 311-316.—Investigated the relation of the need for social approval (as measured by the Marlowe-Crowne Social Desirability Scale) to the attribution of blame. 40 dyads of female psychiatric nursing students worked on a cooperative task. Both dyad members were exposed to an induced failure experience and made subsequent ratings whereby blame could be ascribed to features of the experiment, transient personal states, and/or to one's partner. As predicted, approval-dependent persons were more likely to rationalize or excuse the "failure" by blaming various experimental factors and/or their partners, but this was always done within the limits of a generalized tendency to seek social acceptance by expressing attitudes complimentary to other persons or situations.—*Journal abstract.*

4237. Farley, Frank H. & Farley, Sonja V. (U. Wisconsin) **Impulsiveness, sociability, and the preference for varied experience.** *Perceptual & Motor*

Skills, 1970(Aug), Vol. 31(1), 47-50.—Employed 290 British and American Ss to study the possibility that F. H. Farley and S. V. Farley's (see PA, Vol. 41:7335) previous report of a significant relationship of extroversion-introversion to stimulus-seeking motivation was attributable primarily to the impulsivity component of extroversion-introversion, with the sociability component contributing insignificantly to that relationship. Results significantly replicated the extraversion and stimulation-seeking relationship. In addition, impulsivity was generally found to be of slightly greater magnitude in its relation to stimulation-seeking than was sociability.—*Journal abstract*.

4238. Haynes, Jack R. & Carley, John W. (North Texas State U.) **Relation of spatial abilities and selected personality traits**. *Psychological Reports*, 1970(Feb), Vol. 26(1), 214.—Based on descriptions of field-independence and field-dependence, an attempt was made to determine if similar characteristics could be found using different spatial personality measures. The 16 PF, the Guilford-Zimmerman Spatial Orientation Test and Spatial Visualization Test were administered to 106 undergraduates. Results indicate that these spatial ability tests measure the characteristics of field-independence.—*Author abstract*.

4239. Hogan, Robert. (Johns Hopkins U.) **A dimension of moral judgment**. *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 205-212.—Moral principles which are used to guide reasoning in situations of normlessness or moral uncertainty can be placed in categories corresponding to 2 classic traditions in social philosophy: "the ethics of personal conscience" and "the ethics of social responsibility." Through the use of a self-report measure, evidence was provided for the hypothesis that the tendency to adopt 1 or the other of these viewpoints is a result of the adherent's underlying personality structure. Proponents of the ethics of personal conscience, for example, tended to be progressive, rebellious, and unconventional, with pronounced tendencies toward social activism. Persons characterized by the ethics of social responsibility were good-natured, thoughtful, and well-socialized, but somewhat conservative in their political orientation. (29 ref.)—*Journal abstract*.

4240. Kurtz, Helen. (Yeshiva U.) **Investigation of the relationship between attitudes and problem solving**. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 466-467.

4241. Morgan, Arlene H., Lezard, Fay; Prytulak, Susan, & Hilgard, Ernest R. (Stanford U.) **Augmenters, reducers, and their reaction to cold pressor pain in waking and suggested hypnotic analgesia**. *Journal of Personality & Social Psychology*, 1970(Sep), Vol. 16(1), 5-11.—Individual differences in the kinesthetic after-effect, as studied through the size comparisons of wooden blocks by thumb and forefinger following contrast stimulation according to the method of A. Petrie, led to the selection of 6 augmenters and 6 reducers from a total sample of 22 male and 20 female undergraduates. Augmenters and reducers did not differ in responsiveness to the pain of immersing a hand and forearm in circulating ice water, or in hypnotic susceptibility. However, augmenters reduced their pain significantly more under suggested hypnotic analgesia than reducers, a result consistent with some earlier findings with pain reduction through aspirin and with audioanalgesia. Personality measures yielded little except

a tendency for augmenters to be more tolerant of ambiguity than reducers. Because reliability measures over 2 days show a reversal of sign—those augmenting more on 1 day reducing more on the next, and vice versa—the problem of what is being measured as a personality variable in the block experiments requires further examination.—*Journal abstract*.

4242. Serun, Camella S. & Myers, David G. (U. Alabama) **Note on prejudice and personality**. *Psychological Reports*, 1970(Feb), Vol. 26(1), 65-66.—Examined the relationship between prejudice and personality in a sample of 101 high school Ss. Contrary to prediction, no significant correlation of prejudice with repression (.18) or anxiety (.05) scores was observed.—*Journal abstract*.

4243. Shybut, John. (Northern Illinois U.) **Internal vs. external control, time perspective and delay of gratification of high and low ego strength groups**. *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 430-431.—Compared high (N = 45 undergraduates) and low (N = 45 undergraduates) ego strength groups on the 3 measures. High ego strength Ss showed a more extended post- and future time perspective, assigned higher values to hypothetical choices, and were willing to wait longer for the delayed reward than low ego strength Ss.—E. J. Kronenberger.

4244. Sweeney, Donald R. & Fine, Bernard J. (U.S. Army Research Inst. of Environmental Medicine, Natick, Mass.) **Note on pain reactivity and family size**. *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 25-26.—Divided 33 soldiers into high, medium, and low pain-reactivity subgroups, based on their subjective responses to immersion of their hands in cold (4°C) water. Subgroups were compared for differences in family size and birth order. Results show that Ss from smaller families (1-3 children) exhibit significantly higher pain reactivity than Ss from larger families (4 or more children).—*Journal abstract*.

4245. Verinis, J. Scott. (Mt. Sinai Hosp., Chicago, Ill.) **Inhibition of humor enjoyment: Effects of sexual content and introversion-extraversion**. *Psychological Reports*, 1970(Feb), Vol. 26(1), 167-170.—Examines the inhibition of enjoyment of humor. Exp. I employed sexual cartoons. Expectations were that 17 female high school graduates asked to analyze these cartoons for their point would show less enjoyment than 17 Ss not asked to do this. These expectations were not supported. Exp. II explored the effects of the introversion-extraversion variable on inhibition of enjoyment of humor. The expectations that those Ss high in introversion would show the greatest inhibition were verified.—*Journal abstract*.

4246. Ward, William D. & Day, Charles R. (State University Coll. New York, Brockport) **Manifest anxiety as related to perceived similarity to peers**. *Psychological Reports*, 1970(Feb), Vol. 26(1), 247-250.—Tested the hypotheses that peer identification would be negatively associated with adjustment and would be more important to the adjustment of the females than to the adjustment of the males with 80 undergraduates. Perceived similarity to a peer (PSP) was measured with the Role Construct Repertory Test, and the MA scale was the adjustment index. A 2 × 2 factorial design, sex by PSP, with MA scale scores as the dependent variable, was used. High PSP Ss differed significantly from low PSP Ss ($p < .001$), and the main effect for sex and the sex by PSP interaction were not significant. Cell

comparisons, however, suggest that males were more responsible for the main effect than females were. The 1st hypothesis was clearly supported, and the trend opposite to the 2nd hypothesis was noted.—*Journal abstract.*

INTELLIGENCE

4247. Bunuan, Josefina S. (Boston U., School of Education) **Translation and adaptation of the Stanford-Binet Intelligence Scale, Form L-M, for Filipino children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 377.

4248. Chawla, T. R. **An evaluative study of new culture-free intelligence test (KIT:EXP).** *Journal of Psychological Researches*, 1969, Vol. 13(2), 74-76.—Reliability coefficients of .79 and .83 were observed for the Kalon Intelligence Test (KIT) using IQ and MA scores. The correlation coefficient of .71 between KIT and WISC points to the high validity of the KIT.—*U. Pareek.*

4249. Eckman, Guy; Rice, Mary, & Smith, Kendon. (U. North Carolina, Greensboro) **A Hullian constant as an index of intelligence: Two empirical investigations.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(1), 47-53.—Following C. L. Hull, it is widely considered that the asymptote of the learning curve represents motivational factors, but that rate of approach to asymptote (i) represents associational factors. The suggestion that i may be a measure of intelligence was tested empirically in 2 studies with 32 8th graders and 30 10-yr-old children, respectively. An initial exploratory study yielded a positive correlation between i and IQ. A more rigorous replication did not.—*Journal abstract.*

4250. Gaudet, Irby J. & Moon, W. Harold. (Auburn U.) **Effects of differential feedback on opinions of and responses to intelligence tests.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 376-380.—On 2 separate occasions, 160 college Ss were administered both an IQ test and a test opinion scale in counterbalanced orders. Ss received differential feedback—information presumably drawn from their earlier IQ test's performance—before the 2nd administration. Feedback significantly affected subsequent retest IQ test score and opinion scale scores. Order of testing was a significant variable in the test-feedback-retest condition. It is concluded that when the testing situation is viewed as a complex interaction of stimuli, S, and situational variables, the variables investigated can systematically and significantly affect the performance of the examinee.—*Journal abstract.*

4251. Giltay, H. **De eerste kinderherinneringen van drie geniale mensen.** [The earliest recollections of three men of genius.] *Gawein*, 1969(Mar), Vol. 17(2-3), 143-149.—Explores the hypothesis that early recollections indicate the direction which men of genius will follow. Recollections of Albert Einstein, Jakob von Uexküll, and Martin Buber are examined.—*English abstract.*

4252. Golland, Jeffrey H., Herrell, James M., & Hahn, Michael. (New York U., Bellevue Medical Center) **Should WAIS subjects explain picture arrangement stories?** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 157-158.—To determine whether requiring 16-65 yr. old WAIS Ss to explain their Picture Arrangement (PA) sequences affects PA scores, 56 Ss were given the WAIS and asked to tell PA stories, and 102 Ss were given the WAIS under standard instructions.

37 pairs of Ss were matched for age, Full Scale IQ, and reason for referral. No significant differences were found between Ss who told PA stories and those who did not. Findings were contrasted with those of J. Herrell and J. Golland, who found a 2-point scaled score increment on PA for WISC Ss who explained their sequences.—*Journal abstract.*

4253. Jacobs, Paul I. & Vandeventer, Mary. (Yeshiva U., Ferkau Graduate School) **Information in wrong responses.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 311-315.—Under some circumstances the wrong responses S makes on a test may contain important information. The notion of facet design provided a systematic method for a priori ordering of the distractors on the Coloured Progressive Matrices test (administered to 362 Ss) as to degree of correctness. A score based on type of distractor chosen was shown to have a moderate degree of test-retest reliability, concurrent and predictive validity, and cross-cultural applicability. Results suggest a reexamination of I. E. Sigel's (see PA, Vol. 39:1791) finding that type of error and total score were unrelated.—*Journal abstract.*

4254. Joesting, Joan & Joesting, Robert. (U. Georgia) **Future problems of gifted girls.** *Gifted Child Quarterly*, 1970(Sum), Vol. 14(2), 82-90.—A review of pertinent literature demonstrates the fact that large numbers of gifted girls limit their educational and professional development. The position is taken that talented girls who do not fulfill their potential are likely to develop emotional problems. Various alternatives are presented for the gifted girl and the society.—*S. Krippner.*

4255. Lu, Chun-yo. [Revision of the California Test of Mental Maturity.] *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 22-39.

4256. Michel, Lothar. (U. Mannheim, Psychologische Inst., W. Germany) **Empirische Untersuchungen zur Frage der Übereinstimmung und Gültigkeit von Beurteilungen des intellektuellen Niveaus aus der Handschrift.** [Empirical investigations concerning the question of consistency and validity of assessing intellectual levels from handwriting.] *Archiv für die gesamte Psychologie*, 1969(Aug), Vol. 121(1), 31-54.—Reviews empirical investigations regarding the interpreter consistency and validity of assessing intelligence from handwriting and presents new experiments. It was found, that single graphic signs as well as psychodiagnostic statements about intelligence made by nonexperts and by graphologists show very low validity. Now graphologists are obviously primarily concerned with educational attainment. This very aspect of intelligence, however, is traced more economically and with higher validity by other techniques, since evaluation of intelligence on the basis of graphology seems to be of little usefulness. (39 ref.)—*English summary.*

4257. Sattler, Jerome M. & Winget, Barbara M. (San Diego State Coll.) **Intelligence testing procedures as affected by expectancy and IQ.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 446-448.—2 experiments (N = 8 graduate students in each study) were performed to evaluate the effects of referral reports and examinee intellectual levels on testing procedures. Examinees with superior intelligence obtained significantly more credit than examinees with average intelligence for the same ambiguous responses on the Comprehension, Similarities, and Vocabulary subtests of the WAIS. The intellectual level did affect some test observations but referral reports did not significantly

affect test scoring although occasionally affecting the examiners' test observations. "The results indicate that examiners must carefully guard against the halo effect."
—E. J. Kronenberger.

4258. Spreen, Otfried & Tryk, H. Edward. (U. Victoria, British Columbia, Canada) **WISC Information subtest in a Canadian population.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 294-298.
—Substituted 2 Canadian items in the Information subtest of the WISC. Data from test administration to 300 7-14 yr. old Canadian children were analyzed. Item analysis indicates that 1 substitution is reasonable but not the other. The Information subtest mean increased consistently with age but was consistently lower than the means of the other subtests. (French summary)—*Journal abstract*.

4259. Walker, Ronald E., Sannito, Thomas C., & Firetto, Anthony C. **The effect of subjectively reported anxiety on intelligence test performance.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 241-243.—Examined the effect of experimentally induced anxiety on the performance of the 1st 5 verbal subtests of the WAIS given to 79 undergraduate students. A response to the questions "How did you feel while you were being tested?" was used as an indicator of anxiety. None of the mean differences between groups (control-experimental; male-female) was significant.—H. Kaczowski.

CREATIVITY

4260. Appleton, Robert F. (Columbia U.) **The telearchic search in the creative process.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 376.

4261. Eisenman, Russell. (Temple U.) **Creativity change in student nurses: A cross-sectional and longitudinal study.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 320-325.—Studied 266 student nurses from 2 schools cross-sectionally (freshmen, juniors, and seniors), while 30 Ss from each school, were studied longitudinally (freshman and senior yr.). 2 creativity measures were employed: originality, as measured by an unusual uses test in which Ss gave uses for a brick, and a true-false, paper-and-pencil measure, the Personal Opinion Survey. Results indicate significant decline in originality with increased class standing. The longitudinal data also supported this finding. (27 ref.)—*Journal abstract*.

4262. Elsom, Billy F. (North Texas State U.) **Creative ability and perceived parent-child relations.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 59.

4263. Green, Elmer E., Green, Alyce M., & Walters, E. Dale. (Menninger Foundation, Topeka, Kan.) **Voluntary control of internal states: Psychological and physiological.** *Journal of Transpersonal Psychology*, 1970, Vol. 9(1), 1-26.—Attempts to indicate that "psychophysiological training for creativity is a reasonable hypothesis." Earlier work on electrophysiological instrumentation and methodology which resulted in the audiogenic feedback training method is summarized. Results with this method for about 60 Ss showed such physiological changes as (a) relaxation of muscle tension to low levels, (b) control of temperature of the hand, and (c) increase in alpha rhythm with eyes open and while talking to the E. Psychological changes included (a) body-image changes, (b) feelings of tranquility, and (c) hypnagogic and dream-like images. Reverie accompa-

nying production of theta waves and low-frequency alpha seems, under certain conditions, to make possible "hypnagogic-like imagery, the sine qua non of creativity for many outstanding people." Other methods for producing hypnagogic-like imagery are discussed. It is concluded that such methods hold much promise for transpersonal psychology by providing training in internal awareness and control. (52 ref.)—P. E. Lichtenstein.

4264. Hahn, Marshall. (U. Minnesota) **Review of research on creativity.** Minneapolis, Minn.: Minnesota Research Coordination Unit in Occupational Education, U. Minnesota, 1968. 25 p.

4265. Kuusinen, Sharon. (U. Michigan) **Evidence for a curvilinear relationship between complexity and originality.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 329-343.—Tested the hypothesis of a curvilinear relationship between preference for complexity and each of 2 components of creativity—originality and fluency—for 4 complexity levels within the upper half of the complexity distribution. The hypothesis was based on an interpretation of extremely high complexity levels as emphasizing rejection of conventionality more than fondness for novelty and tolerance of ambiguity. The results not only supported the main hypothesis of a curvilinear relationship but also suggested that originality and fluency declined beyond the 2nd level of complexity studied. Question is cast on the assumption that increasing complexity is necessarily productive of increasing creativity. Results were interpreted as also being consistent with Berlyne's hypothesis that moderate increases in arousal are most conducive to learning.—*Journal summary*.

4266. Lehrer, Arnold C. (Colorado State Coll.) **The personality correlates of creativity in undergraduates.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 397.

4267. Ohnmacht, Fred W. (State U. New York, Albany) **Personality and cognitive referents of creativity: A second look.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 336-338.—Administered 5 measures of divergent production and the Myers-Briggs Type Indicator to 90 undergraduates. As very few of the correlations were significant, it may be concluded that there is no correspondence across the cognitive and personality referents of creativity examined here.—*Journal abstract*.

4268. Taylor, Irving A. (Smith Richardson Foundation, Greensboro, N.C.) **Creative production in gifted young adults through simultaneous sensory stimulation.** *Gifted Child Quarterly*, 1970(Spring), Vol. 14(1), 46-55.—17 Ss were exposed weekly to simultaneous sensory stimulation including a signal from an oscillator, a phosphorescent Archimedes spiral wheel, incense, a floor vibrator, and music. Drawings were obtained before and after stimulation. The "after" drawings showed significant improvement as measured by scales devised by artists at the University of North Carolina. In addition, there were positive significant correlations between the "psychological openness" ratings of the drawings and creativity test scores.—S. Krippner.

4269. Torda, Clara. (City U. New York, Mt. Sinai Medical School) **Some observations on the creative process.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 107-126.—A study of formation of visual imagery during various conditions yielded observations supporting the assumption that the creative process reflects both special inborn qualities and a postpartum lifelong

adaptational process consisting of cultivation of mental mechanisms that significantly differ from the thinking processes of the average human. Better understanding of these mental mechanisms may promote our skills to help the newborn generation to develop their creative potentials fully. (134 ref.)—*Journal abstract.*

4270. Torrance, E. Paul & Khatena, Joe. (U. Georgia) "What kind of person are you?" A brief screening device for identifying creatively gifted adolescents and adults. *Gifted Child Quarterly*, 1970(Sum), Vol. 14(2), 71-75.—Describes a screening device for identifying creative adolescents and adults. Scores on this instrument were significantly related, in several validity studies, to (a) abilities to produce original images, (b) write original stories, (c) produce provocative questions, (d) have creative orientations, and (e) be motivated in creative directions. In addition, 175 graduate students in a creativity seminar scored significantly higher on this device than a control group of graduate students who had elected other seminars.—S. Krippner.

4271. Treadwell, Yvonne. (U.S. Air Force Directorate of Civilian Personnel, Personnel Research Group, Washington, D.C.) **Humor and creativity.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 55-58.—A pilot study of a Cartoons Test which required the creation of humorous captions showed a pattern of significant intercorrelations with several measures of creativity. Ss were 83 science and engineering undergraduates. Although work remains to be done to improve the scoring procedures and reliability of the Cartoons Test, results suggest that the study of humor is a useful approach to creativity research.—*Journal abstract.*

PERSONALITY MEASUREMENT

4272. Archer, G. S. & Burgess, Ian S. (U. Natal, Durban, South Africa) **A further investigation of sexually symbolic concepts using the semantic differential technique.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 369-372.—50 undergraduates responded to a semantic differential questionnaire designed to test the meaning of sexually symbolic concepts. 2 measures were used: the mean potency score and the mean score on the Masculine-Feminine (M-F) subscale. It was found that a number of discrepancies occurred between (a) mean potency and mean M-F scores, (b) mean potency score and predictions based on psychoanalytic theory, and (c) mean M-F scores and predictions based on psychoanalytic theory. The results are interpreted within a learning theory framework.—*Journal abstract.*

4273. Braun, John R. & Costantini, Arthur. (U. Bridgeport) **Faking and faking detection on the Personality Research Form, AA.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 516-518.—94 undergraduates were administered the Personality Research Form, AA under honest or best impression directions. Although the magnitude of the faking effects was small, mean scores on 12 of the 22 variables were significantly affected by the faking instructions. The desirability scores showed limited usefulness in detecting faking.—E. J. Kronenberger.

4274. Cotler, Sheldon; Quilty, Robert F., & Palmer, Richard J. (Indiana U.) **Measurement of appropriate and unnecessary help-seeking dependent behavior.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 324-327.—Help-seeking dependency was

defined in terms of requesting assistance which was not objectively necessary for attaining a specific goal. 30 undergraduate female Ss answered, in writing, each of a series of 40 factual questions. Ss then had an opportunity to request help from a confederate before providing a final oral answer to E. S's responses were classified in 1 of 4 categories: independent correct, independent incorrect, incorrect answers for which Ss appropriately sought help, or correct answers for which Ss sought help unnecessarily. The procedure yielded a reliable and unambiguous distinction between appropriate and unnecessary help seeking which served as an operational definition of help-seeking dependent behavior. Results indicate that help seeking was not related to the Ss' knowledge of the answers, and that Ss made significant discriminations among all 4 categories of responses on a confidence scale. (20 ref.)—*Journal abstract.*

4275. Craddick, Ray A. & Miller, John R. (George State U.) **Investigation of the symbolic self using the concentric circles method and animal metaphor.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 147-150.—Used an exploratory investigation having 36 undergraduates conceptualize themselves as a series of concentric circles (each circle representing a layer of personality) to investigate the self concept. Measurements of the diameters of the outer and inner self could be done with high reliability. Further, the use of the animal as a metaphor to symbolize further the various layers of the self was explored and appears satisfactory for further research. Some speculations as to the direction of future research with this method and the animal metaphor technique are discussed.—*Journal abstract.*

4276. Craddick, Ray A. & Worthy, Morgan. (Georgia State U.) **Reply to Archer and Burgess on their investigation of symbolic concepts using the semantic differential technique.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 373-374.—Suggests that results of G. S. Archer and I. S. Burgess' (see PA, Vol. 45:Issue 4) study which used the Masculinity-Femininity scale of the potency factor of the semantic differential to investigate symbolic concepts are not basically different from those obtained in M. Worthy and R. A. Craddick's (see PA, Vol. 43:9724) investigation which used only the mean potency scores. It is argued that use of the total score yields "higher reliability, multi-perspective approach, and increased likelihood of measuring elements of the unconscious."—M. West.

4277. Crego, Clyde A. (6709 Bracken Court, Springfield, Va.) **A pattern analytic approach to the measure of modes of expression of psychological differentiation.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 194-198.—Included the dimension of internalization-externalization in an expansion of H. A. Witken's dual-variable model for linear relations to a multivariate model for unrestricted relations in the study of psychological differentiation. Based on pattern analytic theory and methods, the configural model is used in the search for patterns of persons representing theoretical expectancies among dimensions of field dependence-independence, repression-sensitization, and internalization-externalization. Patterns are sought and found which reflect adaptive and maladaptive functioning with regard to the unique interaction among the 3 dimensions across persons. Patterns describing adaptive functioning at all levels of differentiation are also

found. Emergence of patterns which meet theoretical expectancies and nonemergence of patterns which do not, point to the facility of the configural measurement approach when using a mediating variable possessing behavioral attributes.—*Journal abstract.*

4278. Deo, Pratibha & Hundal, B. S. (Punjab U., Chandigarh, India) **Self-concept types by Q-technique.** *Journal of Psychological Researches*, 1969, Vol. 13(1), 1-11.—Factor analysis of a 48-statement Q-sort revealed 3 factors. Based on the loadings of each 5 on each of these factors, self-concept types were formulated as pure (high loading on only 1 factor) and mixed (high loading on more than 1 factor) types. Factor I revealed a self-concept with lack of social adjustment but positively weighted in temperament, intellectual ability, and character. Factor II represented a self-concept of negative temperament and intellectual ability, but better social adjustment and good character. Factor III represented a positive self-concept on all 4 variables. 3 Ss did not show loadings on any of these factors and were classified as "no types."—*U. Pareek.*

4279. Eisenman, Russell & Platt, Jerome J. (Temple U.) **Authoritarianism, creativity, and other correlates of the Famous Sayings test.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 267-271.—Compared the 4 subscales of Bass's Famous Sayings test with brief measures of authoritarianism, creativity, extraversion, response acquiescence, and moral judgments in mitigating circumstances. Intercorrelations among the subscales of Bass's test were similar to those obtained by R. N. Vidulich and M. Bass (see PA, Vol. 35:2215), while correlations with the other personality tests showed several significant relationships consistent with expectations. Hostility correlated significantly with both authoritarianism (.26) and creativity (.40) for 59 undergraduates.—*Journal abstract.*

4280. Gerjuoy, Herbert & Aaronson, Bernard S. (Human Resources Research Organization, Div. 3, Presidio of Monterey, Calif.) **Multidimensional scaling of terms used to describe personality.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 3-8.—Multidimensionally scaled the highest-intensity, lowest-intensity, and lowest-abnormality terms from 6 Buss-Gerjuoy dimensions. Expert judges estimated the correlations among the personality traits referred to by these terms. The mean estimates had a 2-dimensional configuration, abnormality and behavior elicitation-emission. Communications among psychologists should take into account psychologists' assumptions about trait intercorrelations. Psychologists perceive personality descriptions as redundant if the traits specified are believed highly correlated. Individuals with trait combinations not fitting the consensual model should be so characterized.—*Journal abstract.*

4281. Jones, Kenneth J. & Jones, Priscilla P. (Brandeis U., Florence Heller Graduate School for Advanced Studies in Social Welfare) **Contribution of the Rorschach to description of personality structure defined by several objective tests.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 35-45.—Administered the CTMM, the Kuder Preference Record, the Guilford-Zimmerman Temperament Survey and the standard Rorschach to 178 male high school juniors. The 4 batteries of scores were analyzed using Horst's method of canonical correlation over several sets of measures. Data yielded 4 profiles of scores interpreted as those of class leader, introvert, debater, and athlete. The

Rorschach did not overlap with the 3 objective tests; however, its profiles were not inconsistent with the other batteries.(21) ref.—*Journal abstract.*

4282. Khatena, Joe. (Marshall U.) **Note on reliability and validity of Onomatopoeia and Images.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 86.—A 2nd assessment of Onomatopoeia and Images using 185 undergraduates reported interscorer, test-retest, and split-half reliability coefficients of from .79-.99. Validity indices using 4 criterion measures, i.e., Sounds and Images, Product Improvement and Unusual Uses Test, What Kind of a Person Are You? Test, and creative self-ratings, were also reported to range from .31-.56 ($p < .05$).—*Author abstract.*

4283. Macedo, Rosa M. (Pontificia Universidade Católica de São Paulo, Brazil) **"O Teste Z" em adolescentes.** [The Zulliger Test for adolescents.] *Revista de Psicologia Normal e Psicológica*, 1968(Jan), Vol. 14(1-2), 3-47.—Administered the Zulliger (Z) Test slides to 250 14-16 yr. old Brazilian high school students to: (a) establish norms for Brazilian students and compare them with those of the Z Test in Switzerland and the Daninos in France, and (b) verify whether the Z Test sufficiently identifies age differences as to means, percentages, and quality of determinants. Results demonstrate that the Z Test is sufficiently sensitive and a useful instrument for the practice of psychology, for the identification of pathological cases, and as a means to describe Ss' personalities from a structural viewpoint. (French summary) (24 ref.)—*English summary.*

4284. McCarthy, Dorothea; Anthony, Robert J., & Domino, George. (Fordham U.) **A comparison of the CPI, Franck, MMPI, and WAIS Masculinity-Femininity Indexes.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 414-416.—Compared the WAIS Masculinity-Femininity (M-F) index with 3 other measures of masculinity-femininity: the Femininity scale of the CPI, the Masculinity-femininity score of the Franck Drawing Completion Test, and the Mf scale of the MMPI. All 4 measures differentiated significantly between the sexes of 60 undergraduate Ss. The WAIS M-F index did not correlate significantly with any of the other measures for either sex and should not be interpreted as a personality indicator of sexual inversion or homosexuality. It represents solely sex differences in certain aspects of intellectual performance. (16 ref.)—*Journal abstract.*

4285. Neill, John A. & Jackson, Douglas N. (U. Guelph, Ontario, Canada) **An evaluation of item selection strategies in personality scale construction.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 647-661.—Evaluation sensitivity (ES) pertains to consistency in degree of expressed anxiety in situations in which an individual is being appraised. A pool of items was constructed pertaining to ES with respect to parents, peers, teachers, and officials. The final test contained 44 positive and 44 negative items. The ES and the Personality Research Form Desirability scale were administered to 2 randomly selected groups of university students of 122 each. Several item selection strategies were studied. All strategies but random item selection yielded high Kuder-Richardson Formula 20 coefficients; for 4 items the Kuder-Richardson's were approximately .6; for 40 items, .9. Correlations with desirability were highest in random and uncorrected biserial approaches and lowest in the bandwidth strategy.—*N. M. Chansky.*

4286. Neva, Edward & Hicks, Robert A. (Denver Public Schools, Psychological Services, Colo.) **A new look at an old issue: Manifest Anxiety Scale validity.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 406-408.—Investigated the efficacy of MA scale scores as a measure of situational drive level using 48 undergraduates. The MA scale was used as a dependent variable, i.e., it was administered while drive level was systematically manipulated. Drive state was varied at 4 levels by the induced muscular tension technique while heart rate (HR) and GSR activity were recorded. The physiological measures indicate that drive level was effectively varied; however, no meaningful relationship between MA scale scores and HR and GSR activity was observed. The intercorrelation between HR and GSR was low but significant.—*Journal abstract.*

4287. Pande, C. G. (Nagpur U., India) **Sex differences in field-dependence: Confirmation with Indian sample.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 70.—Administered H. A. Witkin's colored Embedded-Figures Test (EFT) to 70 male and 70 female undergraduates to find whether sex difference in field-dependence, observed earlier, also exists for an Indian sample. Women were found to be significantly more field-dependent than men as found in earlier investigations with American and Western European samples. Some differences from Witkin's original results are demonstrated. Ss' consistency throughout the trials of EFT and its reliability as a measure of field-dependence are noted.—*Author abstract.*

4288. Philip, Alistair E. (U. Edinburgh, Scotland) **Reliability and equivalence in the Eight-Parallel Form Anxiety Battery.** *British Journal of Psychology*, 1970(Nov), Vol. 61(4), 517-520.—Administered the Eight-Parallel Form Anxiety Battery to 19 female undergraduates on 2 separate occasions. Differences between Ss and test forms were found, but there were no differences in scores between occasions, nor was there any interaction between test forms and occasions. Test-retest reliabilities of the forms were found to be satisfactory. Equivalence reliabilities between the forms were found to be greater for measurements made on the same occasion than for measurements made on different occasions; also correlations between the forms were higher on the 2nd occasion. It is concluded that more information of a normative nature is required before this promising instrument can be used in nonexperimental work.—*Journal abstract.*

4289. Platt, Jerome J., Eisenman, Russell, & Darbes, Alex. (Hahnemann Medical Coll. & Hosp., Community Mental Health Center, Philadelphia, Pa.) **Self-esteem and internal-external control: A validation study.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 162.—Presents a validation study of R. C. Ziller, J. Hagey, M. D. Smith, and B. H. Long's (see PA, Vol. 43:11315) self-esteem measure. 91 undergraduates were administered the Rotter I-E scale and the Ziller self-esteem measure. Results did not support the construct validity of the self-esteem measure.

4290. Stein, Kenneth B. & Lenrow, Peter. (U. California, Berkeley) **Expressive styles and their measurement.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 656-664.—Presents theoretical formulations concerning the motoric, ideational, and sensory-perceptual expressive dimensions. The dimensions are defined as general orientations toward the world of objects including the self. The development

of the Motoric Ideational Sensory Test (MIST) as an instrumentation for the measurement of the dimensions is described. A sample of 91 male and 96 female undergraduates served as Ss for the MIST development. A 2nd sample of 133 female and 116 male Ss were utilized for a test-retest reliability study, and for observing sex differences. Following the test development, 8 expressive style types were derived representing homogeneous sets of pattern scores across the 3 dimensions. The validity of the expressive styles was then studied in relation to classes of variables pertaining to personality and cognitive factors. (19 ref.)—*Journal abstract.*

4291. Tolor, Alexander. (Fairfield U., Inst. for Human Development) **Interrelationships among scales of a verbal psychological distance measure.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 520-522.—A verbal psychological distance measure was administered to 205 male and 128 female undergraduates to examine the psychological distance clusters that emerge from this technique. Intercorrelations for the 7 concepts are presented and indicate generally low-order correlations, with 14 out of 42 being significant. Females responded with greater independence to the target figures than did males. There were sex differences regarding common distance reactions to the figures. The highest positive correlation for males was for the psychological distance between the 2 parental figures. It is suggested that men tend to develop a much more generalized desire for closeness or aloofness to both parents than do females.—*E. J. Kronenberger.*

Inventories

4292. Armentrout, James A. (St. Louis U., Medical School) **Correspondence of the MMPI and Mini-Mult in a college population.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 493-495.—High correlations were found in almost all instances between Mini-Mult and MMPI scores for the separate scales using a college population of 164 Ss. Using profile pairs for individual Ss showed that the Mini-Mult profile permitted few conclusions as to validity, high points, or general elevation of its associated MMPI profile. In general, it was felt that there was a disappointing lack of correspondence between the MMPI and Mini-Mult and that this research discouraged the use of the Mini-Mult with college students.—*E. J. Kronenberger.*

4293. Bhushan, L. I. (Bhagalpur U.) **A Hindi version of Eysenck Personality Inventory (Form A).** *Psychology Annual*, 1969, Vol. 3, 27-30.—Describes the construction and standardization of Eysenck's Personality Inventory (Form A) translated into Hindi. The test was translated with the help of language experts. Split-half and test-retest reliabilities for the Extraversion, Split-half and test-retest reliabilities, respectively, were .78, .69, .73, and .76. Validity coefficients as calculated by administering both English and Hindi versions to postgraduate students were .89 and .84, respectively, for both scales. Norms are reported in terms of means and standard deviations for different age groups and political party members.—*U. Pareek.*

4294. Braun, John R. & Tinley, John J. (U. Bridgeport) **Faking study of scores on the Self-Perception Inventory.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 118.—Investigated fakability of the Self-Perception Inventory (SPI) using 17 undergraduates with fake good

instructions and 20 with fake bad. Scores on all but 1 of the 11 scales (Rigidity-Dogmatism) were significantly affected in appropriate directions by the opposed faking instructions ($p = .002$). With 4 scales, the distributions of scores for the opposed instructions showed no overlap. Results show the SPI is grossly transparent when applied to undergraduates.—*Author abstract*.

4295. Butcher, James N. (Ed.) (U. Minnesota) **MMPI: Research developments and clinical applications**. New York, N.Y.: McGraw-Hill, 1969. xiv, 402 p. \$9.95.—Various authors including W. G. Dahlstrom, R. D. Fowler, and J. S. Wiggins present their research on the development and clinical application of the MMPI and discuss controversies currently surrounding its use. Discusses use of computers for automatic MMPI interpretation, development of content scales, and the "invasion of privacy" issue.

4296. Gaines, L. S. & Fretz, B. R. (Maryland State Psychiatric Research Center, Baltimore) **Ego strength, social impression value of stimuli, and self-reference language**. *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 428-431.—Examined ego-strength and impression value of stimuli-verbs as 2 conditions hypothesized to influence the generation of self-reference statements. 60 male undergraduates who significantly varied in ego strength did not vary in their production of self-reference statements except when impression value of the stimuli was also considered. Significant differences obtained were diametric to hypothesized relationship. Results are considered in relationship to the repression-sensitization dimension.—*Journal abstract*.

4297. Gravitz, Melvin A. (Montgomery Coll., Takoma Park, Md.) **Validity implications of normal adult MMPI "L" scale endorsement**. *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 497-499.—Examined 6686 male and 4717 female MMPI L scale protocols for percentage of true-false responses. It was found that large numbers endorsed more than 1/2 of the items in the direction scored as deviant. Sex differences were noted. The validity of the scale was questioned.—*E. J. Kronenberger*.

4298. Mikesell, Richard H., Calhoun, Lawrence G., & Lottman, Thomas J. (U. Georgia) **Instructional set and the Coopersmith Self-Esteem Inventory**. *Psychological Reports*, 1970(Feb), Vol. 26(1), 317-318.—Studied effects of the manipulation of instructional set on the Coopersmith Self-Esteem Inventory for 29 high school boys and girls. Total self-esteem scores were significantly greater under the fake good instructional set than under either the control or fake bad set ($p < .01$); there were no significant sex differences or a significant interaction between sex and instructions. The Lie scores were significantly different for all 3 sets of instructions ($p < .01$), but there were no significant sex differences or interactions.—*Journal abstract*.

4299. Stehbins, James A. (U. Iowa, State Services for Crippled Children) **Comparison of MMPI scores of mothers of enuretic and control children**. *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 496.—Mothers of enuretic children scored significantly higher on the Pa scale of the MMPI than a control group of mothers. It was suggested that this finding could be due to chance factors.—*E. J. Kronenberger*.

Projective Techniques

4300. Carvalhaes Bonilla, Lúcia. (Pontificia Uni-

versidade Católica de São Paulo, Brazil) **Contribuição à fundamentação do Teste das Pirâmides Coloridas, de Pfister**. [A contribution to lay the Pfister Color Pyramid Test foundation.] *Revista de Psicologia Normal e Patológica*, 1968(Jan), Vol. 14(1-2), 82-90.

4301. Chu, Cheng-ping. **The remodification of TAT adapted to Chinese primary school children: I. Remodification of the pictures and setting up the objective scoring methods**. *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 59-73.—Discusses the 1st part of a study on remodification of TAT for Chinese primary school children. This involved preparing a set of applicable TAT pictures, and setting up objective administering and scoring methods in order to have a standardized test. The developing of TAT pictures is based on rationales which may provide a broader meaning in understanding personalities. The setting up of objective scoring methods has benefits in studies of larger samples or group comparisons. Most of the contents of scoring methods are developed from other studies and are checked by 12 representative Chinese primary school children's responses. The final scoring sheets are included.—*Journal abstract*.

4302. Chu, Cheng-ping. **The remodification of TAT adapted to Chinese primary school children: II. The application and evaluation of pictures**. *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 74-89.—Presents a 4-part study of the remodification of TAT adapted for Chinese primary school children: (a) the remodification of a new set of pictures, (b) the setting up the objective scoring methods, (c) the application of a new set of pictures in the developmental and comparative studies of children's TAT responses, and (d) the evaluations of each picture. These newly developed pictures and scoring methods will be useful for personality studies of children.—*Journal abstract*.

4303. Cuppens, E. C. **De WARTEGG-Teken-Test, Evaluatie van een omstreden techniek**. [The Drawing-Completion Test: Evaluation of a controversial technique.] *Gawein*, 1969(Jan), Vol. 17(1), 1-70.—Describes the Drawing-Completion Test and analyzes and evaluates the scoring systems developed by E. Wartegg, G. M. Kinget, D. Duhm, and M. Takala. The requirements the scoring-systems must meet when the test is used in a research-project are described. The content of the drawings is shown to offer a sample of the objects and situations that prevail in daily-life experiences of the person and to reflect the emotional loadings which they have in the person's own world of experiences. The writing-direction is identified as a response-set in the scores of the stimulus preference, and thematic concepts confining the process of stimulus perception during the test are described. Some restrictions to the use of the test in its present stage of development are mentioned. (28 ref.)—*English summary*.

4304. Hartman, A. Arthur. (Psychiatric Inst., Chicago, Ill.) **A basic TAT set**. *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 391-396.—The 10 TAT cards judges most valuable for a basic test set were selected by 170 highly experienced psychologists. Judges' choices, separately determined for adults and children, were very consistent and rankings of the 10 most frequently chosen cards were closely parallel in the adult and child series. Utilizing these findings a recommended Basic TAT set of 8 cards is proposed to enhance development of the TAT for clinical research and teaching purposes.—*Journal abstract*.

4305. Silvers, Damon & Wirls, C. J. (U. Maryland) **A determination of the symbolic meanings of the Kahn Test of Symbol Arrangement objects.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 401-408.—Attempted to determine the validity of the postulated common meanings for the Kahn Test of Symbol Arrangement (KTSA) symbols using the semantic differential to determine empirically Ss' reactions to the KTSA symbol objects. These responses were then used to confirm Kahn's postulated popular meanings for the symbols. The connotative meanings for the KTSA symbols were determined by the semantic differential ratings of 48 male and 48 female preadolescents. The findings confirmed Kahn's postulated meanings for some of the symbols, while others were only partially confirmed and still others were not confirmed at all. The semantic differential ratings were statistically significant 260 out of 336 possible times. The interpretive meaning of the results is discussed.—*Journal abstract*.

4306. Solar, Diana; Bruehl, Dieter, & Kovacs, John. (U. California, Los Angeles) **The Draw-a-Person Test: Social conformity or artistic ability?** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 524-525.—Presents and discusses correlations between conformity and the Draw-a-Person Test (.00), between the Sophistication of Body Concept Scale and Conformity (.01), between artistic ability and the Draw-a-Person Test (.74), and between the Sophistication of Body Concept Scale and artistic ability (.76). 40 female undergraduates served as Ss. Results suggest that scores on the figure drawing scales reflected artistic ability rather than conformity. It was felt that in the absence of specific validation it is highly questionable to base interpretations on mechanically scored scales derived from drawings of the human figure.—*E. J. Kronenberger*.

4307. Weisskopf-Joelson, Edith & Wexner, Lois B. (U. Georgia) **Projection as a function of situational and figural similarity.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 397-400.—Hypothesized that male Ss would project more on situations pertaining to the lives of men than on situations pertaining to the lives of women and that female Ss would project more on situations pertaining to the lives of women. It was further hypothesized that male Ss and female Ss would not differ with regard to the amount of projection elicited by male and female pictorial figures. Transcendence indices were used as measures of the amount of projection. Ss were 30 25-30 yr. old male college students and their wives. The 1st hypothesis was confirmed for men only. The 2nd hypothesis was confirmed for men and for women. (17 ref.)—*Journal abstract*.

Rorschach Test

4308. Ames, Louise B. (Gesell Inst. of Child Development, New Haven, Conn.) **Projecting the future of a projective technique.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 359-365.—Suggests that the waning influence of projective techniques does not signal the weakening of the Rorschach. The continuing usefulness of the Rorschach is discussed with regard to its effectiveness: (a) in determining changes which take place in human Ss as they mature, (b) in determining school readiness and

predicting academic success, (c) in measuring intactness of function in old age, (d) in measuring racial and socioeconomic differences, (e) as a supplement to the Lowenfeld Mosaic, (f) in differentiating somatotypes, (g) in determining perceptual problems and level of cognitive function, and (h) in predicting interpersonal behavior. (17 ref.)—*M. West*.

4309. Reisman, John M. (Memphis State U.) **The effect of a direct inquiry on Rorschach scores.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 388-390.—33 Ss were administered the Rorschach and had a traditional, nonleading inquiry. An equal number of Ss took the Rorschach and had a direct inquiry in which they were asked specifically whether or not a certain determinant had been relevant. Results indicate no significant difference in the numbers of determinants produced by the 2 groups. It is suggested that a standardized, direct inquiry would be of considerable value in administering and understanding the Rorschach.—*Journal abstract*.

4310. Sloane, Patricia. **The ink blot test, "psychodiagnostics" and Hermann Rorschach's aesthetic views.** *Journal of Aesthetics & Art Criticism*, 1970(Fal), Vol. 29(1), 106-119.—States that Rorschach's "assumption that color response is primarily a matter of individual psychology is open to question, as is Rorschach's negative view on color, and the negative overtones of some of his color terminology. Questionable, also, is the assumption that visual perception splits easily into a dualism of form versus color." It is pointed out that since the card forms are bisymmetrical they cannot be chance forms. They tend to elicit associations with objects (e.g., animals) which are bisymmetrical. Since Rorschach's death in 1922, art expression has grown more literal again and bright colors have come into fashion. The test, therefore, is not culture or time free for literal interpretations of the blots are now more to be expected. Special attention to the bright colors of the cards does not at present indicate emotionality. (16 ref.)—*P. R. Farnsworth*.

CLINICAL PSYCHOLOGY

4311. ———. **Protokoll der 12. Tannenfelder Tagung in Rahmen der Medizinisch-wissenschaftlichen Gesellschaft für Psychiatrie und Neurologie Leipzig am 29.5.1968 im Fachkrankenhaus für Neurologie und Psychiatrie Tannenfeld.** [Protocol of 12 days at Tannenfeld of the Scientific-Medical Society for Neurology and Psychiatry in Leipzig on May 29, 1968 at the Tannenfeld Specialty Hospital for Neurology and Psychiatry.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(May), Vol. 22(5), 191-192.—Presents brief abstracts of the 6 papers presented. 3 papers were on aspects of myasthenia; the other 3 were on blindness and paranoid syndrome, culpability of juvenile social drinkers in Dresden, and the case of a killing of a child by its schizophrenic mother.—*K. J. Hartman*.

4312. Antebi, R. N. (Eastern District Hosp., Glasgow, Scotland) **State benefits as a cause of unwillingness to work.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 205-206.—When a worker learns of the social benefits offered to the unemployed, or a poor worker with 3 or 4 children inflating the welfare income becomes ill or unemployed, an intractable syndrome beyond the

help of a psychiatrist may ensue. Attitudes of the wife may discourage a return to work, in part because he releases her from part of the load of child care. Symptomatology is similar to that of compensation neurosis with an average age of onset of 42, reports of poor sleep, poor concentration, anxiety, irritability, weakness, and various somatic complaints.—*R. L. Sulzer.*

4313. Appelbaum, Stephen A. (Menninger Foundation, Topeka, Kan.) **Science and persuasion in the psychological test report.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 349-355.—Psychological test reports are different from traditional medical reports. Rather than solely technical or scientific documents, they are political, diplomatic, strategic persuasions functioning in a complex socio-psychological context. Some principles of writing test reports from this viewpoint are included. (24 ref.)—*Journal abstract.*

4314. Belciugăteanu, C. **Arta și dialectica sănătății și morbidității psihice.** [Art and the dialectics of health and psychic morbidity.] *Neurologia, Psihiatria, Neurochirurgia*, 1968(Mar), Vol. 13(2), 109-118.

4315. Berger, Milton M. (Ed.) (Columbia U., Coll. of Physicians & Surgeons) **Videotape techniques in psychiatric training and treatment.** New York, N.Y.: Brunner/Mazel, 1970. xv, 303 p. \$15.—Presents a comprehensive overview by leading experts in the field on all aspects of the use of videotape in psychiatry, including theory and practice, training and treatment, legal and ethical considerations, and technical and artistic guidance.

4316. Caudill, William & Lin, Tsung-Yi. (Eds.) (National Inst. of Mental Health, Bethesda, Md.) **Mental health research in Asia and the Pacific.** Honolulu, Hawaii: East-West Center Press, 1969. xv, 487 p. \$12.50.—Presents papers prepared for the 1966 Conference on Mental Health Research in Asia and the Pacific. Topics by various authors include: (a) issues in the identification and study of mental illness, (b) the effects of social structure and culture on human behavior, and (c) criticism of the preceding discussions and suggestions for training and research.

4317. Ellinwood, Everett H. (Duke U., Medical Center) **Perception of faces: Disorders in organic and psychopathological states.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 622-646.—The face is a unique highly charged percept in humans. Little is known of the normal vicissitudes of perception of faces and less about its disorders. The disorders include prosopagnosia, false recognition, the syndromes of Fregoli and Capgras, perceptual distortions, hallucinations, and hypercathexis of faces. Many of the disorders are found in diseases of both organic and psychological origin. Several "of the disorders that elucidate some of the mechanisms involved in perception of faces" are presented, and "the position that the more primitive aspects of these mechanisms are involved in certain paranoid psychopathological states" is taken. (62 ref.)—*D. Prager.*

4318. Ey, H., Bernard, P., & Brisset, C. **Manuel de psychiatrie.** [Handbook of psychiatry. (3rd ed.)] Paris, France: Masson, 1967. 1211 p.—A manual for the specialist and the general practitioner. Materials are presented on the clinical picture, treatment, and prophylaxis of mental diseases "from the viewpoint of the clinical facts (old and new) and from that of the theoretical bases of psychiatry."—*I. D. London.*

4319. Feuerhahn, G. & Vater, D. (Wilhelm Greisinger Hosp., Berlin, W. Germany) **Über Schlafgewohnheiten, Schlafstörungen und Schlafmittelverwendung in einem Berliner Wohngebiet.** [Sleeping habits, sleep disorders and use of soporifics in a residential section in Berlin.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(May), Vol. 22(5), 182-185.—Analysis of results of 4000 interviews of residents of a newly constructed residential district in Berlin reveals widespread disturbance in sleeping habits, general decrease in length of hours of sleep, and an increased use of soporifics. Members of more intellectual occupations reported more disturbances than those in physical occupations. Women in all socioeconomic levels reported higher rates of sleep disorders.—*K. J. Hartman.*

4320. Fraas, Louis A. & Mathes, Eugene W. (249th General Hosp., APO San Francisco, Calif.) **Aspirations and concerns of hospitalized psychiatric and medical casualties evacuated from the Republic of Vietnam.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 149-156.—Aspirations and concerns of United States Army medical and psychiatric casualties were reviewed and compared to an earlier study by K. G. Garrison (see PA, Vol. 40:12178) involving 9th graders. Psychiatric patients (N = 36) were more concerned about their present life and future personal status, whereas medical patients (N = 85) were more cognizant of future business and financial success. Medical Ss expected to marry earlier, and make more money than psychiatric Ss. The 9th graders were more aware of home and school influences in their lives. Overall, aspirations and concerns seem rather fluid, and mirror present conditions.—*Journal summary.*

4321. Haley, Jay. (Child Guidance Clinic, Philadelphia, Pa.) **The power tactics of Jesus Christ and other essays.** New York, N.Y.: Grossman, 1969. 146 p. \$4.95.

4322. Hocking, Frederick. (Alfred Hosp., Melbourne, Victoria, Australia) **Psychiatric aspects of extreme environmental stress.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 542-545.—Discusses the reactions of individuals subjected to severe environmental stress. Childhood rearing patterns and differing constitutional factors can influence reactions to normal stress, however, there is increasing evidence that under severe or prolonged stress, these factors will, at most, only postpone the onset of neurotic responses. Emotional reactions to various forms of severe biological stress, including starvation, sensory deprivation, and natural and man-made disasters (e.g., military combat, concentration camps, atomic bombing, etc.) are reviewed. It is concluded that susceptibility to stress in humans follows a normal curve of distribution rather than a 2-category classification of "normal" and "predisposed" to breakdown. (27 ref.)—*P. McMillan.*

4323. Inglis, James. (Queen's U., Kingston, Ontario, Canada) **Shock, surgery and cerebral asymmetry.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 143-148.—Shock effects on memory and learning ability resemble results of temporal lobectomy, perhaps because the site of the 2 procedures is the same. These parallels imply a pressing need for discovery of other modes of ECT that interfere less with the normal brain activities. (32 ref.)—*R. L. Sulzer.*

4324. Kennedy, James F. (Smith Coll., School for Social Work) **Implications of grief and mourning for mothers of defective infants.** *Dissertation Abstracts*

International, 1970(Jul), Vol. 31(1-A), 472-473.

4325. Klages, W. **Der menschliche Antrieb: Psychologie und Psychopathologie.** [Human motive forces: Psychology and psychopathology.] Stuttgart, W. Germany: Georg Thieme, 1967. 128 p.—Attempts to cover a very wide range of varied psychological and psychopathological problems from the viewpoint of "motivation and its disorders." "Motivation" is understood as including not only "psychic functions and their disorders," but as in partial coincidence with such more general philosophical concepts as "will, psychic activity, psychic energy, spontaneity [Eigenantrieb], etc."—*I. D. London*.

4326. Lin, Pi-fong & Yen, Fang. **A study of psychological after-effect of the contraceptive operation of tubal ligation.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 90-104.—Describes 2 experiments in which 92 female Ss and 59 female Ss, respectively, were given the MMPI. 11 personality scales (Ar, D, Es, Mf-F, N, Mfl, Im, Sp, Ao, Sr, and Sv) and 55 items were included in Exp. I. In Exp. II only 5 personality scales (Hs, Hy4, At-s, Ma3, H1) and only 63 items were included. Results of Exp. I show that most Ss after tubal ligation have more emotional maladjustment than those who have not received tubal ligation. However, the small number of Ss and construction of the inventory decrease the reliability of this result. Results of Exp. II show that there is no significant difference between the 2 means of all groups on all scales at the .05 level.—*Journal summary*.

4327. Mefferd, Roy B., Houck, Robert L., & Sadler, Timothy G. (Veterans Administration Hosp., Houston, Tex.) **Perceptual categorization: Factors influencing the reproduction of spoken sounds delivered at suprathreshold levels without masking.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 71-78.—45 Ss with normal hearing who were patients of 3 clinical categories receiving phenathiozine medication repeated phonetic stimuli received via an earphone under standard audiological testing conditions. Errors in reproduction of common words (compound spondaic words, monosyllabic homonyms and nonhomonyms), common prefixes and suffixes, nonsense syllables, and common words pronounced backward occurred least (2%) with the compound words, and they increased monotonically in the order given above to a frequency of 36% with the backward words. This result was interpreted as being due to the manipulation of the level of perceptual readiness and of the processes of categorization involved in classification of the stimulus in systematic and specific ways. This was accomplished variously by alteration of the expectancies relative to the phonetic, syntactic, or semantic nature of succeeding stimuli, and to differences in the relative availability in memory of matching information caused by differences either in familiarity with the stimulus or in the range of meanings associated with the stimulus. (38 ref.)—*Journal abstract*.

4328. Müller, C., Ciompi, L., & Medvecka, J. (U. Lausanne, Switzerland) **Mortalité, survie et causes de décès dans la paralysie générale.** [Mortality, survival and causes of death in general paralysis.] *Social Psychiatry*, 1970(Jul), Vol. 5(3), 121-128.—Studied 320 cases of persons, born between 1873 and 1897, who suffered from general paralysis. Data show that mortality was substantially higher in these Ss than in the general population. The mean age at the time of 1st admission (and probably, therefore, at 1st onset) was 45. Male Ss

survived an average of 6.3 yr. after admission and women 5.3 yr. This is 7.8 yr. less for men and 9.8 yr. less for women than the life expectancy of the general population. Deaths occurred during a 60-yr period; during the last 2 decades, the death rate was lower. Clinical complications of other kinds tended to lower the death rate because they necessitated longer hospitalization and treatment. In many cases the only illness present at death was general paralysis, although there was also a high incidence of respiratory and circulatory diseases. Cancer was significantly less frequent as a cause of death at the beginning of the period of observation, but became more frequent later. Suicide was slightly less frequent than in the general population, but differences were not statistically significant. (German abstract) (19 ref.)—*English abstract*.

4329. Polak, Paul. (Ft. Logan Mental Health Center, Crisis Intervention Div., Denver, Colo.) **Patterns of discord: Goals of patients, therapists, and community members.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 277-283.—Studied the extent of agreement in treatment goals between mental patients and their therapists. Ss were 11 patients at a United States urban mental health center and 7 patients at a rural hospital in Scotland. Semistructured interviews were administered to Ss and a parallel schedule to staff members. Results suggest: (a) a wide variation in patient and therapist conceptions of the desired content of treatment goals; (b) at time of admission, there is low agreement among therapist, family, and community members with the patient's goals; (c) the staff's values have a biasing effect on their predictions of patient values; and (d) significant interstaff agreement exists.—*P. McMillan*.

4330. Rae-Grant, Quentin & Roberts, C. A. (U. Toronto, Ontario, Canada) **Adult and child psychiatry: One or two nations?** *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 247-252.—Reviews the development and present status of child psychiatry as a subspecialty of general psychiatry. It is noted that the mental health needs of children were late in being given appropriate attention in both Canada and the United States. Child psychiatry is now struggling to identify itself as a subspecialty in its own right, yet sharing common goals. A written discussion by C. A. Roberts emphasizes the need for effective interrelationships with all health groups in order to assure comprehensive services.—*P. McMillan*.

4331. Raknes, Ola. **Wilhelm Reich and orgonomy.** New York, N.Y.: St. Martin's Press, 1970. 130 p. \$5.95.

4332. Riedel, Wolfgang W. (Catholic U. of America) **An investigation of personal constructs through nonverbal tasks.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 173-179.—Attempted to devise essentially nonverbal procedures for the measurement of a person's role constructs as defined by G. H. Kelly. This procedure was adopted to allow the extension of personal construct theory to the social psychological realm. The graphic procedure would have the additional value of opening up approaches to personality measurement with S groups (i.e., young children and handicapped Ss) that cannot adequately respond to verbal materials. 2 studies compared 49 6th graders with 49 12th graders and 50 neuropsychiatric with 50 medical patients on the Personal Construct Inventory, specifically constructed for this purpose and pretested with 177 Ss. 6 hypotheses were tested in each study, with 5 out of 6

finding confirmation in both investigations. Results indicate the hypotheses about the nature of role constructs are tenable and merit further investigation. The feasibility of the graphic approach to measurement is illustrated.—*Journal abstract.*

4333. Rokhlin, L. L. *Ocherki psikhatrii*. [Essays in psychiatry.] Moscow, USSR: RSFSR Ministry of Public Health, 1967. 390 p.—The monograph, published as an unnumbered issue of *Trudy Moskovskogo nauchno-issledovatel'skogo instituta psikhatrii* [Transactions of the Moscow Research Inst. of Psychiatry], provides a historical treatment of "almost all the main problems of contemporary psychiatry" within the context of the social-historical development of society at any given stage. A special chapter is devoted to the bases of the Pavlovian theory of higher nervous activity and its significance for psychiatry.—*J. D. London.*

4334. Schneider, P. B., et al. (U. Lausanne, Switzerland) *Contribution à l'étude de la psychiatrie ambulatoire: II. Comparaisons à l'intérieur de la clientèle d'un service ambulatoire*. [Contribution to the study of outpatient psychiatry: II. Comparisons of clientele of an outpatient service.] *Social Psychiatry*, 1970(Jul), Vol. 5(3), 128-154.—Presents the 2nd part of a study on psychiatric epidemiology carried out in the canton of Vaud in Switzerland. The 1st part studied the ratio between the canton's population and the number of patients attending a local psychiatric outpatient clinic. These patients were studied in the 2nd part on the basis of the same epidemiological criteria (sex, origin, residence, age, civil status, religion), plus occupation. Clinical characteristics of Ss (i.e., diagnosis, manner and reason for attendance, and type of intervention) were studied and related to the above factors. Clinic patients and patients of private psychiatrists were compared. Hypotheses are presented on the basis of results obtained. (German abstract)—*English abstract.*

4335. Seelig, Mildred S. *Vitamin D and cardiovascular, renal, and brain damage in infancy and childhood*. *Annals of the New York Academy of Sciences*, 1969(Sep), Vol. 147(15), 537-582.—Excess intake of vitamin D is implicated in a number of serious diseases of childhood characterized by cardiovascular, renal, and brain damage. A syndrome of supravalvular aortic stenosis, mental retardation, and characteristic facies seems associated with receiving massive doses of vitamin D in infancy and childhood. This syndrome occurs more commonly in white than black infants and seems related to racial susceptibility to vitamin D. (160 ref.)—*B. S. Aaronson.*

4336. Siomopoulos, V. (Illinois State Psychiatric Inst., Chicago) *On form and similarity in mental functioning*. *Psychoanalytic Review*, 1969, Vol. 56(3), 415-424.—"Thinking in terms of formal similarities is a universal principle of mental functioning. . . . Feeling in terms of similarities may also be crucial for mental functioning in normal conditions as well as in psychopathology." Theories and clinical examples are discussed where similarity of cognitive forms is involved in 1 or another way.—*D. Prager.*

4337. Sperber, Michael A. *Sensory deprivation in autoscopic illusion, and Joseph Conrad's "The Secret Sharer."* *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 711-718.—The role of sensory deprivation and sensory monotony in autoscopic illusion and autoscopic hallucination is discussed. Other factors—especially intrapsychic conflict—also seem to be involved. The

relationships of these factors are considered, using J. Conrad's *The Secret Sharer* as a basis of reference.—*Journal summary.*

4338. Sze, William C. (U. Pittsburgh) *A study of the effect of social variables on psychiatric emergency situations among children*. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 475.

4339. Tinterow, Maurice M. (Wesley Medical Center, Wichita, Kan.) *Foundations of hypnosis: From Mesmer to Freud*. Springfield, Ill.: Charles C Thomas, 1970. xiii, 606 p. \$16.50.

4340. Tolor, Alexander. (Fairfield U., Inst. for Human Development) *Reason, research, and reflections on psychological distance: A rejoinder*. *Psychological Reports*, 1970(Feb), Vol. 26(1), 302.—On the basis of significantly different replacement distances achieved by long- and short-term hospitalized patients, A. Tolor and M. S. Donnon (see PA, Vol. 44:18890) suggested that long-term patients have a greater desire for social relationships than short-term patients. A. F. Neel's (see PA, Vol. 45:Issue 3) criticisms of this study are refuted. It is demonstrated that examiner effects were probably not operative, that social-class differences could not have accounted for the results, and that the groups did not differ in accuracy of placements.—*Author abstract.*

4341. Waldman, Roy D. (Rutgers State U.) *The modern age: A dilemma for psychiatry*. *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 569-577.—Examines the objectifying techniques which have promoted an interpretation of the psychiatric symptom in terms of mechanism rather than meaning. To the extent to which psychiatric theory has fostered a view of man abstracted from the concreteness of his socio-historical realities, it has fostered conditions having potential for mental illness. (16 ref.)—*Journal abstract.*

4342. Zenevich, G. V. *Voprosy dispanserizatsii psikhicheskii i nervnobil'nykh*. [Problems in the treatment of the mentally and nervously ill in the clinic.] Leningrad, USSR: Meditsina, 1966. 223 p.—A methods manual for doctors assigned to psychoneurological clinics for the treatment of outpatients.

PERSONNEL

4343. Baca Baldomero, E., Madoz, V., & Muñoz Rodríguez, P. E. *La formación de enfermeras psiquiátricas: Resultados de una primera experiencia*. [Training of psychiatric nurses: Results of a preliminary experiment.] *Revista de Medicina de la Universidad de Navarra*, 1968(Sep), Vol. 12(3), 227-240.—Discusses the planning and development of an experimental psychiatric training course for nurses, based on the idea of the psychiatric nurse as an active member of the therapeutic team. Emphasis is placed on the formative aspects of teaching by making the students responsible for their own process of learning, and examination systems are reviewed according to this idea. It is concluded that less directive, more personal teaching is not utopic, but it is feasible and highly recommended. An appendix with a list of courses is included.—*English summary.*

4344. Castelnovo-Tedesco, Pietro. (Harbor General Hosp., Torrance, Calif.) *Psychiatric residents' appraisal of psychiatric teaching in medical schools*. *Comprehensive Psychiatry*, 1969(Nov), Vol. 10(6), 475-481.—A questionnaire was distributed to 218 psychiatric residents and fellows from 9 training programs in the Los

Angeles area. Of the final sample of 101, 16% considered psychiatry the poorest taught subject although only 4% considered it the least learned subject, 37% thought the teaching of psychiatry had been either poor or indifferent. About $\frac{1}{3}$ had decided to specialize in psychiatry before medical school, $\frac{1}{3}$ during medical school, and $\frac{1}{3}$ after medical school. 44% had never received instruction in psychotherapy, 31% had never treated a patient with psychotherapy, and 82% were confident that psychotherapy was an effective form of treatment. All felt that psychiatry in medical school was directed mainly at the future nonpsychiatrist. The most prized features of training were contact with dedicated teachers and generous opportunity for clinical experience.—D. Prager.

4345. Dinoff, Michael; Finch, A. J., & Clements, Carl B. (U. Alabama) **Testing clinical judgment during a crisis.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 181-182.—Following the disaster, Hurricane Camille, 250 patients were transferred from 1 neuropsychiatric hospital to another. In making arrangements to accept and accommodate new patients, rapid decisions had to be made to relocate patients within the hospital. The staff transferred patients from a regressed geriatric unit to 1 of 3 units based upon subjective decisions as to the patients' capacity to care for themselves. Follow-up data with the Minimal Social Behavior Scale show that they made accurate decisions.—*Journal abstract.*

4346. Fordham, Michael. **Reflections on training analysis.** *Journal of Analytical Psychology*, 1970(Jan), Vol. 15(1), 59-71.—Discusses the subject of training analysis in light of the training situation. A basic assumption was that 1 analyst conduct the training analysis if the preoedipal conflict patterns are to be worked through. Training analysis provides the trainee with experience which can serve as the basis for his future work. Analysis during formal training is a part of the trainee's efforts to integrate what he learned intellectually with his own personal experience. (19 ref.)—P. Federman.

4347. Hines, Laura. (Temple U., Community Mental Health Center) **A nonprofessional discusses her role in mental health.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1467-1472.—Presents an autobiographical account of 1 woman's training period as a mental health assistant. The account includes her current work with patients, home visiting, work with child and parent groups, and the homemaking service at the community mental health center. It is concluded that a more effective mental health program is needed on the local level because the present program is in need of expansion of services in order to encompass the wide range of community problems.—P. R. Shibelski.

4348. Lynch, Mary & Gardner, Elmer A. (Temple U., Community Mental Health Center) **Some issues raised in the training of paraprofessional personnel as clinic therapists.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1473-1479.—Explores the Temple University Community Mental Health Center's training program, instituted in 1966, for the paraprofessional mental health assistant. The programs curriculum (i.e., language skills, health care, health patterns, black identity, social issues, psychological development, psychiatric interviewing, psychiatric pathology, literature seminar, observation sensitivity, and communication) is described. A definition of "helper" includes the characteristics which are the basis of the mental health assistant. Questions of supervision, the role of the

psychiatrist (supervisor or administrator), the career ladder for the paraprofessional, and the paraprofessional's effect upon the organization are discussed in an attempt to understand the role of the paraprofessional and the place of the program in the community and professional world. (17 ref.)—P. R. Shibelski.

4349. Plutchik, Robert; Klein, Morris M., & Contes, Hope. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Some factors related to the selection of clinical psychology interns.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 449-452.—A 21-item, 9-point Psychology-Intern Rating Scale was developed and 60 candidates were interviewed and rated by 2-4 supervisors. An overall score was computed for each candidate and correlations between pairs of raters were determined. The correlation between overall scores and global ratings was .83. Discriminating items dealt with complaining, sensitivity to others, academic preparation, self-awareness, emotional stability, independence, problem-solving ability, and probable response to criticism. Items dealing with likability, personal appearance, openness, and leadership potential failed to discriminate between the groups.—E. J. Kronenberger.

4350. Raybin, James B. & Detre, Thomas P. (Fitzsimmons Army Hosp., Denver, Colo.) **Sleep disorder and symptomatology among medical and nursing students.** *Comprehensive Psychiatry*, 1969(Nov), Vol. 10(6), 452-462.—Reports on the quality and quantity of sleep disorder among a normal group of 139 medical and nursing students. About 20% of the total population reported a disturbance of sleep. Sleep disorder data were also correlated with a variety of psychiatric symptoms reported by the same group. The wide discrepancy between the medical and nursing students for sleep disorder and other symptoms is discussed. This questionnaire study proved to be only marginally helpful in differentiating a subgroup of nursing school dropouts from the nursing students who stayed in school. A past or current history of psychiatric treatment did not correlate with any of the sleep disorder or other symptom variables. (27 ref.)—*Journal summary.*

4351. Ryan, James H. & Budner, Stanley. (New York State Psychiatric Inst., New York) **The impact of television: An evaluation of the use of videotapes in psychiatric training.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1397-1403.—A study conducted at the New York State Psychiatric Institute evaluated the effectiveness of videotape materials in the training of psychiatric residents. The experimental resident (TV) group (N = 34), and the resident control ("live" teaching) group, were objectively compared as to knowledge, skills, and attitudes. Each group was taught in 10 weekly sessions in psychiatry and neurology. A quiz was administered upon completion of the trial to determine the comparative knowledge scores; an interview was given to determine the skills scores; and, the Senior Psychiatrist Value Scale and Resident Psychiatrist Value Scale was administered to determine attitudinal scores. On the knowledge and skills scores, the TV group scored higher than the control group; but, on the attitude scale, the scores were nearly equal. It is concluded that TV teaching methods seem to be as good as or possibly better than live methods in resident training. (15 ref.)—P. R. Shibelski.

4352. Sampaio, Norival; Bruni, Carlos, & Araujo, Moema. (U. Federal da Bahia, Brazil) **O ensino da psicologia no curso médico: Medicina psicos-**

somática. [Psychological study in medical course: Psychosomatic medicine.] *Revista de Psicologia Normal e Patológica*, 1968(Jan), Vol. 14(1-2), 74-81.—Explains a 4th-yr program in psychosomatic medicine in which students have special training for 45 days, 8 hr/wk, discussing with psychiatrists and psychologists cases of psychosomatic syndromes. The program includes seminars in interpretation of the meaning of psychosomatic syndromes and psychodynamic aspects of personality, how to manage the doctor-patient relationship, and the medical use of psychological tests. Progress and difficulties of the program are discussed, and it is concluded that the importance of the program is in integrating psychiatric knowledge into the activities of the general practitioner.—*English summary.*

4353. **Singer, Paul R. & Muslin, Hyman L.** (U. Illinois, Medical Coll.) **Evaluation and teaching of psychiatric interviewing.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 371-376.—Describes 3 variables interacting in the production of the novice interviewer's learning: (a) a common core of values and techniques shared by experts, (b) the personal style of an expert implicitly communicated to the novice, and (c) the inarticulated personal style of the novice. An appeal is made for research aimed at making these variables explicit in order to define how to best teach students and to learn the optimal pairing that will maximize learning. It is further asserted that making teachers aware that their evaluation of students is a reflection of these 3 variables will enable them to differentiate between their own biases and reactions and what the student's learning has actually been.—*Journal summary.*

4354. **Stenger, Charles A.** (Veterans Administration Central Office, Washington, D.C.) **A realistic appraisal of existing and future job opportunities for psychologists.** *American Psychologist*, 1970(Oct), Vol. 25(10), 959-961.—Explores the question of whether there is now an oversupply of doctoral level psychologists. Recent surveys about the supply of PhD psychologists, job openings in major employment settings, and the current employment status of recent doctoral graduates in all professions are discussed. For the field of psychology, only 1.1% were unemployed in 1969 and those were almost entirely noncitizens or psychologists not seeking employment. New psychologists, however, indicated a choice of only 2-4 positions in contrast to 5-8 offers a few yr. ago. While some reduction has occurred in the job market, virtually all psychologists are still finding positions in the type of work setting they desire. A shortage exists in the health services, where there are between 750 and 1000 vacancies. In addition, the 1970 Manpower Report of the President indicates a 75-100% increase in employer requirements for psychologists by 1980, the highest projected need of all professional groups except computer technologists. It is concluded that rather than an oversupply, a shortage exists, particularly in clinical and counseling psychology.—*Author abstract.*

4355. **Theye, Frederick W.** (U. North Dakota) **Physicians' degree of concern as a function of numerical medical information indices.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 401-402.

4356. **Williams, Elliot W.** (Jacksonville State Hosp., Ill.) **From psychiatric aide to psychologist.** *Mental Hygiene*, 1970(Jul), Vol. 54(3), 430-432.—The process, problems, and rewards of changing roles from a career

aide supervisor to a professional clinical psychologist are presented autobiographically.—*A. M. Cawley.*

PSYCHOTHERAPY & ANALYSIS

4357. **Abramovitz, Carole M.** (U. Cape Town, South Africa) **Personalistic psychotherapy and the role of technical eclecticism.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 255-263.—Purports that realization of the uniqueness of the individual has not been given sufficient emphasis in psychotherapy. The plea is made for the personalistic styled psychotherapy developed by A. A. Lazarus within which empirically efficacious techniques derived from all orientations are utilized where individually applicable.—*Journal abstract.*

4358. **Blanck, Gertrude.** **Crossroads in the technique of psychotherapy.** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 498-510.—Introduction of variations from classical technique, valid and necessary in the treatment of the disturbed patient, imposes responsibility upon the innovator to adhere to scientific discipline including familiarizing oneself with current theory and explaining in the language of the scientific community the reasons for and effect of the proposed new procedure. (28 ref.)—*Journal summary.*

4359. **Bosanquet, Camilla.** (Society of Analytical Psychology, London, England) **Getting in touch.** *Journal of Analytical Psychology*, 1970(Jan), Vol. 15(1), 42-58.—Touching and tactile communication is considered part of the analytic technique described. A brief account of early development and regression was recounted which showed the importance of responding to early nonverbal signals. Touching habits in our society and in the psychotherapeutic situation are reviewed and speculations are raised regarding the use of tactile communications in analysis. (21 ref.)—*Journal summary.*

4360. **Cohn, Ruth C.** **Psychoanalytic or experiential group psychotherapy: A false dichotomy.** *Psychoanalytic Review*, 1969, Vol. 56(3), 333-345.—Hypothesizes that all curative processes are fluid. All therapeutic interventions are effective if they lead to the integration of personally significant aspects of reality previously unavailable to the patient. Psychoanalytic insight leads to release of emotional and physical tension and experiential encounter promotes psychoanalytic insight. Differences relate to the role of the therapist and the emphasis on the present vs. the past. There is a historical trend beginning with Freud's conceptualization of transference and resistance and evolving toward more experiential attitudes in psychodynamically oriented individual and group psychotherapy.—*Journal summary.*

4361. **Collins, G. H.** (Stockport & Buxton Hosp. Group, Bramhall, England) **Intravenous chlorimipramine in the treatment of severe depression.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 211-212.—Results from 16 severely depressed female inpatients indicate that 81% of the patients showed good response to the drug. This compares favorably with the responses of similar groups to ECT. It is suggested that this form of treatment may be offered as an alternative and a preferred-by-patients form of therapy.—*R. L. Sulzer.*

4362. **Crampton, Martha.** (Sir George Williams U., Montreal, Quebec, Canada) **The use of mental imagery in psychosynthesis.** *Journal of Humanistic Psychology*, 1969(Fal), Vol. 9(2), 139-153.—Describes the use of mental imagery as 1 of a variety of methods

helpful in the therapeutic program of psychosynthesis, a form of therapy in which the coworkers involved are more appropriately identified as traveler-guide rather than patient-therapist. These techniques are useful in assessing the problems and potentialities of the patient and in creating a more vivid picture for him of the growth experiences he can expect in therapy. The combination of mental imagery techniques with other approaches (i.e., dream analysis, spontaneous drawings, expressive movement, sensory and body awareness, and role-playing) is discussed. It is concluded that such techniques are not only helpful in psychotherapy, but have broader implications for more people in education and preventive mental health. (24 ref.)—*P. McMillan*.

4363. Dan, Alice J., Burstein, Alvin G., & Naughton, John P. (U. Illinois, Medical Center) **Income and outcome.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 153-156.—B. F. Riess's (see PA, Vol. 41:13753) finding that patients involved in psychotherapy experience a greater increase in income than that expected on the basis of Department of Labor statistics is reexamined in the light of reports that men involved in exercise programs experience significant behavioral changes. The income change of 19 men involved in a physical exercise program with no psychotherapeutic intent was determined and found to be greater than that expected on the basis of Department of Labor statistics. The result is discussed in terms of the methodology of psychotherapy research, and the need for multiple-comparison groups, rather than simple "control" groups, in psychotherapy outcome studies is suggested.—*Journal abstract*.

4364. Fagan, Joen & Shepherd, Irma L. (Eds.) (Georgia State U., Atlanta) **Gestalt therapy now: Theory, techniques, applications.** Palo Alto, Calif.: Science & Behavior Books, 1970. viii, 328 p. \$9.95.—Contains chapters by 22 contributing authors including Frederick Perls, Laura Perls, and James Simkin, reporting on today's refined theory, perfected techniques, and expanded applications of Gestalt therapy.

4365. Garner, H. H. (Chicago Medical School, Ill.) **Brief psychotherapy and the confrontation approach.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 319-325.—Describes a psychotherapeutic method useful for the nonspecialist in psychotherapy, emphasizing the supportive rather than the "uncovering" approach. The technique involves a confrontation problem-solving orientation usable in brief (10-15 min.) sessions. The method uses "an authoritative statement directing the patient to control certain drives, impulses or desires" against which he has previously fought. He is then asked to tell the therapist what he thinks or feels about what he has been told. The statement may vary with the patient's personality, the nature of the current conflict, or the goals of therapy, and is intended to reveal to the patient his current problem, and how it relates to past, present, and expected experiences. The statement also indicates that it is up to the patient to solve the problem with the help of the therapist. It is felt that this confronting technique focuses attention on the patient's beliefs, fixed attitudes, and maladaptive processes.—*P. McMillan*.

4366. Gillis, John S. & Jessor, Richard. (Australian National U., Canberra, Australia) **Effects of brief psychotherapy on belief in internal control: An exploratory study.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 135-137.—Hypothesized

that successful psychotherapy will produce a lessened sense of alienation or "an increased belief in internal control." Psychiatric patients (13 receiving therapy, and 16 not) were administered a 35-item forced-choice inventory on internal-external control to measure the following areas of goal orientation: social recognition, love and affection, dominance, social-political, general life philosophy, occupation, and marriage and family. The therapy group was retested after 9-11 therapy sessions and the no-therapy group after a 10-wk period. Results show (a) scores for the therapy group indicating an increase in belief in internal control from pre- to posttests, and (b) that the therapy group was significantly higher in belief in internal control than the no-therapy group on posttests. It is suggested that "patients selected for therapy may tend to have greater belief in internal control" and thus be perceived by the staff as better therapy risks.—*P. McMillan*.

4367. Klein, George S. **The ego in psychoanalysis: A concept in search of identity.** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 511-525.—There is little reason for satisfaction with ego psychology as a body of theory within psychoanalysis. There is no theory of nonsexual factors in motivation. Ego psychology has yet to articulate an active principle of development independent of the model of libidinal drive energy. Ego psychology is saddled with a foggy language of cathexis, neutralization, and discharge. E. H. Erikson's conception of mode-zone psychosexuality is preferable to the energetic conception. Psychoanalytic ego psychology offers a half-hearted and half-annotated commitment to explanation in terms of purpose on the one hand and to mechanism on the other. (24 ref.)—*D. Prager*.

4368. Lee, Stephen D. & Temerlin, Maurice K. (U. Oklahoma) **Social class, diagnosis, and prognosis for psychotherapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 181-185.—Presented a taped diagnostic interview with a professional actor who had been trained to portray a mentally healthy man to 40 psychiatric residents, assigned to 1 control and 3 experimental groups. Experimental Ss heard the interview after receiving 1 of 3 case histories of the man, constructed to simulate either upper, middle, or lower socioeconomic status. The controls made diagnoses without social history data. Results reveal a striking tendency for diagnosis to be influenced by social class. The experimental group which had heard the lower socioeconomic history "diagnosed the patient as mentally ill with fair prognosis, while controls diagnosed him as normal with an excellent prognosis." In Exp. II 95% of Ss told that the patient had been diagnosed neurotic or psychotic by board certified psychiatrists, diagnosed him as mentally ill. 9 out of 10 controls, given no prior data, diagnosed the patient as normal. Reasons for the influence of social class and prestige on diagnostic ratings are considered. (20 ref.)—*P. McMillan*.

4369. Lewinsohn, Peter M., Weinstein, Malcolm S., & Alper, Ted. (U. Oregon) **A behavioral approach to the group treatment of depressed persons: A methodological contribution.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 525-532.—Describes a quantitative method for the coding of interpersonal behavior using a learning theory framework. 4 males and 5 females participated in a 3-mo self-study group. All actions and reactions by each group member were tallied and entered on an interactional matrix. A quantitative

representation of a number of different aspects of social skill for each patient was obtained. Treatment techniques and the general course of treatment are discussed. Pre- and posttreatment comparisons were made. The method permitted Es to obtain base level information with which to define treatment goals and to measure behavior change and to focus the group on social interactional, here-and-now kinds of problems rather than hidden motives. It was also noted that information about each member's behavior was made available to the group and that the 3-mo time limit appeared to facilitate behavior change.—*E. J. Kronenberger.*

4370. **Mahrer, Alvin R.** (Miami U.) **Some known effects of psychotherapy and a reinterpretation.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 186-191.—Suggests a reexamination of psychotherapy research in which known effects reported in the literature are reinterpreted in 1 of 2 directions: (a) psychotherapy occurs when a person designated as a psychotherapist is working to help a patient, or (b) psychotherapy is a complex interaction between 2 or more persons, some of whom are therapists and some patients. It is felt that the "medico-psychiatric dimension of improvement-deterioration simply is not enough to scale the multidimensional effects of psychotherapy." Rather, it is suggested that "research utilize a broad array of dimensions consonant with behavior modification, experiential and existential approaches." Thus, many persons previously classified as unimproved or worsening "may be reunderstood as changing along dimensions better suited to contemporary approaches to psychotherapy." (44 ref.)—*P. McMillan.*

4371. **McConaghy, N.** (U. New South Wales, School of Psychiatry, Australia) **A controlled trial of imipramine, amphetamine, pad-and-bell conditioning and random awakening in the treatment of nocturnal enuresis.** *Medical Journal of Australia*, 1969(Aug), Vol. 2(5), 237-239.—In a controlled trial of 4 methods of treating nocturnal enuresis in 60 otherwise healthy 4½-15 yr. old children, pad-and-bell conditioning produced the best response, both initially and at follow-up 1 yr. later. Imipramine initially produced a significantly superior response, compared with placebo, but there was a considerable relapse rate with gradual withdrawal. Amphetamine proved of little value.—*Journal abstract.*

4372. **Mintz, Elizabeth E.** **Touch and the psychoanalytic tradition.** *Psychoanalytic Review*, 1969, Vol. 56(3), 365-376. The psychoanalytic taboo on touch is placed in its historical framework, is discussed in terms of its theoretical validity, and is surveyed in the light of some contemporary viewpoints. Finally the various meanings of physical contact between therapist and patient are discussed including an effort to establish some criteria as to when touch may be a valid therapeutic procedure. (16 ref.)—*D. Prager.*

4373. **Moss, C. Scott.** (U. Illinois) **Dreams, images, and fantasy: A semantic differential casebook.** Urbana, Ill.: U. Illinois Press, 1970. xiv, 302 p. \$8.50(cloth), \$3.95(paper).

4374. **Plaut, Alfred.** (Society of Analytical Psychology, London, England) **"What do you actually do?" Problems in communicating about analytical techniques.** *Journal of Analytical Psychology*, 1970(Jan), Vol. 15(1), 13-22.—In answering the question "What do you actually do?" the distinction was made between what is done at one time and not at another, and between what was thought to have been done and what was actually

done. The creation of the right emotional climate in the analytic situation must go on so that subjective interpersonal experiences may be expressed more objectively.—*P. Federman.*

4375. **Schapiro, Henri J.** (Yale U.) **Psychotherapy termination as a group experience with hospitalized psychiatric patients.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 155-160.—Describes a group method "to facilitate termination and reduce discharge problems" with patients who tend toward chronic hospitalization. Ss were 6 psychiatric patients (2 outpatients) in intensive therapy for 3-12 mo., who were very attached to their therapist. It was decided to (a) unite the patients and terminate therapy in a group setting, thereby replacing Ss' dependency on the therapist with the group; (b) ask for the help of the outpatients in reorienting the others to outside environments; and (c) ask for the help of Ss' families in reorientation. Results indicate that group participation did not reduce the patients' dependency on the therapist; outpatient help was only moderate; and family help, although resisted at 1st, was considerable in reorientation and ease of discharge.—*P. McMillan.*

4376. **Spiel, W.** **Die Therapie in der Kinder- und Jugendpsychiatrie.** [Therapy in child and adolescent psychiatry.] Stuttgart, W. Germany: Georg Thieme, 1967. 157 p.—A monograph, presenting the results of a study.—*I. D. London.*

4377. **Strean, Herbert S.** **Psychotherapy with children of psychotherapists.** *Psychoanalytic Review*, 1969, Vol. 56(3), 377-386.—Reviews 12 cases in which the parent-therapists were responsible, devoted, and loving, but were overpermissive and indulgent; they could not cope effectively with their children's aggression, blocked assertive expressions, and growth process. It is concluded that the availability of a therapist can help certain children of therapists master the difficult developmental hurdles of autonomy and assertiveness.—*D. Prager.*

4378. **Uëls, G.** **Krakh psikhooanaliza.** [The failure of psychoanalysis.] Moscow, USSR: Progress, 1968. 288 p.—Presents an account of the theoretical evolution of psychoanalysis, and the history of its spread and transformation in America.—*I. D. London.*

4379. **Von der Heydt, Vera.** (Society of Analytical Psychology, London, England) **The treatment of Catholic patients.** *Journal of Analytical Psychology*, 1970(Jan), Vol. 15(1), 72-80.—Treatment of Catholic patients was characterized by 2 aspects: elements of paranoia with regard to analysis and non-Catholic analysts, and a faith underlying superstitious beliefs. These tendencies should be understood and uncovered by the analyst and patient for the analysis to be effective and for treatment to proceed.—*Journal summary.*

4380. **Wentworth-Rohr, I.** **Symptoms, insight, and behavior techniques in psychoanalytic psychotherapy.** *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 47-59.—Behavior therapy as adjunctive to psychotherapy is useful in reducing postchildhood symptomatology provided the anxiety is also dissipated. Some clarification of symptom substitution is also achieved. The method did not result in symptom substitution; it reduced substitutional symptoms to more fundamental, complex personality disturbances and thereby enhanced and accelerated insight. (24 ref.)—*D. Prager.*

Therapeutic Process

4381. **Baum, O. Eugene.** (Woman's Medical Coll. of

Pennsylvania) **Countertransference.** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 621-637.—Reviews the psychoanalytic literature on countertransference, and suggests that the restricted classical definition of countertransference is most useful in psychoanalysis. (25 ref.)—D. Prager.

4382. Butterfield, Gary. (Kansas State Coll., Ft. Hays) **Interjudge reliability for formal aspects of interviewee communication.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 311-316.—The reliability among 2 Master's level clinical psychologists and 2 Master's level psychiatric social workers in judgment of frequency and location of 8 types of speech disruptions, periodic judgments of speech rate, and location of change in speech rate was determined from interviewees' responses in 4 taped interviews. With the exception of the "ah" type of disruption, reliability estimates were quite low. The utility of clinical observation of these nonverbal behaviors was questioned when reported by clinicians not specifically and extensively trained for observation of these signs. A suggestion was made regarding the direction for development of training procedures.—*Journal abstract.*

4383. Dublin, James E. (U. Kentucky) **Reactions of A and B therapist "types" to verbal non-immediacy in neurotic and schizoid communications.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 392.

4384. Howard, Kenneth I., Orlinsky, David E., & Hill, James A. (Northwestern U.) **Patients' satisfactions in psychotherapy as a function of patient-therapist pairing.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 130-134. Describes a study involving 118 female patients (median age 26) and 18 male and 9 female staff therapists (median age 36) who reported on satisfactions gained from therapy in 5-66 sessions each on 4 variables: catharsis, mastery-insight, encouragement, or nothing. Results suggest that patients have rewarding experiences if the therapist (a) has a life situation which forms a complement to theirs, (b) maintains a personal detachment from the patient's problems, and (c) respects the patient's life status. It is also noted that therapists will be more effective with certain types of patients than with others (e.g., bachelor therapists did well with Ss who were independent women or young family women, but poorly with single girls). Results suggest a "promising start toward a more empirical rationale" for assigning patients to therapists.—P. McMillan.

4385. Janulis, Peter T. (Cornell U., Medical School) **The need for intervention: A variable in psychotherapy research.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 284-287.—Hypothesizes that "the degree to which a patient's valid needs for intervention are met by the therapist... has a positive correlation with therapeutic results," i.e., the rapidity with which the patient develops a positive working relationship and significant knowledge of himself. Although a patient's request for advice often represents a neurotic need to have the therapist take responsibility for a decision, it may also indicate a valid need for meaningful interpretations. Observation of the therapeutic process suggests that "the legitimate need for intervention is visible and measurable." The following components must be differentiated: (a) the patient's efforts to understand himself must not be confused with resistances and defenses; (b) justified requests for help must be met and not confused with neurotic demands; (c)

"legitimate need for an empathetic component in the therapist's response must be fulfilled and not frustrated"; and (d) the patient's neurotic needs, reaction, and fears must be accurately interpreted. Illustrations from 4 patient cases are presented. (16 ref.)—P. McMillan.

4386. Lambert, Kenneth. (Society of Analytical Psychology, London, England) **Some notes on the process of reconstruction.** *Journal of Analytical Psychology*, 1970(Jan), Vol. 15(1), 23-41.—The reconstruction process was found to be required when a patient's response to the present was unadaptive and disproportionate in affect; reconstruction is effective when it can demonstrate the interaction between the patient's early unconscious impulses and fantasies and the behavioral attitudes of the early personal environment; the analyst's reconstructive efforts promote therapy as he is able to demonstrate the nature and origins of the patients' maladaptive past and to open the possibility of new reactions to present situations in accordance with the patient's true self, neglect of reconstruction in transference analysis may leave the patient with states of guilt, confusion, and loss of bearings. (22 ref.)—*Journal summary.*

4387. Limentani, A. (5 Upper Wimpole St., London, England) **Una reevaluación del acting out en relación con la elaboración.** [A reevaluation of acting out in relation to elaboration.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 841-860.—Discusses the possibility that acting out, especially when it occurs in the course of repeated elaboration, accomplishes special functions for the patient and therapist which may be used to promote the analytic process. A critical revision of the literature on acting out is presented, examining the role of resistance and the relation between acting out and antisocial conduct. Acting out as a therapeutic guide is considered to be relative to the level of insight attained by the patient, as well as to the state of transference and countertransference. (26 ref.)—P. Hertzberg.

4388. Marcus, Ned N. **A psychotherapeutic corroboration of the meaning of the smiling response.** *Psychoanalytic Review*, 1969, Vol. 56(3), 387-401. By smiling appropriately the therapist is not only satisfying an instinctual wish on the part of the patient but also reasonably communicating himself and thereby strengthening the patient's ego. Patients suffering from very primitive pregenital fixations require face-to-face positioning of therapist and patient.

4389. Mitchell, Kevin M., Mitchell, Rosamond M., & Berenson, Bernard G. (U. Arkansas, Rehabilitation Research & Training Center) **Therapist focus on clients' significant others in psychotherapy.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 533-536.—Data were collected from 1st-interview psychotherapy tape recordings of 56 therapists. 2 independent therapist-raters classified 13 therapists as high facilitative and 43 therapists as low facilitative. Therapist focus on clients' significant others was also identified. The therapists differed significantly on the frequency of focus on clients' significant others both as a function of discipline and facilitative conditions. At least 50% of the therapists' focused responses did not include a specific personal referent.—E. J. Kronenberger.

4390. Moos, Rudolf H. & Macintosh, Shirley. (Stanford U., Medical School) **Multivariate study of the patient-therapist system: A replication and extension.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 298-307. Replicates and extends the work of R. H. Moos and S. R. Clemes (see PA, Vol.

41:7395) and F. van der Veen (see PA, Vol. 39:8090). Each of 6 patients saw each of 4 therapists twice. The variables—total activity, feeling words, action words, reinforcements—each was scored separately for patient and therapist for each interview. Patient problem expression and therapist accurate empathy were rated for each interview. Consistent differences between patients accounted for substantially more variance than consistent differences between therapists on all variables. Patient \times Therapist \times Session interactions generally accounted for large proportions of the total variance. Results indicate that the therapist behaviors studied were not the result of a trait, of a given tendency to be empathic, or of a consistently applied therapeutic technique, but rather were very substantially situationally or patient determined. (23 ref.)—*Journal abstract*.

4391. Rolla, Edgardo H. **La Interpretación y la construcción de modelos mentales.** [The interpretation and construction of mental models.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 753-764.—Discusses ideas on transference and the nature and function of interpretations. The psyche is examined in respect to mental models which are considered to be the bases of unconscious fantasy. A method called evocative interpretation is suggested to enable a patient to reconstruct unconscious fantasies with functional dissociation which alleviates guilt that could produce negation. Evocative interpretation is defined as a model for the resolution of condensations of the primary process, emphasizing the symbolic role of memory and the analyst's role of synthesis in the therapy.—P. Hertzberg.

4392. Seidman, Edward. (U. Kentucky) **Patient-therapist compatibility in a quasi-therapeutic situation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 401.

4393. Sterba, Richard. (861 Whittier Blvd., Grosse Point, Mich.) **El destino del Yo en la terapia analítica.** [The role of the ego in analytic therapy.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 953-963.—Proposes that the ego accomplishes 3 functions in analysis. It (a) is the executory medium of the id and, therefore, crucial in transference; (b) must satisfy the demands of the superego; and (c) regulates the discharge of energy originating in the id in accordance with previous experience. The role of the ego in analysis is regarded as promoting therapeutic dissociation which broadens a patient's insight and enables him to express in words what he previously expressed in behavior.—P. Hertzberg.

4394. Truax, Charles B. (U. Calgary, Alberta, Canada) **Length of therapist response, accurate empathy and patient improvement.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 539-541.—Investigated "whether the average number of therapist words per unit of time is related to (a) his degree of accurate empathy and (b) to patient improvement during therapy." Each therapist's roster contained 3 attractive and 2 unattractive role-induction patients, and 2 attractive and 2 unattractive non-role-induction patients. Measurements for accurate empathy, patient outcome, and length of therapist statement were obtained. There was a moderate positive relationship between the average proportion of therapist talk and his level of accurate empathy and the 2 overall measures of patient improvement. It was noted that the higher the proportion of therapist talk, the more empathic the talk and the better the patient outcome.—E. J. Kronenberger.

4395. Truax, Charles B. (U. Calgary, Alberta, Canada) **Therapist's evaluative statements and patient outcome in psychotherapy.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 536-538.—Therapists were given a number of patients rated as good or poor therapy prospects. Measurements were made of the therapist's evaluation statements and patient outcome. Patients in therapy with psychiatrists making fewer evaluative statements tended to show greater improvement than patients in psychotherapy with therapists making relatively more frequent evaluative statements. The data suggested that high evaluative statements by therapists impeded patient progress and lowered the effectiveness of psychotherapy.—E. J. Kronenberger.

4396. Wogan, Michael. (U. Connecticut, Div. of Health Service) **Effect of therapist-patient personality variables on therapeutic outcome.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 356-361.—Attempted to assess the effect of therapist and patient personality variables on the outcome of therapy. 55 women and 27 male psychiatric inpatients served as Ss. The MMPI was used to derive personality measures. Therapist and patient ratings of the therapy relationship served as the dependent variables. Therapy outcomes were found to be positively related to therapist's level of anxiety and negatively related to therapist's level of repressiveness. Patients' levels of anxiety and repressiveness were both positively related to outcomes. In 2 instances, increasing similarity between patient and therapist was found to be negatively related to outcome. (15 ref.)—*Journal abstract*.

Group Therapy

4397. Abrams, Laurence. (Baylor U., Medical School) **Action group training techniques.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 151-154.—Suggests that student therapist's initial experience in group psychotherapy be with psychodrama groups in which experienced staff members are present. More conventional groups and individual therapy will be less anxiety-provoking.—A. Krichev.

4398. Amaro, Jorge W. & Soeiro, Alfredo C. (U. São Paulo, Brazil) **Psychodrama at a psychiatric clinic.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 157-163.—Reviews the history of psychodrama in South America and in São Paulo, and discusses the experiences of psychiatrists and psychologists who undertook psychodrama training in that city.—A. Krichev.

4399. Bartoletti, Mario D. (Child & Family Psychiatric Clinic, Toronto, Ontario, Canada) **Conjoint family therapy with clinic team in a shopping plaza.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 203-211.—Describes the week-by-week program of 1 clinic's structured attempts to provide a maximum amount of service within an orientation of brief conjoint therapy with the whole family as well as full assessment of the child. The basic philosophic premise is that "effective therapy consists of meaningful shared experiences for both the family members and the clinic team members."—A. Krichev.

4400. Bustos, Dalmiro M. (Inst. de Psicoterapia, La Plata, Argentina) **Moreno Academy, world center of psychodrama at Beacon, N.Y., as seen by an Argentinian.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 155-156.—Presents a brief description of the Academy and 1 professional's experiences there.—A. Krichev.

4401. Di Loreto, Adolph O. (Michigan State U.) **A comparison of the relative effectiveness of systematic desensitization, rational-emotive and client-centered group psychotherapy in the reduction of interpersonal anxiety in introverts and extroverts.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5230-5231.
4402. Fantel, E. (Brentwood Hosp., Los Angeles, Calif.) **Psychodrama in Army and Veterans Administration Hospitals: Summary.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 189-190.—Presents a brief summary of the author's experiences in beginning programs in psychodrama in the Army during and after World War II.—A. Krichev.
4403. Haskell, Martin R. (Long Beach State Coll.) **Techniques of group psychotherapy.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 100-105.—Demonstrates that a typology based on interpersonal maturity level is effective in separating delinquent boys into meaningful categories. It is suggested that typologies based on various sociogrammatic techniques would be more meaningful than the currently used mental illness categories.—A. Krichev.
4404. Haven, George A. & Wood, B. S. (Veterans Administration Hosp., Waco, Tex.) **The effectiveness of eclectic group psychotherapy in reducing recidivism in hospitalized patients.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 153-154.—Hypothesized that recidivism for 34 20-58 yr. old hospitalized veterans (experimental group) exposed to group psychotherapy twice/wk would be significantly lower than for 34 controls not given psychotherapy. After discharge from the hospital, all Ss were followed for 1 yr. to determine whether they were readmitted with the same diagnosis, to any hospital in the area. Results from 3 tests given 12 mo. later did not reveal significant differences between the 2 groups in either patients discharged and readmitted, or those discharged and not readmitted compared to those never discharged. A 4th test, however, did show that of 21 experimental group members who carried a diagnosis of anxiety reaction, 17 were discharged and not readmitted as compared to the control group where only 4 of 12 Ss with a similar diagnosis were discharged and not readmitted.—P. McMillan.
4405. Höck, K. **Gruppenpsychotherapie in Klinik und Praxis.** [Group therapy in the clinic and in practice.] Jena, E. Germany: Gustav Fischer, 1967. 224 p.—Reproduces papers read at the International Symposium on Group Therapy, held in Berlin in 1966.—I. D. London.
4406. Johnsgard, Keith W. & Schumacher, Ray M. (San Jose State Coll., Counseling Center) **The experience of intimacy in group psychotherapy with male homosexuals.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 173-176.—Reports results of extended group psychotherapy (3 yr.) with male homosexuals in a college population, who were actively homosexual and voluntarily seeking treatment. The goal of the group did not involve changing Ss' sexual orientation from homosexual to heterosexual. Therapy initially showed Ss to have difficulty in close emotional relationships, but as time progressed, group members were able to direct more positive and negative feelings toward each other. It is suggested that in such cases "growth occurs in a therapeutic environment where more than 1 therapist is involved and where emphasis is placed on increased therapist and client transparency in immediate emotional confrontation." It was found that success in treatment required long-term therapy and, if possible, continuity of treatment. It is noted that a long break in treatment, as in summer vacation, could be destructive to the group.—P. McMillan.
4407. Karp, Marcia. (Moreno Inst., Beacon, N.Y.) **Directorial catharsis: Fact or fancy.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 137-139.—In psychodrama, a spotlight could be focused on the progressive liberation of the director from catalyst to a fusing and cohesing person. The need for liberation should not be denied by the director.—A. Krichev.
4408. Moreno, J. L. (Moreno Inst., Beacon, N.Y.) **Address of the Honorary President of the Fourth International Congress of Group Psychotherapy.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 95-99.—Presents brief recollections of the author's early experiences, centering around the development of the sociogram and its meanings.—A. Krichev.
4409. Moreno, Zerka T. (Moreno Inst., Beacon, N.Y.) **Practical aspects of psychodrama.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 213-219.—Presents 5 rules by which the director of a psychodrama session can better enhance the interaction which results. Each rule is accompanied by a case example.—A. Krichev.
4410. Moreno, Zerka T. (Moreno Inst., Beacon, N.Y.) **Psychodrama on closed and open circuit television.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 106-109.—Presents a case study which illustrates the use of psychodrama on TV as a training device and a therapeutic aid.—A. Krichev.
4411. Robbins, Ronald H. (Astor Home for Children, Rhinebeck, N.Y.) **The re-acting barrier in psychodrama settings.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 140-143.—Describes, with case examples, the use of human barriers which react to the changes in portrayal during a role-playing session. Each person in the barrier represents a block in the actor's life; the actor must work out a solution to the block before the barrier allows the actor to break out of the trap.—A. Krichev.
4412. Robinson, Margot & Jacobs, Alfred. (Associated Psychological Consultants, Los Angeles, Calif.) **Focused video-tape feedback and behavior change in group psychotherapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 169-172.—Studied the comparative effectiveness of videotape feedback and therapist-led discussions among Ss participating in group therapy. 40 20-49 yr. old hospitalized patients comprised 6 groups of 6 or 7 Ss each, meeting 6 times in 2 wk. for 1-hr videotaped therapy sessions with 2 therapists. Experimental Ss received videotape feedback; controls received an equivalent length therapist-led discussion group only. Results indicate that experimental Ss showed more adaptive change as rated by external judges. However, subjective estimates of adaptive change were almost identical between the 2 groups.—P. McMillan.
4413. Rojas-Bermudez, Jaime G. (Asociacion Argentina de Psicodrama y Psicoterapia de Grupo, Buenos Aires) **The "intermediary object."** *Group Psychotherapy*, 1969, Vol. 22(3-4), 149-154.—Presents a clarification of the meaning of the term in light of its historical application to an experiment in which puppets were used to aid in the psychodramatic treatment of chronic psychotics. 6 case histories are included to illustrate the properties necessary to an object for it to be suitable for this purpose.—A. Krichev.

4414. Sturm, Israel E. (Veterans Administration Hosp., Northport, N.Y.) **Note on psychodrama in a "helping relationship."** *Group Psychotherapy*, 1969, Vol. 22(3-4), 191-193.—Psychodrama is considered as a method array viewed as potentially enhancing to any helpful relationship. The components of such a relationship are described as expression, feedback and information, instruction, and practice. The relationship between psychodrama and sensitivity training are briefly discussed.—A. Krichev.

4415. Verinis, J. Scott. (Mt. Sinai Hosp., Chicago, Ill.) **The ex-patient as a lay therapist: Attitudes of group members toward him.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 161-163.—Describes results of a questionnaire given to 15 patients attending group therapy sessions at a state research hospital to ascertain their attitudes toward other members of the group who were staff therapists, lay therapists (i.e., expatients), and other out- and inpatients. Lay therapists were rated almost as highly as staff therapists on questions concerning helpfulness to Ss or others. Reasons for the favorable ratings are discussed. It is concluded that the lay therapist can provide inspiration, closeness, and a model of appropriate behavior more effectively than the professional therapist who can supply insight and advice.—P. McMillan.

4416. Vernallis, Francis F., Shipper, John C., Butler, Donald C., & Tomlinson, T. M. (Olive View Hosp., Calif.) **Saturation group psychotherapy in a weekend clinic: An outcome study.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 144-152.—Hypothesized that significant differences would occur in favor of patients in saturation group therapy (SGT) when compared with controls on specified measures including: (a) MMPI-Depression scale, (b) Rotter's Incomplete Sentences Blank, (c) Report of Social Adjustment, and (d) Symptom Rating scale, Factor E (motivation). Ss were 46 18-59 yr. old, male psychiatric patients. Results reveal firm psychometric evidence of the effectiveness of the treatment. Evidence supports the interpretation "that SGT resulted in the saturation of the comparison outcome measures in a positive and unequivocal manner. 3 of the 4 prediction measures were significant at posttreatment and all 4 at follow-up. . . . A large number of unpredicted measures were also statistically significant." Reservations are expressed concerning measurement. The research potential of SGT is stressed. (15 ref.)—P. McMillan.

4417. Weiner, Hannah B. (New York Medical Coll.) **J. L. Moreno: Mr. group psychotherapy.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 144-150.—Discusses the mystique and abilities of Moreno who is acknowledged as a dedicated individual who has pioneered in many group psychotherapy techniques, including psychodrama, sociometry, and role-playing.—A. Krichev.

Behavior & Conditioning Therapy

4418. Edelman, Robert I. (Virginia Polytechnic Inst.) **Effects of progressive relaxation on autonomic processes.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 421-425.—2 studies were performed to examine the assumption that the therapeutic technique of desensitization is a behavioral phenomenon of anxiety highly correlated with autonomic processes. In Exp. I, 40 male undergraduates were exposed to various progressive relaxation stimuli, and measurements of autonomic

activity occurred at predetermined breaks. Results did not support the contention that progressive relaxation altered autonomic processes. In Exp. II, high- and low-anxious Ss (40 male undergraduates) were used. Progressive relaxation did not exert differential effects on the 2 groups and it was noted that the results cast doubt on contentions that progressive relaxation exerts any unique effect upon autonomic function. (18 ref.)—E. J. Kronenberger.

4419. Kamil, Leonard J. (New York U.) **Psychodynamic changes through systematic desensitization.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 199-205.—Attempted to integrate psychoanalytic theory and the data from behavior therapy, specifically systematic desensitization. It was found that snake phobics could be significantly discriminated from a group of normals on a measure of castration anxiety. Following systematic desensitization of the fear of harmless snakes, (a) 10 treated snake phobics were significantly lower on manifest anxiety than 10 non-treated snake phobics, but not as low as 10 normals; (b) treated snake phobics were significantly lower than non-treated snake phobics on a TAT measure of castration anxiety, but not as low as normals; and (c) treated snake phobics were not significantly lower than non-treated snake phobics on a Rorschach measure of castration anxiety, and both were significantly higher than normals. (20 ref.)—*Journal abstract*.

4420. Lauth, Henry. (Queen Elizabeth Hosp., Birmingham, England) **Video-tape recording as an aid to behaviour therapy.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 207-208.—Describes the case of a 40-yr-old man with severe phobic and obsessive-compulsive symptoms of many years duration. He was successfully treated with systematic desensitization, first in imagination and later in real-life situations. In this instance, closed-circuit TV proved to be a useful and essential adjunct to successful treatment.—*Journal summary*.

4421. Leckerman, Laurence & Lynch, Denis J. (Eastern State School & Hosp., Trevese, Pa.) **The effects of model reinforcement on emotionally disturbed adolescent boys.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 545-547.—32 adolescent boys were divided into a punishment group, a positive reinforcement or reward group, and a control group. All Ss observed a model who performed a predetermined and rehearsed sequence of behavior. Os rated the Ss behavior. In general the study did not show gross behavior model effects. The behavior of the model was seen as influencing the behavior of the Ss in the positive reinforcement group. There was a disinhibitory effect on response latency which suggested the importance of more subtle modeling effects than had been previously considered.—E. J. Kronenberger.

4422. McFall, Richard M. & Marston, Albert R. (U. Wisconsin) **An experimental investigation of behavior rehearsal in assertive training.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 295-303.—Developed a standardized, semiautomated, behavior rehearsal treatment procedure, and compared 2 variations of this procedure, 1 with performance feedback and 1 without, with 2 control procedures, a placebo therapy, and a no-treatment condition, in training 42 undergraduates to be more assertive. Behavioral, self-report, and psychophysiological laboratory measures, as an unobtrusive in vivo assertive test, revealed that the 2 behavior

rehearsal procedures resulted in significantly greater improvements in assertive performance than did the control conditions. There was a nonsignificant tendency for behavior rehearsal coupled with performance feedback to show the strongest treatment effects. (19 ref.)—*Journal abstract*.

4423. Milby, Jesse B. (U. Alabama, Medical Center, Birmingham) **Modification of extreme social isolation by contingent social reinforcement.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 149-152.—2 socially isolated male patients, a 37 yr. old and a 38 yr. old, were placed on a program where social reinforcement from staff members was made dependent on social interaction with other patients or staff members. This procedure was imposed in a setting where only limited control was possible. The level of social interaction and a concomitant alternate behavior in each S was increased when the contingency for social reinforcement was imposed. Another example of the efficacy of social reinforcement where there is little control over other reinforcers is provided. Implications for use of similar procedures to increase generalization in the community are discussed.—*Journal abstract*.

4424. Parrino, John J. (Louisiana State U.) **The effect of pre-therapy information on learning in psychotherapy.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 400.

4425. Sabatasso, Anthony P. & Jacobson, Leonard I. (U. Miami) **Use of behavioral therapy in the reinstatement of verbal behavior in a mute psychotic with chronic brain syndrome: A case study.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 322-324.—Employed a behavioral therapy program in order to reinstate verbal behavior in a 58-yr-old psychotic with chronic brain syndrome who had been mute for 5 yr. The program proceeded from the control of simple, non-verbal behaviors to the control of simple, verbal behaviors. The methods employed were those of reinforcement, behavior shaping, and modeling. Completion of the program resulted in the partial reinstatement of verbal behavior. Within 10 hr. of therapy, S verbalized 307 words, 56 different words, and several simple sentences. The verbal behavior reinstated in the therapeutic situation generalized to behavior on the ward. The S began to respond verbally, but not always appropriately, to individuals on the ward who spoke to him. The reinstated verbal behavior had not extinguished 1 yr. later. Results suggest the possibility of developing comprehensive language programs for use with mute psychotics of varying diagnostic categories.—*Journal abstract*.

Special & Adjunctive Therapy

4426. (Rollman Psychiatric Inst., Cincinnati, O.) **Indoklon: Convulsive therapy: Experimental-clinical studies.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 358-360.—Presents pharmacological and clinical information on indoklon (flurothyl), a fluorinated ether, used as an alternative convulsive therapy method for ECT. A table is included summarizing different clinical studies of animals and humans reported since 1958. Results of these studies suggest favorable outcomes in 384 patients and poor results in 20. Advantages of indoklon over ECT include less apprehension by patients, reduced post-therapy confusion, and removal of the bad connotation associated with ECT. Indoklon is administered by

inhalation; iv administration has not yet been accepted.—P. McMillan.

4427. Beuret, Lawrence & Swanson, David W. (Loyola U., Stritch School of Medicine, Hines, Ill.) **Endocrine effects of electroconvulsive therapy: A review.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 650-661.—ECS stimulates the pituitary as shown by an increase in anterior and posterior lobe function. Other endocrine changes with ECS are not significant. "It is possible that the ECS alters the set point affecting all the hypothalamic functions, of which the pituitary hormone response is the only 1 that can be measured objectively at this time." (56 ref.)—D. Prager.

4428. Denny, James M. & Fagen, Ann C. (U. Hawaii) **Group art therapy with university students: A comparative case analysis.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 164-168.—Uses a detailed analysis of the art productions and interpersonal behavior of 2 members of a 5-person art therapy group to illustrate the use of group art therapy instituted at a university counseling and testing center. Tasks presented to Ss included approaches, i.e.: (a) exploratory and rapport-building (automatic or free-drawing techniques), (b) exploration of inner feelings, (c) interpersonal relations and awareness of external world (projective-type drawing tasks), (d) expressions concerning the group, and (e) supplementary approaches (painting to music, constructing collages, etc.). Illustrations of 8 paintings and clay figures produced by the 2 Ss are included and discussed.—P. McMillan.

4429. Gross, William F., Curtin, Mary E., & Moore, Kenneth B. (Veterans Administration Hosp., Lexington, Ky.) **Appraisal of a milieu therapy environment by treatment team and patients.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 541-545.—The Barrett-Lennard Relationship Inventory, modified for use with staff and patients, was administered to a staff group of 13 and a patient group of 31. The therapeutic climate was judged as favorable by both groups but more favorable by the staff than by patients. Dimensional descriptions were presented. The underlying dimensionality of the 4 therapy variables differed both quantitatively and qualitatively for staff and patients. Unconditional regard appeared to make a separate contribution.—E. J. Kronenberger.

4430. Kossoris, Penny. (El Camino Hosp., Mountain View, Calif.) **Family therapy: An adjunct to hemodialysis and transplantation.** *American Journal of Nursing*, 1970(Aug), Vol. 70(8), 1730-1733.—The treatment of choice for the renal patient is working with the patient within his family setting. What affects 1 member of a family affects all, especially when 1 family member's life depends on a hemodialysis machine or a kidney transplant. Concepts of family care are used to help families cope with the stresses and strains of altered financial, social, and psychological circumstances. These concepts are reviewed and interpreted with illustrations from families with renal patients.—B. A. Burkard.

4431. López-Ibor Aliño, Francisco. **Terapéutica de "reactivación."** [Reactivation therapy.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Apr), Vol. 28(2), 117-125.—Describes the aims and methods of a therapeutic technique which seeks to rehabilitate through social integration and constructive activity, approximating the atmosphere of everyday living before hospitalization. Patients were encouraged to pursue their previous vocations and interests, maintaining as much

contact as their illness allowed. Activities included music, art, crafts, sports, games, lectures, concerts, and a library. In the reactivation process, Ss were observed to have an initiation period, followed by rapid activation in some occupation suited to each S's individual needs. The reactivation of (a) a 50-yr-old man with schizophrenia and chronic alcoholism, and of (b) a 53-yr-old man with endogenous depression is described to illustrate 2 different, but successful, techniques.—P. Hertzberg.

4432. Marks, Isaac; Gelder, Michael, & Bancroft, John. (Inst. of Psychiatry, London, England) **Sexual deviants two years after electric aversion.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 173-185.—24 patients comprised of 12 transvestites and fetishists, 7 transsexuals, and 5 sadomasochists given 2-3 wk. of electric aversion showed improvement except for the transsexuals. Improvement was not related to the amount of treatment with early evidence of improvement shown by those achieving the greatest change in incidence of deviant acts and fantasies or in deviant concepts. Untreated deviants showed less change during the 14-mo follow-up. These findings indicate that despite its unpleasant nature aversion therapy may be of value in the treatment of sexual deviations other than transsexual feelings. (19 ref.)—R. L. Sulzer.

4433. Zifferblatt, Steven M. (U. Nebraska) **Prerequisites to the implementation of a behaviorally-based program in occupational therapy.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 430.

Drug Therapy

4434. Adamson, John D. (U. Manitoba, Winnipeg, Canada) **"Mandrax" as an hypnotic for psychiatric in-patients: A comparative trial with chloral hydrate.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 209-210.—In a double-blind crossover study, sleep induction by mandrax was evaluated with 63 patients, mainly psychotics. Mandrax proved to be effective and may be particularly recommended for older patients because of reduced incidence of minor side effects.—R. L. Sulzer.

4435. Baro, Franz; Brugmans, Jo; Dom, Rene, & Van Lommel, Renaat. (U. Louvain, Belgium) **Maintenance therapy of chronic psychotic patients with a weekly oral dose of R 16 341: A controlled double-blind study.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(Sep), Vol. 10(5), 330-341.—R 16 341 is a diphenylbutylpiperidine derivative related to pimozide and fluspirilene. Tests were conducted with 38 hospitalized male chronic psychotic patients. The drug proved effective as a neuroleptic agent with no reduction in extrapyramidal symptoms over previous drugs. The advantage of R 16 341 (penfluridol) over other drugs lies in its long-lasting effects (weekly oral administration). Blood analysis showed no toxicity.—E. M. Uprichard.

4436. Bloch, H. Spencer. (Children's Hosp. Medical Center, Boston, Mass.) **Brief sleep treatment with chlorpromazine.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 346-355.—Treatment of 114 Ss with 24-48 hr. of sleep induced by chlorpromazine was an effective therapeutic-diagnostic-management tool for severely behaviorally disturbed and uncontrolled patients in an open, crisis-oriented milieu ward in Vietnam where no other facilities for managing such patients existed. A description of the technique and discussion of its results are presented. (29 ref.)—D. Prager.

4437. Coons, W. H. & Annis, Helen. (York U., Toronto, Ontario, Canada) **Worthington and perceptual defensiveness.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 333-335.—Responds to A. G. Worthington's (see PA, Vol. 45:Issue 3) criticism of an earlier study by W. H. Coons and H. Annis (see PA, Vol. 44:12759) concerning tranquilizers and perceptual defensiveness. Methodological and statistical procedures at issue are clarified and explained. It is concluded that results obtained in the original study are still applicable, although it is acknowledged that issues raised by Worthington about distinguishing between perceptual and response processes are important ones.—P. McMillan.

4438. Curry, Stephen H. (National Inst. of Health, Bethesda, Md.) **The determination and possible significance of plasma levels of chlorpromazine in psychiatric patients.** *Agressologie*, 1968, Vol. 9(1), 115-121.—Determined plasma levels of chlorpromazine and some of its relatively nonpolar metabolites in patients undergoing chlorpromazine treatment by means of gas chromatography with an electron capture detector. Wide variation was observed (a) in the levels at various times after drug administration, (b) in various patients on similar doses, and (c) $1/2$ -lives of elimination. Ss with levels of chlorpromazine around 100-200 ng/ml responded better with the drug than Ss on lower levels. It is suggested that the optimum dosage regimen should be based on the intake of the amount of chlorpromazine necessary to maintain a therapeutic level of the drug in plasma.—M. Daniels.

4439. Davies, Brian. (U. Melbourne, Victoria, Australia) **Recent studies of severe depressive illnesses: II.** *Medical Journal of Australia*, 1969(Mar), Vol. 1(11), 557-565.—Reviews clinical observations on various drugs for their effects on severe depression, with emphasis on amphetamine, lithium, reserpine, iproniazid, and imipramine. Pharmacological clues to the biological basis of mood disorders are described. Studies are presented of the metabolism of brain monoamines, noradrenaline and serotonin, and of body fluids and enzyme systems. The catecholamine and monoamine hypotheses concerning depression are compared in light of recent findings. It is felt that the monoamine hypothesis that "antidepressant treatments produce improvement by altering monoamine metabolism in certain parts of the brain" better defines depression than the catecholamine hypothesis. It is suggested that since these metabolic studies have involved only severely ill patients, their relevance to mild depressive illnesses is not yet clear. (122 ref.)—P. McMillan.

4440. De Smedt, Raoul; Rodrigus, Etienne; Debandt, Robert, & Brugmans, Jo. (Mental Hospital of the Brothers of Charity, Antwerp, Belgium) **Dexbenzetimide in neuroleptic induced Parkinsonism: A double-blind crossover study with a 16-week follow-up.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(May), Vol. 10(3), 207-211.—Assessed the therapeutical efficacy, dosage, and safety of dexbenzetimide (D) using 17 male psychiatric patients, 31-64 yr. old, with a mean age of 45. All Ss were on chronic maintenance therapy with 1 or more neuroleptics. Blood analyses were conducted before and after a 16-wk open trial period. The treatment period ranged from 10-35 days with D and from 6-30 days with placebo. It was found that D in doses of .75-1.5 mg/day is "an active and safe antiparkinsonian agent and that a

single dose is effective for at least 24 hr." It seemed to be similar to known antiparkinsonian agents in controlling neuroleptic-induced extrapyramidal side effects. D was further characterized by a beneficial effect on mood.—P. Hertzberg.

4441. Faillace, Louis A., Voulekis, Alkinoos, & Szara, Stephen. (Johns Hopkins U., Medical School) **Hallucinogenic drugs in the treatment of alcoholism: A 2-year follow-up.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 51-56.—12 chronic alcoholic patients who were treated with hallucinogenic drugs were evaluated 2 yr. after drug treatment. 3 were relatively stable, 8 were hospitalized or drinking at the time of follow-up, and 1 was lost to follow-up. Of the 3 improved, only 2 could be considered to have benefited from the drug. From these data, the use of hallucinogenic drugs in the treatment of alcoholism appears to be of limited value. (17 ref.)—*Journal summary.*

4442. Fine, E. W., Lewis, D., Villa-Landa, L., & Blakemore, C. B. (West Philadelphia Community Mental Health Consortium, Pa.) **The effect of cyclandelate on mental function in patients with arteriosclerotic brain disease.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 157-161.—Describes a double-blind crossover trial in which the effect of cyclandelate was assessed on 40 patients severely handicapped with arteriosclerotic brain disease. Important mental functions improved, suggesting that enhancing cerebral circulation produces a positive clinical response on these patients.—R. L. Sulzer.

4443. Goddard, P. & Lokare, V. G. (St. James' Hosp., Portsmouth, England) **Diazepam in the management of epilepsy.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 213-214.—16 hospitalized epileptics (age range = 25-82 yr.) were improved in control of fits and some aspects of personality functioning.—R. L. Sulzer.

4444. Goldstein, Burton J. & Weiner, Donald M. (U. Miami, Medical School) **Comparative evaluation of benzocetamine and diazepam in treatment of anxiety.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(May), Vol. 10(3), 194-198.—Presents a follow-up study in which 32 male and 28 female adults with target symptoms of anxiety and depression received a daily dose of either 30-80 mg. of benzocetamine (Ba-30803) or 6-20 mg. of diazepam in a double-blind fashion. Ss were volunteers and 51 completed 28 days of treatment. Of these, 25 received benzocetamine and 26 diazepam. Judgments of each S's degree of improvement were made at the end of the treatment period by a psychiatrist and by each S. Scores were assigned to each symptom and rated before and after treatment. "Good to excellent results were considered to have been achieved in 23 of 28 Ss receiving benzocetamine and in 21 of 27 receiving diazepam." There was no significant difference in improvement between the 2 treatment groups. A total of 15 and 14 side effects related to the sedative effects of each drug were reported for benzocetamine and diazepam, respectively.—P. Hertzberg.

4445. Grant, Frederick W. (Marcy State Hosp., N.Y.) **Dynamic aspect of chlorpromazine metabolism.** *Agressologie*, 1968, Vol. 9(1), 123-126.—Chromatographic and colorimetric analyses of the nonpolar fraction of urinary chlorpromazine metabolites show reproducible changes in the relative proportion of methylated metabolites brought about by normal and contrived anxiety-stress situations. These include patient response to visitors, clinical test procedures, ECS

therapy, intramuscular administration, ancillary medication. Correlation with symptom exacerbation and remission is noted. The effect of dosage changes suggests a means of determining the optimum therapeutic dosage for repression or exaggeration of mood changes.—M. Daniels.

4446. Heninger, George R. & Mueller, Peter S. (Connecticut Mental Health Center, New Haven) **Carbohydrate metabolism in mania: Before and after lithium carbonate treatment.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 310-319.—Studied the iv glucose tolerance test (GTT) and insulin tolerance test (ITT), with concomitant assessment of serum insulin and growth hormone (HGH), in 13 manic patients before and after at least 2 wk. of lithium carbonate treatment. Results indicate that when compared to the lithium-carbonate-treatment phase that (a) in the GTT, the rate of glucose utilization tended to be higher and insulin values significantly lower in the manic phase; (b) in the ITT there was a more rapid and prolonged hypoglycemia following insulin in the manic phase; and (c) both tests indicate a relatively increased sensitivity to insulin in mania. Reduction of insulin sensitivity when on lithium carbonate treatment was most evident in Ss with the greatest clinical change in manic symptoms. Increased insulin sensitivity was significantly correlated to ratings of manic symptoms before lithium carbonate treatment, and improvement in manic symptoms correlated significantly with the development of relative insulin resistance during lithium carbonate treatment. Changes in insulin sensitivity could not be related to duration of lithium carbonate treatment, to serum lithium levels, or to changes in HGH. It is concluded that the relatively increased insulin sensitivity observed in mania is a correlate of the clinical state and is not directly affected by lithium carbonate treatment per se. The insulin sensitivity of mania is compared to the insulin resistance of depression, and some of the clinical and metabolic aspects of mania and depression that might relate to insulin sensitivity are discussed. (49 ref.)—*Journal summary.*

4447. Howard, J. Campbell. (St. Barnabas Hosp., New York, N.Y.) **Psychotropic agents in the coronary patient: What and when.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 335-338.—Presents indications for certain psychoactive drugs in various stages of coronary artery disease. Tables are presented showing suggested dosages, types of disorder, and drug names for sedatives, major and minor tranquilizers, and antidepressants. The need for a good patient-physician relationship is stressed because of the many emotional concomitants of heart disease.—P. McMillan.

4448. Johnson, G., Friedhoff, A. J., Alpert, M., & Marchitello, J. (Schering Corp., Bloomfield, N.J.) **Effects of N-acetyl dimethoxyphenethylamine (NADMPEA) in man.** *Psychopharmacologia*, 1970, Vol. 17(5), 434-438.—Evaluated the effects of N-acetyl dimethoxyphenethylamine in 2 patients with schizophrenic reaction and 2 nonschizophrenic drug abusers in a modified rising dose tolerance test. Doses ranged from 1.3-16.4 mg/kg without any hallucinogenic effect. A pharmacological effect and drug-induced tremor was seen at higher doses.—*Journal abstract.*

4449. Kales, Anthony; Allen, Clyde; Scharf, Martin B., & Kales, Joyce D. (U. California, Medical School, Los Angeles) **Hypnotic drugs and their effectiveness: All-night EEG studies of insomniac subjects.** *Ar-*

chives of General Psychiatry; 1970(Sep), Vol. 23(3), 226-232.—Evaluated 3 drugs, chloral hydrate (1000 mg.), flurazepam (30 mg.), and glutethimide (500 mg.), in the sleep laboratory with 8 healthy insomniac Ss to determine their effectiveness in inducing and maintaining sleep. A schedule of 22 consecutive nights was used in each separate drug evaluation: 4 placebo nights, followed by 2 wk. of drug administration, followed by 4 placebo nights for evaluating withdrawal changes. Flurazepam (30 mg.) was effective both in inducing and maintaining sleep over the entire 2-wk drug administration period. Chloral hydrate (1000 mg.) and glutethimide (500 mg.) significantly decreased sleep latency on the 1st set of 3 laboratory drug nights, but this effectiveness appeared to diminish rapidly. Chloral hydrate and flurazepam produced only minimal changes in REM sleep. Glutethimide produced a marked REM suppression which persisted throughout the 2 wk. of drug administration. Following withdrawal, there was a marked REM rebound. Flurazepam administration resulted in a gradual progressive decrease in Stage-4 sleep which was maintained through the withdrawal nights. It is concluded that the sleep laboratory allows an accurate determination of a drug's effectiveness in inducing maintaining sleep, the duration of its effectiveness, and the type of sleep induced. This contrasts with traditional studies evaluating drug effectiveness where precise measurements of sleep or waking cannot be made.—*Journal summary*.

4450. Kellner, Robert. (U. New Mexico, Medical School) **A controlled trial of benzocetamine (Ba-30803) in neurotic anxiety.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(Sep), Vol. 10(5), 342-348.—Benzocetamine (Ba-30803) is chemically 1-methylaminomethyl-dibenzo-[b,e]bicyclo[2.2.2]octadiene hydrochloride. Action appears to be between chlorpromazine and imipramine. 70 neurotic outpatients suffering from anxiety were used in a parallel double-blind design. No significant differences were observed on rating scales between drug and placebo. Marked individual differences were noted between patients in response to the same dose of the drug (some were excessively sedated and some were not affected by the dose). The major side effect was drowsiness.—*E. M. Upchurch*.

4451. López-Ibor Aliño, J. J. & de Córdoba, E. Fernández. (U. Madrid, Medical School, Spain) **Notas terapéuticas: Ensayo preliminar sobre la metisergida en el tratamiento de las fases maniacas.** [Therapeutic notes: Preliminary essay on methysergide in the treatment of manic phases.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jul), Vol. 28(3), 165-170.—Describes a study which tests W. G. Dewhurst's hypothesis that methysergide significantly blocks group A (stimulating) cerebral amine receptors in mania. 6 manic adult patients were administered methysergide in various doses, up to 16 mg/day. Effects in 4 Ss were extraordinary improvement in the lessening of psychomotor disorders, verbosity, ideofugitive thoughts, and excited states. However, in 2 Ss where hypertymia was accompanied by anxiety or dystymia, methysergide did not appear to be effective. Improvement was also noted in 2 Ss where diacepoxides were used in conjunction with methysergide. The desired clinical effects were reached in 1-2 wk. Dewhurst's hypothesis was only partially confirmed, with speculation that the disequilibrium of cerebral amines is not as

unequivocal as postulated or that methysergide does not uniformly block the group A receptors. (English summary)—*P. Hertzberg*.

4452. Medina Gil, C. & Díaz González, A. (Oviedo Psychiatric Hosp., San Sebastian, Spain) **Estudio clínico del TPN-12 en treinta y seis enfermos afectos de cuadros psicóticos agudos.** [Clinical study of TPN-12 in thirty-six severe psychotics.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jul), Vol. 28(3), 171-183.—Describes the methodology and results obtained from the administration of a neuroleptic, triphosphopyridine nucleotide-12 (TPN-12) (imagotan) to 36 severe psychotics. With a few exceptions, oral doses between 300-450 mg/day were used. Best results were noted in paranoid schizophrenics and manic depressives in the manic phase, and global results were considered to be very satisfactory. Results were also validated through analyses on the Brief Psychiatric Rating Scale. Many extrapyramidal and secondary effects were observed. These diminished or disappeared with a lowered dosage of TPN-12 or were controlled with a benzatropine derivative (ponalid).—*P. Hertzberg*.

4453. Petursson, Esra S. & Preble, Edward. (Manhattan State Hosp., New York, N.Y.) **The use of cyclazocine in the treatment of heroin addicts.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 549-551.—Describes the treatment of 62 21-40 yr. old male heroin addicts with cyclazocine, a nonaddictive benzomorphan derivative analgesic. Clinical and psychological examinations obtained on all Ss indicated that about 75% had personality disorders. Results after 33 mo. of the cyclazocine program show that 36 Ss completed the hospital program and went to aftercare status. Of these, 11 eloped from aftercare, and 14 were still on cyclazocine maintenance at the end of the study period. Evaluation of the 14 aftercare Ss showed adaptation ratings as follows: 7 good, 6 fair, and 1 poor. It is felt that the low toxicity and nonaddictive properties of cyclazocine make it relatively safe for treatment of narcotic addiction and effective with those addicts who have a strong motivation for recovery.—*P. McMillan*.

4454. Rock, Nicholas L. **Long-term psychotherapy utilizing trifluoperazine in a psychotic preschool child: A case study.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 546-549.—Presents a case report of a 4-yr-old psychotic girl with whom trifluoperazine was used for over 1 yr. This treatment reduced psychotic behavior and produced no observable physical damage. The only adverse reaction was related to exceeding maximum therapeutic dose. Psychotherapy without the drug was slow and unrewarding for both therapist and family, but during therapy with trifluoperazine, S showed a rapid progression in acceptable behavior to the point where she was able to tolerate separation from the family and enter residential treatment. This case, and several others now treated with major tranquilizers, in particular trifluoperazine, indicate that the early use of such medication appears safe and beneficial enough to warrant its routine use.—*Journal summary*.

4455. Rogova, T. A. (Inst. of Pediatrics, Obstetrics, & Gynecology, L'vov, USSR) **Izmeneniya nekotorykh pokazatelei azotistogo obmena u novorozhdennykh detei s vnutricherepnoi rodovoi travmoj.** [Changes in some indices of nitrogen metabolism in neonates with intracranial birth injury.] *Pediatriya*, 1970, Vol. 49(3), 30-32.—Examined 51 full-term infants with intracranial circulatory disorders and 15 healthy infants as controls.

Nitrogen metabolism was adversely affected in those with intracranial birth injury. Glutaminic acid exerted a positive therapeutic effect.—*I. D. London.*

4456. Rossi, Romolo, et al. (U. Genes, Italy) **Aspects sociologiques de la thérapeutique neuroleptique ambulatoire en Italie.** [Sociological aspects of ambulatory neuroleptic therapy in Italy.] *Hygiène Mentale*, 1969(May), Vol. 58(2), 33-50.—Specifically studies sociological aspects of the introduction of neuroleptics into psychiatric treatment. Use of neuroleptics was studied in a university outpatient clinic. Patients are primarily upper class, but this reflects the population base. The main difficulties related to insufficient dosage and inadequate follow-up. It was felt that these defects were linked to the lack of trained parapsychiatric personnel and an adequate clinical structure to carry out the drug treatment program. (17 ref.)—*W. W. Meissner.*

4457. Simeon, Jovan; Fink, Max; Itil, Turan M., & Ponce, Danilo. (New York Medical Coll.) **D-cycloserine therapy of psychosis by symptom provocation.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 80-88.—This drug was given to 10 severely ill mental patients in dosages from 1-2 gm/day for 18 days to 16 wk. While the therapeutic benefits of cycloserine treatment alone were poor, subsequent treatment with active psychotropic drugs resulted in marked improvement, with 6 patients discharged and 3 working in the hospital 6 mo. after the study. This sequence of treatments (activation followed by psychotropic drug treatment) is called symptom-provocation therapy. D-cycloserine is an effective agent for symptom provocation with the unique advantage that an effective range can be defined by simple blood level estimations. (23 ref.)—*D. Prager.*

4458. Simeon, Jovan; Fuchs, Maria; Nikolovski, Oliver, & Bucci, Luigi. **Ketipramine in the therapy of depression in outpatients.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 342-346.—Describes a double-blind study comparing the clinical efficacy of ketipramine with imipramine as part of an evaluation of new treatments for patients unimproved by standard procedures. Ss were 51 21-62 yr. old depressed outpatients of a mental health clinic. Depression rating scales, resting EEGs, and clinical laboratory tests were obtained at regular intervals on each S. Results indicate that in equivalent doses, ketipramine was as effective as imipramine as an antidepressant, although Ss taking ketipramine experienced slightly lesser degrees of secondary effects. No laboratory abnormalities were noted with either drug. The study was handicapped by an early response to placebo, failure of Ss to take medication regularly, and a high drop-out rate.—*P. McMillan.*

4459. Tapia, Fernando. (U. Missouri, School of Medicine) **Haldol in the treatment of children with tics and stutterers—and an incidental finding.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 647-649.—2 of 12 stutterers improved with Haldol. 5 of 6 ticquers, ages 9-17, showed a 50-90% reduction of tics. 2 female ticquers who had obsessive-compulsive symptoms in addition to the tics had these symptoms disappear while the tics were continuing to be treated. The speculation is offered that Haldol seems to be particularly effective against whatever mechanism sets up the obsessive-compulsive, ruminative concerns which in turn bring on or aggravate tics, Tourette's disease, and perhaps some forms of stuttering. Haldol showed no untoward side effects when used in children under 12 yr. of age.—*D. Prager.*

4460. Ucko, Felix A. **Psychotropics in anxiety and depression: Combination or single agent?** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 539-541.—Describes a double-blind controlled comparison of a combination of amitriptyline-fluphenazine vs. amitriptyline for the treatment of 87 anxious and depressed hospitalized patients. Data indicate that the combination drug was more effective than amitriptyline alone. Responses of Ss were more often rated excellent or good on the combination therapy (85%) than on the single drug treatment (65%). In addition, significantly fewer Ss receiving the amitriptyline-fluphenazine combination registered side effects (10 vs. 21).—*Journal summary.*

4461. van Renyngbe de Voxxle, G. **L'Anafranil (G 34586) dans l'obsession.** [Anafranil (G 34586) in obsession.] *Acta Neurologica et Psychiatrica Belgica*, 1968(Oct), Vol. 68(10), 787-792.—Administered anafranil (chlorimipramine) by iv perfusion in a single daily dose to 15 adult male and female Ss with obsessive-compulsive neuroses previously resistant to drug treatment. Rapid beneficial action of anafranil was noted by the 1st wk. in 4 Ss, and during the 2nd wk. in 6. The drug was generally well tolerated, but among minor side effects drowsiness early in treatment led to interruption of treatment in 2 Ss. This paradoxical effect occurred frequently in the series and was often the prelude to rapid improvement. The antidepressive and anxiolytic properties of anafranil are confirmed, and it appears to be the most efficient of the current antidepressive agents against obsession. (English, German, & Flemish summaries)—*T. N. Webster.*

4462. Worthington, Alan G. (Trent U., Peterborough, Ontario, Canada) **A note on "tranquillizers and perceptual defensiveness."** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 330-332.—Critiques and evaluates a study by W. H. Coons and H. Annis (see PA, Vol. 44:12759) indicating that tranquilizers (specifically chlorpromazine) "appear not to reduce the defensive tendencies of patients in the manner previously suggested by other authors." It is suggested that because of methodological problems, which led to "a confounding of perceptual and response effects," data from this study do not necessarily lead to the conclusions reached. It is also noted that the method of analysis used is not entirely appropriate for testing the main hypothesis concerning the interaction of drug conditions and testing sessions.—*P. McMillan.*

HOSPITAL CARE & INSTITUTIONALIZATION

4463. Carp, E. A. (16 Leidsestraatweg, Oegstgeest, Netherlands) **Sartre und die Grundlagen der modernen Soziotherapie.** [Sartre and the basis of modern sociotherapy.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(2), 119-125.—Discusses the principles of modern sociotherapy, as developed especially by French psychotherapists, after Herman Simon had taken the 1st steps towards creating a social setting for mental patients appropriate to hospital life. Demonstrates how ideas as expressed in his *Critique de la raison dialectique* are in keeping with these principles.—*English summary.*

4464. Chinsky, Jack M., & Rappaport, Julian. (U. Connecticut) **Attitude change in college students and chronic patients: A dual perspective.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 388-394.—Assessed both initial attitudes and attitude

change among 30 college students and 320 chronic patients participating in a hospital companionship program. Student attitudes toward a number of mental health concepts were initially similar to 2 student control groups ($N = 30$ each). Patient expectations of college students likewise were similar to patient controls. At the conclusion of the program, students manifested significantly more favorable attitudes toward patients and less favorable attitudes toward the mental hospital; patients saw the students as more nurturant than they had initially expected. A social hierarchy hypothesis is advanced to partially account for the reported success of similar companionship programs. (22 ref.)—*Journal abstract*.

4465. Davis, Daniel; Rubin, Sidney, & Sonne, Thomas R. (Veterans Administration Hosp., Canandaigua, N.Y.) **Evaluation of a hospital activity program for released psychiatric patients.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 675-684.—A group ($N = 479$) of long-term psychiatric patients who were released to foster homes with participation in a hospital-based daily activity program was compared to a matched group released without such a program. At the end of 1 yr., the average number of days in the community was 35% higher for the activity group. After the 2nd yr. there was no significant difference in length of time-out of the hospital between the activity group and the comparison group. However the activity group had a longer in-hospital stay prior to release, fewer viable marriages, and a poorer work record than did the comparison group. This program is perceived as 1 which has contributed to making community placement more acceptable to both patients and community.—*Journal summary*.

4466. Duran, Fernando A. & Errion, Gerald D. (Northeast Kingdom Mental Health Service, Newport, Vt.) **Perpetuation of chronicity in mental illness.** *American Journal of Nursing*, 1970(Aug), Vol. 70(8), 1707-1709.—The manner in which patients in mental hospitals are classified, treated, and cared for tends to induce and perpetuate chronicity, e.g., artificial living conditions, mass handling, psychologizing indoctrination, and depersonalizing attitudes. An experiment in California schools was cited in which children selected at random were identified as "late bloomers." The children's school performance improved and this was presumed to be a result of the changed attitudes and expectations of the teachers. It was proposed that the same approach might yield results among the chronic population of a mental hospital. The nursing profession must assume the initiative and must create the milieu of a patient-centered environment rather than one based on the convenience of the staff. It is the nurses responsibility because they provide the necessary continuum of relationships and therefore must assume the largest share of responsibility.—B. A. Burkard.

4467. Fischer, Edward H. (Connecticut Valley Hosp., Middletown) **College students as companions to long-term mental hospital patients: Some considerations.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 308-310.—51 student volunteers for a companionship program each visited a mental hospital patient 1 hr/wk, for an average of 18 wk. Ss' ratings of certain aspects of patients' appearance and behavior correlated with psychiatric aides' ratings of patients' contact. But only the behavior ratings (rather than appearance ratings) correlated significantly with Ss' liking for the relationship. Patients' sex, education, years

of hospitalization, and age were the best predictors of Ss' interest in future companionship. Some implications are that the Ss' apparent discouragement in relating to chronic patients might be lessened if experienced students were assigned to long-term patients and if the period of companionship were shortened.—*Journal abstract*.

4468. Foreyt, John P. & Felton, Gary S. (Student Development Center, Los Angeles, Calif.) **Change in behavior of hospitalized psychiatric patients in a milieu therapy setting.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 139-141.—Describes milieu therapy as operating from the principle "that behavior will improve as a function of an environment which is structured to meet emotional needs by providing human relationships, by minimizing psychological conflict and deprivations, and by strengthening impaired ego functions." To evaluate change in behavior as a result of such therapy, 67 17-86 yr. old psychiatric patients were tested for their ward behavior, using 18 subscales of the Behavioral Inventory for Chronic Schizophrenics. Raters were 6 therapists and 6 attending staff coworkers. Results indicate that (a) all Ss improved except those categorized as "senile dementia" and "adjustment reaction to adult life," (b) psychotic Ss showed greater absolute improvement in score than nonpsychotic Ss, and (c) "improvement was directly proportional to length of stay." Various factors possibly influencing results are explored.—P. McMillan.

4469. Herrera, Julio J., Espinosa, Nolberto, & Cortopassi, Licenciada O. (U. Mendoza, Medical School, Argentina) **La comunidad terapéutica en psiquiatría.** [The therapeutic community in psychiatry.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Apr), Vol. 28(2), 100-115.—Discusses (a) the adaptation problems of an individual as either a condition or result of mental illness, (b) the concept of community and the benefit of social psychiatry in hospitals, (c) the phenomenology of the therapeutic community, (d) reasons for the emergence of a therapeutic community in a psychiatric hospital, and (e) the psychological rehabilitation of alcoholics in a therapeutic community. The therapeutic community is regarded as an intent to reconstruct the everyday world from which the patient was separated by illness. The therapeutic value is considered to be in the open communication with doctors and other patients and in the communal spirit of concern that emerges.—P. Hertzberg.

4470. Janes, Robert G. & Welsz, Alfred E. (Stanford U., Medical School) **Psychiatric liaison with a cancer research center.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 336-345.—Psychological stresses on patients and staff observed over a 6-mo period in a 15-bed facility are described from the viewpoint of the liaison psychiatrist. The resident is in conflict with the nursing and paramedical staff, and the patient is too preoccupied to understand the detailed explanations of the research team. 5 suggestions to reduce stresses are presented. It is concluded that the liaison psychiatrist is most valuable if he can model his interviewing expertise with patients for members of the ward staff.—D. Prager.

4471. Kahana, Eva & Coe, Rodney M. (Washington U., Medical Care Research Center) **Self and staff conceptions of institutionalized aged.** *Gerontologist*, 1969(Win), Vol. 9(4, Pt. 1), 264-267.—Compared self-conceptions and professional ($N = 8$) and nonprofessional ($N = 8$) staff views of 39 59-92 yr. old

ambulatory residents. Results show consistent differences between self-evaluations and staff views which tended to be depersonalized, positive, and oriented to present interpersonal behavior. Professional staff described residents in the framework of their particular professional perspectives, while nonprofessionals viewed them in affective terms and based on their manageability. Residents presented fairly well differentiated self-conceptions. Old-time residents presented views more similar to those of staff than newer residents, suggesting that staff expectations and attitudes may contribute to the depersonalizing process on institutionalization even when staff evaluations of residents are generally positive.—*M. Maney.*

4472. **Lapue, Paul S.** (U. Massachusetts) **Behavior modification and stimulus generalization.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 396.

4473. **Mezey, Alex G. & Evans, Eileen.** (North Middlesex Hosp., London, England) **Psychiatric admissions from North London related to demographic and ecological characteristics.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 187-193.—Marked differences were found in hospital admissions from 3 boroughs. Higher mental disorder admission rates were found where there was a declining population and more elderly, more single and previously married persons, low socioeconomic groups, more population mobility, more people born outside the United Kingdom, more 1-person households, and poor housing conditions.

4474. **Neel, Ann F.** **Reflections on "Psychological distance as a function of length of hospitalization."** *Psychological Reports*, 1970(Feb), Vol. 26(1), 46.—Examines A. Tolor and M. S. Donnon's (see PA, Vol. 44:18890) conclusion that long hospitalization increases psychiatric patients' desire for social involvement. Given a sample of patients which contaminates differences in length of hospitalization with differences in social class, physical setting, and diagnosis, and taps differential sensitivity to E effects, this potentially important conclusion is not justified.—*Author abstract.*

4475. **O'Morrow, Gerald S.** (Columbia U.) **A study of recreation service to psychiatric patients in relation to pre-discharge planning and aftercare.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 244.

4476. **Rosenberg, Stanley D.** (Dartmouth Coll., Medical School) **The disculturation hypothesis and the chronic patient syndrome.** *Social Psychiatry*, 1970(Jul), Vol. 5(3), 155-165.—From a population of psychiatric crisis patients seen at the emergency room of a city hospital, some are sent to the emergency treatment service (ETS) of a state mental health center. This service is a small, short-term treatment facility designed to avoid many of the negative features of the traditional hospital environment. The small size of the unit leads to a situation where some patients, considered by the reviewing resident to be appropriate ETS candidates, cannot be accommodated. A high percentage of these cases are sent to a traditional type of public mental hospital. By taking measures on 15 ETS and 11 state patients at admission and discharge, the impact of the hospital environment on certain aspects of patient personality and self-image was determined. Major findings indicate that the traditional hospital environment engenders and encourages dependency but that there is a complex interrelation between institutional demands and personality predispositions. Individuals who become long-term mental patients seem to be

characterized by a high degree of dependency and a negative definition of self. The hospital environment is thus congruent with certain of their personality demands. Conversely, autonomous individuals seem not to be easily molded by the hospital demands and are able to vacate the patient role very quickly. (French & German abstracts) (16 ref.)—*Journal abstract.*

4477. **Wijffels, N. & Janzing, C.** **Psychologie van de ziekenhuispatiënt en de Amsterdamse Biografische Vragenlijst.** [Effects of hospitalization on personality using the Amsterdam Biographical Questionnaire.] *Gawein*, 1969(Mar), Vol. 17(2-3), 109-121.—Administered the Amsterdam Biographical Questionnaire to 50 patients in order to test the hypothesis that regression would cause an increase in neuroticism scores. The hypothesis was not supported. However, an increase in extraversion scores was found. Results indicate that a hospital stay changed the Ss' personalities to more extraverted behavior, especially of 35-44 yr. olds.—*English abstract.*

4478. **Wretmark, Gerdt.** (Psychiatrische Klinik Regionalkrankenhaus, Linköping, Sweden) **Der Organisationsplan der psychiatrischen Klinik in Linköping, Schweden: Das psychiatrische Krankenhaus als gruppentherapeutische Situation.** [The organizational plan of the psychiatric clinic in Linköping, Sweden: The psychiatric hospital as a therapeutic group situation.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1969(Nov), Vol. 19(6), 229-240.—The Psychiatric Clinic in Linköping (Sweden), which forms part of a regional public hospital, has been restructured along social-psychiatric lines. This clinic is equipped with numerous ambulatory services of various types and has developed into a community health center. The organizational plan of the clinic which has been completely structured around the idea that the patient and service personnel form a community which in turn forms part of human society is described.—*English summary.*

PSYCHOANALYTIC INTERPRETATION

4479. **Appelbaum, Ann.** **Transactions of the Topeka Psychoanalytic Society.** *Bulletin of the Menninger Clinic*, 1970(Jul), Vol. 34(4), 257-260.—Discusses a paper presented to the Society in 1969 by Ernst Ticho, training analyst, on the subject of "Clinical Thoughts about the Current Concept of the Superego." The paper outlines "the development of the superego from heteronomy (dependence on external directives) to relative autonomy, and describes technical measures facilitating development of authentic superego in psychoanalytic treatment."—*J. Z. Elias.*

4480. **Bradley, N.** **The knees as fantasied genitals.** *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 65-94.—The unconscious associations of the knees and the male and female genitals or parts of them are demonstrated in both men and women by clinical evidence from 7 patients and by cultural material widely distributed geographically and historically. Some developmental reasons for the associations are suggested. Cultural evidence stimulates clinical awareness and reduces scotomata prevalent in the culture to which the analyst belongs. (48 ref.)—*Journal summary.*

4481. **Bychowski, G.** **Activity and reality.** *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 29-46.—Human activity is either goal directed or it is pursued for its own sake. When pursued for its own sake, activity is an aspect

of the person's experience of a sense of expansion and being. The basis of activity per se: its origins, the drive tendencies associated with it, and its outcome are discussed.—*D. Prager.*

4482. Chanover, E. Pierre. Marcel Proust: A medical and psychoanalytical bibliography. *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 638-641.

4483. Domhoff, G. W. Two Luthers: The traditional and the heretical in Freudian psychology. *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 15-17.—Erik Erikson and Norman Brown have recently published portraits of Luther. These 2 studies are examined to demonstrate a deep split in current Freudian thinking which aligns the neo-Freudians and ego psychoanalysts as traditional scholars against the scattered few from many disciplines who are the heretics. (13 ref.)—*D. Prager.*

4484. Domhoff, G. William. (Cowell Coll., Santa Cruz, Calif.) But why did they sit on the king's right in the first place? *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 586-596.—Discusses the possible beginnings of the left-right, bad-good dichotomy in the dualism of primitive thought. Left symbolizes the wish-fear conflicts of the taboo. The ambivalence of left is seen by its symbolizing both unbridled sexuality and also castration, weakness, impotence, and homosexuality. This dichotomous thinking "may have fastened on the slight genetic tendency for right bilaterality and . . . [invested] it with the good-bad, active-passive, potent-castrated polarities . . ." The nobles sat on the king's right because they identified with the King-Father and his rightest values. The capitalists and dissident intellectuals were on the left, espousing mother-derived values. (20 ref.)—*M. West.*

4485. Gardner, R. A. The use of guilt as a defense against anxiety. *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 124-136.—Discusses the role of guilt as a method of achieving control over the uncontrollable. The use of this type of guilt reaction is demonstrated in a discussion of the origin of religious beliefs, the involuntal depressive reaction, and in certain types of schizophrenic reactions. This concept lends greater understanding to the inappropriate guilt reaction of parents of children with severe physical illness, to scapegoatism, prejudice, and other neurotic and psychotic phenomena. This type of guilt is only 1 of many, but it has not received the attention it deserves in psychoanalytic literature.—*D. Prager.*

4486. Geha, R. Dostoevsky and "The Gambler": A contribution to the psychogenesis of gambling: I. *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 95-123.—Attempts to decipher the infantile complexes reflected in the novel, *The Gambler*, with a view to contributing to the psychogenesis of gambling.—*D. Prager.*

4487. Guarnier, E. Some thoughts on the symbolism of bullfights. *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 18-28.—In 2 bullfighter cases it was found that the artistic creation in bullfighting was a relief of the intolerable tensions from the fear of death or the aggression toward a feared object with which the artist must be reconciled. Contact with the brave bulls develops the bullfighter. Bullfighting may be the result of a negative Oedipus complex in the Spanish-speaking countries. There is an attempt to overcome this conflict through the omnipotent control over the fear of death and over the father who abandons his home very early in his son's life. (15 ref.)—*D. Prager.*

4488. Hoffs, Joshua A. Comments on psychoan-

alytic biography with special reference to Freud's interest in Woodrow Wilson. *Psychoanalytic Review*, 1969, Vol. 56(3), 402-414.—Describes the book *Thomas Woodrow Wilson, A Psychological Study* by Sigmund Freud and William C. Bullitt. Freud is seen as having written little besides the introduction. Discusses the "objections to a psychoanalytic study of historical personalities" and offers "a justification for such an approach." (25 ref.)—*M. West.*

4489. Holzhey, Helmut. (1 Heggerstr., Schwerzenbach, Switzerland) *Psychoanalyse und Gesellschaft: Der Beitrag Herbert Marcuses*. [Psychoanalysis and society: The contribution of Herbert Marcuse.] *Psyche, Stuttgart*, 1970(Mar), Vol. 24(3), 188-207.—Although Marcuse considers Freud's psychoanalytic theory no longer directly applicable to the "1-dimensional man" of the present-day society, this does not invalidate the "historical truth" of psychoanalysis which, as method, holds out the possibility of a society without "surplus repression." Essentially regeneration of society is looked for from the ahistorical drives, against the historically constituted social and political repressive institutions and cultural patterns.—*E. W. Eng.*

4490. Hurvich, Marvin. (333 W. 57th St., New York, N.Y.) On the concept of reality testing. *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 299-312.—Reality testing includes attention, perception, memory, secondary process thinking, delay of discharge, judgment and reflective awareness. Freud distinguished between ideas and perceptions. Later writers have included acquiring knowledge of realities through learning and drawing logical conclusions from perceptions and memories. Freud assumed a loss of external reality awareness in psychosis; recent writers use the transience and reversibility of reality testing to delineate psychosis from borderline states. Studying attention will probably lead to increased knowledge of reality testing. (93 ref.)—*Journal summary.*

4491. Joseph, Robert J. John Ruskin: Radical and psychotic genius. *Psychoanalytic Review*, 1969, Vol. 56(3), 425-441.—Ruskin was overtly psychotic for the last 10 yr. of his life and at intervals during the preceding decades. His history and psychodynamics are reviewed to support the position that Ruskin was schizophrenic rather than manic depressive. His life and work can be understood best in terms of a severe sadomasochistic character, the defenses of which gradually broke down. Most of these defenses were evident in Ruskin's writing. Introjection, incorporation, and projection were prominent, as well as reaction formation and denial. Ruskin's commentaries on art and society have relevance for the psychology of artistic creativity and for social psychiatry. (28 ref.)—*D. Prager.*

4492. Lincke, Harold. (11 Spiegelgasse, Zurich, Switzerland) *Das Überich: Eine gefährliche Krankheit?* [The superego: A dangerous illness?] *Psyche, Stuttgart*, 1970(May), Vol. 24(5), 375-401.—The formation of the Western superego represents a shift from primacy of the extended-family community to that of the small family and idealized parental figures, involving heightened ambivalence. Self-justification now assumes the form of attempts to dominate nature by changing the surround. But subsequent rapid changes of the surround now overtax the adaptive capacities of an ego controlled by a rigid superego. With this arises the current temptation to resort to new forms of regression as a defense against the superego. An example of this may be seen in contemporary art as a protest against the

intellectualization characterizing modern life. (English summary) (25 ref.)—*E. W. Eng.*

4493. Little, R. B. **Behind the dream screen.** *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 137-142. —Presents material to demonstrate another function of the dream screen: to inhibit the production of anxiety by blocking out painful stimuli. In this case, behind the dream screen lurked the frightening Oedipal father whose presence was hidden from the dreamer.—*Journal summary.*

4494. Meerloo, Joost A. **Eichmannism: Cold violence and robotized pugnacity.** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 609-614. —The impersonal device of automatic action is often resorted to as a defense against inner guilt and hostility. Defensive, automatic overdoing becomes a compulsion to cover up early interpersonal conflicts. When automation as a means becomes the great aim in life, the destructive and conscienceless robot is born. Eichmannism is a disease of the mechanized soul of mankind.—*D. Prager.*

4495. Mintz, Thomas. **The meaning of the rose in "Beauty and the Beast."** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 615-620. —The rose lends itself to representing both the Beast's masculinity and Beauty's femininity. The dominant latent meaning of the rose in the tale represents the beginnings of female sexuality in the woman. (16 ref.)—*D. Prager.*

4496. Muensterberger, Warner. (Ed.) **Man and his culture: Psychoanalytic anthropology after "Totem and taboo."** New York, N.Y.: Taplinger, 1970. 411 p. \$10.

4497. Perry, John W. (U. California, San Francisco) **Emotions and object relations.** *Journal of Analytical Psychology*, 1970(Jan), Vol. 15(1), 1-12. —The occurrence of any emotion consists of the interplay between 2 complexes. Emotional life is structured in bipolar systems or pairs of complexes. The S experiences the affect that belongs to the complex with which the ego aligns itself and assigns the other pole to the object. During the emotion the energetic value of the ego is lessened and that of the complex heightened; in this situation there is an interrelation between the affect-ego and the affect-object. In such a moment the self-image is altered as is the image of the object. Through the interplay of these complexes consciousness and the rounding out of the personality takes place. (22 ref.)—*P. Federman.*

4498. Reid, Stephen A. (San Fernando Valley State Coll.) **"I am misanthropos": A psychoanalytic reading of Shakespeare's "Timon of Athens."** *Psychoanalytic Review*, 1969, Vol. 56(3), 442-452. —"The starkness of Shakespeare's presentation of Timon's uncontrollable hatred dominates the play. And this is perhaps I reason Shakespeare lost interest in it before he could bring it to a final form."—*D. Prager.*

4499. Robinson, Ira E. & Clune, Francis J. **Sexual symbolism and archeology.** *Psychoanalytic Review*, 1969, Vol. 56(3), 468-480. —The vital characteristics of man and his inability to construct a universe totally different from the 1 in which he lives makes it necessary that he conceptualize and symbolize unknowns and knowns in an anthropomorphic fashion. The analysis of the Aztec and Toltec Ball Game is presented in terms of this theory. (23 ref.)—*D. Prager.*

4500. Rogers, Robert. (State U. New York, Buffalo) **A psychoanalytic study of the double in literature.** Detroit, Mich.: Wayne State U. Press, 1970. ix, 192 p. \$7.95.

4501. Rosenblatt, Allan D. & Thickstun, James T. (3010 1st Ave., San Diego, Calif.) **A study of the concept of psychic energy.** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 265-278. —Freud's training in physics led him to apply the psychic energy concept (force and counterforce) to psychological phenomena. A mind-body dualism is implied. This energy is quantifiable and has an aim. Its source is in the instinctual drives. Energy is discharged through the pleasure, constancy, and Nirvana principles. A theory should explain all relevant data, have internal consistency, and have few proliferating subpropositions. The psychic energy concept theory fails in all 3 categories. The theory should be abandoned and a behavioral alternative which articulates with neurophysiological data be substituted. The author does not feel responsible to substitute another theory. If and when this theory is abandoned, psychoanalytic theory will be free to develop a satisfactory new alternative. (39 ref.)—*J. S. Chyatte.*

4502. Sandler, J., Holder, A., & Dare, C. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: V. Resistance.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 215-221. —The concept of resistance has been extended to include all the obstacles to the aims and procedures of treatment which arise from within the patient. In this sense the term is applicable not only to psychoanalysis but to problems encountered in ordinary medical practice, including forgotten appointments, misunderstood instructions, rationalizations for breaking-off treatment, etc. Methods of treatment should be chosen to by-pass sources of resistance or should include allowance for adequate handling of resistances that arise. (37 ref.)—*R. L. Sulzer.*

4503. Schafer, Roy. (Yale U.) **The psychoanalytic vision of reality.** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 279-297. —I aim of psychoanalysis is the patient's reliable reality testing, both internal and external. I version of reality in psychoanalytic theory is a comic one, e.g., no obstacle or evil is too great to be overcome—"positive thinking" approach. The romantic vision of reality sees life as a series of quests with the seeker a movie cowboy hero type. The tragic vision entails the recognition of the dangers and defeats hovering in every situation. The ironic vision seeks out the contradictions, ambiguities, and paradoxes and overlaps the tragic vision somewhat. Clinical analysis sharpens the sense of reality and intensifies the tragic and ironic aspects. This is part of Freudian analysis and must be recognized as such. (57 ref.)—*J. S. Chyatte.*

4504. Seidenberg, Robert. (State U. New York, Upstate Medical Center, Syracuse) **Catcher gone awry.** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 331-339. —Everyone is a missionary and a therapist seeking to help others. Rescuers are selfish using their victims as a means to self-glorification. Using this premise the author interprets Arthur Miller's "After the Fall." Weakness attracts especially if a characteristic of a female. The "catcher" is an active rescuer while his opposite is the indifferent person who hesitates to intrude in the lives of others. Marriage to either a militant rescuer or an indifferent individual can lead to disastrous results.—*J. S. Chyatte.*

4505. Socarides, Charles W. (210 E. 78th St., New York, N.Y.) **A psychoanalytic study of the desire for sexual transformation ("transsexualism"): The plaster-of-paris man.** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 341-349. —Transsex-

ualism is a psychiatric syndrome characterized by an intense wish to be of the opposite sex through surgery or endocrine therapy, a belief one is basically of the opposite sex, and an imitation of behavior associated with the opposite sex. There is usually a search for transformation which may lead to self-mutilation. The case of Victor (Valerie) is described in detail. (48 ref.)—J. S. Chyatte.

4506. Sonnemann, Ulrich. (1 Am Jagdweg, Munich, W. Germany) **Hegel und Freud.** [Hegel and Freud.] *Psyche, Stuttgart*, 1970(Mar), Vol. 24(3), 208-218.—In his "phenomenology of the mind" Hegel pointed out the absurdities in which psychological thought eventuates, insofar as it bypasses the real involvements of individual and society by employing a naive concept of nature from the very outset. Such a fundamentally subjective world view, based as it is on a metaphysics of solipsism, is nurtured by experiences of estrangement and helplessness on the part of individuals within social institutions. A revision of Freudian concepts which would inform fresh social practices directed against the reductive objectivation of human beings is called for. (English summary)—E. W. Eng.

4507. Stierlin, Helm. (National Inst. of Mental Health, Adult Psychiatry Branch, Bethesda, Md.) **The functions of "inner objects."** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 321-329.—Inner object functions are comparable but not identical to ego functions. Inner objects of psychoanalysis serve as inner referents, guideposts for interpersonal relationships, and contribute to the relative autonomy of the person. The inner objects are analogous to an inner gyroscope. Freud, Fairbairn, and M. Klein theories are compared. (30 ref.)—J. S. Chyatte.

4508. Stolorow, Robert D. **Anxiety and defense from three perspectives.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 685-710.—Threats to the individual's basis of selfhood may arise from a dreaded intrapsychic impulse, from a disharmonious interpersonal process, or from the ontological structure of existence itself. No 1 of the 3 levels is more basic than the others. A pluralistic orientation which treats each level of the anxiety-defense process in its own terms is favored. The ubiquitous processes of anxiety and defense permeate all levels of human existence—intrapsychic, interpersonal, and ontological. In a given cultural situation 1 or another of the 3 levels of anxiety may predominate. Psychotherapy should aim at clarification and working through of intrapsychic conflicts, developing interpersonal security, and fortifying the individual in his attempt to derive meaning from the human condition. (40 ref.)—D. Prager.

4509. Tarbox, Raymond. **A note on M. D. Faber's essay "Suicide and the 'Ajax' of Sophocles."** *Psychoanalytic Review*, 1969, Vol. 56(3), 453-460.—Discusses Faber's paper in terms of the elated suicidal process. Sophocles' Ajax is then compared with Ibsen's *Master Builder* in the light of an elated (aggressive) or ecstatic (libidinal) flight of denial resulting in the hero's death during the final manic phase of the suicidal process.—D. Prager.

4510. Waldman, R. D. **The sin-neurotic complex: Perspectives in religion and psychiatry.** *Psychoanalytic Review*, 1970(Jul), Vol. 57(1), 143-152.—Isolation, powerlessness, and loss of meaning lead to a resurgence of individualism and self-sufficiency characterized as sin. In this condition man becomes more vulnerable to the existential anxieties of guilt, death, and meaninglessness.

Specific neurotic strategies are described to resolve this crisis. Such strategies are ill-fated, just as neurotic strategies themselves are revealed as concealed forms of pretense and self-sufficiency that merely accentuate the original crisis. These similarities between the 2 forms of behavior are referred to as the sin-neurotic complex. (17 ref.)—D. Prager.

4511. Weinschel, E. M. (2380 Sutter St., San Francisco, Calif.) **Some psychoanalytic considerations on moods.** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 212-320.—Moods are difficult to describe in words. Moods are not only affect but psychological structures in which behavioral and cognitive components exist. Moods are ego states and represent a revival of a previous state the S has experienced. Moods are pervasive. A mood represents a distortion of reality and a compromise with reality testing. Moods are difficult to classify at present. Moods provide a channel to discharge small quantities of cathectes and prevent haphazard affect discharge. (51 ref.)—J. S. Chyatte.

4512. Wexler, Frank. **The antiachiever: Dynamics and treatment of a special clinical problem.** *Psychoanalytic Review*, 1969, Vol. 56(3), 461-466.—The antiachiever is midway between the underachiever (with passive resistance to authority and learning) and the total, pervasive rebellion of the acting-out delinquent. The antiachiever openly rejects demands for academic success and has experienced no love or reward for work but an excess of criticism. Implications for treatment are discussed in terms of modifying the antiachiever's view of authority as demanding and unifying.—D. Prager.

4513. Withim, Philip. (Bucknell U.) **The psychodynamics of literature.** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 556-585.—Engagement with a literary work involves the reader in achieving catharsis through the interaction of repetition compulsion, introjection, and isolation of affect. The gross structure of a literary work is analogous to id, ego, and superego. The tone and texture of a literary work as well as its patterned associations of sound, sense, and image help to carry the ego resources through a patterned sequence, chiefly through dream-work mechanisms of condensation and displacement. All these psychodynamic elements act together to manipulate, largely by way of the ego resources, the quality and relationship of the reader's id, ego, and superego. (33 ref.)—D. Prager.

PSYCHODIAGNOSIS

4514. Alderton, Harvey R. (Thistlethorn Regional Centre, Rexdale, Ontario, Canada) **The Children's Pathology Index as a predictor of follow-up adjustment.** *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 289-294.—Investigated the predictive value of the discharge score in the Children's Pathology Index (CPI) of 16 boys who had been treated in a hospital for behavior disorders at least 6 mo. previous to the follow-up study. 4 factors have been derived from the CPI: I, disturbed behavior toward adults; II, neurotic constriction; III, destructive behavior; and IV, disturbed self-perception. Ss were divided into groups of those whose discharge Factor I scores were 157 or more, and those with lower scores (the 157 cut-off value having been previously found to separate "satisfactory" from "poor" follow-up adjustment). Results indicate that Group I Ss showed fewer antisocial

difficulties following discharge. Factor III was shown to predict antisocial difficulties but less effectively than Factor I. It is concluded that Factor I scores are sufficient to predict which Ss will have continuing antisocial disorders.—P. McMillan.

4515. Amiel, R. & Lebigre, F. **Un nouveau test rapide pour l'appréciation de la santé mentale: Son utilisation pour les dépistages précoces: Son intérêt dans les bilans de santé.** [A new rapid test for evaluating mental health: Its use for early screenings: Its value in health surveys.] *Annales Médico-Psychologiques*, 1970(Apr), Vol. 1(4), 565-580.—Discusses a French version of T. Langner's 22-item Screening Score of Psychiatric Symptoms Indicating Impairment. Total Health Test (THT) was renamed and prevalidated on approximately 500 Belgian and French Ss, including normal Ss and mental patients, of different age groups, and of varied social and cultural backgrounds. While the THT did not reveal all Ss with mental or psychosomatic disorders, it was of definite value in detecting as many as 70% of those requiring early treatment in order to prevent a possibly irreversible pathological outcome. This figure contrasted with 20% detected by physicians untrained in psychiatry during a single consultation.—T. N. Webster.

4516. Arnds, H. G. (Medizinische Universitätsklinik Freiburg, W. Germany) **Zum Verhältnis von psychoanalytischer und testpsychologischer Diagnostik.** [Psychoanalytic and psychological test diagnostics.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1969(Nov), Vol. 19(6), 249-255.—Starting from the differences in the stationary-psychotherapeutic adjustment between analytical attitude and daily reality behavior 14 various psychodiagnostic method groups are compared with regard to what they encompass in terms of their interpretation and their reference to the therapeutic process. Based on the current expansion of depth-psychological anamnesis, projective procedures and performance tests, a diagnostic model is described which displays clear analogies with the therapeutic model which has been proven so useful for stationary psychotherapy: here analytical attitude in addition to daily reality behavior is necessary for treatment. Accordingly, depth psychological anamnesis in addition to psychodiagnostic tests is indispensable. (30 ref.)—English summary.

4517. Ban, Thomas A., Lehmann, Heinz E., & Saxena, Bishan M. (Douglas Hosp., Montreal, Quebec, Canada) **A conditioning test battery for the study of psychopathological mechanisms and psychopharmacological effects.** *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 301-308.—Reports results of an 8-yr study of test procedures developed to distinguish between normal and pathological states of the organism. The test battery consisted of 7 conditioning techniques used in 11 procedures, each requiring 30 min. to complete and tapping 12 experimental variables. Ss were 30-29-65 yr. old hospitalized chronic schizophrenics and 30-18-35 yr. old normal controls. Results show significant differences between normal and schizophrenic populations. Schizophrenic Ss showed impairment in their ability to extinguish an autonomic orienting reflex, and impaired "integrational" functions, i.e., generalization, differentiation, and delay (all inhibitory). On word-association response, the autonomic component consistently preceded the verbal response in the schizophrenic group. (French summary)—P. McMillan.

4518. Bednar, Richard L. & Weinberg, Steve L. (U.

Arkansas, Rehabilitation Research & Training Center) **Clinical judgments of client pathology and subsequent client improvement.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 443-446.—"Analysis of variance procedures were employed to determine the relationship between the accuracy of clinical judgments and subsequent client improvement among neurotic and psychotic patients." Therapist subjective judgments of client adjustment were measured by the Current Adjustment Rating Scale. The MMPI served as the criterion variable for therapist's judgments on 20 neurotic or psychotic Ss. Client improvement was obtained through an analysis of pre- and posttherapy MMPI scores. For neurotic Ss the more the therapist's judgment deviated from objective measures of client pathology the more client improvement was reported. For psychotic Ss, therapists moderately accurate in their judgments of client pathology were most successful in facilitating client improvement.—E. J. Kronenberger.

4519. Benfari, Robert C. & Leighton, Alexander H. (Harvard School of Public Health, Boston, Mass.) **PROBE: A computer instrument for field surveys of psychiatric disorder.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 352-358.—Developed a computer version of the Stirling County psychiatric evaluation procedure, consisting of sequential ratings, i.e., detailed symptom patterns and ratings of psychiatric status ("caseness"). Evaluations are concerned with field survey questionnaires and are used for research in psychiatric epidemiology. 290 respondents, evaluated by a group of trained psychiatrists, were used for the developmental steps of questionnaire item relationships to detailed symptoms, detailed symptom relationships to "caseness," and cross-validation of the relationships to an independent sample. The Likert item scale difference was used to assign weights to questionnaire items as they pertained to relevant detailed symptom patterns. Cross-validation results make it evident that the agreement between PROBE and the psychiatric joint evaluations is equal to or greater than base-line agreements. Implications for psychiatric epidemiology and evaluation are explored.—Journal summary.

4520. Bernot, J., Laurent, P., & Philonenko, A. **Élaboration et expérimentation d'un questionnaire psychiatrique de dépistage des affections mentales: Le psychorater.** [Elaboration and experimentation with a psychiatric questionnaire for screening mental disorders: The Psychorater.] *Bulletin Centre d'Etudes et Recherches Psychotechniques*, 1969(Jan), Vol. 18(1), 43-63.—Describes a psychiatric questionnaire (the Psychorater) which is undergoing development for use in screening mass populations for mental disorders. The questionnaire is comprised of 250 multiple choice questions. Part I concerns the individual's psychosocial relations with diverse institutions (i.e., family, social, professional, etc.). This part is based on the premise that social integration is a good criterion of "normality." Part II is composed of questions which screen for clinical aspects of specific mental illnesses and pathological personality manifestations.—B. A. Stanton.

4521. Bloom, Bernard L., Lang, Edward M., & Goldberg, Herbert. (U. Colorado) **Factors associated with accuracy of prediction of posthospitalization adjustment.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 243-249.—Judges predicted whether patients at the time of discharge from a public psychiatric hospital would be able to remain out for 1 yr., and indicated the reasons for their prediction. Ss included 92

discharged patients and judges included 79 nurses, aides, social workers, psychiatrists, psychologists, occupational therapists, and physical therapists. It was hypothesized that there would be a relationship between accuracy of prediction and characteristics of the judges and judgments. Results indicate that no single group of judges was clearly able to predict posthospitalization adjustment better than they could have had they simply predicted a successful outcome for every case regardless of the reasons used. Accuracy of prediction was found to be higher, however, in cases of high interjudge agreement than when agreement among judges was moderate.—*Journal abstract.*

4522. Blum, Donna M. (Carleton U., Ottawa, Ontario, Canada) **MMPI characteristics of males in a private hospital population.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 234.—Reports the distribution of MMPI T scores in 3 diagnostic groups—psychoses; psychoneurotic disorders; and disorders of character, behavior, and intelligence—within a randomly selected group of 90 male patients in a private psychiatric hospital. Results indicate that the MMPI only minimally differentiates these diagnostic groups.—*Author abstract.*

4523. Bondy, Milos. (U. Alberta, Edmonton, Canada) **Two cases of psychiatric symptoms following exposure to the Rorschach.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 432-434.—Describes a peculiar reaction of 2 psychiatric patients to the Rorschach test and tries to relate this phenomenon to some other Rorschach phenomena.—*Journal abstract.*

4524. Branzel, P. (Inst. of Medicine & Pharmacy, Iasi, Romania) **L'actualité nosologique dans la psychiatrie contemporaine.** [The present nosological interest in contemporary psychiatry.] *Annales Médico-Psychologiques*, 1970(Apr), Vol. 1(4), 505-520.—Outlines criteria for a dynamic bio-psycho-social classification in psychiatry, using the system of analysis and synthesis applied concomitantly to biopsychologic etiological causes in their syndromatic projections, including phenomenologic intensity and duration, as well as the objective and subjective logical significance of the ideofactive behavior of the person in his social interrelations. The following categories of mental disorders and diseases are defined: (a) psychogenies through conversion; (b) neuroses (nonintentional psychogenies, inborn or acquired); (c) psychopathies (as chronic disharmony of personality); (d) oligophrenies; (e) psychoses (a heterogenous group of illnesses and syndromes with variable etiology and development, characterized by an obvious disturbance of discernment regarding social interrelations—endogenous psychoses, including hyperthymic, hypothyrmic, and delirious systematized psychoses; exogenous psychoses determined by various traumatic, infectious, toxic, or deficiency causes; and endo-exogenous psychoses; and (f) dementia processes of psychic involutions.—*T. N. Webster.*

4525. Burns, Robert C. & Kaufman, S. Harvard. (Children's Orthopedic Hosp., & Medical Center, Seattle, Wash.) **Kinetic family drawings (K-F-D): An introduction to understanding children through kinetic drawings.** New York, N.Y.: Brunner/Mazel, 1970. 160 p. \$8.95.

4526. Carvalhaes Bonilha, Lúcia. (Pontificia Universidade Católica de São Paulo, Brazil) **Confronto entre dados do Psicodiagnóstico de Rorschach e do Teste das Pirâmides Coloridas.** [Comparisons be-

tween psychodiagnostic Rorschach results and the Color Pyramid Test.] *Revista de Psicologia Normal e Patológica*, 1968(Jan), Vol. 14(1-2), 48-66.—Correlated variables of the Rorschach and of Pfister's Color Pyramid Test (CPT) and studied interpretations drawn from data of 10 protocols of each test to realize an approach to the problem of coordination of interpretation of different projective techniques and to better understand the CPT's value. Interpretations of the tests were compared on: (a) intensity, efficacy, and type of general control of personality; (b) psychic integration; (c) intensity and quality of the action; (d) mode of action; and (e) several affective-emotional characteristics. 32 male and 36 female 20-30 yr. olds served as Ss. Results confirmed the hypotheses that there is a positive correlation between: (a) $FC < (CF + C)$ on the Rorschach and an excessive choice of purple on the CPT, and (b) the total number of Rorschach color responses and the CPT amplitude index. Agreement of configurative interpretation was satisfactory and an analysis of the most convergent or divergent aspects provided suggestions about the characteristics of the tests. (French summary) (20 ref.)—*English summary.*

4527. de Alarcón, R. **El diagnóstico precoz de las depresiones de la vejez.** [Earlier diagnosis of depressions of the aged.] *Revista de Medicina de la Universidad de Navarra*, 1968(Sep), Vol. 12(3), 193-207.—Investigated the diagnostic utility of hypochondriacal symptoms (HS) in 73 male and 79 female depressive Ss over 60 yr. old who were treated at a geriatric psychiatric hospital. 63.81% of Ss had HS at some stage of depression. HS were manifested alone or accompanied by other depressive symptoms from the beginning of illness in 72 Ss, while in 45 Ss, they appeared 2 wk-9 mo before classic depressive symptoms. All Ss with these HS had visited a doctor more than once and 28 Ss had been examined in 1 or more general hospitals, however, none of these had been examined psychiatrically to discover possible depression, and the correct diagnosis was reached only after the S had attempted suicide or had a crisis of agitation. Approximately 25% of Ss with HS attempted suicide, while only 3.28% of those without HS did. The importance of early diagnosis of depressive symptoms is discussed, and a simple system for psychiatric exploration intended to aid general practitioners in excluding the possibility of depression is suggested. (20 ref.)—*M. Maney.*

4528. Ernhart, Claire B. (U. Missouri, St. Louis) **The correlation of Peabody Picture Vocabulary and Wechsler Adult Intelligence Scale scores for adult psychiatric patients.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 470-471.—Correlations of the Peabody Picture Vocabulary Test (PPVT) and the WAIS Full Scale IQ, Vocabulary IQ, and Performance IQ were .86, .88, and .75, respectively, in a sample of 118 adult psychiatric patients. Means and standard deviations are also presented. A conversion equation is given to convert PPVT IQ standard deviations to WAIS standard deviations.—*E. J. Kronenberger.*

4529. Fiorentino, Diane; Sheppard, Charles, & Merlis, Sidney. (Central Islip State Hosp., N.Y.) **Emotions Profile Index (EPI) pattern for paranoid personality types: Cross-validation and extension.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 303-308.—Examined the possibility of defining an emotion profile consistent with personality type in a cross-validated study. The procedure contrasted 20 newly admitted acute paranoid

schizophrenic patients with 23 narcotic users, defined as paranoid personality types on the basis of their responses to self-report inventories. When the resulting Emotions Profile Index scores were compared for these 2 groups, they showed high similarity. This suggests the possibility of identifying emotion profile types which are consistent with underlying personality types.—*Journal abstract.*

4530. Gathercole, C. E., Bromley, E., & Ashcroft, J. B. (Rainhill Hosp., Liverpool, England) **The reliability of repertory grids.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 513-516.—53 Ss were given repertory grids consisting of 8 elements and 8 constructs to study the reliability of some commonly used forms of repertory grids. Reliability was assessed in 2 different ways. Results indicate that conclusions based on single grids are likely to be quite unreliable. 2 reasons for this unreliability are presented. "It is concluded that generalizations about patients based on single grids using the ranking method should be made with extreme caution, particularly if elicited constructs are used."—E. J. Kronenberger.

4531. Gauthier, Yvon, et al. **Le diagnostic et les fonctions du moi des enfants encoprétiqes.** [The diagnosis and functions of the ego in encopretic children.] *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 265-277.—Studied the diagnosis, ego functions, and degree of affective deficiency in 35 encopretic children. Ss were divided into 2 main categories: neurotics and those suffering from ego disorders. The neurological and intellectual equipment of the latter group was below that of the neurotics, and they showed a marked tendency to an exaggerated or deficient motor control. Family troubles also contributed to the condition, which appeared to be due to developmental arrest, evident also in other areas. Neurotic Ss revealed depressive elements related to separation or threatened separation. Traumatic aspects were often more symbolic than real and repressed aggressivity appeared as an important feature. Ego-disturbed Ss presented significantly higher indications of affective deficiency, especially due to family environment. This study does not show why such Ss have chosen to become encopretic. It only indicates the type of family environment where the symptom develops, and identifies certain precipitating conditions. It also appears that the majority of parents will tolerate such a condition for a long time without seeking advice. This confirms the importance of family environment in the development of the symptom.—*English summary.*

4532. Gayton, William F. (Amherst H. Wilder Foundation, St. Paul, Minn.) **Validity of the Harris Quality Scale with a child guidance population.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 17-18.—Examined the relationship between the Harris Quality Scale and the Stanford-Binet Intelligence Test. When 50 male 5-14 yr. old patients in a guidance clinic were administered these tests as part of a regular psychological evaluation, the Quality Scale significantly underestimated the Binet IQs.—*Journal abstract.*

4533. Gayton, William F., Wilson, Winston T., & Bernstein, Stephen. (U. Minnesota, Health Sciences Center) **An evaluation of an abbreviated form of the WISC.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 466-468.—120 WISC scores were rescored according to Yudin's scoring system which utilizes selected items on 9-11 subtests while administering the complete Digit Span and Coding subtests. Correlations between

the original and the short-form results are presented. Subtest correlations ranged from .65 for Picture Completion to .89 for Block Design (Digit Span and Coding both yielding 1). Correlations for Verbal, Performance, and Full Scale IQ were .93, .90, and .89, respectively. There was a considerable drop in correlations when Verbal-Performance discrepancies were used. Further analysis of the Yudin short form is suggested.—E. J. Kronenberger.

4534. Gibby, Robert G. & Lee, William M. (Veterans Administration Hosp., Richmond, Va.) **The relationship of rate of change of heart rate to MMPI variables.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 491-493.—15 male patients with a high rate of change of heart rate (labile) were compared on the MMPI with 15 Ss with a low rate of change of heart rate (stable). Stable Ss achieved higher mean scores on the Hs, D, Hy, and R scales. Significant relationships between heart rate lability and the K and Taylor MA scales were not found. Findings suggest that cardiac stability may be associated with degree to which internalized defenses are utilized.—E. J. Kronenberger.

4535. Griswold, Paul M. & Dana, Richard H. (Kent State U.) **Feedback and experience effects on psychological reports and predictions of behavior.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 439-442.—This study, using groups that differed in training and conditions of feedback, involved comparisons made for accuracy and idiosyncrasy of data usage and for accuracy of predicting subsequent life events. Feedback, honest criticism, and support training conditions were utilized. Experienced Ss displayed less consensus on data usage, and employed more idiosyncratic adjectives and more idiosyncratic concepts. Some feedback implications are presented. It is suggested that clinical reports should adhere to behavioral data and minimize jargon. (20 ref.)—E. J. Kronenberger.

4536. Gurland, Barry J., et al. (New York State Dept. of Mental Hygiene, Biometrics Research, New York) **Cross-national study of diagnosis of mental disorders: Hospital diagnoses and hospital patients in New York and London.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 18-25.—Examined samples of patients from New York and London public mental hospitals to investigate the sources of the reported cross-national difference in the ratio of schizophrenia to affective disorder among hospital admissions. The primary source of this difference was that the hospital staffs in New York tend to diagnose all kinds of patients (excluding alcoholics, drug addicts, and patients with organic disorders) as schizophrenic, whereas in London some kinds of patients are diagnosed mainly as schizophrenic and others mainly as affective disorder.—*Journal summary.*

4537. Hall, Leon P. & La Driere, M. La Verne. (Oakland Schools, Pontiac, Mich.) **Evaluation of WISC similarities responses according to cognitive style and error analysis: A comparative study.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 175-180.—Matched 80 emotionally disturbed and 80 neurologically impaired boys in a public school setting for WISC Full Scale IQ and CA. An analysis was made of the Similarities subtest responses utilizing both the error-analysis method of J. T. Spence and the cognitive style procedure of I. E. Sigel for purposes of comparison. The Wilcoxon matched-pairs signed-ranks technique was used in analyzing the data. Results show that: (a) the error analysis approach

provided the greater potential for differential diagnosis between the 2 groups; (b) use of the cognitive style scores permitted improved definition of the dynamic implications of the error-analysis categories, inadequate abstracting and narrative-descriptive responses; and (c) diagnostic power was not increased when all responses as opposed to errors alone were considered.—*Journal abstract.*

4538. Heninger, George R., et al. (Yale U., Medical School) **A Short Clinical Rating scale for use by nursing personnel: II. Reliability, validity, and application.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 241-248.—Assessed the use of the 13-item Short Clinical Rating scale (SCRS) by 14 registered nurses, 3 licensed practical nurses, and 11 psychiatric aides on a short-term treatment and research ward for reliability and validity during a 6-mo period. The percent agreement and intraclass correlation coefficients for paired ratings reached an acceptable level. Although the same staff rated the Ward Behavior Rating scale (WBRS) more reliably than the SCRS, WBRS factors were less valid than SCRS items as assessed by correlations with a psychiatrist's ratings with the Brief Psychiatric Rating scale. The SCRS demonstrated specific objective biochemical validity since only anxiety ratings correlated significantly to serum free fatty acid concentrations. Applications of the scale are discussed. It is concluded that nursing ratings on the SCRS are reliable, valid, and useful. (18 ref.)—*Journal summary.*

4539. Irving, G., Robinson, R. A., & McAdam, W. (Crichton Royal, Dumfries, Scotland) **The validity of some cognitive tests in the diagnosis of dementia.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 149-156.—"Describes an attempt to assess the validity of a number of cognitive tests in distinguishing between brain-damaged and non brain-damaged psychiatric patients over the age of 65 yr." Validity of previously reported measures is supported in comparison of diagnosis and EEG classification with test scores. Progressive Matrices, face-hand test, "names" learning test, and orientation test discriminated functional and organic patients well enough to warrant clinical application.—R. L. Sulzer.

4540. Kear-Colwell, J. J. (Crichton Royal, Dumfries, Scotland) **The B factor scale of the 16 PF as a measure of intelligence in psychiatric patients.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 477-479.—The Standard Progressive Matrices, the Mill Hill Vocabulary Scale, and the 16 PF were administered to 210 psychiatric patients. The B factor scale of the 16 PF was found to be a reasonably valid measure of general intelligence in the female sample but for the male sample it seemed to be a measure of both verbal ability and general intelligence.—E. J. Kronenberger.

4541. Lacks, Patricia B., Colbert, John, Harrow, Martin, & Levine, Jacob. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **Further evidence concerning the diagnostic accuracy of the Halstead organic test battery.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 480-481.—The Halstead Battery of Neuropsychological Tests and the Bender-Gestalt were administered to 19 organic, 27 schizophrenic, and 18 general medical patients. The results substantiated previous research in that the Halstead battery had little value as a general measure to separate organic from nonorganic patients. Findings indicate that there was a very frequent misclassification of schizophrenics. The Bender-Gestalt

was more effective in classifying nonorganic patients than was the Halstead.—E. J. Kronenberger.

4542. Lacks, Patricia B. & Keefe, Kathryn. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **Relationships among education, the MMPI, and WAIS measures of psychopathology.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 468-470.—Investigated the relationship between 4 WAIS indices of interest variability (discrepancy between Verbal and Performance IQs, Verbal subtest scatter, Performance subtest scatter, and scatter within all 11 WAIS subtests), 2 measures of psychopathology in the MMPI (raw F and the number of clinical scales falling above T score of 69), and education in psychiatric patients. Inconsistent relationships are noted, a replication resulted in negative findings, and it is suggested that further pursuit of the WAIS-MMPI relationship might be fruitless.—E. J. Kronenberger.

4543. Liendo, Ernesto C. **Un modelo de ficha clínica psicoanalítica basado en la concepción del mundo interno como un sistema de signos.** [A model of a psychoanalytic clinical card index based on the conception of the inner world as a system of signs.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 865-919.—Proposes a therapeutic plan based on the construction of an index of psychoanalytic systematization of the personality which would permit more efficient and economical therapy and establish units of clinical understanding of the patient. After introducing the concept of structure, a semiological interpretation of Klein and Freud is discussed to clarify the concept of a binary inner world and of the organization of the defense system as a series of fixed codes. Suggestions are made for a concrete card index system, with the example of a binary table with 2 lists representing manifestations of opposite and complementary roles, e.g., the repressor and the repressed. These represented the 2 basic positions or identifications of the patient's inner world. A structural analysis of a 1st interview verifies the use of the model. It is shown that systematization orients a strategy of reintroduction. (French & English summaries) (43 ref.)—P. Hertzberg.

4544. Melrose, J. Peter; Stroebel, Charles F., & Glueck, Bernard C. (Inst. of Living, Hartford, Conn.) **Diagnosis of psychopathology using stepwise multiple discriminant analysis: I. Comprehensive Psychiatry**, 1970(Jan), Vol. 11(1), 43-50.—Current and Past Pathology Scales (CAPPS) data on 413 psychiatric patients were analyzed by stepwise discriminant analysis to obtain numeric models for 14 diagnostic categories, as described in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*. These models were then used to classify 255 new cases from the same source, and the results were compared with diagnoses made by clinicians and by DIAGNO II (a logical decision tree type of computer analysis). Using the kappa statistic as a basis for comparison, discriminant analysis first choice diagnoses agreed with clinical diagnoses about half as well as DIAGNO II and slightly better than DIAGNO II when 2nd and 3rd choice discriminant analysis diagnoses were allowed. The potential usefulness of the discriminant analysis in clinical practice is discussed.—*Journal summary.*

4545. Osborne, David. (Mayo Clinic, Rochester, Minn.) **A moderator variable approach to MMPI validity.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 486-490.—MMPI profiles were divided, on the

basis of the judgments of clinical psychologists, into a group that yielded relatively accurate predictions (hits) and a group that yielded relatively inaccurate predictions (misses) by comparing the MMPI interpretation to the admission note. A cross-validation sample was also utilized along with an item analysis. There was a good agreement between the judges in the accuracy of their MMPI interpretations. 38 MMPI items discriminated between the hits and the misses of the developmental sample at the .05 level and was called the moderator scale. An analysis of this scale indicated that it identified a source of error in the MMPI not identified by Scales L, F, and K and that this scale might be used as a new validity scale for the MMPI. A cutoff score of 21 was used but a local population cutoff score was suggested.—E. J. Kronenberger.

4546. Paulson, Morris J. & Lin, Tien-teh. (U. California, Center for the Health Sciences, Los Angeles) **Predicting WAIS IQ from Shipley-Hartford scores.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 453-461.—219 psychiatric patients completed the full Shipley-Hartford and the WAIS. IQ data were analyzed, correlation matrices derived, and regression equations calculated. Extensive data are presented including a table of estimated WAIS Full Scale IQ from Shipley-Hartford total raw score by age levels. Tabular data, comparing the results of other studies, are presented. The importance of considering age and education as important variables in measuring intelligence was noted. Sex was not a significant variable in this study. It was noted that valid estimates of WAIS IQ can be obtained from the Shipley-Hartford total raw score. (17 ref.)—E. J. Kronenberger.

4547. Platman, S. R. & Weinstein, Bette. (State U. New York, Downstate Medical Center, Brooklyn) **The diagnosis game.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 561-566.—Investigated the efficiency of a computer program DIAGNO, in diagnosing 156 manic-depressive patients in a research metabolic unit. Standard psychological variables, including the MMPI, and structured diagnostic interviews were used as measures. Data indicate that the computer program was able to categorize patient populations into nonsick, neurotic, and psychotic groupings. Limitations included difficulties in identifying a longitudinal disorder (e.g., manic-depressive psychosis). It is noted that of the 33 Ss in the manic phase, who "classically use denial and lying as a defense," 12 were diagnosed by the computer as not sick. A diagnosis of manic-depressive, manic phase, would require that S show both agitation and elation. It is concluded that DIAGNO is completely reliable from the point of view that "when given the raw data describing an S, a computer program will always arrive at the same diagnosis." Problems occur, however, concerning retest reliability, preconceived theoretical concepts, reliability between raters, and within the standardized interview.—P. McMillan.

4548. Plutchik, R., Platman, S. R., Tilles, R., & Fieve, R. R. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Construction and evaluation of a test for measuring mania and depression.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 499-503.—A list of 200 brief descriptive phrases, believed to be characteristic of things that manic or depressed patients say or do, was developed. These items were judged by 5 staff members and those items showing complete agreement were selected for the 1st version of a mania-depression scale.

The scale was administered to patients, and an item analysis found 16 items which discriminated the manic from the normal state and 46 items which discriminated the depressed from the normal. Reliability was noted as high.—E. J. Kronenberger.

4549. Rosenzweig, Stanley P. & Harford, Thomas. (Veterans Administration Outpatient Clinic, Boston, Mass.) **Correlates of the Psychotic Reaction Profile in an outpatient psychiatric sample.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 244-247.—Examined the correlates of the Psychotic Reaction Profile with a number of other psychological measures. Ratings on the Profile were obtained on 73 male psychiatric patients participating in a day treatment program in an outpatient clinic. Additional measures were obtained for this population on the WAIS, Holtzman Inkblot Test, Stroop Color-Word Test, and the Vineland Social Maturity scale. Findings indicate that Ss who rated high on thinking disorganization evidenced intellectual deficits, perceptual impairment, and a lower level of maturity. Ss who rated high on paranoid belligerence showed less perceptual distractibility and evidenced a higher level of social maturity. The 2 scales also differed with respect to the criterion of discharge disposition.—*Journal abstract*.

4550. Siskind, George. (Larue D. Carter Memorial Hosp., Indianapolis, Ind.) **Selected Designs: Note on further research.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 317-318.—Describes additional research with the Selected Designs, a screening device for detection of cerebral dysfunction, and reports results for 52 psychiatric inpatient adolescents and for nonpatient adults over 61 yr. of age. It is suggested that the test be used with caution on these 2 S populations.—*Journal abstract*.

4551. Sletten, Ivan W., Ernhart, Claire B., & Ulett, George A. (U. Missouri, Medical School) **The Missouri Automated Mental Status Examination: Development, use, and reliability.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 315-327.—Describes the development and use of the automated Missouri Mental Status (MMS) examination, and reports a study concerned with the reliability of its items and scales and the reliability of the psychiatric diagnosis made at the time of completion of the examination. MMS scale scores will be used in combination with data from other instruments to generate automated statistically developed statements regarding the probability of various important outcomes, e.g., response to treatment, return to social usefulness, or the possibility of suicide or assaultive behavior. (29 ref.)—D. Prager.

4552. Sopchak, Andrew L. (Onondaga County Child Guidance Center, Syracuse, N.Y.) **Anxiety Indicators on the Draw-a-Person Test for clinic and nonclinic boys and their parents.** *Journal of Psychology*, 1970(Nov), Vol. 76(2), 251-260.—After matching 20 control families with 20 families coming to the Child Guidance Center, they were given the Draw-a-Person Test. The tests were scored for 20 anxiety indices according to Handler's technique. The hypotheses that children and parents in the clinic group would show significantly more anxiety than the control group were supported. A significant relationship between the child and parental anxiety level was also found.—*Author abstract*.

4553. Thorne, Frederick C. (4 Conant Square, Brandon, Vt.) **Diagnostic classification and nomenclature for existential state reactions.** *Journal of*

Clinical Psychology, 1970(Oct), Vol. 26(4), 403-420.—Presents a new diagnostic classification and nomenclature for existential disorders, and the rationale, theory, nature, etc., of the problem. The source of the data came from the collection and evaluation of existential problems and disorders, from introspection with subjective reporting of existential concerns, and by questioning the person. "Expanding Frankl's concept of the existential (noogenic) neuroses," 12 existential states are differentiated: actualization states, conflict reactions, cultural double-bind reactions, and frustration, fatigue, inversion, demoralization, vacuum, satiation, alienation, disintegration, and self-transcendence states.—E. J. Kronenberger.

4554. **Weitbrecht, H. J.** *Psychiatrische Fehldiagnosen in der Allgemeinpraxis: Fibel der Differentialdiagnostik*. [Psychiatric misdiagnoses in general practice: Fundamentals of differential diagnosis.] Stuttgart, W. Germany: Georg Thieme, 1966. 251 p.—Eschewing theoretical exposition, attention is focused on the preclusion of mistakes in clinical practice resulting from overemphasis on theory in medical training. For this reason, a complete exposition of differential diagnosis in psychiatry is avoided, restricting discussion to a number of syndromes which tend to be more frequently encountered in ambulatory practice.—I. D. London.

BEHAVIOR DISORDER

4555. **D'Ambrosio, Richard.** (Long Island U.) *No language but a cry*. Garden City, N.Y.: Doubleday, 1970. 252 p. \$6.95.

4556. **Gary, A. L. & Hammond, R.** (Northwest Mississippi Regional Mental Health Center, Oxford) *Self-disclosures of alcoholics and drug addicts*. *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 142-143.—Describes a test of reciprocity, hypothesizing that "in the exchange of answers to personal questions, people tend to give answers of the same intimacy value as they get." Ss were 36 24-59 yr. old alcoholic and drug-addicted hospitalized patients. 10 sets of questions, scaled in intimacy from 1-7, from the M. W. Worthy, A. L. Gary, and G. Kahn study of self-disclosure, were used. Results indicate (a) strong support for the principle of reciprocity; and (b) Ss were highly in favor of the technique, as being less threatening than group therapy. The use of this method in promoting openness among patients is discussed.—P. McMillan.

4557. **Gil, David G.** (Brandeis U.) *Violence against children: Physical child abuse in the United States*. Cambridge, Mass.: Harvard U. Press, 1970. x, 204 p. \$6.50.

4558. **Hauser, Charles E.** (Washington U., Medical School) *Clinical correlates of sociopathy in childhood*. *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 558-560.—Presents a psychoanalytic, social, and developmental model to conceptualize sociopathy. Sociopathy is described as the development of a characterological style including (a) need-gratifying relationships, (b) basic mistrust or viewing the world as in opposition to one's needs, (c) inadequate separation-individuation, (d) lack of mutuality in interpersonal relationships due to both ego and superego defects, and (e) lack of internalization of societal structure. A case is presented to illustrate deficient primary narcissism, exaggerated infantile omnipotence, fixation at an oral or

need-gratifying level of relationships, and poor impulse control. A family history of deficient mothering capacities is also assembled from the data. It is suggested that the fringes of society, especially the disorganized lower class family, engenders sociopathic behavior and supplies the facade of compliance to mask it. An understanding of the development of this disorder will aid clinical diagnosis during childhood as effectively as in early adulthood.—*Journal summary*.

Drug Addiction

4559. (Geneva, Switzerland) **WHO expert committee on drug dependence**. *World Health Organization, Technical Report Series*, 1969, No. 407, 3-28.—Reviews the definition, evaluation, and criteria for control of drug dependence and abuse; the work of international bodies concerned with drug dependence; and "the abuse and control of drugs not under international control." The effects and incidence of abuse of cannabis, coca leaves, and cocaine, methadone maintenance, and specific opiate antagonists in therapy are examined. Standardization of clinical records is emphasized in the evaluation of treatment programs. The coordination of efforts to improve, coordinate, and evaluate educational materials and activities, and to provide retrieval systems for data on all aspects of drug abuse and related dependence" is discussed.—G. Steele.

4560. **Fracchia, John; Sheppard, Charles; Merlis, Michael, & Merlis, Sidney.** (Central Islip State Hosp., N.Y.) *Atypical reasoning errors in sociopathic, paranoid, and schizotypic personality types*. *Journal of Psychology*, 1970(Sep), Vol. 76(1), 91-95.—Raven Progressive Matrices (RPM) errors for 90 narcotic addicts divided into 4 MMPI profile types, primary sociopathic (49"), secondary sociopathic (42"), paranoid (428"), and schizophrenic (987") were scored for "atypicality" as defined by an item analysis. The finding that significantly more atypical errors were made by Ss showing psychotic-like profiles than by Ss manifesting sociopathic-like patterns was interpreted as indicating RPM performance indices are capable of reflecting the degree of organization of reasoning processes.—*Author abstract*.

4561. **Perkins, Marvin E. & Bloch, Harriet I.** (Beth Israel Medical Center, Morris J. Bernstein Inst., New York, N.Y.) *Survey of a methadone maintenance treatment program*. *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1389-1396.—Developed a comprehensive body of data on heroin addicts who apply to the methadone maintenance program and on patients admitted to Morris J. Bernstein Institute (MJB I). 4 interrelated studies were accomplished over a 3-yr period with 521 patients. The 1st study showed that the typical MJB I S was male, white, 32 yr. old, and Catholic. Also "Achieved Status" was low, "criminal-legal involvement" was high, "substance use" was extensive, and "health" was good. Throughout the program, the average S was maintained on 91-100 mg. of methadone/day. The 2nd study showed that discharge seemed to be linked with poor social and health functioning. The highest percentages of discharges were among the unemployed, criminally involved multiple substance users, and physically and mentally ill. The 3rd study showed that a significantly higher proportion continued drug use among those in the program 1 yr. or less. The 4th study was concerned with the differences among Ss admitted

to MJB1 and those who were not (i.e., more whites than nonwhites were admitted, admitted Ss were more often employed, etc.).—P. R. Shibelski.

4562. Reinert, R. E. (Veterans Administration Hosp., Topeka, Kan.) **General observations on drug habituation.** *Bulletin of the Menninger Clinic*, 1970(Jul), Vol. 34(4), 195-204.—Attempted to develop the thesis that the regular, i.e., addictive or habitual, use of many pharmacologically unrelated substances is basically the same phenomenon, i.e., the induction of an artificial desire or need which on examination turns out to be the withdrawal discomfort, the removal of which is the source of satisfaction. Despite great differences relating to the prevalence of a given substance or its pharmacology or its legality, the purpose for use of the substance by man has certain common denominators.—*Journal summary*.

Alcoholism

4563. Blume, Sheila B. (Central Islip State Hosp., N.Y.) **Driving histories of alcoholics in a treatment unit.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 734-743.—Examined the driving histories and attitudes toward driving and drinking in 46 male and 46 female nonpsychotic alcoholics who were voluntary patients in a state hospital rehabilitation program. 87% of the males and 61% of the females were or had been drivers. 63% of the drivers admitted they had been responsible for 1 or more accidents while driving under the influence of alcohol. All expressed disapproval of driving after drinking. A driver rehabilitation program for alcoholics would be more effective if combined with referral for full-scale treatment for the alcoholism. The driver rehabilitation program alone would not materially influence the course of the drinking.—D. Prager.

4564. Cahn, Sidney. **The treatment of alcoholics: An evaluative study.** New York, N.Y.: Oxford U. Press, 1970. viii, 246 p. \$7.50.

4565. Gillespie, Cecelia. (Colorado Nurses Assn., Denver) **Nurses help combat alcoholism.** *American Journal of Nursing*, 1969(Sep), Vol. 69(9), 1938-1941.—Describes involvement on the part of nurses in alcoholism programs. It is suggested that in addition to research and care of alcoholics, nurses can be used to a great extent in planning detoxification centers in motivating attitude changes of the public, in parole programs, and in inservice education programs.—B. A. Stanton.

4566. Groden, Gerald. (Purdue U.) **The performance of alcoholics on the Hidden Figures and the Trail Making tests.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 394.

4567. Hoffmann, Helmut. (Minnesota State Hosp., Willmar) **Depression and defensiveness in self-descriptive moods of alcoholics.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 23-26.—Administered M-MPI Depression (D) scales, Social Desirability (SD) scales from Edwards and from Marlowe-Crowne (MC-SD), and a set of mood scales to 61 alcoholic patients. An elevation for D and MC-SD was found. Somatic depression did not correlate significantly with depression of the phenomenological transparent mood scales, but with mood scales indicating inertia. SD correlates considerably with all mood factors, but MC-SD only with some of them. Alcoholics were characterized as being depressive and defensive in terms of giving a high approval-seeking self-image but not deviant by following

socially desirable self-descriptions.—*Journal abstract*.

4568. Jimeno Valdés, A. & Lequerica, Julio. **Accidente psicótico en la reacción disulfiram-alcohol.** [Psychotic illness in the disulfiram-alcoholic reaction.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jul), Vol. 28(3), 192-200.—Discusses literature on the reactions of alcoholics to disulfiram (antabuse) and relates it to the case of a 35-yr-old alcoholic male. Treatment followed the Stählin and Solms method, except that the S was administered a maintenance dose of 375 gm. of disulfiram/day. S was observed to have no significant somatic reaction to the drug. However, a hallucinatory-paranoid psychosis appeared after the S imbibed alcohol in conjunction with the drug treatment. These symptoms disappeared with chlorpromazine treatment. The final diagnosis of toxic psychosis with schizophrenic symptomatology was discussed in relation to the pathogenesis of mental illness. (English summary)—P. Hertzberg.

4569. Kish, George B. (Veterans Administration Hosp., Ft. Meade, S.D.) **Alcoholics' GATB and Shipley profiles and their interrelationships.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 482-484.—The General Aptitude Test Battery (GATB) and the Shipley-Hartford were administered to 71 male inpatient alcoholics. Correlations between the Shipley-Hartford and GATB scales are presented. The Shipley-Hartford did not show a predictive value in relation to the performance or perceptual parts of the GATB. General intelligence was most accurately predicted by the Shipley-Hartford total score. Clerical perception was closely related to 3 aspects of the Shipley-Hartford but not to the Verbal part of the test. The Shipley-Hartford was noted as being a fairly useful, quick estimate of the General, Verbal, and Neutral scales of the GATB.—E. J. Kronenberger.

4570. McNichol, Ronald W. (Arkansas Rehabilitation Service, Benton) **The treatment of delirium tremens and related states.** Springfield, Ill.: Charles C Thomas, 1970. xi, 145 p. \$8.

4571. Saint, E. G. (U. Queensland, Brisbane, Australia) **Alcohol and society.** *Medical Journal of Australia*, 1969(Jul), Vol. 2(2), 69-76.—Discusses the problem of alcoholism—"a public health problem of the greatest magnitude"—in a sociological context. Principle issues presented include: (a) the dearth of information on the clinical, metabolic, and sociological aspects of alcoholism; (b) the ambivalence of the law derivative of the apathetic view of society towards alcoholism; and (c) the educational and administrative preparation of young people to meet modern social and behavioral problems.—A. Berg.

4572. Santo-Domingo Carrasco, Joaquín. **Recientes avances en alcoholismo y toxicomanías.** [Recent advances in alcoholism and toxicomanías.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Apr), Vol. 28(2), 134-144.—Examines recent research, literature, and treatment programs from clinical and therapeutic viewpoints. Problems in the terminology and classification of alcoholic and toxicomanic disorders are considered, as are aspects of prevention. Suggestions are made for standardizing alcoholic cures and for integrating the patient's family and church in the cure. Epidemiological questions are considered from practical and theoretical viewpoints. (32 ref.)—P. Hertzberg.

4573. Wilkinson, Patricia; Horvath, Thomas B., Santamaria, Joseph N., & Rankin, James G. (U.

Melbourne, St. Vincent's Hosp., Victoria, Australia) **Bromism in association with alcoholism: A report of five cases.** *Medical Journal of Australia*, 1969(Jun), Vol. 1(26), 1352-1355.—Alcoholics are particularly prone to bromureide habituation and intoxication. Unless suspected, bromism may be misdiagnosed, for its clinical features are variable and can mimic other neuropsychiatric disorders, including alcoholism. 5 alcoholic patients are described who developed chronic bromide intoxication after ingesting proprietary bromureide preparations which were available without prescription. Clinical analysis of the Ss' serum bromide levels varied from 193-290 mg/100 ml (24.1-36.3 mEq/l). All Ss manifested marked neuropsychiatric disturbances which, in the 4 patients who were treated, disappeared as the serum bromide level fell. 1 S also had a visual defect possibly attributable to bromide intoxication, but the defect did not improve with treatment. The need for awareness of this condition in alcoholics, and the magnitude of the hazard of bromism are stressed. (21 ref.)—*Journal summary.*

4574. **Wilkinson, Patricia; Santamaria, Joseph N., Rankin, James G., & Martin, Doris.** (U. Melbourne, Victoria, Australia) **Epidemiology of alcoholism: Social data and drinking patterns of a sample of Australian alcoholics.** *Medical Journal of Australia*, 1969(May), Vol. 1(20), 1020-1025.—Reviewed the case histories of 220 alcoholic patients, with attention focused on factors which might influence the development of physical complications of alcoholism. Ss were from all socioeconomic groups, and the majority working and living with their families before coming to the clinic. There were 4 times as many men as women. Characteristically, both male and female alcoholics were habitual excessive beer drinkers. The men consumed an average of 220 gm. of ethanol/day, and the women 155 gm. of alcohol/day. Most of the men started to drink regularly in their late teens, began to drink excessively in the middle or late 20s, and came to the clinic in their early 40s. The women started to drink later and drank excessively for a shorter period before seeking help. Results support the contention that alcoholism is a considerable public health problem in Australia, affecting all levels of the community. (18 ref.)—*Journal summary.*

4575. **Wilkinson, Rupert.** (U. Sussex, England) **The prevention of drinking problems: Alcohol control and cultural influences.** New York, N.Y.: Oxford U. Press, 1970. xv, 301 p. \$10.

Suicide

4576. **Braucht, G. Nicholas & Wilson, Lowell T.** (U. Colorado) **Predictive utility of the Revised Suicide Potential Scale.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 426.—Data were drawn from 63 fatal suicides, 324 nonfatal suicide attempters, and 95 nonsuicidal controls. The Revised Suicide Potential Scale (RSPS) correctly predicted 68.4% of the nonsuicidal group and misclassified 31.6% as suicidal. It is felt that the use of the RSPS is considerably useful where higher suicidal base rates are common, e.g., hospitals, crisis clinics, and suicide prevention services. —*M. West.*

4577. **Hill, Mary N.** (Smith Coll., School for Social Work) **Suicidal behavior in adolescents and its relationship to the lack of parental empathy. Dis-**

sertation Abstracts International, 1970(Jul), Vol. 31(1-A), 472.

4578. **Jourard, Sidney M.** **Suicide: An invitation to die.** *American Journal of Nursing*, 1970(Feb), Vol. 70(2), 269, 273-275.—Proposes that "a person destroys himself in response to an invitation originating from others that he stop living." Man begins to die when his life loses meaning, value, and hope. The ways in which persons in society contribute to the suicide of other persons are discussed.—*B. A. Stanton.*

4579. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Factors affecting choice of method of suicide.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 437.—Examined the fantasy aggression of individuals choosing different methods of suicide. No significant differences on TAT themes were found between persons using active or passive methods of suicide.—*E. J. Kronenberger.*

4580. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Social disorganization and completed suicide.** *Social Psychiatry*, 1970(Jul), Vol. 5(3), 175-176.—Found in Edinburgh, Scotland that the incidence of suicide is very common in areas of the city where there is a high degree of social disorganization, i.e., overcrowding and juvenile delinquency. A study in the city of Buffalo in the United States failed to replicate this finding. It appears possible, therefore, that the suicides (at least as determined by ecological studies) may differ considerably in Edinburgh and in Buffalo. Implications of this study are important since preventative measures for suicide would have to differ for the 2 countries if this were true. Overcoming social disorganization would be expected, e.g., to have an ameliorative effect on suicidal behavior in Edinburgh but not in Buffalo.—*Journal abstract.*

4581. **McCulloch, J. W. & Philip, Allstair E.** (U. Bradford, School of Applied Social Studies, England) **The social prognosis of persons who attempt suicide.** *Social Psychiatry*, 1970(Jul), Vol. 5(3), 177-182.—Discusses the social prognosis of persons admitted to hospital following a suicidal attempt. Relationships between demographic, clinical, and precipitating factors and social change, in the cases of 511 patients, were assessed by a psychiatric social worker 4 mo. after S's release from hospital. Younger Ss, those with extant marriages, fair work records, or living at home had social improvement more often than others. The prognoses for Ss who cut, strangled, or attempted to suffocate themselves were poor, and for those employing salicylates the prognoses were good. Where psychiatric disturbance was present at the time of the attempt, the social prognosis depended on alleviation of the illness. Ss with no psychiatric illness and those with character disorders alone, had more social problems and a poor social prognosis. Immediate precipitants of the suicide attempt were not related to social change; however, longstanding precipitants were felt to be possibly predictive of future behavior. Changes in the behavior of persons important to Ss were related to social change. The most important relationship was between improvement in Ss' behavior and social state. Results are discussed with relation to information available on similar patients from the same parent population. (French & German abstracts) (15 ref.)—*Journal abstract.*

4582. **Noyes, Russell.** (U. Iowa) **Shall we prevent suicide?** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 361-370.—Examines the role of the psychiatrist in the

effectiveness of suicide prevention programs with regard to such questions as: (a) why the psychiatrist became involved, (b) how he can justify his role in suicide prevention, (c) how effective can he be, and (d) what effect the interpretation of suicide as a sign of mental illness has had on the conceptualization of this act. It is concluded that even a massive prevention program cannot approach the impact of political and social forces beyond human control, and that in asserting these objectives, psychiatry "risks erosion of professionalism" and "renders itself increasingly ineffective in prevention efforts through its alliance with society." It is further suggested that the "theoretical impasse" between a psychiatrist's duty to his patient and to society demands, in actual practice, that the psychiatrist's actions in discharging his responsibility "be guided by an awareness of this conflict and the impingement of ethical values on his profession." (26 ref.)—*M. Maney.*

4583. Paul, Louis. (11665 W. Olympic Blvd., Los Angeles, Calif.) **The suicidal self.** *Psychotherapy: Theory, Research & Practice*, 1970(Fal), Vol. 7(3), 177-180.—Postulates the concept of suicidal self as a "subself" of a person which can on occasion "emerge as the dominant agency and preempt the person." Therapeutically oriented interviews with about 50 suicidal Ss (with actual attempts or contemplation of suicide) were reported. A Gestalt therapy approach was used which sought to make the S aware of and remove the suicidal self. It is suggested that the suicidal self is a type of "cruel inner critic" which is "hostilely monitoring and directing the person to fail." An example is given of how this inner critic may be confronted and dealt with effectively.—*P. McMillan.*

4584. Wilkins, James. (U. Toronto, Centre of Criminology, Ontario, Canada) **Suicide prevention centers: Comparisons of clients in several cities.**, 1969(Nov), Vol. 10(6), 443-451.—Presents data from the Chicago Call for Help Clinic and compares it with data from other centers, e.g., Melbourne, London, Miami, Los Angeles, Boston, etc. Centers in the larger cities receive more than enough calls to keep their staffs occupied. The oldest and best known centers receive about 1 call each hr. At least 60% of the calls are directly related to suicide with the remainder given to other or potentially pre-suicidal problems. About 2/3 of the callers are female and about 1/2 of the callers are in their 20s or 30s. Repeat or chronic callers are 4% of the total in Los Angeles and considerably less elsewhere. There is remarkable similarity in the experiences of centers in different cities. "They thrive and perform a valuable community service in a wide variety of situations. Additional comparative research would be beneficial. (24 ref.)—*D. Prager.*

Crime

4585. Brown, Barry S. (Dept. of Corrections, Washington, D.C.) **The impact of imprisonment on selected attitudes of recidivists and first offenders.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 435-436.—Investigated the impact of the prison experience on the attitudes toward the legal establishment and attitudes regarding aggression. 4 groups of male offenders (1st offenders: 40 incarcerated 1 wk. or less, 46, 11-18 mo.; recidivists: 40 incarcerated 1 wk. or less, 47, 11-18 mo.) were administered the Mylonas Law Scale and the Buss-Durkee Inventory. Newly arrived inmates showed significantly higher guilt scores. Recidivists

showed less favorable attitudes toward law and law enforcement, greater negativism toward others, and tended to be more suspicious, more prone to assaultiveness and felt less guilt.—*E. J. Kronenberger.*

4586. Cowden, James E., Pacht, Asher R., & Bodemer, Ottmar A. (Wisconsin Dept. of Health & Social Services, Madison) **The 16 PF vs. the MCI in a group testing program of reformatory inmates.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 510-513.—168 male reformatory inmates were administered the 16 PF and the Minnesota Counseling Inventory (MCI). Each inmate was rated on a number of variables by a psychologist with no knowledge of the inmate or the test results. The E and the G scales consistently differentiated among the various subgroups in the direction of predicting a poor adjustment within the institution. In general, the 16 PF showed a slight but consistent superiority over the MCI for their overall efficiency in differentiating among the various subgroups.—*E. J. Kronenberger.*

4587. Goldfarb, Ronald L. & Singer, Linda R. **Maryland's defective delinquency law and the Patuxent Institution.** *Bulletin of the Menninger Clinic*, 1970(Jul), Vol. 34(4), 223-235.—The Patuxent Institution in Maryland serves as a diagnostic center for prisoners to be adjudged as "defective delinquents," and then carries on a rehabilitation program for such prisoners. The Institution is considered 1 of the rare examples of prison administration in which the collaborative efforts of psychiatrists, psychologists, and social workers are utilized to maximize rehabilitation results and minimize recidivism.—*J. Z. Elias.*

4588. Golubov, Sv. L. **Psikhopatiya i prestuplenie.** [Psychopathy and crime.] Sofia, Bulgaria: Meditsini i Fiskultura, 1967. 235 p.—A monograph (a publication of the series *Selecta Medica*) on (a) the criminal behavior of psychopaths, (b) the systematics of the psychopathies, and (c) "the connection between the forms of personality anomalies and the crimes committed." The notion that "each psychopath has his own psychopathy" and that it is, therefore, impossible to produce a scientific classification of the psychopathies is rejected. In this connection, it is suggested that, instead of psychological or sociological criteria, variants of physiological types be utilized. The author is, furthermore, opposed to the facile application of the concept of "diminished responsibility" to the criminal psychopath and suggests instead a careful case by case determination of responsibility in meting out punishment and prescribing treatment.—*I. D. London.*

4589. Koller, K. M. & Castanos, J. N. (St. George Hosp., Kogarah, New South Wales, Australia) **Parental deprivation and attempted suicide in prison populations.** *Medical Journal of Australia*, 1969(Apr), Vol. 1(17), 858-861.—Examined short-term male, long-term male, and short-term female prisoners in 2 separate jails. A history of attempted suicide from a prison population is common. Each of the groups of male prisoners disclosed an incidence of 12%, the female prisoners 36%. Statistical comparisons between those prisoners with and without a history of attempted suicide revealed that the prisoners who attempted suicide had a greater likelihood of parental deprivation. This loss concerned both parents for a variety of reasons, and the environment subsequent to the loss was of no apparent relevance. Prisoners who had experienced parental loss at 10-15 yr. old and who were also the youngest children in the family were

particularly vulnerable to suicide. In a prison population, there appear to be distinct groups who are suicide prone. The psychopathological condition of these suicide-prone individuals appears to be distinctively different from that of their closely matched fellows with no such history. Certain theoretical issues in relation to the etiology of attempted suicide in general are discussed, and some comparisons are made with a psychiatric group attending a general hospital unit.—*Journal summary.*

4590. Lindner, Lewis A., Goldman, Harold; Dinitz, Simon, & Allen, Harry E. (Ohio State U., Medical School) **Antisocial personality type with cardiac liability.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 260-267.—Describes an experiment in a state penitentiary involving 19 primary sociopaths, 10 mixed, and 14 nonsociopaths, as defined by clinical, psychometric, and criminal history criteria. Results indicate that the primary sociopaths were not homogeneous with regard to such variables as previous antisocial history, family characteristics, psychological profiles, and attitudes. Using the Lykken scale scores as criterion, primary sociopaths were divided into 2 types, hostile and simple, who differed significantly on nearly all socio-cultural and psychological measures. Only the simple (reasonably nonaggressive) sociopaths demonstrated the cardiac liability to epinephrine previously ascribed to sociopaths in general. Findings were consistent with other physiologic observations on skin and pupil responses. Both the unusual physiology and behavior of the simple sociopath may be manifestations of a single autonomic defect, reflecting diminished function of catecholamine secreting neurons, including those involved with sensory input. (25 ref.)—*Journal summary.*

4591. Lunden, Walter A. (Iowa State U.) **Staff turnover and tenure in the British prison service.** *Correctional Psychologist*, 1968(Sep), Vol. 3(6), 2-10.—Reasons for the low turnover (7.4%) and long tenure (42% more than 11 yr., 57% more than 6 yr.) are given as: (a) recruitment and selection techniques; (b) education and training of officers; (c) a strong prison officer's association; (d) free flow of communication between administration and staff; (e) a favorable balance between the central division, regional division, and local institution; and (f) a favorable social image of the Civil Service employees.—*R. V. Hamilton.*

4592. Manne, Sigmund H. (Patuxent Inst., Jessup, Md.) **The relationship between institutional treatment and parole.** *Correctional Psychologist*, 1969(Jan), Vol. 3(7), 23-25.—The program at the Patuxent Institution, which attempts to utilize the concepts of mental health and forensic medicine in the area of crime and delinquency and staffed and directed by psychiatrists and the psychiatric team of psychologists and social workers was compared with the penal system of 2 autonomous correctional institutional treatment programs and the parole system. It is hoped that there will evolve a closer working relationship and consistency of treatment inside and outside of correctional institutions.—*R. V. Hamilton.*

4593. Martin, Paul L. & Barry, John R. (U. Chicago) **A prediction of recidivism.** *Correctional Psychologist*, 1969(Jan), Vol. 3(7), 6-13.—An intensive review indicated a mean recidivism rate within a 33-55% range. The rate of return to crime appears to be related to numerous pre- and postprison variables. Low socioeconomic status, marital instability, low educational status, and poor home environment seem to be highly prognostic of criminality. (46 ref.)—*R. V. Hamilton.*

4594. O'Neil, Carle F. & Travisano, A. P. **Correctional chemotherapy.** *Correctional Psychologist*, 1969(Jan), Vol. 3(7), 26-31.—In a questionnaire to 132 responding training schools, 93 indicated use of psychiatric medication for inmates. Of the 93 respondents, 53 indicated the primary use of the medication was a combination of control and treatment; 33 indicated the purpose was as an adjunct to other forms of programming; and 7 indicated the purpose was for maintaining control. None of the respondents reported the use of medication for punishment. Comments indicated a wide divergence of opinion regarding the use of medication for correctional programs.—*R. V. Hamilton.*

4595. Reay, Donald T. & Hazelwood, Robert R. (U.S. Armed Forces Inst. of Pathology, Washington, D.C.) **Death in military police custody and confinement.** *Military Medicine*, 1970(Sep), Vol. 135(9), 765-771.—The death rate of prisoners in custody or confinement in a military setting was found to be 1/22,000, including deaths by suicide, homicide, or accident. The most common method of suicide is by hanging. Almost 50% of the suicides occurred within the 1st few hours after arrest, the prisoner being intoxicated in all cases. No deaths from natural causes were reported and may be attributed to the youthfulness of the prisoners who were, with few exceptions, in the lowest 2 pay grades.—*G. A. Clum.*

4596. Resnick, Phillip J. (Case Western Reserve U., Medical School) **Murder of the newborn: A psychiatric review of neonaticide.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1414-1420.—Explored the differences in the killing of a newborn infant from that of other filicides. A new term, "neonaticide," is proposed for this phenomenon. Mothers who commit neonaticide are less frequently psychotic than mothers who kill older children. Whereas most filicides are committed for "altruistic" reasons, most neonaticides are carried out simply because the child is unwanted. Reasons for neonaticide include extramarital paternity, rape, and seeing the child as an obstacle to parental ambition. Illegitimacy is the most common motive. There are 2 groups of unmarried murderesses: (a) those who are young, immature, and passive to sexual relations (often deny pregnancy and rarely premeditate murder); and (b) those who have strong instinctual drives and little ethical restraint (tend to be older, more callous, and often promiscuous). It is speculated that unresolved oedipal feelings may contribute to some neonaticides that have previously been attributed to entirely sociological factors. (51 ref.)—*P. R. Shibleski.*

4597. Rosenblatt, Gerald F. & Hannum, Thomas E. (Iowa State U.) **Relationship between Machiavellianism and sociopathy in an incarcerated female population.** *Correctional Psychologist*, 1969(Jan), Vol. 3(7), 16-22.—41 female prisoners were measured for Machiavellian orientation by means of the Mach IV Scale, Mach V Scale, Coalition-Triad game, and peer and self-ratings; and for tendencies for sociopathy by means of selected MMPI scales, Lykken scale, certainty-judgments by the institutional psychologists, and biographical data. There was no consistent significant relationship between the concepts of Machiavellianism and sociopathy as these concepts were defined and measured in this study.—*R. V. Hamilton.*

4598. Scott, George D. **The prisoner of society: Psychiatric syndromes in captive society.** *Correctional Psychologist*, 1969(Jan), Vol. 3(7), 3-5.—Presents short descriptions of a variety of psychiatric syndromes

(related to penitentiary terminology): (a) the initial admission trauma, "admission fog," is characterized as seclusiveness, conversational disinterest, bland obedience, and physical lethargy; (b) "coasting," an acceptance of the status quo of prison life produces self-imposed and protective isolation from outside; (c) "gate fever-short time jitters," refers to the separation anxiety pending return to society; (d) "lock-up request-crisis request" is a prison phenomenon where the inmate no longer can control of impending hostility and needs isolation to reestablish self-control; (e) "isolation sickness" is the psychological reaction to deprivation of accustomed sensory input; (f) "stir crazy" is a reaction to confinement and is a regression to childish, silly, petulant behavior; (g) "slashing syndrome" a form of self-mutilation designed for attention-getting value; (h) "phantom female" syndrome refers to pseudoheterosexual attachment for a female surrogate in a fellow inmate; and (i) "homosexual panic" refers to the anxiety reaction to the inmate's reaction to his own strong homosexual desires.—R. V. Hamilton.

Juvenile Delinquency

4599. Borkovec, Thomas D. (U. Iowa) **Autonomic reactivity to sensory stimulation in psychopathic, neurotic, and normal juvenile delinquents.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 217-222.—To test the hypothesis that lowered reactivity and/or more rapid adaptation to sensory inputs is a primary characteristic in psychopaths, 19 psychopathic, 21 neurotic, and 26 normal juvenile delinquents were identified by a behavior checklist and were presented with 21 successive tone stimuli while skin conductance and heart rate (HR) were being monitored. Results indicate that psychopaths gave significantly lower GSRs to the initial stimulus and lower, though not significantly lower, HR changes and prestimulus to poststimulus basal skin conductance increases. Skin conductance levels during rest and stimulation periods were not significantly different. It is concluded that the psychopathic autonomic characteristic resides in lower initial reactivity and not in more rapid adaptation, at least in response to a simple auditory stimulus. (18 ref.)—*Journal abstract.*

4600. Davenport, Christopher M. (Boston Coll.) **A study of the feasibility of developing a delinquent girl scale for the School Interest Inventory.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 215.

4601. Masters, John C. (U. Minnesota, Inst. of Child Development) **Treatment of "adolescent rebellion" by the reconstrual of stimuli.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 213-216.—Presents the thesis that a viable therapeutic procedure might involve discussion and behavior assignments designed to alter the extent to which a client feels he controls his environment. A case study is presented in which an adolescent was encouraged to construe his obedient behavior as an active and successful attempt on his part to control the behavior of his parents, rather than as a meek submission to their demands. Behavior in assignments demonstrated that behavior which was in accord with his parents' requests did exert control over their privilege-granting behavior.—*Journal abstract.*

4602. Monahan, Thomas P. (Villanova U.) **Police dispositions of juvenile offenders: The problem of**

measurement and a study of Philadelphia data. *Phylon*, 1970(Sum), Vol. 31(2), 129-141.—Discusses the problem of collecting and evaluating data about law-violating behavior and presents juvenile findings for Philadelphia from 1955-1966. Many urban area police reports are of negligible scientific value. "They would be much more meaningful if careful explanations of the method of assembly of the data and their fluctuations were given, and if definition of the units of count (especially 'contacts') and other terms were clearly specified, as they are not now, and strictly followed."—A. R. Howard.

4603. Rothenberg, Eugenia. (U. New Mexico) **The effect of self-disclosure and pseudo-self-disclosure on social adjustment of institutionalized delinquent girls.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5246.

4604. Werle, Michael E. (Boston U., School of Education) **The effects of anxiety and reward on the cheating behavior of incarcerated juvenile delinquents.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 169-170.

4605. Zimmeroff, Steven J. (U. Mississippi) **Behavior and modification with delinquents.** *Correctional Psychologist*, 1968(Sep), Vol. 3(6), 11-25.—A review of the limited literature concerning techniques of behavior modification used with delinquents revealed: (a) theoretical implications of learning principles and delinquent, antisocial behavior; (b) techniques for modification of delinquent behavior outside of the institutions; and (c) behavior modification with incarcerated delinquents. (16 ref.)—R. V. Hamilton.

Homosexuality & Sexual Deviation

4606. Bentler, P. M. & Prince, Charles. (U. California, Los Angeles) **Psychiatric symptomatology in transvestites.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 434-435.—The Differential Personality Inventory was administered to 176 transvestites and 74 control Ss. A linear discriminant function analysis was carried out. Results indicate that the 2 groups differed only slightly and that no gross differences were noted between transvestites and controls on neurotic or psychotic scales.—E. J. Kronenberger.

4607. Cowden, James E. & Morse, Edwin L. (Wisconsin Dept. of Health & Social Services, Madison) **The relationship of defensiveness to responses on the Sex Inventory.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 505-509.—The MMPI and the Sex Inventory were administered to 189 sex offenders and the results were analyzed to assess the influence of defensiveness upon Sex Inventory scale scores. A correlation analysis yielded various results. Defensiveness, as measured by the K scale of the MMPI, was not related significantly to the admission or denial of sexual maladjustment, loss of sex controls, or homosexuality. Maximally accurate discriminations could be made between subtypes of sex offenders who scored high on the MMPI F scale and/or low on the L scale. "In spite of significant correlations between these MMPI scales and the Sex Inventory scales, using the former as moderators did not increase the accuracy with which Ss could be classified into subtypes."—E. J. Kronenberger.

4608. Hoenig, J., Kenna, J., & Youd, Ann. (Memorial U., St. John's, Newfoundland, Canada) **Social and**

economic aspects of transsexualism. *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 163-172.—Social, economic, and educational factors are emphasized in describing an untreated group of 60 persons, each of whom felt that inwardly he was really a member of the opposite sex. The syndrome was generally well established by age 19, sexual propensity was mostly homosexual, unrealistic expectations of a complete sex change operation were held, there was a high incidence of male prostitution, and social maladjustment was shown in the high percentage of antisocial and criminal behavior. None of the women remained married, but surprisingly 1/2 of the marriages by men survived, despite cross-dressing and attempts to have sex-change operations. (19 ref.)—R. L. Sulzer.

4609. Lihn, Henry. (435 N. Roxbury Dr., Beverly Hills, Calif.) **Fetishism: A case report.** *International Journal of Psycho-Analysis*, 1970(Aug), Vol. 51(3), 351-358.—Describes the case history of a male with a ladies' panty fetish from his start in therapy through his marriage and fatherhood. (22 ref.)—J. S. Chyatte.

4610. Wallace, Leon. **Psychotherapy of a male homosexual.** *Psychoanalytic Review*, 1969, Vol. 56(3), 346-364.—A 34-yr-old male homosexual began treatment because of depression associated with inability to achieve a lasting homosexual relationship. After 88 hr. of psychotherapy in 8 1/2 mo., the patient achieved a heterosexual image of himself and shortly afterwards was married. His homosexual activity was a defense against threat of psychic dissolution known to exist in relatively compensated schizophrenics.—D. Prager.

MENTAL DISORDER

4611. Atkinson, Roland M. (U. California, Medical School, Los Angeles) **Coast Guard psychiatric inpatients: Assessment, management and disposition.** *Military Medicine*, 1970(Sep), Vol. 135(9), 772-778.—Coast Guard personnel who become psychiatric patients are likely to be young and have little elapsed service time. A diagnosis of personality disorder is established in 50% of the cases. Only 6% of this subgroup was returned to duty. In contrast, patients in other diagnostic groups were returned to duty at a 45% rate.—G. A. Clum.

4612. Bagley, Christopher & Evan-Wong, Louise. (U. Sussex, Centre for Social Research, Brighton, England) **Psychiatric disorder and adult and peer group rejection of the child's name.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(May), Vol. 11(1), 19-27.—Compared the names (1st name and surname) of 83 children attending a child guidance clinic with the names of 83 nonpsychiatric controls. The names were presented in randomly ordered pairs to a group of adult judges, and in projective sociometric situations to 2 groups of 11-yr-old children, and to a group of 7 yr. olds. Results indicate that the names of Ss are significantly more often rejected as odd or unpleasant than the names of controls, and that it is the oddity of the child's surname that accounts for this difference. Findings are interpreted in terms of the child's self-image, and in terms of symbolic interaction theory. A study of the 19 Ss with the most frequently rejected names shows that they have significantly fewer possible etiological factors than the remainder of the Ss, suggesting that the oddity of the child's name, and subsequent disturbed interaction of the child with his peers, can be of singular importance

in the etiology of psychiatric disorder. (18 ref.)—*Journal summary*.

4613. Bazzoui, Widad. (U. Missouri) **Affective disorders in Iraq.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 195-203.—Clinical study of 98 Iraqi patients showed less incidence of ideas of unworthiness and fewer suicidal thoughts than would be expected in a similar group of affective disorders in England. In depression there seemed to be less sadness, and in mania patients lacked the infective joyous mood of Western profiles. Physical symptomatology and hysterical behavior conspicuously colored depression while paranoid thinking and projection were common. Mania, conversely, was characterized by aggression and more antisocial behavior than in the West. Cultural influences and child rearing may explain differences in personality structure. (27 ref.)—R. L. Sulzer.

4614. Chatel, John C. & Peele, Roger. (St. Elizabeths Hosp., Washington, D.C.) **A centennial review of neurasthenia.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1404-1413.—Traces the history of the term "neurasthenia" to its supposed origination and to its originator, George Miller Beard. During the decades subsequent to its origination and up until the early 20th century the term found widespread use and took on many varying meanings and interpretations. Until recently, however, the term was considered virtually obsolete in the United States although some European nations retained the term. With the development of a new classification of mental disorders for the 8th Revision of the *International Classification of Diseases* the term returned. The varying definitions, the genogenic, chemogenic, and psychogenic explanations of the term, a clinical description, and a history of treatment of the disorder are presented. A brief discussion of the term by George Mora follows. (98 ref.)—P. R. Shibleski.

4615. Grisso, J. Thomas. (Ashland Coll.) **Verbal behavior and the action-thought dimension.** *Journal of Abnormal Psychology*, 1970(Oct), Vol. 76(2), 265-269.—2 studies investigated verbal indexes of action- and thought-oriented behavior styles proposed by L. Phillips and E. Zigler (see PA, Vol. 36:4JP37P), and employed a method for assigning verbs in TAT stories to thought, action, or being categories. Ss manifesting thought-oriented response tendencies were expected to produce a greater percentage of thought-related verbs, and a smaller percentage of action-related verbs, than were Ss manifesting action orientations. Ss were 60 male psychiatric patients (Study I) and 90 undergraduates (Study II). Action-thought independent variables were symptom form among patients and verbal aptitude among students. Results support the manifestation of action and thought behavior styles in verbal behavior, but require revisions in thought verb criteria. Difficulties concerning interpretations of styles are discussed.—*Journal abstract*.

4616. Hare, Robert D. (U. British Columbia, Vancouver, Canada) **Psychopathy: Theory and research.** New York, N.Y.: John Wiley, 1970. x, 138 p. \$5(cloth), \$2.95(paper).

4617. Huber, G. (Ed.) **Schizophrenie und Zyklothymie: Ergebnisse und Probleme.** [Schizophrenia and cyclothymia: Results and problems.] Stuttgart, W. Germany: Georg Thieme, 1969. 204 p.—Presents a collection of 22 articles by West German, Austrian, Swiss, and Norwegian authors on the current state of theory concerning the endogenic psychoses, and

the various problems encountered in schizophrenia and the affective psychoses.—J. D. London.

4618. Jacobs, Theodore J. & Charles, Edward. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Correlation of psychiatric symptomatology and the menstrual cycle in an outpatient population.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1504-1508.—Studied the menstrual histories of 200 patients at a New York hospital center who were seen over a 6-mo period in an attempt to correlate psychiatric symptomatology and the menstrual cycle. It was found that the menstrual period, the premenstrual phase, and midcycle intervals were the times when most psychiatric contact was made. Because for such patients menstruation serves as a monthly stress, under circumstances of increased psychological vulnerability, a serious decompensation can precipitate. It is stressed that the psychiatrist should not overlook this possibility and should intercede in a preventive manner either by scheduling more appointments on or around the time of expected period or by increasing medication at this time.—P. R. Shibelski.

4619. Kraus, J. **The relationship of psychiatric diagnoses, hospital admission rates, and size and age structure of immigrant groups.** *Medical Journal of Australia*, 1969(Jul), Vol. 2(2), 91-95.—Admission rates for patients with schizophrenia and paranoid states were found to be consistently higher for immigrants to Australia (except those from the United Kingdom and Greece) than for the native population. There was a significant inverse correlation between admission rates and the size of the groups, and a positive correlation between admission rates and the proportion of patients 20-54 yr. old in the groups. Admission rates for alcoholism and alcoholic psychosis were significantly higher for males born in the United Kingdom, New Zealand, and Poland than for Australians. Admission rates for depressive psychosis were higher for females born in the United Kingdom and males born in the Netherlands. Rates for neuroses and psychosomatic disorders were higher for all Yugoslav immigrants, for males born in New Zealand and Germany, and for females born in Hungary. Rates of admissions of patients with personality disorders were higher only among immigrants from New Zealand.—*Journal abstract*.

4620. Linsky, Arnold S. (U. New Hampshire) **Who shall be excluded: The influence of personal attributes in community reaction to the mentally ill.** *Social Psychiatry*, 1970(Jul), Vol. 5(3), 166-171.—Tests 3 hypotheses indicating that communities have a greater propensity to exclude for mental illness: (a) lower-class persons and members of low status racial-ethnic groups, (b) persons who lack close social ties in the community, and (c) mentally deviant males rather than females. Ss were 14,304 1st admissions to 3 state mental hospitals from 1957-1964. An exclusion index was used as a measure based on the ratio of voluntary to involuntary commitments to mental hospitals, with high ratios indicating high rejection or low community tolerance of deviance. All 3 hypotheses were supported. Findings have implications for current etiological theories of mental illness including the social isolation, socioeconomic deprivation, and sociocultural fit hypotheses. It is concluded that differential community reaction to mental deviance may contribute to the high incidence of hospitalized mental disorders among the groups discussed. (French & German abstracts) (25 ref.)—*Journal abstract*.

4621. Michaux, Mary H., Suziedelis, Antanas; Garmize, Karen, & Rossi, J. Antoinette. (Springfield State Hosp., Sykesville, Md.) **Depression factors in depressed and in heterogeneous in-patient samples.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Dec), Vol. 32(6), 609-613.—Evaluated 158 newly hospitalized, functionally ill psychiatric patients on the Hamilton Rating Scale for Depression. Single item scores were intercorrelated; a centroid factor analysis and varimax rotation were completed. The resulting factors: insomnia, agitated depression, digestive disturbances, hypochondriasis, suicide, somatic symptoms, and retardation and apathy, were compared with factors reported by M. Hamilton (see PA, Vol. 35:6462), based on ratings on the same items of depressed male Ss. In diagnostically heterogeneous Ss, depression and guilt were associated with agitation rather than with retardation, as in depressed patients. Both specific physical symptoms and various types of sleep disturbances appeared in a more varied behavioral context in depressed than in heterogeneous Ss. In both samples, suicide was associated with depression and guilt but not with anxiety, agitation, or impairment. (23 ref.)—*Journal summary*.

4622. Rego, A. (Centro Neuropsiquiatrico de Martorell, Barcelona, Spain) **La apraxia del vestirse en las demencias seniles.** [Apraxia for dressing in senile dementia.] *Revista de Psiquiatria y Psicología Médica*, 1969(Oct), Vol. 9(4), 255-264.—Apraxia for dressing in cases of focal lesions differs from apraxia for dressing in cases of senile dementia. In the latter all higher functions are impaired, and the confusion between pieces of clothing and the appropriate body parts appears before asomatognosia sets in. Behavioral deterioration in senile dementia is broken down into 3 stages, their characteristics are described, and the changes in dressing and undressing oneself that take place in these stages are analyzed in terms of spatial relations and their conceptualization, the execution of temporal sequences of acts, and the relations between garments and parts of the body.—L. Zusne.

4623. Timsit, Martine, et al. (U. Liège, Belgium) **Variations contingentes négatives en psychiatrie.** [Contingent negative variation in psychiatry.] *Electroencephalography & Clinical Neurophysiology*, 1970(Jan), Vol. 28(1), 41-47.—Studied the contingent negative variation (CNV) in 45 normal, 70 neurotic, and 45 psychotic Ss. Correlations were sought between the amplitude and duration of the CNV and these clinical groups. The amplitude of the CNV had no statistically significant relationship with any of the 3 clinical groups, although, in the neurotic group, it was larger in obsessives than in hysterics. Regarding the duration of the CNV, a definite relationship existed between the diagnosis and the persistence of the negative wave after the imperative stimulus. The probability of the occurrence of a prolonged CNV increased with the severity of the psychic disturbance. Some explanatory hypotheses are proposed.—*English summary*.

4624. Warman, Frank C. (U. Maryland) **A fading procedure for verbal conditioning of psychiatric patients.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 403.

Neurosis & Emotional Disorder

4625. Berg, Ian. (High Lands, Scalebor Park, Burley-in-Wharfedale, England) **A follow-up study of school**

phobic adolescents admitted to an in-patient unit. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(May), Vol. 11(1), 37-47.—Described the in-patient management of 29 school phobic adolescents previously reported in I. Berg, K. Nickols, and C. Pritchard (see PA, Vol. 44:5369). A follow-up study was carried out about a yr. after 23 Ss were discharged from an adolescent unit. School (or employment) attendance, family adjustment, and friendships with other young people, were rated by a psychiatric social worker from information given by the mother, as either satisfactory or unsatisfactory. 21 discharged cases were reviewed after an average of 13 mo. Of the 27 Ss in which the outcome was known 16 were satisfactorily attending school or work. 9 were also well adjusted in relation to home and other young people. Of the 12 who attended a day school satisfactorily, 7 had made a satisfactory adjustment to both home and other young people. 11 were failures. Results are similar to previous follow-up studies in that a $1\frac{2}{3}$ of school phobic adolescents returned to school after treatment; about a $\frac{1}{3}$ of the cases were well adjusted on review, $\frac{1}{3}$ had limited functioning, and $\frac{1}{3}$ were severely incapacitated by neurotic problems and interpersonal difficulties. (27 ref.)—*Journal summary*.

4626. David, Henry P. (American Inst. for Research, Silver Spring, Md.) **Relevance of programs for emotionally disturbed youth in other lands.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 203-209.—On behalf of the Joint Commission on Mental Health of Children, a survey of current trends was conducted in more than 40 countries. Focus was on organization and delivery of services and their relevance for evolving practices in the United States. Data indicate a divergence in attitude, a seemingly greater flexibility, and a willingness to experiment with administrative and therapeutic roles. It is suggested that ideological differences are important determinants of the organization, range, and quality of services provided. Statistics indicate that the American system of organization and delivery of care fails to meet current needs of a significant proportion of United States children. A more productive application of the experience of other countries is urged. (15 ref.)—*Journal abstract*.

4627. Davies, Brian. (U. Melbourne, Victoria, Australia) **Recent studies of severe depressive illnesses: I.** *Medical Journal of Australia*, 1969(Mar), Vol. 1(10), 487-491.—Describes "how in the 1950s, clinical observations on the action of certain drugs gave rise to theories about the biochemical basis" of severe depressive illnesses. Investigations of the 1960s are critically examined, and the classification and course of depressive illnesses are discussed. The effects of ECS, leucotomy, electrolytes, lithium, and endocrine functions on mood disorders are examined. Individual case studies are presented.—*G. Steele*.

4628. Giel, R. & van Luijk, J. N. (Psychiatric Clinic, Groningen, Netherlands) **Psychiatric morbidity in 50 juvenile delinquents in Addis Ababa.** *Social Psychiatry*, 1970(Jul), Vol. 5(3), 183-186.—Studied 50 juvenile delinquents in a training center and Ethiopian boys' home. Data reveal that psychiatrically disturbed children are found in such an institution, while they are conspicuously absent in outpatient populations. The broken family background of these Ss did not bear a clear relationship to the presence of psychiatric disorder and appeared to be a normal pattern of life in Ethiopia. (French & German abstracts)—*Journal abstract*.

4629. le Coultre, R. (74 Stadionskade, Holland, Netherlands) **Die Ichspaltung als zentrale Neuroseerscheinung.** [Splitting of the ego as the central phenomenon of neurosis.] *Psyche, Stuttgart*, 1970(Jun), Vol. 24(6), 405-422.—The neurotic conflict is not a simple conflict between id and ego. In reality it is a conflict within the ego sphere, between the principal ego and a split-off portion, each with its id qualities. The conflict between this "adult" ego and the "infantile" portion comprises the central structure of neurosis. The task of therapy is to resolve this split. Careful reading of Freud shows this formulation to be consistent with his views.—*E. W. Eng*.

4630. Neumärker, K. J. (Humboldt U., Berlin, E. Germany) **Zu dem Problem der Heredität bei Zwangsnerven.** [On the problem of heredity of obsession neuroses.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(May), Vol. 22(5), 185-190.—The extremely compulsive character of 30 obsessive neurotics were also found in preceding and succeeding generations of relatives. Cyclothymic or a low level depressive temperament is an essential element in the development of this disease. Obsessional neurosis is concluded to be always a simultaneity of a series of both endogenic and exogenic factors. (63 ref.)—*K. J. Hartman*.

4631. Seitz, Frank C. (Veterans Administration Hosp., Denver, Colo.) **Five psychological measures of neurotic depression: A correlation study.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 504-505.—30 neurotically depressed inpatients were administered 5 tests of depression. Correlations between the tests were quite high although some differences between tests were noted. Psychiatric estimates of depression did not correlate significantly with any of the paper-and-pencil measures of depression.—*E. J. Kronenberger*.

4632. Timsit, M. & Koninckx, N. (U. Liège, Belgium) **Approche statistique de corrélations entre données cliniques et données électroencéphalographiques dans les névroses.** [Statistical approach to correlations between clinical data and electroencephalographic data in neuroses.] *Acta Neurologica et Psychiatrica Belgica*, 1968(Oct), Vol. 68(10), 769-786.—Statistically significant correlations between different EEG patterns and clinical data were established in a population of 64 male and 84 female 25-45 yr. old neurotics. The double-blind method was used in interpreting EEG and clinical findings. Correlation of EEG variables with clinical values was facilitated by use of a computer. Results show "that beta rhythms, mu waves, and a slow frequency of the alpha rhythm seem to have only an indicative value in the diagnosis of neurosis. . . ." though "a mediocre blocking reaction, polyrhythmic recordings and recruitment by flicker probably have discriminative value in recognizing introversion and obsession; excess of theta activity, the alpha variant, auditory potentials, and posterior slow waves aid in recognizing hysteria and psychopathy. These results stress the interest of the study of EEG abnormalities in functional cases." (English & German summaries)—*T. N. Webster*.

Psychosis

4633. Arlow, Jacob & Brenner, Charles. (120 W. 59th St., New York, N.Y.) **La psicopatología de las psicosis: Una propuesta de revisión.** [The psychopathology of psychoses: A proposal of revision.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 921-942.—Ex-

tends psychoanalytic concepts of the formation of symptoms to the psychopathology of psychoses. Freudian concepts on neurosis are discussed regarding their application to psychoses and are believed to be more valid than older concepts. From the viewpoint of clinical observation, psychoanalytic theory is regarded with strict adherence to data from gained from actual experience. From the therapeutical viewpoint, a theory is suggested for treatment. It is noted that an analysis of the symptoms of psychosis results in a recognition of the functions of the ego and superego that are involved in the regressive process of defense. A method of reducing anxiety and mitigating the intensity of intrapsychic conflict is proposed. It was analogous to techniques used in treating neurotics and resulted in an increase in the egoistic functions of adaptation and integration. (4 p. ref.)—*P. Hertzberg.*

4634. **Ballak, Leopold; Hurvich, Marvin, & Crawford, Patrick. Psychotic egos.** *Psychoanalytic Review*, 1969-1970(Win), Vol. 56(4), 526-555.—A resume of analytic conceptions of the role of the ego in psychosis is followed by a list of 12 ego functions and some illustrations from ego function profiles of individual patients. Ego function profiles facilitate comparisons for differential diagnosis and planning of therapy and for charting therapeutic progress. Early recognition of etiology and pathogenesis should lead to more primary prevention and a significant decrease in the vast social problem psychoses present. A discussion by E. Menaker and a rebuttal by G. Blanck follow. (28 ref.)

4635. **Kahn, Roy M.** (1420 Addison St., Berkeley, Calif.) **Both horns of a dilemma are usually attached to the same bull: A built-in impediment to understanding psychoses.** *Perspectives in Biology & Medicine*, 1970(Sum), Vol. 13(4), 633-635.—Argues that psychosis is process and not state, and therefore is most appropriately investigated by a variety of disciplines (biochemistry, pharmacology, neurochemistry, systems theorists, etc.) other than psychiatry and psychology which have assumed the investigative and therapeutic roles. Psychosis, viewed as process, does away with concepts of "functional" or "organic."—*Author abstract.*

4636. **Lenz, Hermann.** (Krankenhaus der Barmherzigen Brüder, Linz/Donau, Austria) **Die noogene Psychose.** [The noogenic psychosis.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1969(Nov), Vol. 19(6), 241-249.—Based on the material provided by 225 histories, cases are sought in which an event from the spiritual, supra-individual sphere stands at the beginning of the psychosis. It was found that this occurred in only 6% of the cases. In these cases the configuration of the psychosis led to a breakdown of the ego at the confrontation of the noosphere or in the attempt to actualize and vivify this sphere in the ego. The noogenic psychosis is not described as a possible new cause of psychosis, but it is emphasized that it is 1 standpoint of consideration among many and that no single 1 of them may be assigned sole causal efficacy. (19 ref.)—*English summary.*

4637. **Müller-Hegemann, D.** (Wilhelm Griesinger Hosp., Berlin, W. Germany) **Über reaktive psychosen.** [On reactive psychoses.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(May), Vol. 22(5), 172-177.—Reviews 2 case histories of patients with reactive psychoses. 1 of the 2 cases had been previously diagnosed as paranoid psychosis. Differences among German, American, and Scandinavian psychiatrists

regarding the use of the classification of reactive psychosis are discussed. Need is expressed for a multidimensional scaling of organic, constitutional, and dispositional factors to facilitate diagnosis. (15 ref.)—*K. J. Hartman.*

4638. **Pasini, W. & Stockhammer, H.** (Gynecological Polyclinic, Geneva, Switzerland) **Deux cas de psychoses post-abortives.** [Two cases of postabortive psychosis.] *Annales Médico-Psychologiques*, 1970(Apr), Vol. 1(4), 555-564.—Reviews the literature concluding that psychotic manifestations following induced abortion are quite rare. 2 cases of decompensation following a legal and a criminal abortion are described. In line with these cases, the difficulty of establishing an univocal pathogenesis, the impossibility of foreseeing the sequelae of abortion, and the increased hazards of decompensation in prepsychotic personalities and in cases where induced abortion is experienced in a conflicting manner on the individual, family, or cultural level are discussed.—*T. N. Webster.*

4639. **Rassidakis, N. C., Kondakis, X., Papanastassiou, A., & Michalakeas, A.** (State Mental Hosp. of Athens, Daphni, Greece) **Withdrawal of antipsychotic drugs from chronic psychiatric patients.** *Bulletin of the Menninger Clinic*, 1970(Jul), Vol. 34(4), 216-222.—Tranquilizing drugs were instantaneously withdrawn from 43 chronic psychotic patients of both sexes for a 9-mo period. 25 (58.1%) of these relapsed at various intervals against 14 (34.1%) of the control group living under the same conditions and in the same hospital. No placebo was used. There was no withdrawal syndrome manifested in the experimental group. Of the variables studied, the age of the onset of illness in the case of schizophrenia and CA of all patients studied influence the phenomenon of relapse and its timing to a statistically significant level. The chronicity of the illness and the factor of occupation do not seem to influence relapses.—*Journal summary.*

4640. **Sachar, Edward J., Hellman, Leon; Fukushima, David K., & Gallagher, T. F.** (Montefiore Hosp. & Medical Center, New York, N.Y.) **Cortisol production in depressive illness: A clinical and biochemical clarification.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 289-298.—Measured cortisol production by isotopic methods in 16 54-75 yr. old depressed patients before and after recovery. 9 Ss showed elevated cortisol production rates during illness. Psychiatric assessments of 32 items of depressive symptomatology were also made. Change in cortisol production from illness to recovery correlated (.89, $p < .001$) with change in scores on items related to emotional arousal (anxiety and sadness) and psychotic disorganization. Apathetic depressed Ss showed little or no change in cortisol production, anxious Ss showed mild to moderate changes, and Ss undergoing acute psychotic decompensation showed very marked changes. In contrast, there was no correlation between cortisol production and scores for all other symptoms of depressive illness. It is concluded that adrenocortical activity in depressed patients is primarily related to dimensions of emotional arousal and psychotic disorganization rather than to depressive illness per se. It is suggested that measurements of cortisol production can aid in interpreting data gathered from other stress-sensitive biological systems in depressed patients. (23 ref.)—*Journal summary.*

4641. **Uszkewiczowa, L.** **Zaburzenia reaktywne i symulacja w praktyce sądowopsychiatrycznej.** [Re-

active disorders and simulation in forensic psychiatric practice.] Warsaw, Poland: State Publishing House of Medical Literature, 1966. 71 p.—Examines the problems posed by reactive psychoses, and the simulation of psychoses in forensic psychiatry.—*I. D. London.*

Schizophrenia

4642. Bellak, Leopold; Hurvich, Marvin; Gediman, Helen, & Crawford, Patricia J. (New York U.) **Study of ego functions in the schizophrenic syndrome.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 326-336.—Investigated differences between 50 hospitalized schizophrenics, 25 neurotics from an outpatient clinic, and 25 controls (hospital administrative personnel) with regard to level of adaptation of ego functions. Differentiating between subgroups of schizophrenics was also undertaken. 12 ego functions were investigated including, reality testing, judgment, regulation and control, object relations, thought processes, etc. Ratings were based on interviews, a battery of individual psychological tests, and 18 additional psychological laboratory procedures relevant to ego functioning. Results reveal highly significant differences in ego function mean scores between the 3 groups, with the schizophrenics obtaining the lowest scores. Illustrative diagnostic profiles for individual schizophrenic patients are presented and discussed.—*P. McMillan.*

4643. Brooks, Robert B. (Clark U.) **The response of normals and schizophrenics from elaborated and restricted language code backgrounds to verbal and nonverbal communication.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 407-408.

4644. Christozov, Christo. (Faculty of Medicine, Psychiatric Clinic, Sofia, Bulgaria) **La schizophrénie en Afrique du nord sous l'optique de la psychiatrie transculturelle.** [Schizophrenia in North Africa examined from the viewpoint of transcultural psychiatry.] *Annales Médico-Psychologiques*, 1970(Apr), Vol. 1(4), 521-554.—Studied 260 male Ss hospitalized in Morocco on individual, familial, and collective levels with respect to age, family status, number of offspring, occupation, residence characteristics, duration and number of hospitalizations, neurologic condition, and incidence of alcoholism, cannabism, and syphilis to examine how ethnic, cultural, and religious peculiarities of North African society mark the clinical picture and dynamism of schizophrenia. Paranoia, followed in importance by catatonia, is the predominant form, doubtlessly representing a fundamental characteristic of North African psychopathology. Other clinical characteristics, as well as prognosis, are discussed in relation to their counterparts in European countries. (22 ref.)—*T. N. Webster.*

4645. Conforto, C., Giberti, F., Rosenbaum, C. P., & Rossi, R. (U. Genoa, Italy) **Prepsychotic adjustment and outcome in Italian schizophrenic patients.** *Comprehensive Psychiatry*, 1969(Nov), Vol. 10(6), 492-497.—Results, agreeing with past literature, show a strong relationship between good premorbid adjustment and acute onset, and both of these are associated with good response to treatment. Data are based on a sample of 56 men and 44 women admitted to an inpatient service between 1962-1968 and diagnosed as schizophrenic. Nearly all simple, hebephrenic, and pseudo-neurotic patients showed a poor premorbid adjustment while paranoid and catatonics showed good premorbid adjustment. A vulnerable prepsychotic personality does

not seem to be related to deterioration in intellectual functioning.—*D. Prager.*

4646. Craig, Robert J. (Chicago State Hosp., Ill.) **Relationship between severity of illness and over-inclusive thinking in schizophrenia.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 251-254.—Tested 40 chronic schizophrenics on 3 measures of overinclusive thinking—Epstein's test, proverbs and the Object Sorting Test—and then rated them for severity of illness with the Psychotic Reaction Profile. Results show that severity of illness can be a significant source of variance in assessing schizophrenic thought disorder. Overinclusive thinking is not merely a trait evinced by schizophrenics irregardless of S variable or stimulus elements. Failure to consider these factors in research designs may obscure the results of potentially meaningful research.—*Journal abstract.*

4647. de Barros Ferreira, Mario. **Análise dos diferentes ciclos electroencefalograficos de sono de seis esquizofrenicos cronicos correlações poligraficas.** [Analysis of different electroencephalographic sleep cycles of six schizophrenics: Polygraphic correlations.] *Actas Luso-Espanolas de Neurologia y Psiquiatria*, 1968(Jul), Vol. 28(3), 215-238.—Recorded all night sleep in 6 chronic female schizophrenics for 9 consecutive nights. Ss were deprived of REM sleep from the 4th-7th night. Studies were made of the effect of the 1st night's sleep and the effect of REM deprivation on the dynamic organization of sleep cycles. Time of sleep onset, the latencies of muscle tone loss, the 1st REM period, and the 1st electrodermograms were considered. Findings show that traumatic or psychogenic external stimuli destroy the harmony of sleep. These disturbances resulted in an increase in the intermediate phase of sleep which is believed to be related to delirium. (French & English summaries) (23 ref.)—*P. Hertzberg.*

4648. Emmerich, David S. & Levine, Fredric M. (State U. New York, Stony Brook) **Differences in auditory sensitivity of chronic schizophrenic patients and normal controls determined by use of a forced-choice procedure.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 552-557.—Investigated whether chronic nondelusional schizophrenic patients (mean age 39.7 yr.) differed from normal controls (male undergraduates, mean age 17.6 yr.) in absolute auditory sensitivity. (It is noted that little change in auditory sensitivity occurs at the signal frequency used in this experiment between the ages of 17 and 40.) To control for motivational and attentional factors, a 2-interval, forced-choice procedure was used. The usual procedure was modified in several ways to minimize general schizophrenic performance deficit. Results indicate that schizophrenic Ss required 8 db. more signal intensity to achieve the same level of performance as did controls. (20 ref.)—*Journal summary.*

4649. Enachescu, C. (Marinescu Hosp., Bucarest, Romania) **Les broderies bizarres des schizophrènes et leur signification psychopathologique.** [Bizarre embroideries of schizophrenics and their psychopathological significance.] *Acta Neurologica et Psychiatrica Belgica*, 1968(Oct), Vol. 68(10), 729-740.—Bizarre embroideries of mental patients, as a form of psychoplastic expression of the morbid structure of their personalities, were rarely studied until recently. The embroideries of 2 female Ss, aged 35 and 50, who have made many such embroideries, were analyzed. The form and morbid content of the embroideries reflect the structure of their makers' personalities, delirium, and hallucinations.

(English & German summaries) (26 ref.).—T. N. Webster.

4650. Fa-yu, Cheng. **Reaction time of introverts vs. extroverts in schizophrenics and normals.** *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 45-51.—Theorized that schizophrenics should be generated from extroverted persons and their mental illness should be worse than that of introverted persons. 33 hospitalized schizophrenics were selected along with 40 students as the 2 polar extremes identified by the E score of the Maudsley Inventory Test. Every S made 15 trials of RT to the 3 tone stimulus intensities, 90, 60 and 30 db. Only the last 10 trials were calculated in the discussion. It was found that (a) the schizophrenics' RTs to the tone stimuli are as long as the normals' when the stimulus intensity decreases. This fact is not consistent with Venable's finding. (b) The RT of the introverted S is shorter than that of the extroverted I, but for the schizophrenic this relation is reversed. (c) An introverted person becomes significantly slower to react to out world stimuli when he becomes mentally ill than when he is healthy.—*Journal abstract*.

4651. Hoaken, Paul C. (Queen's U., Kingston, Ontario, Canada) **Monozygotic twins discordant for schizophrenia.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 612-621.—The study of monozygotic (MZ) twins discordant for schizophrenia can reveal important experiential factors in the development of at least some cases of schizophrenia. The gradual development of paranoid schizophrenia was described in an MZ male twin who later recovered completely from his illness. His life pattern was compared with that of his nonpsychotic co-twin, and his early characteristics and development were contrasted with features of schizophrenic twins in discordant pairs in a recently reported summary of cases. It is suggested that late onset paranoid schizophrenia is different in many ways from other subtypes of schizophrenia beginning in adolescence.—*Journal summary*.

4652. Koh, Soon D. & Shears, George. (Michael Reese Hosp., Inst. for Psychosomatic & Psychiatric Research & Training, Chicago, Ill.) **Psychophysical scaling by schizophrenics and normals: Line lengths and music preferences.** *Archives of General Psychiatry*, 1970(Sep), Vol. 23(3), 249-259.—119 schizophrenics and 56 normal Os judged lengths of lines and preferences for musical excerpts by category rating and magnitude estimation. In the scalings of music preferences, schizophrenic Ss were comparable to normals in their scale forms, inter-scale matching, and intergroup agreement, but their scale range was shortened and constrictive. Individual data showed poor internal consistency and heterogeneity for the schizophrenic Ss in the use of categories and numerals, which presumably accounts for the scale constriction. Data also revealed a high response polarization and perseveration, low average uncertainty, loose category and numeral boundaries, and constrictive use of magnitude. In the scaling of line lengths, such effects were not found, with the exceptions of the low internal consistency and constrictive use of numbers. Observations are related to theoretical formulations on schizophrenia, i.e., paradoxical sensitivity, associative disturbances, and response interferences. (32 ref.).—*Journal summary*.

4653. Laing, R. D. & Esterson, A. **Sanity, madness, and the family: Families of schizophrenics.** Baltimore, Md.: Pelican, 1970. 281 p. \$1.45(paper).

4654. May, Robert. (Austin Riggs Center, Stockbridge, Mass.) **Paranoia and power anxiety.** *Journal of*

Projective Techniques & Personality Assessment, 1970(Oct), Vol. 34(5), 412-418.—Presents a partial test of the theory that paranoid schizophrenia in men involves severe anxiety over aggression or assertion. Ss were men and women in 3 categories: paranoid schizophrenic (N = 14), nonparanoid schizophrenic (N = 23), and people without any history of psychiatric trouble (N = 43). Using a set of TAT cards portraying various situations of anger and aggression, it was found, as predicted, that only paranoid schizophrenic men showed a defensive response. Findings are discussed in the context of traditional gender roles and other evidence about the paranoid style. (26 ref.).—*Journal abstract*.

4655. Roth, Edna F. (Smith Coll., School for Social Work) **An exploratory study of the psychodynamics of mothers who have autistic children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 474.

4656. Sluzki, Carlos E., et al. **Interaccion familiar y esquizofrenia: I. Simetria-complementaridad.** [Family interaction and schizophrenia: I. Symmetry-complementary.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Dec), Vol. 15(4), 309-323.—Examines the results of an investigation which is studying the interaction among families consisting of a mother, father, and schizophrenic adolescent. 6 S families and 5 control families (with no mental illness) were interviewed and given a questionnaire which revealed mother-child, father-child, and mother-father coalitions in both S and control families. Examination of the characteristics particular to each type of coalition revealed a predominance of symmetry and less of a power struggle in the S families. This was attributed to different rules of adaptive behavior. The purpose of the analysis was to illustrate an empirical method for investigating the interrelations between familial and schizophrenic interaction. (English summary)—P. Hertzberg.

4657. Soriano Ortega, Manuel C. (Valencia Medical School, Spain) **Posible manifestación bioquímica de la esquizofrenia.** [Possible biochemical manifestation of schizophrenia.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jul), Vol. 28(3), 201-207.—Discusses the literature pertaining to the discoveries that: (a) serotonin is a biological amine existing in the blood serum, platelets, and brain; (b) bufotenin produces psychotic effects; and (c) bufotenin is a biological derivative of serotonin. An incomplete experiment is described in which the blood serum of Ss with various types of schizophrenia and normal controls was collected. From these, in vitro applications of MAO inhibitors were made to destroy the serotonin so that the presence of bufotenin could be detected. The R_p of 10,000 mg. of pure serotonin, bufotenin, and of blood serum treated with serotonin was obtained. Further investigation will be conducted with the expectation of finding that serotonin is transformed into bufotenin exclusively in the blood serum of schizophrenics. (16 ref.).—P. Hertzberg.

4658. Truscott, Ida P. (Rollman Psychiatric Inst., Cincinnati, O.) **Contextual constraint and schizophrenic language.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 189-194.—Compared 16 hospitalized schizophrenic patients and 16 non-psychiatric patients for the degree of facilitation of contextual constraint in memory. Ss were matched for intelligence, age, education, duration of illness, and socioeconomic level. All Ss listened to 4 taped word passages of different linguistic structure: normal and

anomalous sentences, and semantically related and random word-strings. Ss differed in recall on all conditions, with the greatest difference between S groups occurring on normal sentences. Both S groups showed greater recall on passages emphasizing semantic components than on those with syntactic. Results suggest that the schizophrenic difficulty in communication may be influenced by lack of memory facilitation due to contextual constraints. (24 ref.)—*Journal abstract.*

Schizophrenia Treatment

4659. Angst, Z. **Die somatische Therapie der Schizophrenie.** [Somatic therapy of schizophrenia.] Stuttgart, W. Germany: Georg Thieme, 1969.—With the exception of electroshock therapy and psychosurgery, the book is wholly concerned with the medicinal treatment of schizophrenia and reflects the worldwide literature on the subject.—*I. D. London.*

4660. Boyer, L. Bryce. (3021 Telegraph Ave., Berkeley, Calif.) **La técnica psicoanalítica en el tratamiento de ciertos trastornos caracterológicos y esquizofrénicos.** [Psychoanalytic technique in the treatment of certain characterological and schizophrenic disorders.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 765-812.—Presents the clinical history and a description of the therapeutic technique in the treatment of a 25-yr-old female schizophrenic with visual trauma involving sensations of blackness in the head and the formation of a figurative halo. This was considered to be a variety of Greenacre's vision, headache, and halo syndrome, with identical defensive and adaptive designs, the analysis of which was essential for therapy. Based on the case and other research, the treatment of certain characterological, schizophrenic, and schizoaffective disorders is discussed. Problems of diagnosis are considered. (English & French summaries) (4 p. ref.)—*P. Hertzberg.*

4661. Claghorn, James & Schoolar, Joseph C. (Baylor U., Medical School, Houston, Tex.) **The behavioral pharmacology of oxypertine.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(May), Vol. 10(3), 203-206.—Reports a double-blind study of the efficacy of oxypertine (OXY) and chlorpromazine (CPZ) (thorazine, minor tranquilizer) on 40 male schizophrenics, 19-64 yr. old, with a mean age of 33.5 yr. Ss were divided into 2 groups of 20 based on a matching of the Nurses Observation scale for Inpatient Evaluation and the Brief Psychiatric Rating scale. The treatment period was 12 wk., and it was found that a therapeutically effective response was gained from 300 mg. daily of OXY and 800 mg. daily of CPZ. OXY was found to be "an active antipsychotic medication with a mg. potency 2½ times as great as that of CPZ." Side effects occurred in both groups, but slightly more in the CPZ Ss. The sedative properties of CPZ caused more improvement in anxiety and thought disorder, but a deterioration of personal appearance and increased retardation. OXY improved social interest, emotional withdrawal, and blunted effect, but had a higher dropout rate and lesser effects on thought disorder.—*P. Hertzberg.*

4662. Skoda, C., Nestlingerová, E., & Nestarcová, K. (Psychiatric Research Inst., Prague, Czechoslovakia) **Retention rates of schizophrenia: A comparison of shock therapy and psychopharmacological eras and of closed and open door policies.** *Social Psychiatry*,

1970(Jul), Vol. 5(3), 172-174.—Compared the retention rates of cohorts of schizophrenic patients admitted to a regional mental hospital at different hospital treatment periods, using neurotic patients as controls. Results indicate that retention rates were (a) maximal in schizophrenic patients in the shock treatment period with a closed door policy, (b) minimal during the period of psychopharmacotherapy with the open door policy, (c) distributed between both extremes during the period of psychopharmacotherapy with the closed door policy, and (d) slightly elevated corresponding to the marked decrease of bed utilization during the open door system. In females an interesting but nonsignificant reversal of the trend found for males was observed in the 1st 3 mo. of stay. The relation of the subsequent retention rates was similar to that of the male samples, though the only significant difference between cohorts was of greater retention during the closed than the open door period when psychotropic drugs were used. The effect on the cohorts of the factors mentioned, and their homogeneity in respect to sex, age, and clinical diagnosis, was demonstrated. (French & German abstract)—*Journal abstract.*

4663. Turek, I. S., et al. (Maryland State Psychiatric Research Center, Baltimore) **The use of molindone in the treatment of acute psychotic states: Comparison of two dosage schedules.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(Sep), Vol. 10(5), 349-355.—Molindone (EN-1733-A), a new indole derivative (3-ethyl-6,7-dihydro-2-methyl-5-morpholino-methylindole-4(5H)-one hydrochloride), was tested for 6 wk. in 38 newly hospitalized schizophrenics using 2 dosage schedules—fixed and escalating. Moderate neuroleptic effects were noted and the drug was well tolerated. Principal side effects were postural hypotension and mild extrapyramidal symptoms.—*E. M. Uprichard.*

4664. Wolpert, A., et al. (Central Islip State Hosp., N.Y.) **Clinical pharmacological trial of loxapine succinate.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(May), Vol. 10(3), 175-181.—Describes a preliminary study to obtain evidence of antipsychotic activity, dosage range, and safety of loxapine succinate (CL 71,563). Tests were conducted at 4 drug evaluation units and Ss included (a) 6 28-44 yr. old chronic male schizophrenics; (b) 22-54 yr. old chronic schizophrenics (7 males and 6 females); (c) 10 9-26 yr. old female schizophrenics; and (d) 12 24-48 yr. old male schizophrenics, respectively. Dosage ranged from 40-200 mg. daily, but the most appropriate dosage was believed to be between 40-100 mg. Clinical improvement was noted in all studies, and CL 71,563 was reported to be an active neuroleptic. Consistencies were found in psychiatrists' global assessments of improvement and in the Nurse's Observation Scale for Inpatient Evaluation. Extrapyramidal symptoms were the most common side effect and 23 Ss received antiparkinsonian agents.—*P. Hertzberg.*

PSYCHOSOMATIC DISORDER

4665. Eiff, A. W., Kloska, G., & Quint, H. (Eds.) **Essentielle Hypertonie: Klinik, Psychophysiologie und Psychopathologie.** [Essential hypertension: Clinical picture, psychophysiology and psychopathology.] Stuttgart, W. Germany: Georg Thieme, 1967. 232

p.—Presents a collection of articles exploring primarily the psychosomatic aspect of hypertension—the most frequently encountered “specifically human affliction.” The contributors include physiologists, therapists, ophthalmologists, psychologists, and psychoanalysts (Freudian and Jungian).—*I. D. London.*

4666. Resh, Mary G. (Veterans Administration Hosp., Denver Colo.) **Asthma of unknown origin as a psychological group.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 429.—Data from 30 adolescent and adult asthmatics suggest “that patients with asthma of unknown origin are psychologically different from asthmatics whose illness can be demonstrated to have an allergic basis.” It is suggested that psychosomatic groups may be psychologically heterogeneous.—*M. West.*

4667. Vidal Teixidor, R. & Ruiz-Ogara, C. J. (U. Barcelona, Spain) **Factores sociofamiliares influyentes en los trastornos psicósomáticos.** [Socio-familial factors influencing psychosomatic disturbances.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jul), Vol. 28(3), 208-214.—Examines the influence of intrafamilial dynamics on psychosomatic illness. 14 psychosomatically ill Ss, 7 organically ill controls, and 4 neurotic controls, were administered the following: (a) the SN 59 test to examine the Ss' grades of neuroticism and sincerity; (b) the Bell Questionnaire to examine the Ss' familial, emotional, social, and vocational adaptation; and (c) the TAT. The clinical history of all Ss was studied and their families were interviewed. It was found that the psychosomatic Ss tended to negate conflicting familial situations, whereas neurotic and organically ill Ss treated them openly. The initial hypothesis that the family structure and relationship is related to the appearance and duration of illness in psychosomatic Ss was confirmed.—*P. Hertzberg.*

CASE HISTORY

4668. Adams, George L., Kivowitz, Julian, & Ziskind, Eugene. (Harvard Medical School, Lab. of Community Psychiatry, Boston, Mass.) **Manic depressive psychosis, mental retardation, and chromosomal rearrangement.** *Archives of General Psychiatry*, 1970(Oct), Vol. 23(4), 305-309.—Presents the case of an 18-yr-old female patient hospitalized with findings of moderate mental retardation (WAIS full range IQ of 60) and manic depressive psychosis. Chromosome studies suggested a complex rearrangement of karyotypes not found in either parent or in S's only sibling. Pertinent literature is reviewed concerning the effect of inheritance or chromosomal abnormalities on this kind of disorder. It is concluded that chromosomal rearrangement has not yet been established as responsible for mental retardation or affective psychosis in such patients.—*P. McMillan.*

4669. Allende, Rafael P. (U. Chile, Cátedra de Psiquiatría, Santiago) **Biographische Perspektiven der Schizophrenie in der Zwillingsforschung.** [Biographic perspectives of schizophrenia in twin research.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967, Vol. 15(3-4), 351-361.—Presents a biographic case of the physiological and emotional development of 1 pair of male, identical twins from birth to the age of 17. 1 twin was diagnosed as having hebephrenic paranoid schizophrenia at the age of 17. The emotional significance of “being a twin” and intrapair

differences were investigated in an attempt to isolate a causative factor.—*B. A. Stanton.*

4670. Cristodorescu, D. & Alexandru, S. **Disogenezia gonadală pură din punct de vedere psihiatric.** [Pure gonadal dysgenesis from the psychiatric viewpoint.] *Neurologia, Psihiatria, Neurochirurgia*, 1968(Mar), Vol. 13(2), 125-130.—Reports on a patient with an asthenic personality (manifestation of an endocrine psychosyndrome) and depressive reactional disturbances. Characteristics of the psychostressing situation in which such individuals find themselves, owing to their condition, and the deficient way in which their psychosexual identity is construed, are discussed. (French, German, & Russian summaries) (16 ref.).—*English summary.*

4671. DeVillez, Richard L. & Ellis, George J. (Fitzsimons General Hosp., Denver, Colo.) **Male Turner's syndrome: A case report with normal external genitalia, hormonal assays and secondary sex characteristics.** *Military Medicine*, 1970(Sep), Vol. 135(9), 786-790.—Describes an unusual case of male Turner's syndrome. Features normally found in Turner's syndrome were present, i.e., short stature, webbed neck, cubitus valgus, low hair line, shield chest, and pectus excavatum. The patient did not demonstrate congenital heart disease, retarded skeletal growth, or mental deficiency, and had normal penile and testes size. There were normal karyotype and hormone function, thus supporting the hypothesis that there is a range of phenotypic expression, depending on the degree of sex chromosome deficiency between XY and XO.—*G. A. Clum.*

4672. Greenberg, Harvey R. **Transactions of a hair-pulling symbiosis.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 662-674.—Presents a case of trichotillomania in a 15-yr-old female. The symptom occurred in the context of a mother-daughter relationship characterized by mutual dependence, ambivalence, and provocation. The transactions of this hair-pulling symbiosis are described and analyzed.—*Journal summary.*

4673. Klee, Gerald D. (Temple U., Health Sciences Center) **Marihuana psychosis: A case study.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 719-733.—A 26-yr-old man with no previous psychiatric history had an acute psychosis after smoking less than 2 marihuana cigarettes. MMPI was administered to the S 1 mo. following the marihuana episode. S had a history of pathological reactions to alcohol. Factors influencing a S's reaction to marihuana include personality factors, the set, and the setting. The pharmacological actions of the drug and the dosage interact with the above factors. The S's experience is atypical, but his experience demonstrates what can happen to a predisposed individual who uses this “innocuous” drug.—*D. Prager.*

4674. Rosarios, Hugo. **Acting out obsesivo.** [Obsessive acting out.] *Revista de Psicoanálisis*, 1969(Oct), Vol. 26(4), 943-952.—Discusses characteristics of acting out in the obsessive patient with illustrations from clinical experience with a 40-yr-old male. Excerpts are given from 2 analytic sessions which illustrate the S's erotic acting out and verbalizations. Observations were that in acting out obsessive Ss (a) theoretically are unable to disassociate thought from action as they are unable to disassociate mind and body; (b) establish a distance, either mental or spatial, with respect to the persecuting object; and (c) convert language and thought into concrete action. It is noted that acting out is a means of

escaping sorrow and, in obsessive Ss, constitutes a refuge in erotic thought into which the analyst seemed unable to be integrated. (17 ref.)—*P. Hertzberg.*

4675. Salganik, E. L. **K atipichnoi simptomatologii êkhinokokka IV zheludochka v detskom vozraste.** [On the atypical symptomatology of echinococcosis of the IV ventricle in childhood.] *Pediatrya*, 1970, Vol. 49(3), 81-82.—Presents a case report showing that echinococcal localization in the IV ventricle in children results in an atypical symptomatology and course.—*I. D. London.*

4676. Salguero, Luis F., Itabashi, Hideo H., & Gutierrez, Norma B. (U. Michigan, Medical School) **Childhood multiple sclerosis with psychotic manifestations.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Dec), Vol. 32(6), 572-579.—Presents a case report of an 11-yr-old girl with multiple sclerosis who also manifested unusual psychotic symptoms. In addition to characteristic lesions in the optic chiasm and tracts, pons, and spinal cord, lesions were found in the basal ganglia, thalamus, hypothalamus, and hippocampus. It is postulated that the mental and affective symptoms developed secondary to involvement of the limbic system and hypothalamus. (38 ref.)—*Journal summary.*

4677. Schneck, Jerome M. (St. Vincent's Hosp. & Medical Center, New York, N.Y.) **Psychogenic impotence with a hypnotherapy case illustration.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 352-354.—Presents a case history in which a 27-yr-old male patient with sexual impotence was successfully treated with hypnotherapy. The experience of various therapists treating cases of impotence is summarized. In general, it is noted that treatment is more successful with younger patients and in cases where there has been some prior, if limited, successful sexual experience. It is felt that a direct therapeutic approach, i.e., hypnotherapy, is more effective than psychoanalytic efforts.—*P. McMillan.*

4678. Ștefan, Margareta & Lazarovici, Hilda. **Considerații asupra unui caz cu sindrom isteric la fetiță infestată cu toxoplasma gondii.** [Considerations with reference in a case of hysterical syndrome in a little girl infested with toxoplasma gondii.] *Neurologia, Psihiatria, Neurochirurgia*, 1968(Mar), Vol. 13(2), 119-124.—Hypothesizes that psychogenically determined seizures only occur in individuals that exhibit mesodiencephalic fragility. The case of a little girl with a hysterical syndrome is reported. The existence of a microlesional background was detected at the neurologic examination. Laboratory tests revealed the presence of toxoplasmosis. Part of the literature concerning the relationship between toxoplasmosis and neuropsychical pathology, especially mesodiencephalic is reviewed. (French, German, & Russian summaries) (28 ref.)—*English summary.*

4679. Theohar, Carl & McKegney, F. Patrick. **Hiccups of psychogenic origin: A case report and review of the literature.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 377-384.—Reviews the literature and presents a case of intractable hiccups with an extensive investigation of the psychogenic origin of the hiccups and their treatment. The hiccups represented a conversion reaction expressing repressed hostility and guilt over sexual conflicts in the S and her family constellation. Treatment by hypnotic suggestion directed at symptom removal combined with slight modification of the interaction between the patient and her family. At 10-mo follow-up, S was functioning in a much more

satisfactory level and had had only a few brief episodes of hiccups. It is suggested that the psychogenic mechanisms of hiccups deserve further attention and that individuals with intractable hiccups should have a full psychosocial evaluation as early as possible in the medical management program.—*Journal summary.*

4680. Voth, Harold M. (Menninger Foundation, Topeka, Kan.) **Choice of illness and defense: A clinical study.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 295-305.—Describes long-term expressive psychotherapy of 4 siblings focusing on the relationship of unconscious conflicts to defense and syndrome choice. Little or no relationship existed between the content of conflicts and the form of syndromes or defense preferences. Conflicts centered around oral and phallic-oedipal levels while defenses and syndromes were highly diverse. Evidence is cited to support the view that defense and syndrome choice are related to stable ego dispositions of unknown origin. (25 ref.)—*Journal summary.*

4681. Wheeler, Andrew J. & Sulzer, Beth. (Southern Illinois U.) **Operant training and generalization of a verbal response form in a speech-deficient child.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 139-147.—An 8-yr-old boy who spoke essentially in "telegraphic" English, leaving out most articles and auxiliary verbs, was trained to use a particular sentence form that included the articles and verbs to describe a set of standardized pictures. The S used the trained sentence form to describe the trained pictures, and in addition, use of the sentence form generalized to sets of untrained and novel stimuli. When the trained sentence form was changed, the S used the new form to describe both training and generalization stimuli. When the original correct form of response was retrained, the S once again used the trained sentence form to respond to both training and generalization trials.—*Journal abstract.*

MENTAL HEALTH & REHABILITATION

4682. Boffey, Philip M. **California: Reagan and the mental health controversy.** *Science*, 1968(Sep), Vol. 161(3848), 1329-1331.—Discusses the arguments from both sides of the 1967 controversy over R. Reagan's proposed budget cuts on the California State Department of Mental Hygiene. The effects of the final legislation, less severe cuts than originally proposed, are discussed. It is concluded that the long-term effects of the controversy and its aftermath may have benefited the mental health programs.—*M. Maney.*

4683. Christmas, June J. (Harlem Hosp. Center, Div. of Rehabilitation Services, New York, N.Y.) **Socio-psychiatric rehabilitation in a black urban ghetto: I. Conflicts, issues, and directions.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 651-661.—Discusses the background, development, and programs of a multiservice community-based rehabilitation program in a black urban ghetto. "Rehabilitative services are organized into 3 programs using multiple group approaches in a therapeutic community and providing interdisciplinary services. Social and community services, health services, psychiatric rehabilitation, vocational rehabilitation, and continuing rehabilitation programs are included. Philosophical orientation, goals, practice, the nature of the rehabilitative process, and "transactions between the wider society and institutions in the urban slum ghetto" are discussed. It is concluded

that the services provide a means for individual, group, and social change.—G. Steele.

4684. Distefano, M. K. & Pryer, Margaret W. (Central Louisiana State Hosp., Pineville) **Predicting vocational outcome of psychiatric patients with the Edwards Personal Preference Schedule.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 552-554.—Evaluated the validity of the EPPS in predicting vocational success of psychiatric patients and evaluated a special predictive model described by A. Goss to determine if its application could significantly increase the predictive accuracy of the EPPS. The EPPS was administered to 47 male and 64 female psychiatric patients upon admission to a vocational rehabilitation program in a state mental hospital. Follow-up of these Ss on subsequent success or failure outcome in the program revealed no significant relationship between any of the EPPS scales and vocational success. Evaluation of the Goss model with the total sample and with a subgroup of schizophrenic patients reveals no support for increased predictive efficiency.—*Journal abstract.*

4685. Gottschalk, Louis A., deGroot, Joanne C., & Whitman, Roy M. (U. California, Medical School, Irvine) **An evaluation of a program of continuing education in community mental health.** *Comprehensive Psychiatry*, 1969(Nov), Vol. 10(6), 423-442.—The methodology of evaluation of the attitudinal and behavioral changes effected by such an educational program is a difficult and to some extent an unsolved problem. Based on the self-reports from trainees (mental health professionals participating in a 4-wk intensive seminar workshop demonstration-type of educational experience in community mental health practice), the educational program was successful. However, implementation of attitudes into activities commensurate with the program's goals was unconvincing. Only future research can test whether longer term follow up will reveal more actual carrying out of educational goals of community mental health programs. The most frequently proposed change recommended by trainees to increase the effectiveness of the program was to place greater emphasis on group interaction and discussion in small groups. This research was designed so as to minimize E bias or systematic measurement error." (20 ref.)—D. Prager.

4686. Hirschowitz, Ralph G. (Harvard Medical School, Lab. of Community Psychiatry, Boston, Mass.) **Changing human behavior in the state hospital organization.** *Psychiatric Quarterly*, 1969(Oct), Vol. 43(4), 591-611.—Describes a social rehabilitation program for chronic regressed state hospital patients (N = 6). Aide-therapists were primarily responsible for the rehabilitation, re-education, and remotivation of patients. Success is attributed to an organization which was open, permitting concern for all its members and generating hope in a "humanizing network where all are permitted to trust, respect, and value one another." (26 ref.)—D. Prager.

4687. Lurie, Olga R. (Westchester County Mental Health Assn., White Plains, N.Y.) **The emotional health of children in the family setting.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 229-235.—Describes a mental health association project in a metropolitan suburb designed as a basis for planning services for children. The emotional health or impairment of 800 3-18 yr. old Ss in the general population was estimated. Mothers were interviewed in their homes by trained interviewers. Information obtained, supple-

mented by data from school records, was evaluated by child psychiatrists who rated the emotional health of each S on a 5-point scale from well to severely impaired. Family functioning was also rated. Principle findings suggest that emotional impairment in nonclinic community children (a) exists extensively in varying degrees, (b) is not being treated in a substantial number of cases, (c) is related to family composition and functioning, (d) differs in extent in diverse social and economic groups, and (e) is differentially regarded by parents according to socioeconomic factors. The relationship of impairment to a number of demographic, familial, and behavioral variables is discussed.—*Journal abstract.*

4688. Stoller, Alan. (Mental Health Research Inst., Melbourne, Australia) **Urbanization and mental health.** *Medical Journal of Australia*, 1969(Aug), Vol. 2(5), 223-228.—Examined Australian data and compared it with American studies on advancing industrialization and mental health. Pathological results often cited of urbanization, besides mental illness, are juvenile delinquency, suicide, marital breakdowns, illegitimate births and extranuptial conceptions, alcoholism, crime, and increasing road accidents. The effect of noise on mental health is also discussed. Evidence shows that "... there is no clear evidence that mental disorders are increasing with high-density urbanization; in fact, there is evidence to show that there is, with advancing medical progress, an actual decrease in certain types of disorders." (58 ref.)—A. M. Berg.

COUNSELING & GUIDANCE

4689. Lewis, Edwin C. (Iowa State U.) **The psychology of counseling.** New York, N.Y.: Holt, Rinehart, & Winston, 1970. ix, 306 p.

4690. Nordberg, Robert B. (Marquette U.) **Guidance: A systematic introduction.** New York, N.Y.: Random House, 1970. x, 212 p.

4691. Osipow, Samuel H. & Walsh, W. Bruce. (Ohio State U.) **Behavior change in counseling: Reading and cases.** New York, N.Y.: Appleton-Century-Crofts, 1970. viii, 260 p.

4692. Pope, Benjamin; Slegman, Aron W., & Blass, Thomas. (Sheppard & Enoch Pratt Hosp., Baltimore, Md.) **Anxiety and speech in the initial interview.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 233-238.—Presents the 2nd experimental investigation in a series dealing with the relationship between anxiety arousal and interviewee verbal behavior. In an earlier experimental study, anxiety was manipulated through the use of a neutral topic and an anxiety-arousing topic. However, it was felt that the anxiety-arousing effects of the 2 topics could have been confounded with content effects. To avoid this possible confounding, the present study was designed to manipulate anxiety in the interview without altering topic. Basic results confirm those of the 1st study, i.e., anxiety functions as an activator of speech increasing productivity, simultaneously disrupting its flow by increasing the frequency of speech disturbances. (15 ref.)—*Journal abstract.*

Marriage & Family

4693. Mathieu, M. **Réflexions sur le couple: A propos de deux séminaires de formation au conseil conjugal.** [Reflections on the couple: On two formative

seminars for marriage counseling.] *Hygiène Mentale*, 1969(May), Vol. 58(2), 51-60.—Discusses Freud's view of marriage as based on libidinal needs and attachments and Dicks' view of marriage as a social institution involving a system of interpersonal relations and a functional dyadic unity. Also discussed are the difficulties in conveying such views in training marriage counselors based on experience in 2 training seminars.—*W. W. Meissner*.

4694. Rogers, Lawrence S., et al. (Veterans Administration Hosp., Mental Hygiene Clinic, Denver, Colo.) **Marital stability, mental health, and marital satisfaction.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 342-348.—Administered a test of emotional stability and a marital satisfaction scale to 50 couples seeking help with their marriage and to 50 couples with stable marriages. The stable group scored significantly higher on each of the 4 subtests of the emotional stability test as well as on the total score. For the stable group there was a significant relationship between marital satisfaction and emotional stability, but this finding did not hold for the group seeking help. The hypothesis was not supported that women who marry men with emotional problems are more unstable themselves, or that if 1 partner in a marriage is emotionally unstable the other tends to also become emotionally unstable. (19 ref.)—*Journal abstract*.

Social Casework

4695. Hobson, Caroline J. & Davis, W. Grayburn. (Denver Clinic, Colo.) **Social work in group medical practice.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 355-357.—Describes a social service department established in a private practice setting in a multispecialty city clinic. Many private patients have illnesses associated with serious emotional or social problems with which a social worker can be of great help. The social worker—trained in the dynamics of human behavior, better able to communicate with patients, and acquainted with community resources—can free the physician for a more effective use of his time. 4 illustrative case summaries are provided.—*P. McMillan*.

PHYSICAL HANDICAP

4696. Bose, S. & Benerjee, S. N. (Rehabilitation Centre, Calcutta, India) **A resolution on the personality make-up of some institutionalized physically handicapped children by the Children's Apperception Test.** *Journal of Psychological Researches*, 1969, Vol. 13(1), 32-36.—Almost all of the Ss had behavioral peculiarities, e.g., scholastic aversion, inferiority feelings, food finickiness, shyness, emotional imbalance, speech difficulty, apprehensiveness, selfishness, hoarding tendency, etc. $\frac{1}{4}$ of them were backward, 20% average, and 30% borderline in intelligence. Oral and oedipal needs, conflicts between superego and need for activity, need for aggression, anxieties of physical harm and loss of parental love, repressed autoerotic urges, regression into mother's womb and partial regression into oral stage were some of the dominant tendencies exhibited, while 90% of them had normal ego strength.—*U. Pareek*.

4697. Heckhausen, Heinz & Oswald, Andreas. (Ruhr U., Psychologische Inst., Bochum, W. Germany) Er-

ziehungspraktiken der Mutter und Leistungsverhalten des normalen und des gliedmabengeschädigten Kindes. [Childrearing practices of mothers and performance of children having damaged limbs.] *Archiv für die gesamte Psychologie*, 1969(Aug), Vol. 121(1), 1-30.—Observed 80 mother-child pairs in their homes during a standardized problem solving situation. $\frac{1}{2}$ of the 4-5 yr. old children were handicapped (intrauterine effect of thalidomide drug). The mother's level of (a) aspiration for the performance of the child, (b) frequency of positive and negative reinforcements contingent on the child's performance, and (c) frequency of specific or nonspecific directions designed to help the child perform his task was assessed. The child's goal setting, the frequency of his asking for help, and his IQ were scored. Results support several hypotheses based on principles of a theory of motive origin, and hold for both the normal and handicapped group. (French summary) (26 ref.)—*English summary*.

4698. Kir-Stimon, William. (280 N. Michigan, Chicago, Ill.) **Counseling with the severely handicapped: Encounter and commitment.** *Psychotherapy: Theory, Research & Practice*, 1970(Sum), Vol. 7(2), 70-74.—"There is among these people a deep sense of being forlorn, alienated from the rest of the world . . . In my experience it is not the specific nature of the disease entity itself that is important, but the way in which it has changed . . . the patient's relationship to himself and his world." Treatment fallacies are listed.—*H. K. Moore*.

4699. Rendle-Short, John. (U. Queensland, Australia) **The care of the child with a long-term handicap.** *Medical Journal of Australia*, 1969(Sep), Vol. 2(12), 604-606.—Presents the need for a team approach to the diagnosis, prevention, and management of children with long-term handicaps. The doctor and parents are recognized of prime importance in the coordination of this approach. Parental and community attitudes, the nature of the handicap, and the child's emotional reaction affect treatment. Curative, symptomatic, palliative, and supportive treatment programs are discussed.—*G. Steele*.

4700. Taylor, George P. (Kenny Rehabilitation Inst., Minneapolis, Minn.) **Moderator-variable effect on personality-test-item endorsements of physically disabled patients.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 183-188.—Demonstrates that personality instruments are significantly confounded by the somatic characteristics of physically disabled Ss, illustrates the nature and effect of this moderator variable of physical condition on MMPI item endorsements for traumatic spinal-cord-injured males, and suggests 2 methods of controlling the moderator variable's effect. The MMPI item responses of 28 cord-injured males were compared to 28 noninjured males similar in age, marital status, and matched on a measure of socioeconomic status. The 12 items that significantly (.05) differentiated the 2 groups and that described the patient's current somatic condition were discerned to affect profile elevation (reliably elevating Scales 1, 2, and 3) and, when profiles were submitted to a computer scoring and interpreting program, to affect interpretation. (17 ref.)—*Journal abstract*.

4701. Zara, Ronald C. (U. Houston) **Expectations of social reaction toward self as related to cognitive style and locus of control in persons with obvious and hidden physical handicaps.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 404.

Blindness & Visual Disorder

4702. Duran, Peter. (U. Illinois) **Imagery and blindness: A personal report.** *Journal of Humanistic Psychology*, 1969(Fall), Vol. 9(2), 155-166.—Presents a personal introspective report on the dream, aural, spatial, color, visual, and tactual imagery of a blind person. How an image acquires a denotation and a sense is described through an illustrative example, and representation and perceptual knowledge are discussed. The difference in a blind child's representational and perceptual knowledge and that of a sighted person's greatly influences his ability to understand raised line drawings and models currently used in teaching blind children in some schools. It is concluded that since existing physiological and psychological data indicate that the abilities of the blind are general phenomena, there is no experimental reason to postulate a special psychology for the blind.—M. Maney.

4703. Graham, Milton D. (American Foundation for the Blind, New York, N.Y.) **Multiply impaired blind children: A national problem.** New York, N.Y.: American Foundation for the Blind, 1968. 82 p. \$1.50(paper).—Presents a survey investigating the incidence and type of handicap and the training available for multiply impaired (MI) blind children. Questionnaires were returned on 8887 MI blind children. Although data are limited because of terminology misinterpretation due to the method of data collection, it is concluded that "a national approach to possible programs" for the welfare and education of Ss is warranted.

4704. Gray, P. G. & Todd, Jean E. **Mobility and reading habits of the blind.** London, England: Her Majesty's Stationery Office, 1965. xiv, 119 p.

4705. Hidalgo, Zeta D. (540 W. Iron, Salina, Kan.) **A brief discussion of color deficiencies.** *Journal of the American Optometric Association*, 1969(May), Vol. 40(5), 522-525.—Reviews theoretical aspects of color vision and its possible deficiencies. The defects in color vision for trichromats, dichromats, and monochromats are discussed. Trichromatism, generally considered normal vision, may sometimes have anomalous characteristics in which the individual may be weak in his perceptions of reds, greens, or blues. Means for testing color deficiency in an optometric office are discussed. Suggested illumination and test plates are described.—P. McMillan.

4706. Juurmaa, Jyrki; Suonio, Kyösti, & Mollanen, Aatu. (Inst. of Occupational Health, Helsinki, Finland) **The effect of training in the perception of obstacles without vision.** *Reports from the Institute of Occupational Health, Helsinki*, 1968(Jun), No. 55, 36 p.—Investigated the effect of practice on 3 visually handicapped but not totally blind male Ss' perception of obstacles during a 4-wk period. Ss were systematically trained to perceive various obstacles which were randomly situated on their walking route. The behavior of the recorded obstacle-perception variables shows that rapid learning took place in all Ss. The average 1st perception distances indicate that, by the end of the training series, Ss were able to perceive obstacles at a distance of 1.5 m. Results suggest that a person can be trained rapidly to avoid colliding with obstacles, that the ability to estimate the size of obstacles takes longer to learn, and that transfer effects occur in the learning of obstacle perception.—*Journal summary*.

4707. Myers, William A. (U. Southern California)

Discriminability of selected color combinations for partially seeing children. *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5294-5295.

Deafness & Hearing Disorder

4708. Aksyukovich, E. D. & Tsukerman, I. V. **Taktfon: Yaponskii apparat v pomoshch' glukhim pri chtenii s gub.** [Tactphone: A Japanese apparatus for aid to the deaf in lipreading.] *Defektologiya*, 1970, Vol. 2(1), 76-77.—Summarizes a paper by H. Suzuki on the tactphone as an aid to the deaf, read at the 6th International Acoustic Congress, held in Tokyo in 1968.—I. D. London.

4709. Ames, Mary D., Plotkin, Stanley A., Winchester, Richard A., & Atkins, Thomas E. (1740 Bainbridge St., Philadelphia, Pa.) **Central auditory imperception: A significant factor in congenital rubella deafness.** *JAMA: Journal of the American Medical Association*, 1970(Jul), Vol. 213(3), 419-421.—Describes the diagnostic procedures used for 76 boys and 42 girls who were not responding to sound, not developing speech, or whose mothers had known rubella infection during pregnancy. Diagnosis of central auditory imperception (CAI) was made by audiometry including pure tone, aural-palpebral reflex, sound localization, passive listening, active listening, withdrawal response, painful response, and EEG response. Level of mental functioning was also established. It was found that auditory impairment was the primary cause of failure to develop speech. 50 Ss had CAI, 30 of which had pure CAI with no peripheral hearing loss or blindness. Other Ss were delayed due to global development retardation, concomitant cerebral palsy, and simple delay of speech development. There was "no statistical difference in time of rubella exposure of the fetus between those without [CAI] nor in incidence of mental retardation." The importance of early identification and diagnostic differentiation of mental retardation, peripheral hearing loss, and CAI is discussed.—P. Hertzberg.

4710. Bel'tyukov, B. I. (USSR Academy of Pedagogical Science, Inst. of Defectology, Moscow) **Chtenie s gub.** [Lipreading.] Moscow, USSR: Pedagogika, 1970. 184 p. 58 K..

4711. Colton, Raymond H. & Cooker, Harry S. (U. Florida) **Perceived nasality in the speech of the deaf.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 553-559.—Obtained listener ratings of nasality from samples of deaf (N = 28) and normal (N = 28) speech presented in the backward play mode. In order to investigate the influence of rhythmic patterning on the perception of nasality, 7 of the normal speakers also produced the samples in a word-by-word fashion. Statistically significant differences in mean ratings of nasality were found between the experimental and control groups and between the reduced-tempo and normal-tempo groups. In general, deaf speakers are perceived as more nasal than normal speakers. Normal speakers are perceived as more nasal when speaking at a reduced tempo than when speaking at a normal tempo. Much of the perceived nasality in the speech of the deaf may be a natural consequence of reduced speaking tempo, and therapeutic techniques designed to increase speaking tempo may produce a concomitant reduction in perceived nasality.—*Journal abstract*.

4712. Green, David S. & Ross, Mark. (New Haven Hearing & Speech Center, Conn.) **The effect of a**

conventional versus a nonoccluding (CROS-type) earmold upon the frequency response of a hearing aid. *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 638-647.—Obtained sound-field Bekesy audiograms from 1 experienced hearing-impaired S wearing an ear-level hearing aid with a conventional earmold and a nonoccluding CROS-type earmold. Comparisons were made to determine the effects of the 2 different types of earmolds as well as different tubing lengths for nonoccluding CROS-type earmolds. Findings indicate that: (a) a nonoccluding CROS-type earmold alters the frequency response characteristics of a hearing aid by markedly reducing the amplification for the low frequencies, (b) the length of tubing has a minor effect compared with that caused by the nonoccluding CROS ear coupler, and (c) sound-field Bekesy audiometry is a reliable and valid tool for assessing changes in the amplifying characteristics of hearing aids.—*Journal abstract*.

4713. Hogan, H. Wayne. (Tulane U.) **Authoritarianism among white and black deaf adolescents: Two measures compared.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 195-200.—Tested 32 white and 38 black deaf adolescents for the personality dimension of authoritarianism, using a symbolic test and the verbal Adorno F-scale. As expected, scores were in the direction of greater authoritarianism on both tests for both groups, though the symbolic measure yielded the more marked and unambiguous results. (33 ref.)—*Journal abstract*.

4714. Kopra, Lennart L., Blosser, Dennis, & Waldron, Daryle L. (U. Texas) **Comparison of Fairbanks Rhyme Test and CID Auditory Test W-22 in normal and hearing-impaired listeners.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 735-739.—Administered the Fairbanks Rhyme Test and Auditory Test W-22 at -4, 0, 8, 16, 24, 32, and 40 db. sensation levels to 15 15-65 yr. old listeners with sensorineural hearing loss and 15 19-37 yr. old normal listeners. The articulation functions for the 2 tests were similar for the 2 groups of listeners. The 2 tests appear equal in ability to differentiate normal listeners from listeners with sensorineural loss. It is suggested that certain nonessential advantages of the Rhyme Test may make it preferable to Auditory Test W-22 since both tests appear to be equivalent indicators of speech-sound discrimination.—*Journal abstract*.

4715. Krechetova, E. Podvlg materi. [The feat of one mother.] *Defektologiya*, 1970, Vol. 2(1), 84-87.—Presents the life history of a deaf boy and his development in school and at home.—I. D. London.

4716. Owens, Elmer & Schubert, Earl D. (U. California, San Francisco) **The development of constant items for speech discrimination testing.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 656-667.—Observed consonant errors on speech discrimination test lists employing a closed-set response system. 15 English-speaking adults with hearing impairment were employed for the 1st list and 20 each for the remaining 4 lists, with an occasional S serving in more than 1 group. Confusions between unvoiced and voiced consonants rarely occurred; the /r/ and /l/ were seldom confused with other phonemes; and nasals were seldom confused with nonnasals. Discrimination difficulty was related to both place and manner of articulation.—*Journal abstract*.

4717. Owens, Elmer; Talbott, Carolyn B., & Schubert,

Earl D. (U. California, San Francisco) **Vowel discrimination of hearing-impaired listeners.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 648-655.—Observed vowel discrimination ability in 2 groups of 20 hearing-impaired Ss each. Each group listened to a different list of closed-set test items specifically designed for the study. A surprisingly low number of errors occurred, suggesting that vowel items in general lack the efficiency required for speech discrimination testing using a closed-set response system. The phonemes most frequently substituted in error were adjacent to the stimulus phoneme on the Formant 1 vs. Formant 2 vowel charts. The /u/ was the most frequent substitution for several vowels.—*Journal abstract*.

4718. Payne, Peter D. & Payne, Regina L. (Bradley U.) **Behavior manifestations of children with hearing loss.** *American Journal of Nursing*, 1970(Aug), Vol. 70(8), 1718-1719.—A summary of the characteristics of a hearing defective child may be useful to school, public health, and pediatric nurses who are able to observe children in various situations over a period of time. These characteristics are of the child whose hearing loss is sufficient to cause problems but not severe enough to be detected. The child is usually described as inattentive, shy, and living "in a world of his own." A speech problem is an important symptom as is the frequent complaint of earache and other ear difficulties. He makes frequent requests to have things repeated and may not follow directions or follow them incorrectly. This behavior may be mistaken for arrogance or mental retardation. Medical records should be checked for a family history of hearing loss, complicated pregnancy and delivery, prematurity, neonatal disease or earache. It is suggested that children with these conditions in their background should have periodic hearing tests.—B. A. Burkard.

4719. Williams, Cyril E. (Borocourt Hosp., Reading, England) **Some psychiatric observations on a group of maladjusted deaf children.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(May), Vol. 11(1), 1-18.—Found the psychiatric disorders encountered in 51 maladjusted deaf children to be similar to those found in normal children and those handicapped in other ways. This group was characterized by a low percentage of Ss with intelligible speech and marked educational retardation. Early diagnosis of deafness was associated with a much lower incidence of speaking children than when diagnosis was delayed until after the age of 2. A high proportion of the cases had suffered from severely disturbed home backgrounds. This was particularly marked in those Ss with antisocial disorders, but very uncommon with Ss with child psychosis. There were extremely few Ss with neurotic disorder and it would seem that the school is used chiefly for children who disturb others. The importance of communicating with deaf children by all possible means to promote good personality development and to prevent maladjusted behavior is emphasized. 6 case histories of maladjusted deaf children are included.—*Journal summary*.

4720. Wright, H. N. (State U. New York, Upstate Medical Center, Syracuse) **The effect of sensori-neural hearing loss on threshold-duration functions.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 842-852.—Explored previous findings on the threshold for tones as a function of their duration which have suggested that such functions may be systematically

affected by sensorineural hearing losses of cochlear origin, and determined whether the amount of hearing loss present has any effect upon the results which are obtained. Preliminary studies were also carried out on a conductively impaired listener to indicate whether hearing losses of this type affect the threshold-duration function. Results indicate that the threshold-duration function is systematically affected by sensorineural hearing losses of cochlear origin. This effect is manifested by a progressive shortening of the time constant relating threshold to duration and is not uniquely related to the amount of hearing loss present. Results obtained from the conductively impaired listener suggest that this type of hearing loss has no effect on the threshold-duration function, thereby implying that such functions may contribute significantly to the differential diagnosis of auditory disorders.—*Journal abstract.*

SPEECH DISORDER

4721. Beauvois, J. L. & Ghiglione, R. (Centre U., Vincennes, France) **Recherches sur les attitudes paradigmatic et syntagmatic.** [Research concerning paradigmatic and syntagmatic attitudes.] *Journal de Psychologie Normale et Pathologique*, 1970(Apr), Vol. 67(2), 171-184.—Explored relationships between 2 aspects of language and 2 types of aphasia by studying the bipolarity of discussion at the psycholinguistic level. Following Jakobson's lead, Ss were differentiated by means of a forced choice association test which was administered to Ss whose attitudes were categorized as paradigmatic and syntagmatic. A test of syntactic integration yielded different productions by the 2 groups. Thus, it seemed that these 2 attitudes lend themselves to situational manipulation. It was found that frustration provoked in communication leads to a significant paradigmation of associative responses. 2 hypotheses were posed: (a) these attitudes refer to 2 styles of communication; and (b) paradigmation of association when communication is difficult occurs by a process of retrogression.—*L. A. Ostlund.*

4722. Brookshire, Robert H. (Veterans Administration Hosp., Kansas City, Mo.) **Visual discrimination and response reversal learning by aphasic subjects.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 677-692.—Presented 9 aphasic and 8 nonaphasic hospital patients with a discrimination learning problem in which they learned differential motor responses to visual stimuli. Ss 1st were reinforced for emitting Response A in the presence of Stimulus A, and Response B in the presence of Stimulus B. Then they were placed in a reversal situation in which they were reinforced for emitting Response B in the presence of Stimulus A, and Response A in the presence of Stimulus B. Results indicate that aphasic Ss had more difficulty than nonaphasics in both discrimination tasks. However, responses of most aphasic Ss who did not learn the discrimination were not random but reflected strategies which resulted in substantial numbers of reinforcements. Aphasic Ss tended not to improve upon initial performance within treatment sessions, unless either stimuli or consequences for responses were changed. Clinical evidence is presented which indicates that S impairments which appear in the experimental task also appear in subsequent clinical activities.—*Journal abstract.*

4723. Carter, John F. (U. Maryland) **A linguistic feature study of aphasic responses to a free word**

association task. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 432-433.

4724. Curlee, Richard F. & Perkins, William H. (U. Southern California) **The effect of punishment of expectancy to stutter on the frequencies of sub-sequent expectancies and stuttering.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 787-795.—Assigned 12 17-36 yr. old stutterers to experimental, shock-control, and time-control groups to investigate the effect of punishment of signaled expectancies to stutter on the frequencies of expectancy and stuttering subsequent to punishment. Electroshock was contingent on signaled expectancies in the experimental group, but was not contiguous to verbalizations in any group. Frequencies of expectancy and stuttering significantly decreased following punishment of signaled expectancies to stutter. (15 ref.)—*Journal abstract.*

4725. Dubois, J., et al. **Analyse linguistique d'énoncés d'aphasiques sensoriels.** [A linguistic analysis of statements of sensory aphasics.] *Journal de Psychologie Normale et Pathologique*, 1970(Apr), Vol. 67(2), 185-206.—Studied the spontaneous statements of 4 right-handed and 2 left-handed sensory aphasics. It was found that linguistic analysis permits one to proceed to a classification of diverse types of disturbances previously imperfectly distinguished. One can specify explanations concerning the relationship between disturbances of reception (i.e., deafness, or lack of understanding), and disturbances of emission (substitutions or neoforms).—*L. A. Ostlund.*

4726. Franks, B. Don & Franks, Elizabeth B. (U. Illinois, Champaign) **Effects of physical training on stuttering.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 767-776.—Divided 8 undergraduates enrolled in group therapy for stuttering into 2 equal groups for 20 wk. The training group supplemented therapy with endurance running and calisthenics 3 days/wk. Ss were tested prior to and at the conclusion of the training on a battery of stuttering tests and cardiovascular measures taken at rest, after stuttering, and after submaximal exercise. There were no significant differences (.05 level) prior to training. At the conclusion of training, the training group was significantly better in cardiovascular response to exercise and stuttering. Although physical training did not significantly aid the reduction of stuttering as measured in this study, training did cause an increased ability to adapt physiologically to physical stress and to the stress of stuttering. (36 ref.)—*Journal abstract.*

4727. Fristoe, Macalyn & Goldman, Ronald. (Vanderbilt U., Medical School) **Comparison of traditional and condensed articulation tests examining the same number of sounds.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 583-589.—Presented the same recorded speech samples of Ss with articulation defects to judges under 2 listening conditions. Under 1 condition each judge listened for only 1 sound/sample word, the traditional method for testing articulation. Under the 2nd condition each judge listened for 1, 2, or 3 sounds in the various sample words, a quicker method for testing the same number of sounds. Comparisons of the results show that there was little difference in the judges' performance under the 2 listening conditions. This suggests that speech pathologists can effectively evaluate more than 1 sound/word and that a condensed type of test will give approximately

the same amount of information as the longer, traditional type of test.—*Journal abstract.*

4728. Haroldson, Samuel K., Martin, Richard R., & Starr, Clark D. (U. Minnesota) **Time-out as a punishment for stuttering.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 560-566.—Studied the effects of making time-out from positive reinforcement (TO) contingent on stuttering in 4 adult stutterers. The theoretical basis of the study revolved around the notion that speaking is self-reinforcing, and that making TO from speaking contingent upon a specific response will decrease the frequency of that response. Ss spoke spontaneously and a red light was illuminated for 10 sec. contingent upon each stuttering. Ss were not allowed to speak while the light was illuminated. All 4 Ss evidenced a marked decrease in stuttering frequency during TO sessions and some extinction of the suppression effect was observed when TO was removed. (18 ref.)—*Journal abstract.*

4729. McDearmon, James R. (Washington State U.) **Primary stuttering at the onset of stuttering: A reexamination of data.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 631-637.—In a re-examination of data in Study III by W. Johnson (see PA, Vol. 33:10621) it was found that: (a) among experimentals, at least 63% of children labeled as stutterers by at least 1 parent evidenced "primary stuttering" (simple repetitions and prolongations of sounds and syllables) at onset time, and at least 28% evidenced only "normal nonfluencies" (repetitions of words and phrases, and other interruptions common in children), as indicated by parents' responses to 1 question; (b) "primary stuttering" was much more frequent, and "normal nonfluency" much less frequent, in Ss at onset of stuttering than in controls; and these differences were statistically significant; and (c) slight tension was the only "secondary" reaction indicated in more than 15% of Ss at onset, according to parents' responses to other questions. At onset Ss and controls were significantly differentiated in incidence of tension, but not in incidence of indifference, awareness, or irritation. "Secondary" reactions in Ss showed considerable increase within an average of about 18 mo. after apparent onset. Results support the concept of primary stuttering as a beginning phase of a severity continuum.—*Journal abstract.*

4730. Michel, John F. (U. Kansas) **Fundamental frequency investigation of vocal fry and harshness.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 590-594.—10 adult males recorded a standard passage in their normal voices and then in vocal fry. A 2nd group of 10 males whose voices had been clinically diagnosed as harsh recorded the passage in their usual harsh voice. The Fundamental Frequency Indicator and the phonellegraph were used to obtain fundamental frequency data from these recordings. A mean fundamental frequency of 36.4 Hz. with a range of 30.9-43.7 Hz. was found for vocal fry; the mean of the harsh voices was 122.1 Hz. within a range of 103.7-180 Hz. Normal fundamental frequencies ranged from 98.4-125.1 Hz. with a mean of 110.6 Hz. It was found that vocal fry can be differentiated from clinical harshness and normal phonation on the basis of mean fundamental frequency and that clinical harshness and normal phonation could not be so differentiated.—*Journal abstract.*

4731. Muma, John R., Laeder, Ronald L., & Webb, Clarence E. (U. Georgia) **Adolescent voice quality**

aberrations: Personality and social status. *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 576-582.—78 high school students, identified as possessing voice quality aberrations for 6 mo., constituted 4 experimental groups: breathiness, harshness, hoarseness, and nasality. The 4 experimental groups were compared with 38 controls according to personality characteristics, as determined by the MMPI, and peer evaluations. Results indicate that there was no relationship between voice quality aberration and either personality characteristics or peer evaluations. (17 ref.)—*Journal abstract.*

4732. Prins, David. (U. Michigan) **Pre-therapy adaptation of stuttering and its relation to speech measures of therapy progress.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 740-746.—Obtained 3 measures of stuttering adaptation on 20 male 14-19 yr. old stutterers prior to the beginning of an 8-wk residential therapy program. Following therapy each S was evaluated using 6 scores which represented changes in speaking rate and frequency of stuttering during oral reading and in self-formulated speech. Results show that less than 1/2 of the stutterers demonstrated a significant adaptation trend, and only 12 showed significant normal deviate scores of adaptation. Partial correlation coefficients were significant in a negative direction between pretherapy percentage and trend adaptation measures and posttherapy scores showing increment in reading and speaking rate. It appears that adaptation is neither consistently nor highly related to speech measures of therapy progress. A rationale is suggested for the negative correlation of adaptation and therapy change scores.—*Journal abstract.*

4733. Sederqvist, Pirkko A. **Speech disorders and sociopreferential dynamics.** *Annales Academiae Scientiarum Fennicae*, 1970, Vol. B-167, 122 p.—Studied the connection between speech disorders and the pupil's status among classmates. It was found that there was no simple relation with type or severity of disorder although an overall effect such that speech-disordered Ss received sociometric choices from the lowest classes, while avoiding choices among themselves. Speech disorder generally was not given as the reason for not choosing an affected person in the sociometric situation. Some compensatory interests were indicated by special disordered pupils but the effect was not as strong as hypothesized.—S. G. Vandenberg.

4734. Spreen, Otfried. (U. Victoria, British Columbia, Canada) **Psycholinguistic aspects of aphasia.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 467-480.—Reviews research and theoretical articles investigating psycholinguistic aspects of aphasia. The major parts of the review include the concept of regression in aphasic language both on an ontogenetic and a microgenetic level, and studies of specific parameters, i.e., abstractness. The approach of mathematical linguistics and the types of aphasia described on the basis of linguistic evidence are discussed. (3 p. ref.)—*Journal abstract.*

4735. Webster, Ronald L. & Lubker, Bobbie B. (Hollins Coll.) **Interrelationships among fluency producing variables in stuttered speech.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 754-766.—Presents a limited theory (Auditory Interference Theory) which integrates data on fluency producing variables in terms of modified temporal aspects of auditory feedback in stuttered speech. The probable basis for stuttering is inferred to involve

interference between air-conducted and bone-conducted auditory feedback. Middle ear muscle reflexes are suggested as a possible mechanism for the mediation of interference between components of auditory feedback. (2 p. ref.)—*Journal abstract*.

4736. Williams, Dean E., Silverman, Franklin H., & Kools, Joseph A. (U. Iowa) **Disfluency behavior of elementary school stutterers and non-stutterers: The adaptation effect.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 622-630.—184 elementary school children, 92 stutterers, and 92 matched nonstutterers, performed a speaking task 3 times consecutively. Kindergarten and 1st grade Ss repeated a series of sentences, and 2nd-6th grade Ss read a passage. Both the stutterers and the nonstutterers exhibited the adaptation effect. Both adapted proportionally to approximately the same degree. There was no tendency in either group for the degree of adaptation to vary as a function of grade level. Whether or not a S exhibited the adaptation effect appeared to be more closely related to how disfluent he was on his 1st performance of the task than to whether he had been labeled as a stutterer or a nonstutterer. Results indicate that adaptation is not unique to stutterers, but is to be found also in normal speakers. (18 ref.)—*Journal abstract*.

NEUROLOGICAL DISORDER

4737. Babchin, I. S., Zenskaya, A. G., Khilkova, T. A., & Khokhlova, V. V. **Opukholi golovnogo mozga u detei i podrostkov: Klinika i khirurgicheskoe lechenie.** [Brain tumors in children and adolescents: Clinical picture and surgical treatment.] Leningrad, USSR: Meditsina, 1967. 319 p.—A textbook for neurosurgeons.—I. D. London.

4738. Barraquer-Bordas, L. (U. Navarra, Spain) **Visión semilógica y patogenética general de las apraxias.** [Symptomatological and general pathogenetic view of the apraxias.] *Revista de Psiquiatría y Psicología Médica*, 1969(Oct), Vol. 9(4), 173-187.—Presents different views of the nature of apraxias, especially with regard to the question of the extent to which they may be considered separately from the agnosias and from intelligence. The view that apraxias always involve some impairment of intelligence is accepted. Among others, Piaget's work is used to support this position. Contrasting views, such as that of Ajuriaguerra, are also discussed.—L. Zusne.

4739. Bogolepov, N. K. **Metodika nevrologicheskogo diagnoza.** [Methods of neurological diagnosis.] Moscow, USSR: Meditsina, 1967. 108 p.—Distinguishes 2 groups of basic syndromes which assist in establishing a diagnosis: (a) those determining the state of the patient, and (b) those characterizing the disorders of functioning of the nervous system.—I. D. London.

4740. Bogolepov, N. K. **Nevropatologiya: Neotlozhnye sostoyaniya.** [Neuropathology: States requiring attention. (2nd ed.)] Moscow, USSR: Meditsina, 1967. 564 p.—A manual of the most frequently encountered neuropathological symptoms, medical attention to which should be recognized as mandatory.—I. D. London.

4741. Borisova, N. F. & Malkova, E. V. **Praktikum po nervnym boleznyam.** [Practicum on nervous diseases.] Moscow, USSR: Lumumba U., 1967.—A manual presenting the medical student with the bases of the symptomatology and topical diagnostics of the diseases of the nervous system.—I. D. London.

4742. Botek, M. I. & Popescu, F. **Sindromul de amnezie globală tranzitorie.** [The transient global amnesia syndrome.] *Neurologia, Psihiatria, Neurochirurgia*, 1968(Mar), Vol. 13(1), 153-160.—Reports on 5 cases of transient global amnesia syndrome, 4 of which were followed for 2-8 yr., without recurrence of the attack. The memorization process is assumed to have 3 forms: immediate, short-term, and long lasting memory. The transient global amnesia syndrome is due to perturbation of short-term memory, probably in the field of the enzymatic mechanisms that ensure the transformation of the engrams of the neuronal network into biochemical engrams. (French, German, & Russian summaries) (16 ref.)—*English summary*.

4743. Cohn, Robert. (U.S. Naval Hosp., Bethesda, Md.) **Amnesic aphasia and other disturbances in naming.** *Archives of Neurology*, 1970(Jun), Vol. 22(6), 515-520.—Amnesic aphasia, explained variously throughout history, consists of the inability to name a particular common object despite having the ability to reformulate the word when presented. Such naming difficulties can result from disturbances in brain mechanisms for data encoding and decoding. Findings that demonstrate answers in the same category, e.g., giving a color name when one is asked for (though an incorrect one) weaken Goldstein's view that "categorization can be equated with the loss of the abstract attitude." Naming difficulties resulting from tissue damage suggest that the "dominant cerebral hemisphere loses its library of consolidated memory for particular names, or its ability to functionally retrieve data correctly from the library of fixed names, or both."—S. E. Gavin.

4744. Dinaburg, A. D., Rubashova, A. E., Rabinovich, O. A., & Gnatyuk, E. L. **Zabolevaniya nervnoi sistemy pri degenerativnykh protsessakh pozvonochnika.** [Diseases of the nervous system in degenerative processes of the spine.] Kiev, USSR: Zdorov'ya, 1967. 384 p.—A monograph on the vertebrate column, secondary changes observed in the peripheral division of the nervous system, and lesions of the spinal cord. The pathogenesis, clinical picture, diagnosis, and treatment of spinal diseases are detailed.—I. D. London.

4745. Fernández Martín, Fernando M. **Apraxia constructiva.** [Construction apraxia.] *Revista de Psiquiatría y Psicología Médica*, 1969(Oct), Vol. 9(4), 245-254.—Construction apraxia has many aspects and variants. While it is unique in its manifestation, its mechanisms and conditions of appearance are many. In a large number of patients lesions in the right hemisphere produce a syndrome of visual and spatial agnosia, which determines the characteristic of the construction apraxia. In the progressive bilateral lesions at least, construction apraxia is nested within the processes of mental deterioration and presages the latter. In left hemisphere lesions construction apraxia is less well defined; it is actually an essentially praxic disturbance of execution; its relation to other symbolic functions is yet to be determined. (17 ref.)—L. Zusne.

4746. Gimeno Alava, A. **Apraxia ideomotriz.** [Ideational motor apraxia.] *Revista de Psiquiatría y Psicología Médica*, 1969(Oct), Vol. 9(4), 221-243.—Discusses clinical cases seen by the author over a number of years. There are clear parallels between aphasia and apraxia. Bilateral ideational motor apraxia is on a hierarchically lower level than those involving linguistic symbols, construction praxis, right-left discrimination, and digit recognition, but higher than ideational praxis and body

perception. Bilateral apraxia is frequently right-dominant. Unilateral ideational motor apraxias always affect the left side. Ideational motor apraxias as well as aphasia may be understood and studied as a cybernetic phenomenon since they are theoretical analogs of defects in the basic units of a digital computer. Although aphasias and apraxias share common features of cerebral functioning, they become hierarchically organized as more complex levels of functioning are acquired in time. The first levels acquired are the simplest and are also the most resistant to the effects of lesions. The frequency of higher level syndromes (aphasia, acalculia, apraxias, etc.) is directly related to the position of the syndrome in the hierarchy of functions as well as to the extent of the lesion. (63 ref.)—*L. Zusne.*

4747. Guimón Ugartechea, José. **La apraxia ideatoria.** [Ideational apraxia.] *Revista de Psiquiatría y Psicología Médica*, 1969(Oct), Vol. 9(4), 189-219.—A study of 140 patients suffering from degenerative brain diseases and focal and diffuse brain lesions yielded 42 cases classifiable as ideational apraxia, according to Morlaas' definition. The degree of impairment of various intellectual functions assessed by Morlaas' method led to the conclusion that ideational apraxia is not just a case of severe ideomotor apraxia but is a well-defined form of apraxia. While parieto-temporal lesions produce ideational apraxia most often, this site is not the one in which the various movements necessary in the utilization of an object originate. Focal brain lesions lead to ideational apraxia without ideomotor apraxia. In the course of senile decline both object permanence and ideational praxes deteriorate simultaneously, although there is no cause-effect relationship between them; rather, both appear to originate in changes in the utilization of spatial data. (English, French, & German summaries) (38 ref.)—*L. Zusne.*

4748. Jirout, J. **Neuroradiologie.** [Neuroradiology.] Berlin, E. Germany: Volk und Gesundheit, 1966. 830 p.—A monograph consisting of 2 major divisions: (a) the diagnosis of diseases of the skull and spine and of the brain and spinal cord, and (b) X-ray diagnosis of cranial and spinal traumata.—*I. D. London.*

4749. Krol', M. B. & Fedorova, E. A. **Osnovnye nevropatologicheskie sindromy.** [Main neuropathological syndromes.] Moscow, USSR: Meditsina, 1966. 490 p.—Describes the neuropathological syndromes often encountered in general medical practice, and presents an exposition of the pathology of structure and function underlying them.—*I. D. London.*

4750. Leicester, Jonathan; Sidman, Murray; Stoddard, Lawrence T., & Mohr, Jay P. (Massachusetts General Hosp., Neurology Service, Boston) **Some determinants of visual neglect.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Dec), Vol. 32(6), 580-587.—Found a matching-to-sample technique to be a sensitive method of detecting and assessing visual neglect. 14 of 18 left hemisphere cases and all 6 right hemisphere cases showed contralateral neglect. The neglect was qualitatively the same in all Ss, but varied in severity. It was not shown whether neglect due to left hemisphere disease was quantitatively the same as that due to right hemisphere disease. Ss did not show neglect on every test, but only on those which they could not do correctly. The reasons for failure were the consequences of their lesions. Ss did other tests without any errors and without showing neglect. Neglect in particular tests was confined to either the left hemisphere or the right hemisphere

cases. Neglect did not have any simple relation to visual field defects by conventional testing. Neglect was most marked in the 1st weeks after a stroke, and tended to recede gradually. (19 ref.)—*Journal summary.*

4751. Létourneau, Jacques & Bélanger, David. (U. Montreal, Quebec, Canada) **Effets du méprobamate sur le rendement scolaire de paralytiques cérébraux.** [The effects of meprobamate on the school achievement of cerebral palsied children.] *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 274-278.—Evaluated the effects of meprobamate on the school achievement of 7-16 yr. old cerebral palsied children. 800 mg. of this drug were given every day to 11 experimental Ss over a 10-wk period. During that time, an equivalent group of 11 matched controls were treated with placebo. All Ss had previously received the same dosage of placebo during 10 wk., in order to have a double control and compare Ss with themselves. Data indicate that at the end of the academic year, the global school results of the athetoids of the experimental group were better. Such differences were not observed among the spastic children.—*English summary.*

4752. Mints, A. Ya. & Ronkin, M. A. **Reograficheskiye diagnostika sosudistykh zabolevaniy golovnoy mozga.** [Rheographic diagnostics of cerebral vascular diseases.] Kiev, USSR: Zdorov'ya, 1967.—Presents an exposition of the principles of rheography, rheoencephalography, and research methods. Major attention is directed to analysis of the rheographic curve, with special significance attributed to the form of the wave, its amplitude, the presence and salience of additional waves, continuity of the ascending and descending parts of the curve, and propagation time of the wave.—*I. D. London.*

4753. Pennell, Lillian A. (U. Florida) **The relationship of certain experiences to psychological adjustment in persons with spinal cord injury.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 232-233.

4754. Peralta, P., Sanjuanbenito, L., & Zafra, A. **Amiotrofias de origen parietal: A propósito de un caso.** [Amiotrophies of parietal origin: Regarding one case.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Apr), Vol. 28(2), 126-133.—Describes the clinical history of a 14-yr-old girl with muscular atrophy of the left limbs which coincided with a syndrome of intracranial hypertension provoked by a parietal tumor on the right side. Discussions follow on (a) muscular atrophy as an expression of a cortical lesion, (b) the relation between the lesioned parietal zone and muscular atrophy, (c) the relation between the morphology of the atrophy and the cortical localization of the lesion, and (d) the pathogenesis of atrophies. It is concluded that muscular atrophy expresses a deficit in trophic function, and is influenced by lobal connections with subcortical formations that are important to vegetative regulation.—*P. Hertzberg.*

4755. Ponces, J. & Aguilar Matas, J. (Centro Piloto Arcángel San Gabriel, Barcelona, Spain) **Las dispraxias de desarrollo.** [Developmental dispraxias.] *Revista de Psiquiatría y Psicología Médica*, 1969(Oct), Vol. 9(4), 275-294.—Presents descriptive statistics characterizing developmental dispraxias in 113 mentally retarded, cerebral palsy, and normal 4.11-9.10 yr. old children. Tests included those of dressing and undressing oneself, imitation, finger dexterity, and copying. A comparison of behavioral deficits among the 3 groups of Ss indicates

that different behaviors are differentially affected by mental retardation and by cerebral palsy. When deficits are present they are due to 3 factors: (a) learning difficulty of the same type as occurs in perceptual-motor retardation, (b) close relationship between synkinesias and motor ability in most praxic activities, and (c) the relationship between failures in praxic organization and organization of representational intelligence.—*L. Zusne.*

4756. Regan, D. & Heron, J. R. (U. Keele, North Staffordshire, England) **Clinical investigation of lesions of the visual pathway: A new objective technique.** *Journal of Neurology, Neurosurgery & Psychiatry*, 1969(Oct), Vol. 32(5), 479-483.—Applied the method of simultaneous recording of the scalp potentials evoked by visual stimulation of the left and right half-fields of 1 eye to a patient with homonymous hemianopia and macular sparing. The method predicted this visual field defect and this was confirmed by perimetry. It is suggested that this technique has wider applications to the localization of cerebral lesions. (19 ref.)—*Journal summary.*

4757. Segarra, Jose M. (Boston U.) **Cerebral vascular disease and behavior: I. The syndrome of the mesencephalic artery (basilar artery bifurcation).** *Archives of Neurology*, 1970(May), Vol. 22(5), 408-418.—2 Ss with akinetic mutism of mesencephalic origin showed brain occlusions of a perforating branch of the mesencephalic artery. Such Ss are "immobile but not paralyzed, somnolent but not in coma, quiet but not speechless, occasionally open-eyed and seemingly alert, yet hardly reacting to any stimuli except perhaps very painful ones." Comparison between akinetic mutism of frontal and of mesencephalic origin yields different behavioral results. (30 ref.)—*S. E. Gavin.*

4758. Semënova, K. A. **Detskoe tserebral'nye paralichl.** [Cerebral palsies in children.] Moscow, USSR: Meditsina, 1968. 259 p.—A neurophysiological monograph on the etiology, pathogenesis, clinical forms, and treatment of the cerebral palsies encountered in children.—*I. D. London.*

4759. Shmidt, V. E. (Ed.) **Narusheniya mozgovogo krovoobrashcheniya i ikh khirurgicheskoe lechenie.** [Disturbances of cerebral circulation and their surgical treatment.] Moscow, USSR: Meditsina, 1967.—A manual on: (a) the anatomy, physiology, and pathophysiology of cerebral circulation; (b) contemporary diagnostic methods for examining cerebrovascular disease; and (c) the clinical picture and surgical treatment of those forms of cerebral circulatory disorders to which surgical intervention may be applied.—*I. D. London.*

4760. Storey, P. B. (St. George's Hosp., London, England) **Brain damage and personality change after subarachnoid haemorrhage.** *British Journal of Psychiatry*, 1970(Aug), Vol. 117(537), 129-142.—261 patients followed as long as 6 yr. showed impairment in 41% and personality improvement, apparently due to a leucotomy effect, in 5%. Impairment appeared proportional to amount of brain damage and was common in middle cerebral artery aneurysms. Increased anxiety and irritability with loss of vitality was found as was classical frontal lobe syndrome. "Scores on the Benton Visual Retention Test and a modified Inglis Paired Associate Test were highly correlated with the presence of personality impairment but did not distinguish the mildly from the moderately impaired. The method of study, relying largely on the statements of other informants and largely excluding affective symptoms

from consideration, minimized the importance of pre-vious personality."—*R. L. Sulzer.*

4761. Sukhareva, G. E. & Milich, M. V. **Sifilis nervnoi sistemy.** [Syphilis of the nervous system.] Moscow, USSR: Inst. for Advanced Medical Training, 1968. 40 p.—A monograph on the pathogenesis of syphilitic and parasyphilitic lesions of the nervous system in congenital syphilis.—*I. D. London.*

4762. Tymchuk, Alexander J., Knights, Robert M., & Hinton, George C. (George Peabody Coll. for Teachers) **Neuropsychological test results of children with brain lesions, abnormal EEGs, and normal EEGs.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 322-329.—Compared the performance of 3 groups of 30 children each, matched on CA and IQ, on a variety of motor, psychomotor, language, and reasoning tests. 1 group had brain lesions, 1 had abnormal EEGs, and 1 had normal EEGs. Both of the EEG groups had adjustment difficulties, but no history of brain damage. The tests which best discriminated among the 3 groups were motor speed and resting steadiness. The abnormal-EEG group performed better than the normal-EEG group and the implications of this finding are discussed. (French summary) (22 ref.)—*Journal abstract.*

4763. Yarullin, Kh. Kh. **Klinicheskaya reoentsefalografiya: Novyi metod issledovaniya krovoobrashcheniya golovnogo mozga.** [Clinical rheoencephalography: A new method of studying cerebral circulation.] Moscow, USSR: Meditsina, 1967. 276 p.—A monograph, based on observations of more than 700 patients with cerebrovascular lesions, cerebral tumors, and other diseases of the brain and devoted to the theory, technique, application, and data of rheoencephalography.—*I. D. London.*

Brain Damage

4764. Alfonso-Fernández, Francisco. **La psicopatología de los traumatismos craneoencefálicos.** [The psychopathology of cranioencephalic traumas.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Apr), Vol. 28(2), 87-99.—Discusses the startling increase in traumatic accidents, elaborating 2 basic causes: (a) the increasing mechanization of the world, and (b) a predisposition in man (e.g., lack of emotional control and impulsiveness) which is widespread in a technological society. In regard to cranioencephalic traumas, 3 basic types of injury are examined: (a) alterations of consciousness, (b) intellectual traumas, and (c) traumatization of vital structures. Suggestions are made for rehabilitation.—*P. Hertzberg.*

4765. Baranov, V. A. **Zakrytye travmy golovnogo mozga.** [Closed injuries of the brain.] Moscow, USSR: Meditsina, 1966. 230 p.—Presents a critical and systematic treatment of the literature on closed cerebral injuries. It is concluded that the "severity of cranio-cerebral injury is determined by the damage [done] to the brain, its vascular and cerebrospinal fluid systems." Consideration of resultant mental disorders is subordinated to that of the neurological.—*I. D. London.*

4766. Brendler, S. J. & Selverstone, B. (Tufts U., Medical School) **Recovery from decerebration.** *Brain*, 1970, Vol. 93(2), 381-392.—Describes, in detail, 16 patients who recovered after showing the syndrome of midbrain dysfunction (decerebrate rigidity, coma, and dilated, fixed pupils). Preservation of corneal and tendon

reflexes and absence of severe hypotension appear to be favorable signs.—*W. A. Wilson.*

4767. **Freidmann, George.** (Inst. of Neurology, London, England) **The judgement of the visual vertical and horizontal with peripheral and central vestibular lesions.** *Brain*, 1970, Vol. 93(2), 313-328.—Ss set a luminous line to the apparent vertical and apparent horizontal in the light and in the dark. Patients with unilateral or bilateral loss of labyrinthine function were in most cases unimpaired compared to normals. A pathological deviation (always toward the side of the lesion) was present in $\frac{1}{3}$ of the patients with a cerebellopontine angle tumor and in almost all patients with unilateral brainstem damage, but no abnormality was seen after cortical or cerebellar lesions. Unilateral labyrinthectomy and acute brainstem damage may produce a deviation which regresses with recovery.—*W. A. Wilson.*

4768. **Goodglass, Harold; Barton, Melvin I., & Kaplan, Edith F.** (Veterans Administration Hosp., Boston, Mass.) **Sensory modality and object-naming in aphasia.** *Journal of Speech & Hearing Research*, 1968(Sep), Vol. 11(3), 488-496.—27 aphasics, 12 right-brain-injured, and 12 normal 33-71 yr. old Ss were presented with 16 objects for tactile naming, 16 for auditory naming, and 16 for olfactory naming. All objects were also presented for visual naming. Comparison between groups was based on the percentage difference in response latencies between naming by vision and naming by each of the other modalities. Analysis of variance showed no significant differences. The order of increasing difficulty of stimuli was the same for all groups, with aphasics showing consistently larger differences in latency than the other 2 groups. With few exceptions, the aphasics' naming scores were less than 1 standard deviation unit apart in all modalities. It is concluded that a modality nonspecific process intervenes between stimulus presentation and naming.—*Journal abstract.*

4769. **Grau Veciana, J. M.** (Hosp. Santa Cruz, Barcelona, Spain) **Las apraxias cinéticas.** [Kinetic apraxias.] *Revista de Psiquiatría y Psicología Médica*, 1969(Oct), Vol. 9(4), 265-274.—Only the originator of the concept of kinetic apraxias, D. Denny-Brown, has dealt with them extensively. In these apraxias, the patient's hands or feet are either attracted or repelled by objects. The clinical picture of kinetic apraxias is presented and their status regarding other types of apraxias is discussed.—*L. Zusne.*

4770. **Kapranova, E. I.** (Inst. of Pediatrics, Moscow, USSR) **Kislотно-shchelochnoe ravновесie, uroven' glyukozy i pirovinogradnoi kisloty u zdorovykh nedonoshennykh detei i u detei s vnutricherepnoi rodovoi travmoy.** [Acid-base equilibrium and glucose and pyruvic acid levels in healthy prematurely born infants and in infants with intracranial birth injury.] *Pediatrya*, 1970, Vol. 49(3), 26-29.—Presents biochemical data based on examinations of 89 prematurely born infants (7 days-3 mo. of age; premature by 1-3 mo.) and 47 infants (1-3 mo.) with intracranial injuries (34 severe, and 13 moderately severe). The latter group displayed definite metabolic disorders even with termination of clinical signs of traumata. In both groups the level of pyruvic acid increased with age—a fact that is difficult to explain.—*I. D. London.*

4771. **Killeffer, Fred A. & Stern, W. Eugene.** (U. California, Los Angeles) **Chronic effects of hypothalamic injury: Report of a case of near total**

hypothalamic destruction resulting from removal of a craniopharyngioma. *Archives of Neurology*, 1970(May), Vol. 22(5), 419-429.—Extensive hypothalamic damage in a 5-yr-old child who survived 6 yr. postoperatively resulted in a variety of characteristic clinical symptoms. S occasionally erupted into a state of rage, abrupt in onset and in termination. Reversal of normal diurnal-nocturnal sleep rhythm appeared. Deficiencies in regulation of body fluids, endocrine deficiencies, hyperphagia, and abnormalities of body temperature complete the picture, and correspond to related evidence at animal and human levels. (30 ref.)—*S. E. Gavin.*

4772. **Kvitnitskiĭ-Ryzhov, Yu. N.** (Research Inst. of Pharmacology & Toxicology, Kiev, USSR) **Problema otĕka-nabukhaniya golovnogo mozga i ee znachenie dlya toksikologii.** [The problem of edematous swelling of the brain and its significance for toxicology.] *Farmakologiya i Toksikologiya*, 1970, Vol. 33(2), 246-254.—Presents a survey of the Soviet and non-Soviet literature.—*I. D. London.*

4773. **Reitan, Ralph M.** (Indiana U., Medical Center, Neuropsychology Lab., Indianapolis) **Sensorimotor functions, intelligence and cognition, and emotional status in subjects with cerebral lesions.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 275-284.—Ss with traumatic, neoplastic, or vascular cerebral lesions composed 2 groups: 1 with sensorimotor functions which were relatively intact ($N = 31$) and 1 with functions which were relatively impaired ($N = 30$). This basis for selection resulted in an intact group that was somewhat younger, had a somewhat higher education, and had a higher proportion of patients with traumatic brain lesions. The group with impaired sensorimotor functions had a disproportionately higher number of Ss with cerebrovascular lesions. The groups were compared on various measures of intellectual and cognitive functions and on the MMPI. Results indicate that impairment of sensorimotor functions had a strong relationship to intellectual and cognitive measurements, with the impaired group being greatly inferior to the group with relatively intact sensorimotor functions. An influence in the same direction was noted on the MMPI variables, but the intergroup differences were not as great. (16 ref.)—*Journal abstract.*

4774. **Richardson, Alan & Cant, Rosemary.** (U. Western Australia, Nedlands) **Eidetic imagery and brain damage.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 47-54.—In a study of eidetic imagery among the retarded, E. M. Siipola and S. D. Hayden reported that 8 out of 16 brain damaged children possessed this form of imagery compared with only 1 out of 18 familial retardates. In a population of 151 normal primary schoolchildren R. N. Haber and R. B. Haber had found 12 children who were eidetikers. It was investigated whether a similar proportion of eidetikers would be found in another sample of brain injured Ss and whether the loci, duration, and extent of the neurological damage could be established. Results reveal that only 1 out of 62 brain injured Ss possessed eidetic imagery and only 3 out of 61 normal Ss. Findings are discussed in relation to the problem of diagnosing eidetic imagery and establishing its relation to brain injury and to the medical condition known as palinopsia. The problem of interpreting eideticism as functionally adaptive or maladaptive is considered. (21 ref.)—*Journal abstract.*

4775. Russell, Elbert W., Neuringer, Charles, & Goldstein, Gerald. (Veterans Administration Hosp., Cincinnati, O.) **Assessment of brain damage: A neuropsychological key approach.** New York, N.Y.: Wiley-Interscience, 1970. x, 167 p. \$12.95.

4776. Zimmerman, S. F., Whitmyre, J. W., & Fields, F. R. (Veterans Administration Hosp., Coatesville, Pa.) **Factor analytic structure of the Wechsler Adult Intelligence Scale in patients with diffuse and lateralized cerebral dysfunction.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 462-465.—WAIS protocols were obtained on 200 male patients with medically documented unilateral or diffuse cerebral damage. The intercorrelation matrix of the WAIS subtests was analyzed. 6 factors were rotated and the results were presented in relation to various brain-damaged groups. Results suggest that there are some rather important differences in factor structure among the 3 groups used. "Although the results of this study are somewhat tentative, the consistency between this study and others points to the need for serious consideration of (1) behavioral differences in the problem-solving capacities of patients with differential cerebral damage, and (2) specification of the degree to which verbal processes may affect supposedly 'performance' subtests."—E. J. Kronenberger.

Epilepsy

4777. Freemon, Frank R., Agnew, H. W., & Wilder, B. J. (Washington U.) **Electrical activity of the human hypothalamus and midbrain during sleep.** *Comprehensive Psychiatry*, 1970(Jul), Vol. 11(4), 356-360.—A 35-yr-old psychomotor epileptic underwent surgical implantation of recording electrodes in several subcortical sites including posterior hypothalamus and midbrain tegmentum. Cortical EEG and electric activity of subcortical structures were monitored during REM and NREM sleep periods. In the 1st REM period, hypothalamus showed 3/sec rhythmic activity, while in later REM periods bursts of distinct potentials temporally related to eye movements occurred in midbrain. The midbrain and hypothalamus observations in this S are joined with previous hippocampal recordings in other Ss in an attempt to compare human REM sleep with the REM sleep of laboratory animal species.—*Journal summary.*

4778. Fundyler, R. I. **Épilepsiya u detei i podrostkov.** [Epilepsy in children and adolescents.] Kiev, USSR: Zdorov'e, 1967. 196 p.—A manual for physicians.—I. D. London.

4779. Gilligan, Bernard S. (Alfred Hosp., Melbourne, Victoria, Australia) **Primary reading epilepsy.** *Medical Journal of Australia*, 1969(May), Vol. 1(20), 1025-1028.—Describes 3 cases of typical primary reading epilepsy, and describes the various theories concerning the etiology of this condition. From the literature, it would appear that the only constant factor precipitating attacks in all cases is the act of reading, rather than the content of the reading matter or the degree of concentration involved in reading. Presently, the most practical theory concerning the etiology of this syndrome appears to be the excitation of brainstem centers by repetitive proprioceptive stimuli occurring in the ocular muscles. Patients were a 15-yr-old boy, a 26-yr-old woman, and a 19-yr-old girl. The ability of a patient with primary reading epilepsy to continue reading through and

beyond an episode of jaw jerking without having a seizure is reported for the 1st time. Carbamazepine proved helpful, in combination with phenytoin sodium, in controlling jaw movements during reading.—*Journal summary.*

4780. Janz, D. **Die Epilepsien, Spezielle Pathologie und Therapie.** [The epilepsies, specific pathology and therapy.] Stuttgart, W. Germany: Georg Thieme, 1969. 554 p.—Presents a monographic exposition of the epilepsies, including detailed histories of the disease, and detailed data from EEG research. The disease is classified based on the clinical and neurophysiological characteristics specific to the various types. For each type the following aspects are considered: synonyms in the designation of similar types of seizures, history of the problem, clinical picture, EEG data, etiology, pathological anatomy, pathogenesis, biology, and therapy.—I. D. London.

4781. Ugryunov, V. M., et al. **Diagnostika i khirurgicheskoe lechenie travmaticheskoi épilepsii.** [Diagnostics and surgical treatment of traumatic epilepsy.] Moscow, USSR: Meditsina, 1967. 232 p.—Reports results of research based on observations of 1004 patients with traumatic epilepsy. Major attention is directed to the pathogenesis of epilepsy, in general, and to traumatic epilepsy, in particular, considered from the pathophysiological viewpoint. It is concluded that the epileptogenic focus in traumatic epilepsy not only triggers the epileptic attack, but simultaneously disorganizes the integrative activity of the brain.—I. D. London.

MENTAL RETARDATION

4782. ———. **Subsídios para um Plano Nacional de Combate à D. Mental (convênio ABDM-Cademe): V. Considerações do setor de psicologia.** [Subsidies for a national plan to combat mental deficiency (agreement between ABDM and Cademe): V. Considerations relating to the psychological sector.] *Revista Brasileira de Deficiência Mental*, 1970(Jan), Vol. 5(1), 36-40.—Presents results of a National Mental Retardation Institution survey (Brazil) which includes: (a) a breakdown of retardates by CA, MA, and IQ; (b) suggestions for improvement of services; (c) a national scale of priorities; and (d) recommendations for a minimal program. 50 institutions returned questionnaires, of these 29 had psychological services and 21 had a psychologist's services. Data show that more emphasis is needed on preschool retardates' care, teacher training, centers, and protected workshops for retardates over 14 yr. old. Recommendations concern: (a) research and definition of classifications for the mentally deficient and retarded; (b) public education campaign and subsidies for wide distribution of information; (c) helpers for remote areas; (d) regional, multidisciplinary centers; (e) a traveling educational team; (f) earlier, more differentiated diagnosis; (g) psychological examinations for all school repeaters; (h) national statistics gathering, and designation of a library and of a central point for evaluation of tests and data; and (i) updating of tests now in use.—K. Rissland.

4783. Adler, Leonore L. (American Museum of Natural History, New York, N.Y.) **The "Fruit-Tree Experiment" as a measure of retarded children's preferences of fruit trees under varied conditions of color availability.** *Journal of Psychology*, 1970(Nov),

Vol. 76(2), 217-222.—Replicated L. L. Adler's (see PA, Vol. 44:18290) previous "Fruit-Tree Experiment" which tested normal 5-12 yr. old children under 4 different conditions of color availability, the present study tested retarded children (I.Q. = 31-77). The fruit-tree drawings of the retarded Ss showed the same trends as those of normals, but to a lesser degree. As explanation an addition to the "attention deficiency theory," an "association deficiency theory of retardate imagination" was advanced.—*Author abstract.*

4784. Antonson, Florence G. (Florida State U.) **A study of the effect of cutaneous stimulation followed by reciprocal exercises on the functional level of passive crib-cases designated as mentally retarded.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5226.

4785. Bozarth, J. D. & Daly, W. C. (U. Arkansas, Rehabilitation Research & Training Center) **Three occupational groups and their perceptions of mental retardates.** *Mental Retardation*, 1969(Dec), Vol. 7(6), 10-12.—Examines the perceptions of 3 groups of employees in relation to the performance of a sample of institutionalized mentally retarded. Work supervisors, education and activities employees, and child care aides rated all 16-21 yr. old residential Ss with IQ's ranging from 40-80 on 14 variables, using the Likert Rating Scale. Results indicate highly significant differences between the groups of raters. Work supervisors tended to rate Ss' performance significantly higher than either of the other 2 groups. Child care aides in turn rated Ss' performance lower than work supervisors did, but higher than education and activities employees did.—*Journal abstract.*

4786. Browning, Philip L. (U. Wisconsin) **An analysis of counselor, client, and situational conditions in counseling the mentally retarded.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5227-5228.

4787. Conger, John J. (U. Colorado, Medical School, Denver) **Mental retardation as child development.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 10-14.—Reviews the progress being made against mental retardation and related problems, and considers the present social climate as one which encourages further scientific, professional, and social advances, especially in the concept of maximal opportunity for the individual child. This concept plus the understanding that uniform opportunity is not necessarily equal opportunity, amounts to a social revolution which creates conditions favorable for an attack on the most critical social problems. The need for additional broadly based, interdisciplinary research on retardation in all areas from basic biology to sociological aspects is stressed. The retarded child has far more in common with other children than he has differences: his problems are mainly those of child development. It is concluded that the greater incidence of retardation in the economically deprived demands a more vigorous attack on the culture of poverty.—*Journal abstract.*

4788. Crosby, Kenneth G. (Boston U., School of Education) **Attention and distractibility in mentally retarded and average children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 378.

4789. Forehand, Rex & Baumeister, Alfred A. (U. Alabama) **The effect of auditory and visual stimulation on stereotyped rocking behavior and general activity of severe retardates.** *Journal of Clinical*

Psychology, 1970(Oct), Vol. 26(4), 426-429.—8 male institutionalized mental retardates (age range, 18-35 yr.) were observed in an experimental chamber using an ultrasonic motion detector to record the rate of general activity. In Exp. I visual-stimulation was associated with a reduction in general activity, and in Exp. II auditory stimulation led to an equivalent increase in rocking.—*E. J. Kronenberger.*

4790. Gayton, William F., Bassett, John E., & Bishop, John S. **The Harris revision of the Goodenough Draw-a-Man Test: Suitability for a retarded population.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 522-523.—Drawings from the Goodenough Draw-a-Man Test of 36 institutionalized mental retardates were scored independently by 2 clinical psychologists using both the Harris and Goodenough methods. The Harris method yielded higher correlations with IQ than the Goodenough method.—*E. J. Kronenberger.*

4791. Gettings, Robert M. **Mental retardation and the planning-programming-budgeting system.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 24-26.—All Federal agencies are in the process of instituting a new budgetary procedure—the planning-programming-budgeting system (PPBS). PPBS stresses the need to consider both the short-term and long-range economic costs of various program alternatives in formulating public policy. The historical development, essential elements, applications in the field of mental health, and criticisms of PPBS are reviewed. Among the criticisms is that the explicit consideration of long-range costs of a program may increase the difficulty of convincing Congress of the need for particular spending activities. Also, 5-yr budgetary projections may fail to adapt to changes in social, economic, and political conditions. However, an advantage of estimating long-range costs in the field of mental retardation would be to demonstrate what has been neglected, thereby stressing the need for more financial assistance to mental retardation programs.—*Journal abstract.*

4792. González de Chávez, Manuel; Rodríguez Gorostiza, María I., & Orbe de Garay, María I. **Mecanismos obsesivos en debiles mentales.** [Obsessive mechanisms in mental retardation.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Jan), Vol. 28(1), 30-36.—Presents an analysis of 6 obsessive Ss (1 female and 5 males 11-40 yr. old) who were mildly retarded. Ss were divided into 2 groups: iterative, with Ss under 20, and phobic, with Ss over 20. Although intelligence was considered to be a minor factor, the psychopathology of iterative Ss seemed related to their low IQ, while clinical pictures of phobic Ss seemed similar to those of obsessive Ss with normal intelligence. Anancastic manifestations seemed to be related to previous familial incidence. It was theorized that the lower intelligence and the more deficient the personality, the more automatic are anancasms.—*P. Hertzberg.*

4793. Joubert, Charles E. & Baumeister, Alfred A. (Southeastern Louisiana Coll.) **Effects of varying the length and frequency of response-stimulus interval on the reaction times of normal and mentally deficient subjects.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(1), 105-110.—Found RT to the 2nd of 2 closely spaced reaction stimuli to be dependent on the interaction of length of the interval between the 1st response and the onset of the 2nd stimulus ($R_1 - S_2$) and form of $R_1 - S_2$ interval

distribution. 5 $R_1 - S_2$ intervals were presented under 3 distributions: skewed left, skewed right, and symmetrical. In addition, 2 preparatory intervals (PI) were presented. Retarded Ss performed poorer than normal Ss on all measures; in addition, they were particularly handicapped with short $R_1 - S_2$ intervals. Improved performance on the short $R_1 - S_2$ intervals was found with increased frequency of these intervals. Relatively fast reactions (R_2) were associated with shorter PIs and there was a significant interaction between $R_1 - S_2$ interval and PI. Results support an expectancy interpretation of the psychological refractory period.—*Journal abstract.*

4794. Klaber, M. Michael. (U. Hartford) **Parental visits to institutionalized children.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 39-41.—Statistically tested the assumption that parental visits to their institutionalized retarded children is inversely related to the distance of the parental home to the residential facility. The sample institutions were drawn from a densely populated area where the radius of aerial distance between parental home and facility never exceeded 90 miles. 116 residents who met certain criteria were tested. Findings show that although distance was given by parents as a reason for not visiting their children, parental failure to visit is based more on emotional rather than realistic reasons, distance being the most socially acceptable rationalization. A tentative conclusion is that parents are likely to visit when they feel that the child is making good progress and is happy. It is concluded that different geographic conditions would possibly yield different results.—*M. Walker.*

4795. Lasser, Barbara R. (U. New Mexico) **Teaching mothers of mongoloid children to use behavior modification procedures.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5239-5240.

4796. Mutafov, Stefan & Scharf, Joachim H. (Bulgarian Academy of Science, Inst. of Morphology, Sofia) **Psychosomatische Zusammenhänge bei der Entwicklung minderbegabter Kinder.** [Psychosomatic relationships in the development of ungifted children.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(May), Vol. 22(5), 161-172.—Reports results of correlating CA, MA (as measured by the Simon-Binet), and body size for 6 categories including a total of 978 mentally deficient children. Linear and nonlinear regression equations reveal various degrees of retardation associated with characteristic variations in physical growth. (33 ref.)—*K. J. Hartman.*

4797. Peach, Walter & Hettick, Donna. (Central Missouri State Coll.) **A speech stimulation program for institutionalized retardates.** *Central Missouri Synthesis on Mental Retardation*, 1968(Sep), Vol. 1(1), 1-7.—Initiated a speech stimulation program to determine whether it would enhance the speech development of 9-11 yr. old institutionalized male retardates. A pre- and postbehavioral report was developed from the observations of the instructor. Individual techniques were employed. Results in either speech and/or behavior were noted in 2/3 of the Ss.—*Journal abstract.*

4798. Porter, Robert L. (Boston U., School of Education) **Factors which facilitate or impede adjustment in an institutional release program.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 160.

4799. Savino, Michael T., Kennedy, Ralph C., & Brody, Stuart A. (California Dept. of Rehabilitation,

Sacramento) **Using the nonprofessional in mental retardation.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 4-9.—Traditional solutions to problems in the field of mental retardation have produced little more than temporary palliatives. It is stressed that more professionals must be trained. Hence, the use of indigenous nonprofessionals is proposed and exemplified as a partial solution to both the critical manpower shortage in the field of mental retardation and the problems of high-risk groups. These groups are both overrepresented in the incidence of mental retardation and underrepresented in service coverage. A most promising and validated new approach toward achieving adequate care of the retarded is to shift workload from highly trained professionals to less highly trained nonprofessionals working under close supervision and trained on the job by professionals. Indigenous nonprofessionals, particularly from lower socioeconomic groups, can be uniquely effective within their own subculture which is at a disproportionately higher risk. (25 ref.)—*Journal abstract.*

4800. Schaeffer, Mary L. & Shearer, William M. A **survey of mentally retarded stutterers.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 44-45.—Surveyed a large state school for mentally retarded, and found that IQ scores for stutterers (7.6 of those having communicable speech) did not vary significantly from those of the nonstutterers. It is suggested that the mentally retarded stutterer be more carefully considered in the development of theory and therapy for the stuttering problem.—*Journal abstract.*

Learning & Motor Ability

4801. Burnette, William A. (Indiana U.) **The effects of delayed reinforcement on vocationally successful and unsuccessful mentally retarded adults.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 251.

4802. Golden, Thomas H. (U. Miami) **The effects of simultaneous, zero delay, and variable delay matching-to-sample on the discrimination behavior of retarded children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 393.

4803. Hayes, Ethel B. (Columbia U.) **The effects of variations in verbal feedback and instructions on concept identification in retarded and normal children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 414.

4804. Hayes, William A. (George Peabody Coll. for Teachers) **Facilitation of learning set acquisition by retardates through graduated changes in error-response consequences.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 414-415.

4805. Holden, Edward A. (Edward R. Johnstone Training & Research Center, Bordentown, N.J.) **Unimodal and multimodal sequential information processing in normals and retardates.** *Journal of Experimental Psychology*, 1970(Nov), Vol. 86(2), 181-185.—24 adolescent educable retardates (R), 24 equal CA normals, and 24 equal MA normals reported the number of pulses in varying length sequences presented to the same (visual, auditory, or tactile) modality, alternated between 2 and among 3 modalities. Errors increased significantly in the order $R > MA > CA$, with increasing numerosities, and from the unimodal to multimodal conditions. There were no differences between the 2-modality and 3-modality conditions, from

which it is concluded that switching rate rather than the number of modalities defines the additional attention load. Since error increases from the unimodal to multimodal conditions were due primarily to underestimations, it is concluded that attention shifting interferes with input or storage of stimulus number. Compared with both normal groups, retardates underestimated relatively more than they overestimated. This confirms previous findings that retardates process incoming stimuli more slowly than normals.—*Journal abstract.*

4806. Maloney, Michael P. & Charrette, Harriett. (Pacific State Hosp., Pomona, Calif.) **Note on the effects of a gross-motor approach to training attention control on discrimination learning in mentally retarded Ss.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 41-42.—Hypothesized that a gross-motor approach to training (walking board) attention control would generalize to a 2-choice discrimination learning task. Results for 22 6-12 yr. old severely retarded institutionalized males support the hypothesis.—*Journal abstract.*

4807. Newfield, Melanie U. & Schlanger, Bernard B. (Houston Ear, Nose, & Throat Hosp. Clinic, Tex.) **The acquisition of English morphology by normal and educable mentally retarded children.** *Journal of Speech & Hearing Research*, 1968(Dec), Vol. 11(4), 693-706.—Developed a list of lexicon words which paralleled phonologically and morphologically the nonsense words used by J. Berko to study the acquisition of English morphology by 30 educable mentally retarded children and 30 normal children. Results indicate that significant quantitative differences existed favoring normal Ss in all the measures of morphology, measured by lexicon words and nonsense words. Nevertheless, the order of acquisition of morphology by retarded Ss, particularly in respect to nonsense words, paralleled that of normal Ss. With the normal and retarded Ss, an undefined time lag existed between the production of correct English morphological inflection forms with familiar words and the generalization of these forms to unfamiliar words, indicating knowledge of a morphological rule. Retarded Ss demonstrated greater inability than normal Ss studied in generalization from familiar to unfamiliar words.—*Journal abstract.*

4808. Peach, Walter; Monaco, Theresa; Blanton, Richard S., & Hurlburt, Golda. (Central Missouri State Coll.) **Effectiveness of programed instruction related to color discrimination for the trainable retardates.** *Central Missouri Synthesis on Mental Retardation*, 1968(Sep), Vol. 1(1), 21-26.—Investigated the effectiveness of programed instruction using the Edison Responsive Environment, an electronic typewriter consisting of an electronic keyboard, with the trainable mentally retarded. Of the 26 7-22 yr. old Ss, 3 groups were discerned. 1 group found the elementary color discrimination too difficult, the 2nd group showed definite improvement in their total score from the 1st to the 5th program presentation, and the 3rd group scored high on all 5 program presentations. Programed instruction involving the trainable did seem effective for a segment of the Ss.—*Journal abstract.*

4809. Raskin, Larry M. (Purdue U.) **Influence of amount of training and retention interval length on long-term perceptual memory in normal and educable-retarded children.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 191-194.—The influence of

perceptual memory on the perception of apparent movement was found to be the same for 36 educable-retarded children (EMRs) and 24 normals of the same MA following a short retention interval. However, in order for the memory effects to endure 24 hr., the EMRs needed much more training than did normals. The results are interpreted in terms of association perceptual learning.—*Journal abstract.*

4810. Redd, William H. (U. North Carolina) **Adults as discriminative stimuli with retarded children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 422-423.

4811. Schoenfeld, Lawrence S. (U. Texas, Medical School, San Antonio) **Effects of auditory stimulation on the performance of brain-injured and familial retardates.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 139-144.—Studied the effect of extraneous auditory stimulation on the performance of 36 10-17 yr. old familial and brain-injured retardates matched for CA, IQ, race, and sex. Results are discussed in reference to: (a) the value of the dichotomous medical diagnosis of brain-injured vs. familial retardates for prediction of performance, (b) the hypothesis that the so-called distractibility is an attempt by the brain-injured to sustain his normal level of stimulation, and (c) the advisability of using an enriched environment in teaching the brain-injured retardate. (17 ref.)—*Journal abstract.*

4812. Stevenson, Harold W., Friedrichs, Ann G., & Simpson, William E. (U. Minnesota, Inst. of Child Development) **Learning and problem solving by the mentally retarded under three testing conditions.** *Developmental Psychology*, 1970(Nov), Vol. 3(3, Pt. 1), 307-312.—Tested 125 educable retarded adolescents under 1 of 3 conditions: group, individual, or individual testing with a supportive adult present. All Ss were presented 5 tasks: paired-associate learning, discrimination learning, incidental learning, verbal memory, and anagrams. Except for incidental learning, where Ss performed better under individual testing, and in discrimination learning, where Ss performed better under group testing, level of performance was not influenced by testing conditions. Performance was more effective relative to normals paired-associate and discrimination learning than in verbal memory and anagrams.—*Journal abstract.*

Training & Vocational Rehabilitation

4813. Anant, S. S. (U. Lethbridge, Alberta, Canada) **The use of operant conditioning with the mental retardates: A report of a pilot experiment.** *Indian Journal of Applied Psychology*, 1969, Vol. 6(1), 15-21.—The training program of mental retardates using operant conditioning methods was found useful as shown by the improvement made by 19 of the 20 patients in the initial 7 wk.—*U. Pareek.*

4814. Barton, Elizabeth S., Guess, Doug; Gacia, Eugene, & Baer, Donald M. (Menwood Park Hosp., Leeds, England) **Improvement of retardates' mealtime behaviors by timeout procedures using multiple baseline techniques.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 77-84.—Reduced undesirable mealtime behaviors in a hospital cottage of 16 male retardates by contingent timeout procedures, i.e., removal of S from the room or 15-sec removal of S's meal tray, applied by ward personnel successively to 1

undesirable behavior after another, in a multiple baseline design. Undesirable behaviors were defined as stealing, using fingers inappropriately, messy use of utensils, and eating directly with mouth or eating spilled food. Timeout was applied to these behaviors in that order, and in each case led to a marked and useful reduction in the behavior throughout the group. As these undesirable behaviors were reduced, more appropriate mealtime behaviors emerged: as inappropriate use of fingers declined (under contingent timeout), messy utensil behavior increased; later, as messy utensil behavior declined (under contingent timeout), a defined category of neat utensil behavior increased. Ss' weights were monitored throughout the study and showed essentially no change.—*Journal abstract.*

4815. Cortzaao, Arnold D. (Aunland Training Center, Miami, Fla.) **An analysis of activity programs for mentally retarded adults.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 31-34.—Reports on a 1968 nationwide study examining the current status of activity programs for mentally retarded adults in which a great need for such programs is revealed. Recommendations for their future programming are made. Results show that 1 of the major reasons for discharge from such programs is employment, indicating the success of these retardates in progressing to an acceptable working level. However, evaluation procedures for admission were found inadequate; the range and kind of activities in many programs were insufficient to attain stated goals; and the activity centers were not being adequately used as referral sources. It is recommended that these weaknesses be remedied and that inservice training institutes for staffs be conducted. Although the evidence supports the utility of such programs, their effectiveness is still questioned.—*M. Walker.*

4816. Daniels, Lloyd K. (Boston U., School of Education) **The relation between the self concept, perceived parental behavior, and vocational adjustment for mentally retarded young adults.** *Dissemination Abstracts International*, 1970(Jul), Vol. 31(1-B), 378-379.

4817. Monaco, Theresa M., Peach, Walter; Blanton, Richard S., & Loomis, Doris. (Central Missouri State Coll.) **Pilot study: Self care program for severely retarded girls.** *Central Missouri Synthesis on Mental Retardation*, 1968(Sep), Vol. 1(1), 8-20.—Each of 9 9-15 yr. old severely retarded girls served as her own control in a 16-day pilot program designed to determine if a control-led stimulus-response environment would reduce the number of verbal and/or demonstrated assists required by each S to complete a dressing operation. The conditions of a continuous to an intermittent schedule of reinforcement with a nutrient-verbal-physical contact type of reinforcement were used throughout. Results indicate that: (a) severely retarded girls do respond to a training program designed to modify dressing behavior; (b) demonstration either on or off the student facilitates acquisition of dressing skills; and (c) the use of positive reinforcement in the antecedent-consequences chain of events facilitates behavior modification.—*Journal abstract.*

4818. Peach, W. J. & Herbert, Mildred. (Central Missouri State Coll.) **Visual perception training for trainable retarded students.** *Central Missouri Synthesis on Mental Retardation*, 1968(Dec), Vol. 1(2), 4-8.—Investigated whether a training program in visual perception could significantly increase visual perceptual

functioning among 15 male trainable retarded Ss. A pretest, the Frostig Developmental Test of Visual Perception, was administered to determine the level of functioning in visual perception. Following analysis of pretest scores, a training program was instituted to increase visual perceptual skills. Posttest results indicate a positive increase for 10 Ss.—*Journal abstract.*

4819. Peach, W. J. & Thompson, Lincoln. (Central Missouri State Coll.) **Self care pilot study: Locker ordering project.** *Central Missouri Synthesis on Mental Retardation*, 1968(Dec), Vol. 1(2), 9-11.—Describes a pilot project related to the effectiveness of point reinforcement on the behavior of intermediate age retardates. For each ordered locker, 9 points were posted. These points were redeemed for 5¢ at the end of 1 mo. Effectiveness of the point reinforcement was variable.—*Journal abstract.*

4820. Pérez-Ramos, Aylid M. **La formación vocacional de adolescentes retardados mentales.** [Vocational formation of mentally retarded adolescents.] *Revista Brasileira de Deficiência Mental*, 1968(Apr), Vol. 3(2), 2-8.—Asserts that the success of vocational training in mental retardates depends on the proper assessment of 3 conditions: (a) the abilities, personality characteristics, and intellectual limitations relating to work; (b) opportunities for marketing work and acceptance of retardates in the community; and (c) habits, attitudes, and basic knowledge necessary for adaptation to life. The organization of a service in Venezuela for the vocational orientation of educable retardates is described with regard to objectives, programs, training methods, and the achievements of a sample apprentice group. Ss were 7 male and 9 female 14-21 yr. olds whose MA was 6-9 and who suffered disabilities of attention, memory, reasoning, perception, and various anxiety symptoms. Vocational training was the last step in the program which also included physical education, music, family living, optional religious training, primary reading, and writing. Vocational training included carpentry, weaving, agriculture, and gardening for male Ss, and sewing, hairdressing, and weaving for female Ss. It is concluded that Ss' achievements demonstrate the success of the program and the necessity for integration of vocational formation into total education.—*K. Rissland.*

4821. Watson, Luke S. (Case Western Reserve U.) **Applications of behavior-shaping devices to training severely and profoundly mentally retarded children in an institutional setting.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 21-23.—Describes a toilet trainer the interior of which is bathed with light beams focused on photoelectric cells. Whenever a beam is broken a pulse is transmitted to a reinforcement dispenser, and a reinforcement is delivered. Although the machine works quite well—5 out of 8 retarded children used it daily over an 8-wk period when cued to go to the toilet—use of an automated sensing device attached to the S is recommended to signal the S to use the toilet trainer whenever an elimination response begins to occur and is not anticipated or detected by the behavioral engineer. It is suggested that a behavioral engineer, assisted by such devices, could shape and maintain retarded behavior more effectively and economically than several behavioral engineers alone. For electronic training devices to be really useful in modifying behavior, their operation must be perfected and be simple to operate.—*Journal abstract.*

4822. Whitman, Thomas L., Mercurio, J. R., &

Caponigri, Vicki. (U. Notre Dame) **Development of social responses in two severely retarded children.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 133-138.—Investigated the effect of reinforcement dependent on the social responses of 2 severely retarded withdrawn children. During 30 30-min training sessions food and praise were administered dependent upon the S's mutual participation in a ball-rolling and block-passing task. Both Ss showed a progressive increase in social interaction in a nontraining situation during this reinforcement period. After the reinforcement procedures were removed, social behavior decreased markedly. Response generalization to children not involved in training occurred.—*Journal abstract.*

PHYSICAL ILLNESS

4823. **Atakhanov, É. I., Kharat'yan, A. M., & Sapunova, N. V.** **Diagnostiche skie vozmozhnosti radiotelemetricheskogo issledovaniya pri khronicheskikh zabollevaniyakh kishechnika.** [Diagnostic possibilities of radiotelemetric examination in chronic intestinal diseases.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 173-177.—Includes details on the radiotelemetric procurement of data on temperature, pressure, and pH in different sections of the digestive tract.—*I. D. London.*

4824. **Bishop, Louis F. & Reichert, Philip.** (St. Barnabas Hosp., New York, N.Y.) **The interrelationship between anxiety and arrhythmias.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 330-334.—Discusses physical and emotional causes of arrhythmias and their effect upon cardiac states. Patients are often seen whose cardiac rhythm has been influenced by emotional reactions. Possible precipitating factors may include exertion, fatigue, various digestive disturbances, alcohol, tobacco, coffee, and allergy. It is important to learn in treating a patient with an arrhythmia whether anxiety or emotional problems are involved. Examples are included of such cases. Whether the more serious arrhythmias, i.e., ventricular fibrillation, can also be caused by anxiety is discussed. A case is noted of an apparently normal person in whom paroxysmal ventricular tachycardia was precipitated by an emotional upset. Because of the interrelationship between cardiac arrhythmia and anxiety, physicians should treat not only the basic heart condition, but also the anxiety which may have precipitated it. Cardiac drugs and various tranquilizers are listed which are effective in the treatment of arrhythmia. (17 ref.)—*P. McMillan.*

4825. **Cummings, Jonathan W.** (Veterans Administration Hosp., Washington, D.C.) **Hemodialysis: Feelings facts fantasies: The pressures and how patients respond.** *American Journal of Nursing*, 1970(Jan), Vol. 70(1), 70-76.—Discusses coping behavior of patients in stress situations produced by severe kidney disease and hemodialysis. The most important stress factors are seen to be social role disturbances, dependency, toxic factors (i.e., impairment of concentration ability and IQ functioning), and economic pressures.—*B. A. Stanton.*

4826. **Finnerty, Frank A.** (Georgetown U., Medical School) **Treatment of labile hypertension.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 339-341.—Classifies hypertensive patients into 3 groups of those having predominantly supratentorial, arteriosclerotic, or vaso-

spastic disease. Supratentorial Ss are described and a rational treatment approach is presented. Symptoms, i.e., excessive perspiration, dizziness, tachycardia, headaches, and fatigue are often mistakenly ascribed to high levels of arterial pressure. Physical examinations of such patients reveal signs of anxiety, including tachycardia, sighing respirations, and cold wet palms, but show no evidence of organic vascular disease. A case history is presented of a hypertensive female, and tables are included of characteristic features of various groups of hypertensive patients. It is concluded that "since the site of major abnormality in these patients seems to be supratentorial, the primary aim of therapy should be toward the relief of anxiety." The most effective drugs for use with these patients are amytal sodium and reserpine, although possible side effects of reserpine (gastric acidity and depression) prohibit its use with obese hypertensives or those with a history of peptic ulcer or mental illness.—*P. McMillan.*

4827. **Fisher, Albert L.** (LaCrosse Neuropsychiatric Clinic, Wis.) **Psychiatric aspects of the pre- and post-surgical patient.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 347-351.—Discusses the emotional and behavioral aspects of surgery, with special emphasis on the impact of the new surgical techniques that involve replacement and restorative procedures in contrast to those of excision and removal. It is suggested that the surgeon must utilize "psychologic acumen" to deal with the many somatic, perceptual, and psychosocial reactions that follow disturbances in the body image caused by surgery. Effects of different types of surgery on the security system of the patient are discussed. Better understanding of the relevant psychological processes in the surgical patient will help in the prevention of many postsurgical complications.—*P. McMillan.*

4828. **Foy, Audrey L.** **Dreams of patients and staff.** *American Journal of Nursing*, 1970(Jan), Vol. 70(1), 80-82.—Presents samples of the dreams related by patients and staff on a hemodialysis unit to illustrate how these dreams reflect the numerous fears and anxieties in a situation where life itself depends on the successful operation of a mechanical device.—*B. A. Stanton.*

4829. **Francis, Gloria M.** **Cancer: The emotional component.** *American Journal of Nursing*, 1969(Aug), Vol. 69(8), 1677-1681.—Persons who have cancer experience the same emotional stages—denial, anxiety, regression, depression, and realistic adaptation—as do those with other illnesses. Whether the patient adapts sooner, later, or never or whether he remains fixated in any 1 stage, depends not only on his personality, but also on how he views his diagnosis and on the attitudes of health personnel.—*Journal abstract.*

4830. **Gavrilenko, Ya. V. & Rybakova, G. S.** **Funktsional'naya proba na intensivnost' sekretsii solyanoi kisloty zheludochnymi zhelezami.** [Functional test of intensity of hydrochloric acid secretion by the gastric glands.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 170-172.—39 healthy persons and 30 with duodenal ulcer were Ss in a radiotelemetric study of the dynamics of some functions of the digestive tract.—*I. D. London.*

4831. **Kiely, Joseph M.** (Mayo Clinic, Rochester, Minn.) **Organic disease presenting as hyperventilation syndrome.** *Psychosomatics*, 1970(Jul), Vol. 11(4), 326-329.—Discusses the danger that symptoms of the hyperventilation syndrome "may mask the presence of serious underlying organic disease." 4 case histories are

presented of patients originally diagnosed as having symptoms of hyperventilation, who actually were suffering from pheochromocytoma, porphyria, brain tumor, and hypoparathyroidism, respectively. Treatment of the actual disease eliminated symptoms of hyperventilation. It is noted that the hyperventilation syndrome and acute anxiety attacks have identical symptoms and possibly a common biochemical mechanism. The most disturbing symptoms of patients with hyperventilation syndrome are related to the cardiovascular system, and "appear to be related to increased responsiveness of the β -adrenergic receptor site." Propranolol, an adrenergic blocking drug, has been reported to relieve such symptoms. (18 ref.)—*P. McMillan.*

4832. Long, Barbara. (Case Western Reserve U.) **Sleep.** *American Journal of Nursing*, 1969(Sep), Vol. 69(9), 1896-1899.—Reviews the 4 stages of sleep and discusses accompanying physiological changes, and discusses 5 causes of insomnia (physical, physiological, psychological, iatrogenic, and idiopathic). A demonstration is provided to delineate how knowledge concerning sleep stages, circadian rhythm, and insomnia may be used to predict the needs of hospitalized patients. (15 ref.)—*B. A. Stanton.*

4833. Milcu, St. M., Maximilian, C., & Jonescu, B. **Endocrinopatille genetice.** [Genetic endocrinopathies.] Bucharest, Romania: Romanian Academy, 1968.—An expositional survey of the literature. (English & Russian summaries)—*I. D. London.*

4834. Nelson, Alice C. **How can you stand the crying?** *American Journal of Nursing*, 1970(Jan), Vol. 70(1), 66-69.—A pediatric nurse discusses awareness of a selective listening process which sorts out cries indicating fright, hunger, helplessness, and the need for support. It is emphasized that while the ability to cry is part of man's native endowment, the absence of a cry may indicate that the child has been deprived of mothering. In a hospital setting, the lack of crying on the part of the child may also indicate that the child is temporarily incapable of expressing his feelings in the absence of his mother who "...enables him to be himself."—*B. A. Stanton.*

4835. Plügge, Herbert. (3 Hospitalstr., Heidelberg, W. Germany) **Über die Arten der menschlichen Befangenheit.** [Concerning the types of human embarrassment.] *Jahrbuch für Psychologie, Psychotherapie und medizinische Anthropologie*, 1967(Jan), Vol. 15(1-2), 1-12.—Emphasizes embarrassment incurred as the result of a state of helplessness caused by physical illness and surgical procedures, especially myocardial infarctions and amputations. The estrangement of self and others and the neurotic-paranoid reactions which frequently occur during long periods of convalescence are discussed.—*B. A. Stanton.*

4836. Stamper, David A., Kinsman, Robert A., & Evans, Wayne O. (Fitzsimons General Hosp., Denver, Colo.) **Subjective symptomatology and cognitive performance at high altitude.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 247-261.—Describes further standardization of the General High Altitude Questionnaire (GHAQ) for use in quantifying the severity of acute mountain sickness. Results from 24 male volunteers show the questionnaire reliably reflects changes in symptom severity. The amount of decrement on a number of psychomotor tasks was directly related to the degree of severity of the subjective symptomatology of acute mountain sickness. Results also show

several conceptually clear symptom clusters of the GHAQ that appear to reflect different states of subjective symptomatology. (15 ref.)—*Journal abstract.*

4837. Studenikin, M. Ya. & Efimova, A. A. (Inst. of Pediatrics, Moscow, USSR) **Voprosy dolgosrochnogo prognozirovaniya nauchnykh issledovaniy v pediatrii.** [Problems of long-term prognostication of scientific research in pediatrics.] *Pediatrya*, 1970, Vol. 49(3), 5-11.—On the basis of currently developing interests in the Soviet Union, intensive pediatric research is expected there in the field of neuropsychic and autonomic functions, endocrine disorders, and hereditary defects.—*I. D. London.*

4838. Sudakov, K. **Emotsii i "bolezni veka."** [The emotions and the "disease of the century."] *Nauka i Zhizn'*, 1970, Vol. 37(3), 8-12.—Discusses the relationship between the emotions and cardiovascular diseases. While negative emotions are necessary, they should not be continuous and protracted. If even for only a short time, they should be interrupted by positive emotions. Otherwise, they become the source of serious, even irreversible, pathological states.—*I. D. London.*

4839. Tabolin, V. A., Fadeeva, M. A., Deshechikina, M. F., & Efimov, M. S. (2nd Moscow Medical Inst., USSR) **O patogeneze tak nazываемoi zatyannuvsheisya fiziologicheskoi zheltukhi novorozhdennykh.** [On the pathogenesis of so-called protracted physiological jaundice in neonates.] *Pediatrya*, 1970, Vol. 49(3), 11-17.—It is pointed out that the pathological condition is due to a delay in the development of the hepatic conjugating system frequently as a result of intracranial birth injury.—*I. D. London.*

4840. Timakov, V. A. & Fishzon-Ryba, Yu. I. **Radio-telemetricheskoe issledovanie kislotobrazuyushchei funktsii zheludka i vliyaniya na nee nekotorykh farmakologicheskikh sredstv.** [A radiotelemetric study of the acid-forming function of the stomach and the influence on it of several pharmacological agents.] In E. B. Babskii (Ed.), "Metody sbora i analiza fiziologicheskoi informatsii." (See PA, Vol. 45:Issue 3) 163-169.—130 patients with various gastric pathologies were Ss in a study of intragastric pH before and after the application of alkalis, hydrochloric acid, histamine, and atropine. Several important properties concerning their pharmacodynamics are disclosed.—*I. D. London.*

COMMUNITY SERVICES

4841. Brown, Frances G. (East Moline State Hosp., Ill.) **The zone concept in psychiatric care.** *American Journal of Nursing*, 1969(Sep), Vol. 69(9), 1923-1926.—Reports on regionalization-decentralization of mental health systems in Illinois. 8 geographic zones based on population have separate administrative jurisdictions. 6 zones have comprehensive mental health centers which provide for institutionalization, outpatient care, and 24-hr emergency facilities. In all zones, stress is placed on: (a) available treatment, (b) early treatment, (c) hospitalization locally, (d) involvement of patients' friends and relatives, (e) sufficient outpatient care for acute situations, and (f) cooperation between agencies and services. In addition, a combined 4-area community return unit has been established. Postinstitutionalized patients spend an average of 120 days at these units to facilitate readjustment to roles in a work-oriented society.—*B. A. Stanton.*

4842. Chappel, John N. & Daniels, Robert S. (U.

Chicago) **Home visiting in a black urban ghetto.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1455-1460.—Investigated 25 patients involved in a home visiting program during a 3-mo period in an area of Chicago which has a population of approximately 80,000, and is predominantly poor and black. Although home visiting by psychiatrists was viewed as being (a) expensive and time consuming, (b) of no real value to the patient, (c) a discomfort to the psychiatrist, and (d) a burden to the family of the patient under psychiatric care, these major disadvantages were proven to be out of proportion, if not entirely false. Results of this pilot project were viewed as successful in that a good patient-psychiatrist relationship rapidly materialized, and the patient's family was able to better adapt, understand, and help the situation of having the patient at home. In addition, it proved to be valuable training for the resident psychiatrists' efforts to better understand the community which they served. "Visits by a white professional into a black home can help increase understanding and to allay mistrust in addition to achieving necessary treatment goals."—P. R. Shibelski.

4843. Christmas, June J., Wallace, Hilda, & Edwards, Jose. (Harlem Hospital Center, New York, N.Y.) **New careers and new mental health services: Fantasy or future?** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1480-1486.—Examined the service, training, and research programs of Harlem Rehabilitation Center, a community based extension of the Harlem Hospital Center in New York City. The new paraprofessional residents are capable of handling the responsibility given them and are not just utilized by the psychiatrists to do the low-status tasks. In-service training is provided in 6 major areas: (a) core knowledge (human growth and development, etc.), (b) workshops (principles and practices of sociopsychiatric rehabilitation), (c) techniques of rehabilitative services in specialized areas, (d) self-development as a rehabilitation worker, (e) individual and group supervision, and (f) supportive services. Center services lie in 3 rehabilitative programs: the psychiatric, vocational, and continuing programs. Problems arising from this program include rivalry among clerical staff and workers, friction between patients and workers, and relationships with educational institutions. —P. R. Shibelski.

4844. Edgerton, J. Wilbert. (U. North Carolina) **Stabilizing support of mental health center programs: Testimony on Community Mental Health Centers Amendments of 1969.** *American Psychologist*, 1970(Oct), Vol. 25(10), 976-979.—Presents information in support of continued federal funding of community mental health centers. Emphasis is placed on the program features of consultation, education and research, evaluation, and the direct treatment services of a center's program. The necessity of support for preventive efforts, the use of indigenous manpower, and training in special problem areas (alcoholism and narcotic addiction) is also stressed. It is felt that effective functioning of community mental health centers requires a continuing pattern of federal support, especially for those activities which are not inherently self-supporting.—P. McMillan.

4845. Fishman, Jacob R. & McCormack, John. (University Research Corp., Washington, D.C.) **"Mental Health without Walls": Community mental health in the ghetto.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1461-1467.—Examined the problems of establishing a community mental health program using

as an example a sample ghetto community in Washington, D.C. Problems with techniques, location of facilities, communication between community leaders and professional staff members, continuity and participation are examined. Additional problems concerning fiscal cost of such a program are revealed. Several constructive solutions substantiated by the sample study are presented. Community involvement, the development of new careers for local community residents, decentralization of services, integration with other human services, consultation, and education are seen to be some of the effective ways of making such a mental health program a successful and helpful part of the ghetto community. (16 ref.)—P. R. Shibelski.

4846. Freyhan, Fritz A. (St. Vincent's Hosp. & Medical Center, New York, N.Y.) **Clinical aspects of the revolution in mental health services.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 1-7.—The broad objectives of community psychiatry are today firmly established, but who is treated, with what treatment, and by whom has not yet been optimally worked out.—D. Prager.

4847. Gabby, James I. & Leavitt, Alan. (California Medical Clinic for Psychotherapy, San Francisco) **Providing low cost psychotherapy to middle income patients.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 210-214.—Describes the organization of a self-supporting, nonprofit clinic offering long-term psychotherapy to middle income patients. The treatment program is not subsidized and is supported by patient fees only, which average about 60% of private practice fees. Approximately 750 patients are seen each yr. There are no eligibility requirements, no limit on the number of sessions available, and no waits for appointments. Costs are minimized by using nonmedical psychotherapists wherever possible, utilizing part-time staff paid on an hourly basis, and simplifying administrative procedures. —Journal abstract.

4848. Greenblatt, Milton. (Tufts U., Medical School) **The troubled mind in the troubled city.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 8-17.—Because the problem of the troubled mind in the city is very great, it is necessary to designate a catchment area and a target population. The mass of citizens in the area must have representation, participation, and sanction in the mental health program. A survey of needs and resources is best accomplished by citizen-professional collaboration. A master plan for service to the mentally ill in each area must be developed with or by the citizens in collaboration with all other major health agencies responsible for total health planning. Services should be available promptly for the individual when he needs it, where he resides, and without threat of removal to remote impersonal institutions. Intensive research and evaluation should be continuous.—D. Prager.

4849. Jansen, Elly. (Richmond Fellowship, London, England) **The role of the halfway house in community mental health programs in the United Kingdom and America.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1498-1504.—Discusses various approaches to halfway house operations including the emergence of a philosophy arising from an experimental project in England. 2 different approaches to halfway house operation are presented: (a) the authoritarian model which still emphasizes the "management of the patient," with an impersonal and repressive setting; and (b) the newer type house which emphasizes the self-government

of the house and group effort involving all the patients. Various other aspects of the halfway house operations including intra- and interorganizational problems are discussed in relation to both the United States' and England's advancements and achievements in these community based programs.—*P. R. Shibelski.*

4850. Jones, Maxwell. (Ft. Logan Mental Health Center, Denver, Colo.) **From hospital to community psychiatry.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 187-195.—Discusses the transition from hospital psychiatry to psychiatry practiced in the community, with particular reference to the role of the social worker. In this transition the hospital-based social worker has a problem with multiple responsibilities to the social work department, county team, ward, hospital, and especially the community outside the hospital. Since as yet no adequate training for community psychiatry exists, it would seem probable that the social worker rather than the psychiatrist should be the leader of a multidisciplinary team in the community. (15 ref.)—*Journal abstract.*

4851. Kaufmann, L. (Hôpital de Cery Clinique Psychiatrique Universitaire, Lusanne, Switzerland) **Die Handhabung der Beziehung zwischen Familie, Patient und Klinik.** [The management of relations between the family, patient, and clinic.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1969(Nov), Vol. 19(6), 221-229.—Argues that to operate a psychiatric clinic according to psychotherapeutic guidelines, special allowances must be made for the relation between the hospital, family and patient. Based on psychodynamic principles of the therapeutic community coupled with new theories about the families of psychotic patients, the manner in which treatment and family interventions interfere with one another is discussed. The family, considered as a psychodynamic system, is to be incorporated into the diagnosis and program of treatment. Typical familial behavior and problems of actual family therapy are pointed out.—*English summary.*

4852. Kluger, Jules M. (Westside Neighborhood Health Center, Denver, Colo.) **The uninsulated case-load in a neighborhood mental health center.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1430-1436.—Described the methods employed by a neighborhood mental health center in Denver, Colorado. The majority of the population of that area (some 50,000 people) were Mexican-Americans. Because of an administrative order, no waiting lists were allowed. There became a need for the staff to work for short-term goals (rather than long patient-therapist relations). It was also necessary for the staff to make themselves more readily available to their patient population and because of this a better patient understanding came about. While this type of quick turnover method may be relatively unique, the subsequent achievements by the staff seemed to be rewarding to them and helpful to their patient population.—*P. R. Shibelski.*

4853. Kolb, Lawrence C. (New York State Psychiatric Inst., New York) **Group dynamics and resolution of conflict in community psychiatric practice.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 165-172.—Discusses the hostility which community-oriented mental health movements meet when beginning in a lower-class environment. Possible solutions to this inevitable problem are also discussed.—*A. Krichev.*

4854. Lehmann, Stanley. (New York State Dept. of Mental Hygiene, N.Y.) **Selected self-help: A study of**

clients of a community social psychiatry service. *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1444-1454.—Attempted to delineate characteristics of neighborhood service centers. The service centers (3 neighborhood storefront centers) were set up in conjunction with Lincoln Hospital in New York City, servicing an area with a population of approximately 350,000 people. In the 2-yr study, more than 7800 clients were treated, which is over 3 times the number predicted. Through the use of tables of compiled information, the average client families were found to be fatherless, new to the area, lower in occupational and educational levels, have some language handicap (Puerto Ricans only), and have come from within a 5-block radius of the service center. Reasons for coming to the centers were not primarily to have problems solved, but more because they were treated well (thus adding important psychological support). It is concluded that support and reassurance are quite effective and most important for a community mental health service such as this.—*P. R. Shibelski.*

4855. Powell, Thomas J. & Riley, John M. (U. Michigan, Social Work School) **The basic elements of community mental health education.** *Community Mental Health Journal*, 1970(Jun), Vol. 6(3), 196-202.—Discusses 5 elements necessary to an adequate plan for community mental health education, as follows: (a) population focus ("an attitude of active responsibility for all segments of a catchment area population requiring . . . mental health intervention"); (b) effective manpower utilization; (c) prevention (modification of pathogenic community conditions); (d) diverse methods of intervention (including social, educational, economic, somatic, and psychotherapeutic approaches to problem solution); and (e) multiple levels of intervention (the individual, group, organization, and community are equally appropriate objects of intervention). Methods of incorporating these elements into existing programs are discussed, and suggestions are made for relevant field experiences and conceptual approaches.—*P. McMillan.*

4856. Rosenthal, Alan J. & Langee, Harvey. (Stanford U., Medical Center) **The development of a service-oriented psychiatric program in a disadvantaged area.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1436-1443.—Reviews the progress of a small, service-oriented psychiatric program in a disadvantaged area of approximately 28,000 residents, 80% of which were members of minority groups (predominately black Americans). The major goals of the program were the establishment and maintenance of community control of the facility, allowing the progress to be utilized in the manner in which the community wished. 3 objectives of the program were to (a) provide psychiatric services as needed (although limited); (b) enhance psychiatric training, experience, and knowledge in this area; and (c) improve community-university relations through cooperation in this direct service. Evaluation after 18 mo. of service demonstrated that the program was well received and supported by the black community and its leaders. It is concluded that interest rather than financial backing is the essential factor contributing to success in small-scale programs of this type. (18 ref.)—*P. R. Shibelski.*

GERIATRICS

4857. Bower, Herbert M. (Willsmere Hosp., Melbourne, Victoria, Australia) **The first psychoger-**

iatric day-centre in Victoria. *Medical Journal of Australia*, 1969(May), Vol. 1(20), 1047-1050.—Describes the establishment of the Janet H. Bowen Day Centre in Melbourne, Australia for elderly patients suffering from functional or organic psychiatric disorders. The center may also be "used during a trial period after temporary discharge from the hospital to assess the degree of recovery achieved." Admission procedures, daily activities for patients, and diagnoses of mental disorders are presented. "The functions of the day center . . . emerges as an indispensable therapeutic weapon in geriatric psychiatry."—A. M. Berg.

4858. Epstein, L. J., Mills, C., & Simon, A. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Antisocial behavior of the elderly.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 36-42.—If not for drunkenness, very few people 60 or over would be arrested in San Francisco. The Uniform Crime Reports seems to indicate that this is true for the entire United States. It is suggested that antisocial behavior subsides with age in the sense that issues and problems that produce anxiety are less common as one grows older, or perhaps visible antisocial behavior subsides with age in the same way as does narcotics addiction. Other possibilities are that as people get older they may learn how to stay out of trouble or that some of the motives for criminal behavior may have diminished in strength.—D. Prager.

4859. Kay, David W., et al. (U. Newcastle upon Tyne, England) **Mental illness and hospital usage in the elderly: A random sample followed up.** *Comprehensive Psychiatry*, 1970(Jan), Vol. 11(1), 26-35.—Examined "the type and duration of inpatient and residential care by a representative sample of old people living at home in Newcastle upon Tyne during a follow-up period of from 2½-4 yr. Comparisons are made of the hospital usage of those suffering from chronic brain syndromes," functional syndromes, and those without significant psychiatric abnormality. Unlike mentally healthy old people and the large majority of those with functional syndromes, the majority of the mentally deteriorated aged eventually need constant supervision which can usually be given only in some kind of institutional setting. In planning geriatric services adequate provision must be made for this section of the community.—D. Prager.

4860. Predescu, V., Pirée, S., & Damian, N. **Factori psihogeni in patologia psihiatrică a bătrâneții.** [Psychogenic factors in the clinical psychiatry of old age.] *Neurologia, Psihiatria, Neurochirurgia*, 1968(Mar), Vol. 13(2), 97-108.—Analyzes the role of psychogenic factors in geriatric psychiatry from the viewpoint of a multi-dimensional etiopathogenic concept. On the basis of the reaction-variation pattern, the determinant role of these factors in the psychogenic conditions of old age is emphasized. The clinical features of "involutive" and endogenous psychoses in old age and the pathogenic role of contributing and triggering psychogenic factors are discussed. As regards organic psychoses, reservations are expressed regarding the irreversible character of dementia, stressing the importance of psychogenic factors. (French, German, & Russian summaries) (74 ref.)—English summary.

vices: The report of a working party appointed by the Secretary of State for Education and Science: The Summerfield report. London, England: Her Majesty's Stationery Office, 1968. xix, 171 p. \$8.10.

4862. Ahlbrand, William P. & Hudgins, Bryce B. **Verbal participation and peer status.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 247-249.—360 4th-9th graders were used to examine the relationship between pupil participation in the question-answer cycle and sociometric status in the classroom. The results of a $6 \times 2 \times 2$ analysis of variance showed that high participators, regardless of grade level and sex, received more nominations for top scholar, leader, and popular class member, than did the low participators.—H. Kaczowski.

4863. Alper, T. G. & Kranzler, G. D. (U. Oregon) **Comparison of effectiveness of behavioral and client-centered approaches for behavior problems of elementary school children.** *Elementary School Guidance & Counseling*, 1970(Oct), Vol. 5(1), 35-43.—36 children randomly selected from a total population of referrals by teachers for high-rate "out-of-seat" behaviors were assigned to 1 of 4 treatment conditions: (a) client-centered counseling, (b) precision teaching (a behavioral approach), (c) attention placebo, and (d) no-treatment control. After a 4-wk treatment period, assessments were made using 4 outcome criteria: out-of-seat rate, sociometric choices, Self Social Symbols task scores, and arithmetic computation rates. No significant differences between treatment groups were found.—S. M. Amatora.

4864. Benne, Kenneth D. (Boston U.) **Authority in education.** *Harvard Educational Review*, 1970(Aug), Vol. 40(3), 385-410.—Both in popular and learned usage "authority" is a vague term. This state of affairs is discussed, together with the reasons for its neglect by philosophers and its disrepute among educators. 2 types of authority and their limitations are described: expert and rule authority. A 3rd type, anthropological authority, is proposed and discussed as a feasible way of describing the relationships which might obtain among students, teachers, and the community in a revitalized and more pertinent model of education.—C. M. Franks.

4865. Berlak, Harold. (Washington U.) **Values, goals, public policy and educational evaluation.** *Review of Educational Research*, 1970(Apr), Vol. 40(2), 261-278.—The growing politicalization of all aspects of American life coupled with an increasing retreat from rationalism and distrust of the intellectual is a direct challenge to applied social scientists to demonstrate that social justice is served by rational, empirically based policy decisions. The review then considers programmatic and public policy outcomes, the moral issues in public policy, and policy questions and elites. (2 p. ref.)—P. D. Leedy.

4866. Cohen, David K. (Harvard U.) **Politics and research: Evaluation of social action programs in education.** *Review of Educational Research*, 1970(Apr), Vol. 40(2), 213-238.—This review considers politics as a subject for evaluation, conceptual problems and their consequence for evaluation, and experimental approaches. Suggestions for an evaluation strategy are given. (2 p. ref.)—P. D. Leedy.

4867. Donato, Donald J. & Fox, Gary C. (U. Missouri) **Admissions officer, faculty, and student perceptions of their college environment.** *Journal of College Student Personnel*, 1970(Jul), Vol. 11(4), 271-275.—The

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4861. ———. **Psychologists in education ser-**

amount, accuracy, and availability of information regarding college choice are important factors which influence how successful the college experience is for the student. An attempt was made to evaluate whether the admissions officer's perceptions of the campus climate as presented to the school counselor are congruent with the college's environment. Ss included 43 college students, 39 faculty members, and 10 admissions officers randomly selected from 1 2-yr and 1 4-yr college. They completed the College Characteristic Index which identifies intellectual and nonintellectual attributes of campus environments. Results indicate that the presentation of the college environment by the admissions officers differs significantly from that presented by students. Differences of perception were found in both the intellectual and nonintellectual climates of both colleges. Furthermore, a significant difference was found to exist between admissions officers' representation of campus press and faculty perceptions at 1 college but not at the other. It is argued that college admissions officers should have an accurate understanding of both faculty and student perceptions of their college environments. (15 ref.)—R. H. Mueller.

4868. Foley, Alice I. (Brighton Schools, Rochester, N.Y.) **A long way yet to go.** *New York State Education*, 1967(Apr), Vol. 54(6), 12-14.—Although the major emphasis is on the continuing inequality of educational opportunity available to the Negro child, needs of several other "disadvantaged" groups are reviewed, including mentally and physically handicapped, non-English-speaking children, and "slow learners" as well as children of affluent homes who are disadvantaged when deprived of rewarding and educationally valuable learning through experiences in a multiracial heterogeneous society. "If we put into practice what research tells us, we may change dramatically our approaches to the education of all children—not just the socially disadvantaged."—L. D. Summers.

4869. Hofman, John E. (Hebrew U. of Jerusalem, Israel) **Dimensionality (structure) of educational attitude referents: Note on validity of a criterial referents theory of attitudes.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 215-217.—According to a criterial referents theory of social attitudes, basic attitudinal dimensions such as progressivism and traditionalism in education tend to be independent because Ss differentiate concepts criterial to their own positions more extensively than noncriterial concepts. 79 undergraduates, 95 graduates, and 56 professors replied to a Likert-type scale of educational values and rated 13 educational concepts by the semantic differential technique. Data show that progressives do not appreciably differ from traditionalists in the way they structure both criterial and noncriterial concepts, though the domain and self-concepts gravitate toward their respective criterial referents.—*Journal abstract*.

4870. Hudgins, Bryce B. & Ahlbrand, William P. **Some properties of formal teacher and pupil communication.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 265-268.—Presents the results of an inquiry into the properties of formal communication in 9 junior high school English classes. The pupils spoke on the average 43.7% of the time. The typical student spoke twice: once on his own behest and once at the request of the teacher. Each utterance averaged 8.49 words (range, 0-382 words).—H. Kaczowski.

4871. Kashina, M. P. & Chekharina, E. M. (Eds.)

Narodnoe obrazovanie v RSFSR. [Popular education in the Russian Soviet Federated Republic.] Moscow, USSR: Prosveshchenie, 1970. 357 p. 1 R. 32 K.

4872. McGowan, B. & Liu, P. Y. (U. California, Los Angeles) **Creativity and mental health of self-renewing women.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 138-146.—Ss were 168 middle-aged women (average age = 39.5 yr.) enrolled in a university daytime class designed to help women find satisfying educational, vocational, or volunteer involvements. 16 PF scores revealed that they were highly creative and intelligent as compared with the standard for adult women; and above the pooled sample of scientific researchers in biology, physics, and psychology. Self-renewing women are described as "self-sufficient extroverts" in contrast with Cattell's description of creative people as "self-sufficient introverts."—S. M. Amatora.

4873. Morgan, Thomas D. (State University Coll. New York, Buffalo) **An existentialist analysis of the nature of man implied in L. Urwick's "Elements of administration" and Warren G. Bennis' and Philip E. Slater's "The temporary society."** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5202-5203.

4874. Ross, Samuel B. (Edwin Gould Foundation for Children, New York, N.Y.) **Rx-child care.** *Journal of Learning Disabilities*, 1968(Jun), Vol. 1(6), 354-357.—Describes a preschool through 8th grade boarding school which attempts to provide a total environment.—D. Hall.

4875. Stake, Robert E. (U. Illinois) **Objectives, priorities, and other judgment data.** *Review of Educational Research*, 1970(Apr), Vol. 40(2), 181-212.—Several different kinds of judgment data are identified. Personal value commitments, educational aims, goals, objectives, priorities, norms, and standards are judgment data. Evaluation theory and procedure is discussed. Methods of gathering judgment data are reviewed. Methods of reporting, utilization, and testing judgment data are all discussed. (7 p. ref.)—P. D. Leedy.

ATTITUDE & ADJUSTMENT

4876. Apostol, Robert A. (U. North Dakota) **Personality type and preferred college subculture.** *Journal of College Student Personnel*, 1970(May), Vol. 11(3), 206-209.—Attempted to determine whether any relationship exists between student personality types and the students' preferred college subculture. It was hypothesized that no such relationship exists. A total of 993 students completed the College Student Questionnaires. They were classified into personality types on the basis of the choice of major field. Instruments used to determine this were the Clark-Trow Typology and Holland's Personality Types. Results indicate that males and females differ significantly in their choices of subculture membership. The null hypothesis was rejected and the findings for men included that realistic personality types tend to prefer the vocational subculture in college; enterprising types tend to avoid the vocational subculture, while artistic types tend to prefer the academic subculture. For women, social types tend to avoid the academic subculture; enterprising types tend to avoid the vocational subculture, but are attracted to the academic subculture.—R. H. Mueller.

4877. Barratt, Ernest S. & White, Robert. (U. Texas,

Medical School, Galveston) **Impulsiveness and anxiety related to medical students' performance and attitudes.** *Journal of Medical Education*, 1969(Jul), Vol. 44(7), 604-607.—Related impulsiveness and anxiety to medical students' academic performance and attitudes toward fellow students, medical school, and life goals. Data are based on: GPAs, Medical College Admission Test (MCAT) scores, interviews in which Ss expressed various attitudes, retest reliability for the Barratt Impulsiveness scale and the Institute for Personality and Ability Testing Anxiety scale for a 3-yr period, summaries of interviews with Ss' peers and professors, and Clyde Mood scale scores. Results show that although there were no differences in mean MCAT scores between Ss with varying degrees of impulsiveness and anxiety, there were differences in GPA; e.g., Ss with high impulsiveness and high anxiety had lower GPAs and all sought psychiatric help during the 3 yr. of the study. It is concluded that, as suggested in previous studies, "nonintellectual factors relate to performance in medical schools" and that "it may be possible to identify some students with potential problems early in their medical school programs."—*M. Maney.*

4878. Bradshaw, George D. & Gaudry, Eric. (U. Melbourne, Victoria, Australia) **The effect of a single experience of success or failure on test anxiety.** *Australian Journal of Psychology*, 1968(Dec), Vol. 20(3), 219-223.—Randomly assigned junior high school pupils classified on attainment in English, sex, and socioeconomic area of school to 1 of 2 treatments: a difficult vocabulary test which they were likely to fail and an easy vocabulary test. The failing group scored significantly higher than the successful group in the Text Anxiety Scale for Children which was administered immediately after the treatments. Significant differences were also found for level of attainment, for sex and for the interaction of treatment with level of attainment. Results are discussed in relation to earlier research findings that streaming practices in schools tend to be associated with higher test anxiety in the lower streams.—*Journal abstract.*

4879. Cannon, Thomas M. (Texas Technological U.) **The Wechsler Intelligence Scale for Children as a predictor of adjustment of first grade students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 143-144.

4880. Devi, Girish B. (Ravenshaw Coll., Cuttack, India) **A study of anxiety in men and women college students.** *Psychological Studies*, 1969, Vol. 14(1), 35-38.—The statistics observed closely correspond to those observed by Sinha. The data indicate that the female Ss had significantly more anxiety than the male Ss.—*U. Pareek.*

4881. Elton, Charles F. **Personality of low income males: College versus noncollege.** *Journal of College Student Personnel*, 1970(May), Vol. 11(3), 210-212.—Compared the personality characteristics of high school seniors eligible for federal financial aid who attend college with those eligible for such assistance who decide to forego attending college. A sample of 106 college male freshmen completed the Omnibus Personality Inventory as did 39 males who were eligible for financial aid but who chose not to attend college. 5 factors were identified; however, no significant differences were obtained between the 2 groups on the basis of their personality test scores. Thus, the "quest for discovering personality differences between low income

high school males choosing college and those making other choices does not appear to be a promising one."—*R. H. Mueller.*

4882. Feather, N. T. (Flinders U., Bedford Park, South Australia) **Educational choice and student attitudes in relation to terminal and instrumental values.** *Australian Journal of Psychology*, 1970(Aug), Vol. 22(2), 127-144.—Reported 2 studies in which it was found that: (a) 463 Australian students' choice of school at a university was related to the relative importance assigned to different terminal and instrumental values as assessed by Rokeach's Value Survey, and (b) that Ss' attitudes toward controversial social issues as assessed by the semantic differential were also related to some of these values. Results were compared to those of a sample of students from a university in the United States and the differences are related to M. Lipset's discussion of value patterns in different democracies. Results also indicate significant relationships between the different attitudes and between the attitudes and dogmatism. It is suggested that these relationships might be a function of a dogmatic style involving a cluster of values concerning traditional authority. (18 ref.)—*Journal abstract.*

4883. Gaudry, Eric & Bradshaw, George D. (U. Melbourne, Victoria, Australia) **The differential effect of anxiety on performance in progressive and terminal school examinations.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 1-4.—Administered an intelligence test and the Test Anxiety Scale for Children (TASC) to students in 14 secondary classes early in the school year. Marks in mathematics in both progressive and terminal examinations were collected and analyzed as a function of anxiety, intelligence and method of examining. The experimental hypothesis was that high test anxious Ss would perform relatively better under the less stressful conditions of progressive examining than under terminal examining when compared with low anxious Ss in the same class. The Anxiety X Method-of-Assessment interaction was significant and in the predicted direction. Implications for school examining practices are discussed.—*Journal abstract.*

4884. Gillmann, Geneva B. (U. New Mexico) **The relationship between self-concept, intellectual ability, achievement, and manifest anxiety among select groups of Spanish-surname migrant students in New Mexico.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 288.

4885. Grant, Harold W. & Eigenbrod, Frederick A. (Auburn U.) **Behavioral changes influenced by structured peer group activities.** *Journal of College Student Personnel*, 1970(Jul), Vol. 11(4), 291-295.—This exploratory study investigated whether specific behavioral changes could be achieved by structured peer group membership and activities. The Myers-Briggs Type Indicator was administered to a group of residence hall students, each completing the inventory twice. The 1st time they were asked to respond as they presently viewed themselves (actual type) and the 2nd time they were asked to respond as they would like to be (ideal type). The results of 4 groups were considered in terms of the degree of intuitive, feeling, and thinking behavior they manifested. The study affirms that students change regardless of what one does to them or for them and that the problem remains, of directing this change so as to maximize the group and achievement of each student.—*R. H. Mueller.*

4886. Hawkes, Thomas & Koff, Robert H. **Difference**

in anxiety of private and inner city public elementary school children. *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 250-259.—Presents normative data and a content item analysis of a general anxiety scale that was composed of items from the Children's Manifest Anxiety scale and the General Anxiety Scale for Children. This general anxiety scale was administered to 211 middle and upper-middle class children and 249 Negro children from a lower socioeconomic background. Significant statistical differences were found by school (representative of social class), sex, and grade.—H. Kaczkowski.

4887. Kidd, Kevin A. (Boston Coll.) **A study of student perceptions and student attitudes in a small church-affiliated liberal arts college and a small non-denominational liberal arts college.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 228.

4888. Lynch, Ann Q. (U. Florida) **Perception of peer leadership influence.** *Journal of College Student Personnel*, 1970(May), Vol. 11(3), 203-205.—Discusses the relationship between the results of a 7-point scale of 5 dimensions regarding perceptions of advisors in a residence hall, a follow-up questionnaire, and the scaled difference between predicted and actual GPA scores. A total of 676 freshmen residence hall females participated. Pearson product-moment correlation coefficients were computed. If the advisor was rated highly as one who conveyed behavior and feelings appropriate to a "good influence," generally showed respect for rules and the upholding of standards, expressed positive attitudes toward the campus community, had established her own goals and was generally moving toward them, and seemed prepared in her role as advisor, the freshman achieved higher grades in relation to her ability. It appears that advisors may play deciding roles in helping new students adjust and that they are effective to the extent that students perceive them as approachable.—R. H. Mueller.

4889. Macdougall, David B. (U. Oregon) **The effects of group counseling and improved student-teacher communications on the anxiety level of students entering junior high school.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5241-5242.

4890. Magrab, Phyllis R. (U. Maryland) **Expectation-press congruence as a psychological variable in the prediction of college adaptation.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5290.

4891. Meltzer, Bert. (Clark U.) **The influence of the duration of interracial classroom contact on the development of interpersonal cognitive skills.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 467-468.

4892. Miller, Damon J. (U. Texas) **The effects of early faculty and peer contact on student attitudes toward higher education.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5293.

4893. Morris, Larry W. & Liebert, Robert M. (Middle Tennessee State U.) **Relationship of cognitive and emotional components of test anxiety to physiological arousal and academic performance.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 332-337.—The relationship of cognitive (worry) and emotional (emotionality) components of test anxiety to pulse rate, performance expectancy, and actual examination grades was determined for samples of both high school (N = 91) and college (N = 95) students. For both samples, 2 of the 3 major predictions received support: (a) worry was found to be more highly negatively related to examination grades than was

emotionality or pulse rate, and (b) worry was more highly negatively related to expectancy than was emotionality. However, pulse rate was no more highly related to emotionality than to worry, suggesting that questionnaire and direct measures of autonomic arousal are less closely related than has been generally assumed.—*Journal abstract.*

4894. Niemiec, Carl J. (U. Wisconsin) **The prediction of value hierarchies identified from self-report data of superior students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 158-159.

4895. Niland, Thomas M. & Hansen, James C. (Teachers Coll., Columbia U.) **The relationship of minimal goal discrepancy to adjustment and anxiety in elementary school children.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 432-433.—103 5th and 6th graders responded to the Self Minimal Goal Scale and 22 discrepant and 22 nondiscrepant Ss were selected. These 44 Ss responded to the CMA scale and the classroom teacher judged student behavior on the Teacher's Rating Behavior Scale. Discrepant Ss (those who stated minimal goals) were rated less adjusted and made significantly more lie responses. "The findings suggest that minimal achievement goal discrepancy in elementary school children is related to non-coping school behaviors."—E. J. Kronenberger.

4896. Nixon, George F. (East Texas State U.) **The relationship between anxiety-trait and anxiety-state with the approach of final examinations.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5296-5297.

4897. Ogletree, Earl. (Chicago State Coll.) **Ability grouping: its effects on attitudes.** *Journal of Social Psychology*, 1970(Oct), Vol. 82(1), 137-138.—Administered a questionnaire to 172 5th and 6th grade children (90% Negro) in an inner-city school in an effort to determine the attitudes and awareness of different ability group placement and the stigma and status thereof. 3 groups were established: A (high), B (middle), and C (low). Responses to questions indicate that in all cases children were aware of their placement, the status the group had, and the reason for their placement/membership in the particular group. Children in Groups B and C indicated they wanted to be in a better group, while 43% of the children in Group A indicated a preference for homogeneous grouping.—*Author abstract.*

4898. Platt, Jerome J. & Eisenman, Russell. (Hahnemann Medical Coll.) **Homesickness: Incidence and stability.** *Psychology*, 1970(Aug), Vol. 7(3), 42-45.—In order to study the incidence and stability of homesickness, 432 undergraduates (253 males and 179 females) completed a self-report questionnaire over the winter and spring quarters. It was found that the incidence of homesickness was markedly higher than previously reported, and that the incidence of homesickness, as here defined, was stable over the winter and spring quarters. Possible bases of the results are discussed.—J. A. Blazer.

4899. Potter, Myron L. (U. Nebraska) **Differential values of high school seniors as viewed through role analysis.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 234.

4900. Pratt, William M. (East Texas State U.) **The effectiveness of the use of the T-group laboratory method as an adjunct to a developmental approach to teaching.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 234-235.

4901. Rose, Harriett A. & Elton, Charles F. (U.

Kentucky) **Personality characteristics of transfer students.** *Journal of College Student Personnel*, 1970(Jul), Vol. 11(4), 266-270.—Noting a lack of knowledge concerning personality traits of college students who transfer from 2-yr colleges as compared to those who transfer from 4-yr colleges, an attempt was made to determine if any differences do, in fact, exist. The Omnibus Personality Inventory was administered to 97 female and 173 male transfers from 2-yr colleges, and 255 female and 203 male transfers from 4-yr colleges. The personality factor scores obtained were found to be highly similar, including such factors as Scholarly Orientation, Nonconformity, and Masculinity-Femininity. In addition, the results indicate that there is no justification for special orientation programs exclusively for transfer students from 2-yr colleges.—*R. H. Mueller.*

4902. **Roskamp, Hermann.** (17 Meistersingerstr., Stuttgart, W. Germany) **Arbeitsstörungen als Ausdruck situationsspezifischer Konflikte bei Studenten.** [Work disturbances as an expression of specific situational conflicts in students.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1969(Nov), Vol. 19(6), 256-259.—For a number of students born during World War II, the approaching matriculation examinations lead to an acute identity crisis which had previously been kept latent thanks to the particular living conditions of college or university students. The crisis is often signaled by the unravelling of work disruptions in the final stages of the study program. The return of the father from the war into a previously fatherless family and the conflicts resulting from this appears to be the genetic basis for the identity conflicts arising later.—*English summary.*

4903. **Smith, Stuart L.** (McMaster U., Hamilton, Ontario, Canada) **School refusal with anxiety: A review of sixty-three cases.** *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 257-264.—Reviews data concerning 63 cases of school refusal, characterized by anxiety alone, obtained from the 1958-1964 files of the children's division of a London hospital. Results indicate that school refusal (a) occurred most often between 11 and 12 yr., with a smaller but significant peaking at ages 5 or 6; (b) showed a higher incidence in the youngest Ss in a family; and (c) was characterized by 3 syndromes (separation anxiety in younger Ss, school phobia in older Ss, and depression or withdrawal in adolescents). Of the total group, 24 Ss were treated on an outpatient basis, 12 hospitalized, and 15 placed in other schools. Drugs were used occasionally. 45 Ss had returned to school and still remained at the time of this study, although 3 of the 7 Ss over 13 who returned remained unimproved. (French summary)—*P. McMillan.*

4904. **Treanor, Carol C.** (U. California, Berkeley) **Using multivariate statistical techniques to assess change in college students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 241-242.

4905. **Trowbridge, Norma.** **Effects of socio-economic class on self-concept of children.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 304-306.—The self-concept of pupils in 64 elementary school classrooms (equally divided among those whose teachers had special training in human relations and those who did not) was appraised by the Coppersmith Self Esteem Inventory. The analysis of variance of the scores suggests that the self-concept of students whose teachers had special training was significantly higher than the control students.—*H. Kaczkowski.*

4906. **Trubowitz, Julius.** (Columbia U.) **The effect of an activity group program on interracial attitudes.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 470.

4907. **Weston, Peter J. & Mednick, Martha T.** (Howard U.) **Race, social class and the motive to avoid success in women.** *Journal of Cross-Cultural Psychology*, 1970(Sep), Vol. 1(3), 284-291.—The motive to avoid success was compared for black and white college women and 2 social class levels through the response to TAT verbal cues. Black women showed less motive to avoid success than white women for Ss at 2 schools and for 2 verbal cues. Social class differences were not found.—*A. Krichew.*

4908. **White, Kinnard & Owen, David.** **Locus of evaluation for classroom work and the development of creative potential.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 292-295.—48 boys in a visual art course were used to test the hypothesis that creative potential can be enhanced through self-evaluation. Single factor multivariate analysis of the data support the hypothesis.—*H. Kaczkowski.*

4909. **Wilson, Ronald S. & Dollar, Robert J.** (Trinidad State Junior Coll.) **Student, teacher, and administrator perceptions of the junior college environment.** *Journal of College Student Personnel*, 1970(May), Vol. 11(3), 213-206.—Concerned about the paucity of studies reporting data relevant to the assessment of the junior college environment, this study investigated the differences in perceptions of such a campus among administrators (N = 12), faculty teaching transfer courses (N = 30), students majoring in transfer programs (N = 50), faculty teaching vocational-technical courses (N = 27), and students majoring in vocational-technical courses (N = 50). The College and University Environment Scales (CUES) was used to assess the Ss' perceptions of the college environment in terms of 5 scales—practicality, community, awareness, propriety, and scholarship. The findings lend support to the assertion that there is a major emphasis on practicality in contemporary American higher education. In addition, there is general agreement among faculty, students, and administrators that knowing the right people, being in the right groups, and doing what is expected is an important aspect of their environment. However, there is no evidence to suggest that they agree on their definitions of what the environment should be like.—*R. H. Mueller.*

TESTING

4910. **Adams, Raymond S.** (U. Missouri) **Duration and incident frequencies as observation indices.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 669-674.—Trained coders analyzed 32 videotaped lessons in social studies and arithmetic. 16 tapes were from Grade 10: 8 each from Grades 1 and 6. For each variable class rho's for frequency of use and total duration were obtained for each lesson. Results indicate high correlations between the 2 for 7 classes of variables in 32 lessons. (21 ref.)—*N. M. Chansky.*

4911. **Blaškovič, Oskár.** (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **Testy v školskej praxi v zahraničí.** [Tests in school practice abroad.] *Jednotná Škola*, 1968(Dec), Vol. 20(10), 911-920.—Reviews situations in the development of tests in the United States, France, Sweden, and various other countries, and discusses the fields of educational practice in which

didactic and psychological tests have been successfully used. The need for development of didactic tests and interpretation of results of such tests by highly specialized pedagogists is stressed. (Russian summary)—*English summary*.

4912. Boehnlein, Mary M. (Kent State U.) **A structure-of-intellect analysis of two diagnostic reading tests.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 212.

4913. Carver, Ronald P. (American Inst. for Research, Washington, D.C.) **Analysis of "chunked" test items as measures of reading and listening comprehension.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 141-150.—Developed a new type of test item which requires Ss to recognize groups of words, i.e., chunks, whose meaning had been changed from that in the original reading or listening passage. In Exp. I, involving 52 undergraduates and 20 test variables, individual differences on the chunked reading test correlated .68 with a multiple-choice alternate form. In Exp. II with 34 undergraduates, the decrease in listening comprehension due to increased speech rate as measured by the chunked items was roughly parallel to the decrease as measured by the multiple-choice questions. Data are interpreted as providing evidence for the validity of the chunked items as measures of comprehension. However, other results suggest that the chunked items may be less dependent upon grammatical and vocabulary knowledge and more sensitive to within individual changes in comprehension as compared to the traditional multiple-choice question. (21 ref.)—*Journal abstract*.

4914. Deb, Maya. (U. Calcutta, India) **A factor analytical study of an engineering aptitude test.** *Journal of the Indian Academy of Applied Psychology*, 1969, Vol. 6(1), 25-26.—Factor analysis of a 40-item engineering aptitude test developed to measure mechanical interest and comprehension, observation power with mechanical bent of mind and logical reasoning, knowledge of elementary scientific laws, physical instruments and application, and mathematical comprehension and application showed 1 dominant factor, named "mechanical reasoning."—*U. Pareek*.

4915. Dielman, T. E. & Wilson, Warner R. (U. Illinois, Lab. of Personality & Group Analysis) **Convergent and discriminant validity of three measures of ability, aspiration-level, achievement, adjustment and dominance.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 185-190.—Employed self- and peer-reports on 75 undergraduates as 2 measures of each trait in a multitrait-multimethod matrix. Aspiration level was measured by the EPPS Nach scale, dominance by the EPPS Dom scale, achievement by cumulative college grade point ratio, ability by the Ohio State Psychological Examination (OSPE), and adjustment by the Bell Adjustment Inventory. Of the paper and pencil instruments, only the OSPE and EPPS Dominance scale exhibited satisfactory convergent validity. No measure met all the requirements of discriminant validity. The desirability of establishing adequate validation evidence prior to using "trait" measures in studies relating theoretical variables was emphasized. (16 ref.)—*Journal abstract*.

4916. Erginel, Adnan. (Lehigh U.) **The relation of cognitive style and intelligence to achievement and errors in thinking.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 216-217.

4917. Goldstein, Leo S., Collier, Alan R., Dill, John, &

Tillis, Howard S. (New York Medical Coll., Inst. for Developmental Studies, N.Y.) **The effect of a special curriculum for disadvantaged children on test-retest reliabilities of three standardized instruments.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 171-174.—Examines the stability reliabilities of 3 standardized testing instruments used in the evaluation of a special (enriched) curriculum for young disadvantaged children and the changes in their average performance over a 2-yr period. Magnitudes in test-retest reliability differences between treatment groups seem to parallel differences in mean scores. Using the stability reliability coefficients as indices, the program discussed seemed to be most effective in producing change in the skills measured by the Peabody Picture Vocabulary Test (PPVT). However, significant differences in mean performance between the treatment groups indicate the effectiveness of the program not only in the skills measured by the PPVT but also in those areas measured by the Stanford Binet and the Columbia Mental Maturity Test.—*Journal abstract*.

4918. Goodyear, Finis H. (U. Texas) **An experimental study of the motivational effect of punishment and reward anticipation on the listening comprehension of college students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5551-5552.

4919. Gustafson, Richard A. **Factor analyzing the Iowa Tests of Basic Skills.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 226-227.—Factor analysis of the Iowa Tests of Basic Skills (ITBS) indicates that 3 factors (Verbal, Language, and Numerical skills) account for 86.5% of the variance. It is postulated that a single factor analogous to Spearman's G factor accounts for $\frac{3}{4}$ of the variance in the ITBS.—*H. Kaczowski*.

4920. Halinski, Ronald S. & Feldt, Leonard S. (Illinois State U.) **The selection of variables in multiple regression analysis.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 151-157.—Applied 4 procedures repeatedly to computer-simulated samples to provide comparative data pertaining to 2 questions: (a) which procedure can be expected to produce an equation that yields the most accurate predictions for the population; and (b) which procedure is most likely to identify the optimal set of independent variables. The samples were drawn from 12, mathematically defined, multivariate normal populations. Each population consisted of 1 criterion and 10 predictor variables. 5 or fewer independent variables constituted the optimal set in each case. With respect to both questions small differences among the procedures were observed. However, the forward selection and stepwise procedures consistently produced more favorable results than the 2 backward elimination procedures. The question of the number of sampling units to use is discussed.—*Journal abstract*.

4921. Hall, Leon P. & Ladriere, M. Laverne. **A comparative study of diagnostic potential and efficiency of six scoring systems applied to children's figure drawings.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 244-247.—The screening validity of 6 scoring systems was appraised by applying them to 3 diagnostic categories: emotionally disturbed, perceptually handicapped, and normal. None of the scoring systems could differentiate between adjustment and learning problems, but significant mean differences were obtained between the problem and nonproblem groups.—*H. Kaczowski*.

4922. Lambert, Nadine M. **An evaluation of scoring categories applicable to children's performance on**

the Bender Visual Motor Gestalt Test. *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 275-287.—Describes the development of a logical classification of Bender Visual Motor Gestalt Test responses derived from reviewing other Bender scoring systems. The 62 items represent a scoring system that can be applied to 5½-13½ yr. old children.—H. Kaczowski.

4923. Leventhal, Donald S. & Stedman, Donald J. (Duke U.) **A factor analytic study of the Illinois Test of Psycholinguistic Abilities.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 473-477.—The Illinois Test of Psycholinguistic Abilities (ITPA), Experimental Edition was administered to 340 6 yr. olds. The scores were subjected to a Subtest \times Race \times Sex analysis of variance which indicated a significant source of variation with white Ss being superior on all 9 subtests. Various white and Negro differences are noted and discussed. "A final implication of the study is that Negro children, who are of predominantly low socioeconomic background, differ considerably from their white classmates especially in tasks requiring language skills."—E. J. Kronenberger.

4924. Lu, Chun-yo. [Revision of the College Qualification Test.] *Acta Psychologica Taiwanica*, 1968(Mar), Vol. 10, 1-21.

4925. Meuris, Georges. (U. Louvain, Belgium) **The structure of primary mental abilities of Belgian secondary school students.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 191-197.—Conducted a factor analysis of a test battery given to 3943 12-18 yr. old Belgian secondary school students and based it on L. L. Thurstone and T. G. Thurstone's work on the primary mental abilities. The analysis provided construct validity evidence for the existence of verbal, numerical, spatial, and reasoning abilities in the Belgian sample and confirmed the theoretical conceptions guiding the development of the test battery. An examination of the factorial organization of these mental abilities for different age groups reveals a progressive differentiation of abilities with age. There is also evidence that intensive academic specialization improves performance in the abilities required by these specializations.—*Journal abstract*.

4926. Pollock, Marion B. (California State Coll., Long Beach) **Mood-altering substances: A behavior inventory.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 211-212.—Describes a test designed to evaluate the knowledge and actual practices of high school graduates regarding mood altering substances, i.e., alcohol, drugs, tobacco, etc. The test contains 20 multiple-choice items concerning present practices, and 60 items concerning knowledge about use and effects of the various substances. The test can be used as early as the 10th grade and requires from 20-40 min. for administration. Validity, reliability, and standardization data are cited.—P. McMillan.

4927. Reid, J. Christopher. (U. Missouri) **Printed comments with item analyses.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 159-160.

4928. Sherrill, David; Horowitz, Bernard; Friedman, S. Thomas, & Salisbury, J. L. (Syracuse U.) **Seating aggregation as an index of contagion.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 663-668.—Studied the contagion of cheating behavior in a group of 193 undergraduates. S attrition across time was 38%. Ss received 3-hr exams. E recorded Ss' scores but made no mark on the paper. Self-scoring was done in the

session following each examination. Cheating increased from Test 1 to Test 2 but decreased from 2 to 3. Cheaters tended to sit together.—N. M. Chansky.

4929. Sirotnik, Ken. (U. California, Los Angeles) **An investigation of the context effect in matrix sampling.** *Journal of Educational Measurement*, 1970(Fal), Vol. 7(3), 199-207.—Tested the assumption that an examinee's response to an item is independent of the context in which the item occurs. Responses of examinees to a population of items were compared with the responses of examinees to item samples. Matrix sampling mean and variance estimates for verbal, quantitative, and attitude tests served as dependent variables to test for differences between the "context" and "out-of-context" groups. The estimates obtained from both treatment groups were compared with actual population values. No significant differences were found between treatments on matrix sample parameter estimates for any of the 3 types of tests.—*Journal abstract*.

4930. Varhelyi, Emory A. (Fordham U.) **The relationship of test and general anxiety, difficulty of task, and experimental instructions to test performance.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5305.

4931. Washington, Ernest D. & Teska, James A. (Inst. for Research on Exceptional Children, Champaign, Ill.) **Correlations between the Wide Range Achievement Test, the California Achievement Tests, the Stanford-Binet, and the Illinois Test of Psycholinguistic Abilities.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 291-294.—Presents correlation coefficients for 96 pre- and early elementary school children between the Stanford-Binet, Illinois Test of Psycholinguistic Abilities, Wide Range Achievement Test, and California Achievement Tests (Lower Primary). The 2 achievement tests were highly correlated with each other ($Mdn = .80$) and the high (.89) correlation between Wide Range Reading scores and California Total Battery indicates the possibility of using the Wide Range reading score as a quick estimate of general achievement. The Binet Mental Age and ITPA Total Language Age were highly correlated with each other and about equally correlated with achievement variables, while only 2 of the ITPA subtests, Auditory-vocal Automatic and Auditory-vocal Association were moderately correlated with the Binet and achievement variables.—*Journal abstract*.

4932. Williams, Robert L. (Washington U.) **Black pride, academic relevance and individual achievement.** *Counseling Psychologist*, 1970, Vol. 2(1), 18-22.—Asserts that blacks and whites have different orientations to life, different "psyches," and different linguistic idioms. Therefore, middle-class-oriented measures of intelligence and achievement suitable for the whites are unsuitable for the blacks. White clinicians, moreover, have not experienced black culture, thereby barring them from diagnosing and treating them. The blacks suffer from "niggerosis." "Niggerosis deals with real problems, like not having enough money, fighting roaches, frozen water pipes, rats and other symptoms produced by racism."—N. M. Chansky.

SPECIAL EDUCATION

4933. Blanchard, Irene; Bowling, Don, & Roberts, R. Lincoln. (Chico State Coll.) **Educational experience for**

the retarded blind. *Mental Retardation*, 1968(Dec), Vol. 6(6), 42-43.—Describes a concentrated program of activities for 21 severely retarded blind children who could not fit into the usual type of educational programs. The initial program's purpose was to learn what effects, if any, could be expected to accrue from the whole attention of 1 college student to 1 S in a school setting for a specified time concentrated in 2½ or 5 hr. daily. 17 college students, majors in education, psychology, and sociology were each assigned to 1 S for a 6-wk school session. Ss were encouraged to make their bodies perform skills like turning, bending, pushing, and pulling, and daily attention was concentrated on development of communication. Reaction to the program depended on variables, e.g., previous skills and toleration of session length. The more sophisticated Ss enjoyed all of the activities and remembered them from day to day. However, each S learned to do something that he might never have learned if this program had not involved him with 1 adult to teach him alone.—*M. Walker.*

4934. Kahn, Ernest J. **Handwriting and vision.** *Journal of the American Optometric Association*, 1969(Feb), Vol. 40(2), 156-161.—Illustrates, with the aid of unposed photographs, the relationship between poor pencil grip, poor posture, and certain visual problems. A method of retraining to overcome these handicaps is suggested. It is felt that proper handwriting and correct use of a pencil is necessary for overcoming myopia and certain learning difficulties.—*P. McMillan.*

4935. Lawrence, Elizabeth A. (Syracuse U.) **The effect of two classes of verbal reinforcement on the performance of subjects differing in locus of control.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5288-5289.

4936. Machikhina, V. F. (Ministry of Education, Moscow, USSR) **Pravil'nyi otbor i komplektovanie—vazhnoe zveno v rabote spetsial'nykh shkol.** [Correct selection and staffing are an important link in the work of the special schools.] *Defektologiya*, 1970, Vol. 2(1), 3-7.—There are 7 basic types of special schools in the USSR: for the blind, for the deaf, for the mentally retarded, for those with severe speech disorders, for the visually handicapped, for the hard-of-hearing, and for those with the sequelae of poliomyelitis and of cerebral palsies. The success of these schools depends on proper staffing and the proper placement of children. The situation in the non-Russian republics of the Soviet Union is discussed. Corrective measures are proposed.—*I. D. London.*

4937. Minasyan, A. M. (Armenian Ministry of Education, Erevan, USSR) **Obuchenie i vospitanie anomal'nykh detei v Armyanskoj SSR.** [The teaching and training of nonnormal children in Soviet Armenia.] *Defektologiya*, 1970, Vol. 2(1), 25-33.—Presents a historical survey of special education in Soviet Armenia with emphasis on current developments and programs.—*I. D. London.*

4938. Rousek, Joseph S. (Ed.) (Queensborough Community Coll., City U. New York) **The slow learner.** New York, N.Y.: Philosophical Library, 1969. vi, 373 p. \$10.—Presents articles by various authors discussing the problems of the slow learner, including the physical and social backgrounds of such children, the lack of connection between what is needed and what schools are actually providing, and current attempts at reform. The growing emphasis on innovation in education and the

search for new ways to challenge children in their social environments and in the classroom are discussed.

Gifted

4939. Jacobs, Jon C. (Plymouth, Community Schools, Mich.) **Are we being misled by fifty years of research on our gifted children?** *Gifted Child Quarterly*, 1970(Sum), Vol. 14(2), 120-123.—All the incoming kindergarten students for a total school district were selected as the study population and were individually tested before school entrance with the Wechsler Preschool and Primary Scale of Intelligence (WPPSI). Of the 654 Ss tested, 19 had Full Scale IQs of 125 or above. A group of 19 other Ss were randomly selected to serve as controls. After 5 mo. of school, the kindergarten teachers were asked to nominate those students who might be gifted. None of the 19 Ss with high IQs was nominated. Both groups were retested on the WPPSI and it was found that the high IQ group showed a significant loss on the Full Scale IQ. No significant change was noted for the control group. These data are used to call into question previous studies on the gifted based on teacher nomination rather than early testing of an entire study population.—*S. Krippner.*

Remedial Education

4940. Curry, Dal R. (U. Kansas) **The effect of two types of auditory discrimination training on language performance and acquisition in a culturally deprived preschool population.** *Dissertation Abstracts International*, 1970(Jan), Vol. 30(12-A), 5281-5282.

4941. Laurita, Raymond E. **Phonics vs. look-say: Is the end in sight?** *New York State Education*, 1967(Mar), Vol. 54(5), 48-51.—Reviews the evidence relating to deficiencies in reading, and attempts to draw conclusions and practical implications for reading instruction from what has been learned by reading specialists and remedial therapists. Difficulties in directionality, perception, association, discrimination, and memory are discussed; findings from laboratory and clinical studies are reviewed; and it is concluded that while merit exists in both reading methods, the educational system must adapt for general instruction techniques which enable children to learn sequentially.—*L. D. Summers.*

Sensory & Physical Handicaps

4942. Antonov, P. F. (Inst. of Defectology, Moscow, USSR) **Botanicheskaya ékskursiya po teme "Zhizn' rastenij vesnoi."** [Botanical excursion on the theme "Life of plants in springtime."] *Defektologiya*, 1970, Vol. 2(1), 58-62.—Presents an analysis of special activities connected with a botanical excursion by 9th graders in a school for the deaf.—*I. D. London.*

4943. Craig, Helen B. & Holland, Audrey L. (U. Pittsburgh) **Reinforcement of visual attending in classrooms for deaf children.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 97-109.—Examined the efficacy of immediate tangible reinforcement in increasing appropriate visual attending for entire classes of deaf children. Ss were 3 classes (7 children each) in a residential school for the deaf. Boxes were

installed on each S's desk, with lights that were flashed immediately contingent upon 10 sec. of visual attending. Light flashes were backed up by candy, cereal bits, or tokens. In 2 of the classes, extinction sessions were also scheduled. For all classes, the reinforcement procedure increased visual attending by 50% or more, maintaining it at rates above 82%. Withdrawal of tangibles decreased attending back to base-line levels. Results support analysis of attending as operant behavior and demonstrate the applicability of reinforcement procedures in modifying these behaviors for young deaf children in a classroom setting.—*Journal abstract.*

4944. Moor, Pauline M. **No time to lose: A symposium.** New York, N.Y.: American Foundation for the Blind, 1968. 53 p. \$1.35(paper).—Presents methods and techniques most successful in helping multiply impaired blind children reach their optimal potentials. These are illustrated by 3 case studies.

Mental Retardation & Learning Disorder

4945. ———. A. Ya. Rubinshtein—80 let. [80th birthday of A. Ya. Rubinshtein.] *Defektologiya*, 1970, Vol. 2(1), 89-90.—Recounts the life and work of Anna Yakovlevna Rubinshtein, a defectologist active in the development of teaching methods for use in schools for the mentally retarded.—*I. D. London.*

4946. ———. V. A. Gruzinskoi—80 let. [80th birthday of V. A. Gruzinskaya.] *Defektologiya*, 1970, Vol. 2(1), 88-89.—Recounts the life and work of Vera Alekseevna Gruzinskaya, a defectologist active in the development of programs and textbooks for schools for the mentally retarded.—*I. D. London.*

4947. Brace, David K. (U. Texas) **Physical education and recreation for mentally retarded pupils in public schools.** *Mental Retardation*, 1968(Dec), Vol. 6(6), 18-20.

4948. Crittenden, Jerry B. (Michigan State U.) **An empirical investigation of the behavioral dimensions of four tests of learning disabilities.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5310-5311.

4949. Gomes, Lawrence A. (Boston U., School of Education) **The effectiveness of programmed instruction with mentally retarded pupils.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 221.

4950. McDuffie, James L. (U. Virginia) **The evaluation of differential education for the educable mentally retarded.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 75-76.

4951. McIvor, William B. (Columbia U.) **The comparative effects of hypothesis testing strategy training and paired associate training on the verbal abstraction performance of the educable mentally retarded.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 301-302.

4952. Mullins, June B. (U. Pittsburgh, Teacher Training Program for the Crippled & Other Health Impaired) **A rationale for visual training.** *Journal of the American Optometric Association*, 1969(Feb), Vol. 40(2), 139-143.—Discusses the role of the optometrist in the rehabilitation of the child with learning disabilities whose symptoms have been variously labeled as minimal brain damaged, dyslexic, or learning disabled. Visual training deals with primary learning problems encountered in the inefficient reading and writing of low-achievers. Training is directed toward perceptual defi-

ciencies which underlie the learning processes. An illustrative case history is presented. (18 ref.)—*P. McMillan.*

4953. Oliphant, Genevieve G. (United States International U., San Diego, Calif.) **A study of factors involved in early identification of specific language disability (dyslexia).** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 305-306.

4954. Pinskiĭ, B. I. (Inst. of Defectology, Moscow, USSR) **Zadachiĭ korrektsionno-vospitatel'noi raboty s umstvenno otstalymi shkol'nikami v protsesse trudovogo obucheniya.** [Goals of the corrective training of mentally retarded schoolchildren in the process of work education.] *Defektologiya*, 1970, Vol. 2(1), 13-19.—A psychologically and pedagogically based discussion. "Under the influence of work activity, viewed [by them] as useful in practice and socially valuable, there are formed in mentally retarded schoolchildren social motives and suitable methods of activity—motives and methods having an important significance for their general development and preparation for life at the end of school."—*I. D. London.*

4955. Schapiro, Judith S. (Memphis State U.) **An evaluation of the effects of different types of helping relationships on the self-concept and academic achievement of the educable mentally retarded pupils.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 254.

4956. Schreiber, Andrew. (Capuchino High School, San Bruno, Calif.) **An empirical approach at the secondary level.** *Academic Therapy*, 1970(Fal), Vol. 6(1), 5-12.—Presents methods and resources applicable in learning disability programs to avoid the continuing failure and poor self-image experienced by most emotionally handicapped or learning disabled students. New means of motivation and communication are emphasized. Requisites of a tutorial program are discussed using a special education program in a high school in San Bruno, California as an illustration. These general recommendations are made specific in reference to "the teaching of math to the learning disabled in a secondary school setting." It is concluded that "the entire framework, including the educational and social milieu" must be conducive to learning. (31 ref.)—*G. Steele.*

4957. Scott, Ralph; Kell, E. R., & Salisbury, Donald L. **Cognitive profiles of "retarded" children: A survey of inter- and intra child differences.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 288-292.—Assessed mental and educational profiles of "retarded" children. The results support the Jensen thesis that there are wide and significant inter- and intrachild differences in the profiles of retarded children's capabilities and their academic or readiness levels.—*H. Kaczowski.*

4958. Shane, Don G. (U. North Carolina) **The use of a specific instructional treatment method with young educable mentally retarded children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 255.

4959. Sheehy, Mary S. (Kennedy Child Study Center, Santa Monica, Calif.) **Learning potential of the retarded child.** *Catholic Educator*, 1970, Vol. 40(6), 28-32.—Factors in the learning potential of the retarded child include (a) capacity limitations, (b) slow rate of development, (c) lessened amount and scope of learning, and (d) different applications of what is learned. The development of cognition, language, and social and emotional efficiency in light of the factors in the learning

potential suggests teacher attention to (a) uncomplicated learning situations, (b) emphasis on concrete aspects, (c) repetition for the sake of experience, and (d) clearly structured procedures. The retarded child is capable of learning and interpreting attitudes of others towards him, and these appreciations affect his learning ability.—A. M. Cawley.

4960. Shepherd, Margaret J. (Columbia U.) **Programming principles as a paradigm for developing instructional strategies for educable mentally retarded children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 310-311.

4961. Sherlock, Paul V. (Boston U., School of Education) **An analysis of special education for the mentally retarded in Rhode Island, 1963-1968.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 256.

4962. Tishin, P. G. (Inst. of Defectology, Moscow, USSR) **Vozmozhnosti programmirovannogo obucheniya vo vspomogatel'noi shkole.** [Potentialities of programmed instruction in the auxiliary school.] *Defekologiya*, 1970, Vol. 2(1), 46-53.—Reports observations of over 50 lessons taught in a number of schools for the mentally retarded, in order to evaluate the suitability of including elements of programmed instruction in the differentiated teaching of such children.—I. D. London.

4963. Wright, Thelma J. (U. Virginia) **An evaluation of the academic achievement and personal-social adjustment of educable mentally retarded secondary school pupils.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 312-313.

Emotional Disorder

4964. Atkins, James T. (George Peabody Coll. for Teachers) **Conformity of disturbed children to the influence of adults and selected peers under conditions of independent and interdependent grouping.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 461.

4965. Carpenter, John R. **Role reversal in the classroom.** *Group Psychotherapy*, 1968, Vol. 21(2-3), 155-167.—Reports a study in which role-playing (especially role reversal) were used for 4½ mo. in a 3rd grade classroom to settle emotional problems and interpersonal conflicts. Numerous examples of its success are given.—A. Krichev.

4966. Noffsinger, Thomas L. (George Peabody Coll. for Teachers) **The effects of reward and level of aspiration on an educational task with children identified by a problem behavior checklist.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 253.

4967. Riccomini, Alfred P. (U. Pittsburgh) **Demonstration and partial implementation of a systematic approach for the inauguration of a public elementary school special education program for emotionally disturbed children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 253-254.

4968. Rich, Hobert L. (Syracuse U.) **An investigation of the social and emotional climate in a class of emotionally disturbed children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5350.

4969. Schwarz, Michael L. & Hawkins, Robert P. **Application of delayed reinforcement procedures to the behavior of an elementary school child.** *Journal of*

Applied Behavior Analysis, 1970(Sum), Vol. 3(2), 85-96.—Applied delayed reinforcement techniques, in a multiple base-line experimental design, to modify the behavior of a mildly maladjusted 6th grade child. Face-touching, posture, and voice-loudness were chosen for modification. Videotape recordings were made of the S's behavior during mathematics and spelling periods each day. The recordings from the mathematics period was shown to S after school, and consequences for behavior exhibited during mathematics were dispensed during the after-school viewing. This delayed reinforcement procedure produced the desired behavior changes during the mathematics period. Tapes from the spelling period, which were taken without the S's knowledge, indicate that the behavior changes generalized to portions of the day other than the mathematics period.—*Journal abstract.*

COUNSELING & GUIDANCE

4970. Bevins, Sandra M. (Ball State U.) **A comparison of the effectiveness of individual and group counseling in the improvement of social adjustment of fifth and sixth grade children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5277.

4971. Edwards, William R. (U. Georgia) **The use of focused audio feedback in group counseling with adolescent boys.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5232.

4972. Fisher, Thomas L. (U. Georgia) **A prediction of counselor facilitation from communication and discrimination indexes and a personality measure.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 147.

4973. Hagen, Dean S. (Florida State U.) **Group counseling, individual counseling, and teacher consultation as means of modifying self-reports on personality inventory items by elementary school children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5236.

4974. Holley, Jeanne L. (U. Mississippi) **An analysis of personality needs and certain background factors which may influence career choice of women business education majors.** *Dissertation Abstracts International*, 1970(Jul), Vol. 30(1-A), 223-224.

4975. Ingram, Richard T. (U. Maryland) **Holland's typology of personality in the prediction of certain counseling outcomes.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 151-152.

4976. Inkel, M. (Loretto Elementary School, El Paso, Tex.) **Elementary school guidance: Some pros and cons.** *Catholic Educator*, 1970, Vol. 40(8), 35-37.—States that the advocates of "pros" and "cons" are about even, and lists contributions to the efficacy of the teacher who has to assume the guiding: in addition to ordinary certification courses, there should be one in fundamentals and techniques of guidance. Among usable techniques are listed the 20-min interview, "write-it-down," and role-playing.—A. M. Cawley.

4977. Johnson, Ray W. (North Texas State U., Denton) **Parental identification and vocational interests of college women.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 147-151.—139 female college students responded to Heilbrun's Identification Scale and to the SVIB. Women low in identification with their mothers scored higher on scales indicative of mathematical-scientific interests. High identifiers did not

score higher on occupational scales more typical of a homemaker. Results also suggest that career-oriented interests may not reflect masculine identification, but such identification may be reflected in mathematical-scientific interests.—S. M. Amatora.

4978. Johnson, Thomas B. (U. California, Berkeley) **An examination of some relationships between anomia and selected personality and sociological correlates in a sample of high school dropouts.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 225-226.

4979. Kuehn, John L. (Louisiana State U.) **Counseling the college student drug user.** *Bulletin of the Menninger Clinic*, 1970(Jul), Vol. 34(4), 205-215.—The excessive use of drugs among college students is an overdetermined and exceedingly complex phenomenon with etiologies along many modalities. 8 psychological traits of users are discussed and the psychodynamics examined. Hints in counseling techniques are given. "The presence of adequately staffed college mental health units, as well as trained and concerned professionals in the private sector . . . is now no longer a luxury but a necessity."—J. Z. Elias.

4980. Pellegrine, Robert J. (U. Florida) **Some differences in the behavioral characteristics of repressors and sensitizers in a university counseling center.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 159.

4981. Praul, Judith A. (Indiana U.) **The relationship of personality to selected outcomes of the counselor training process.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 161.

4982. Shann, Mary H. (Boston Coll.) **Multiple discriminant prediction of occupational choice of vocational high school boys based on inventoried and self-rated interest patterns.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 315-316.

4983. Shaw, Sarah F. (Indiana U.) **Empathy and its relationship to selected criteria of counselor effectiveness.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 163.

4984. Springer, Thomas A. (Ball State U.) **An experimental study of the effects of group counseling upon the creative thinking of selected senior high school students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 165-166.

4985. Witmer, J. M. & Cottingham, H. F. (Florida State U.) **Teacher's role and guidance functions.** *Elementary School Guidance & Counseling*, 1970(Oct), Vol. 5(1), 12-21.—Attempted to: (a) determine to what extent classroom teachers were using certain guidance practices, (b) ascertain the value classroom teachers ascribed to these practices, and (c) ascertain how the classroom teachers perceived the improving of these practices. A stratified, representative sample of all Florida used 45 schools and 556 elementary teachers who responded to a 5-point Likert-type scale developed for this study. The data supported the hypothesis that the teacher's role should be given a central position in developing a team approach to elementary school guidance and counseling.—S. M. Amatora.

4986. Zaccaria, L. & Creaser, J. (U. Illinois, Chicago) **Personality differences between counseled and uncounseled students: A need for replication studies.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 133-138.—Studies exploring personality characteristics of counseled and uncounseled students report

conflicting findings. The present research focuses on EPPS need differences between vocational-educational clients and nonclients in an urban commuter university. 108 male and 63 female freshmen and sophomores were Ss. The male client group was subdivided to provide replication. The experimental group differed significantly from the nonclient group on 5 need scales, whereas the replication group showed a significant difference for only 1 variable. More corroborative replication is needed to increase confidence in the validity of personality and counseling research.—S. M. Amatora.

PERSONNEL

4987. Gunter, Neil C. (U. Georgia) **Self-role perception and cross-role perception of school counselors, school social workers, and school psychologists.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5235-5236.

4988. Murphy, Marcus D. (North Texas State U.) **Some dimensions of leadership behavior of school superintendents in selected Texas school districts.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5203-5204.

4989. Reger, Roger. (Wayne Community Schools, Mich.) **El psicólogo escolar: Educador o clínico?** [The school psychologist: Educator or clinician?] *Psicología y Educación*, 1968(Jan), Vol. 5(10), 64-72.—Describes the differences in aims and interests between educational and clinical psychologists, criticizing the latter for distinguishing between education and behavior. A critical analysis of the function of a clinical psychologist in an educational system led to the definition of improved standards for school psychologists. These included improvement of education through psychological methods and materials, the use of tests to further understanding of the child as an individual, and service as a link between the academic world and the educational system. (English & French summaries)—P. Hertzberg.

Teachers & Teacher Training

4990. Bane, Robert K. (U. Florida) **Relationships between measures of experimental, cognitive, and affective teaching behavior and selected teacher characteristics.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 275-276.

4991. Basham, Michael L. (Colorado State Coll.) **The relationship between global ratings of college teacher effectiveness and selected measures of personal and interpersonal functioning.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 209-210.

4992. Bhogle, S. (Osmania U., Hyderabad, India) **Some factors in the adoption of educational innovations.** *Research Bulletin*, 1969, Vol. 5, 69-71.—Phi coefficients between early-late adoption and qualifications, number of institutions served, salary, work load, and sex groups, and a t test to find out the significance of difference between extreme groups of teaching experience and age showed that none of the background factors were correlated significantly with adoption practices, though qualification and salary suggested a positive relationship.—U. Pareek.

4993. Biggs, J. B. (U. Alberta, Edmonton, Canada) **Faculty patterns in study behaviour.** *Australian Jour-*

nal of Psychology, 1970(Aug), Vol. 22(2), 161-174.
—Constructed and administered a 72-item Study Behaviour Questionnaire (SBQ) to 314 prospective teachers, enrolled in the faculties of arts and science, before they had started university lectures and again just prior to the 1st-yr examinations. The items on the 1st administration were factor analyzed and 6 factors were obtained: a study organization factor, a motivational factor, and several cognitive style-type factors. The latter appeared to involve 2 main classes of study strategy: simplifying strategies, and opening-out strategies. The study organization factor was uncorrelated with performance, but there were consistent correlations, in the arts faculty only, between the remaining factors and performance. It is suggested that the general tasks demanded of arts and science students were different, and required different strategic approaches. (24 ref.)
—*Journal abstract.*

4994. Cooper, Margaret L., Thomson, Carolyn L., & Baer, Donald M. (U. Kansas) **The experimental modification of teacher attending behavior.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 153-157.—Developed a method of observing and modifying teacher attention to appropriate child responses in preschool classrooms. 2 teachers with no formal training in reinforcement principles were observed for a base line of 8 days. Teacher A, who displayed a lower base-line rate of attending to appropriate child responses, was trained 1st. Teacher B was observed during the 1st part of the training condition for Teacher A. During training, A received feedback which included (a) definitions of appropriate child responses, (b) frequency of attending to appropriate child responses, (c) total percentage of attending to appropriate child responses, and (d) frequency of failing to attend to appropriate child responses. Teacher B was then trained in a similar way. Both teachers showed an increase in attending to appropriate child responses subsequent to the onset of experimental feedback.—*Journal abstract.*

4995. Corcoran, Eileen L. (State U. New York, Buffalo) **Perceived occupational prestige and the self-concept of teachers of atypical children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5281.

4996. Davis, Corrine R. (East Texas State U.) **Personality type discrepancies and student teacher-cooperating teacher relationships.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 260.

4997. Duplisea, Eric A. (Indiana U.) **Pre-service elementary teachers' recognition of creative thinking.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 262.

4998. Idman, P. (School of Education, Malmö, Sweden) **Institutionsnämnd: Försök med institutionsdemokrati vid pedagogisk-psykologiska institutionen vid lärarhögskolan i Malmö.** ["Department board": Experimentation with new forms for democratic management at the Malmö School of Education.] *Pedagogisk-Psykologiska Problem*, 1970(Sep), No. 113, 32 p.—Summarized data from a 1-yr experimentation period during which the department director handed over his decision functions to a board, consisting of representatives for teachers, research workers, students, and other personnel. Opinions on the experiment were collected by means of questionnaires, and the meetings were tape-recorded and subjected to content analysis.
—*English summary.*

4999. Idman, Pekka. (School of Education, Malmö, Sweden) **Försöksverksamhet med nya former för samarbete mellan studerande, lärare och övrig personal vid lärarutbildningsanstalter: Forslag till försöksverksamhet.** [New forms for cooperation between students, teachers and other personnel at Swedish teacher training institutes: A proposal for experimentation.] *Pedagogisk-Psykologiska Problem*, 1970(Aug), No. 111, 22 p.

5000. Kahnberg, Alf, et al. (School of Education, Malmö, Sweden) **Försöks-och demonstrationsskolan vid lärarhögskolan i Malmö, 1969-1970: Läsårsrapport, problem-diskussion och exemplifieringar.** [The Experimenting and Demonstration School at the Malmö School of Education, 1969-1970: Annual report, problem discussion, and examples.] *Pedagogisk-Psikologiska Problem*, 1970(Sep), No. 115, 31 p.

5001. Raina, Maharaj K. (U. Indore, Coll. of Education, India) **Creativity and teaching success.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 70.—Investigates the use of creative thinking ability in the prediction of teaching success. 55 student teachers were administered the nonverbal form of the Torrance Tests of Creative Thinking. Scores received by Ss on the teaching practice examination served as measures of teaching success. Scores on fluency, flexibility, originality, elaboration, and creativity were derived. No significant relationship in the product-moment *r*'s between measures of creativity and teaching practice marks was found. Results are attributed to the evaluation method used.—*G. Steele.*

5002. Sawin, Margaret M. (U. Maryland) **A study of Sunday church school teachers' personality characteristics and attitudes toward children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 245-246.

5003. Scheuer, Arnold L. (Columbia U.) **A study of the relationship between personal attributes and effectiveness in teachers of the emotionally disturbed and socially maladjusted in a residential school setting.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 271-272.

5004. Schmidl, Karl R. (Colorado State Coll.) **Effectiveness of teachers of the educable mentally retarded as related to preparation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 255.

5005. Shanks, James L. (U. California, Berkeley) **Concept achievement in science and its relationship to some non-intellectual characteristics of prospective elementary teachers.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 272.

5006. Smith, Charles F. (Michigan State U.) **A study of the attitudes of teachers in Title I and Non-Title I depressed area elementary schools toward pupil-teacher relations as measured by the Minnesota Teacher Attitude Inventory.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 85-86.

5007. Torbet, Sylvia L. (George Peabody Coll. for Teachers) **Influences of in-service instruction in uses of Bloom's taxonomy upon teacher behaviors, learner behaviors, and classroom interactions.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 241.

5008. Webster, Patricia A. (U. Maryland) **Teacher structure as it relates to the expression of sex-appropriate choices in nursery school children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 243.

5009. Wiemayer, James D. (Fordham U.) **Transmission of values.** *Catholic Educator*, 1970, Vol. 40(6), 15-17, 35.—Attempted "to show that the teacher not only has the right to transmit values to his students, but that he also has the responsibility of integrating worthwhile values within his own personality because unwittingly or not he does transmit values He is one who is to teach people how to live Ideally the teacher would believe in, teach, and transmit those values which the parents also hold as important." Using acceptance of human beings as an example of a desirable value to be transmitted, the author projects the results probable if the viewpoint of Ezer whom he had quoted earlier, governed the technique. It is concluded that the place of the teacher as a transmitter of values along with the home and peer groups is higher than if his values are at odds with those of parents and peers.—A. M. Cawley.

5010. Wilson, Alfred P. (Utah State U.) **Personality characteristics of teachers in relation to performance in an individually prescribed instruction program.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5218.

5011. Zimmerman, Barry J. **Experimental training program effects on teacher verbal patterns.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 221-225.—Reports the impact of the Tucson, Arizona, early education model on the verbal behavior of those who participated in it. It was noted that graduates of the program showed a significantly greater incidence of corrective feedback than the control group. This finding supports the position of the program that teachers as well as pupils can be systematically shaped to perform select behaviors.—H. Kaczowski.

SCHOOL LEARNING & ACHIEVEMENT

5012. Ahluwalia, S. P. & Sidhu, N. (Kurukshetra U., India) **A study of personal problems of some adolescent girls and their effect on academic achievement.** *Journal of Psychological Researches*, 1969, Vol. 13(1), 56-57.—A study of 260 adolescent class 9 girls on a personal problem checklist showed that all Ss wished themselves to be healthy and beautiful. All 137 problems were checked by 1 or the other. Ss had a maximum number of problems in the areas of "school" and "society," and marked less problems in the area of health. Their opinions indicated that personal problems affect their academic performance effectively. Emotional problems appeared to affect academic achievement the most.—U. Pareek.

5013. Baldwin, Jean M. (U. Maryland) **An analysis of the relationship between self-esteem, academic achievement, and academic level of aspiration for a group of college students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 209.

5014. Bennie, Donald E. (Indiana U.) **The use of praise and qualified praise in teaching disadvantaged children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 211-212.

5015. Bruininks, Robert H. & Feldman, David H. **Creativity, intelligence, and achievement among disadvantaged children.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 260-264.—Investigated the relationship between creativity, intelligence, and achievement among southern disadvantaged children. Positive but low r 's (range .18 to .31) were shown between IQ and creativity. It was observed that the Torrance Test of

Creative Thinking acted as a suppressor variable in the study thereby increasing the relationship between IQ and achievement.—H. Kaczowski.

5016. Capone, Thomas A. (Fordham U.) **Interaction of selected needs and perceived peer orientation to education as related to academic proficiency in ASPIRA students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5279.

5017. Coleman, Lois T. (U. California, Berkeley) **A study of the acquisition of the intellectual skill comparing in the area of social sciences.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 213-214.

5018. Collins, Maria A. (Fordham U.) **Achievement, intelligence, personality and selected school-related variables in Negro children from intact and broken families attending parochial schools in central Harlem.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5280-5281.

5019. Cotler, Sheldon & Palmer, Richard J. **The relationships among sex, sociometric, self, and test anxiety factors and the academic achievement of elementary school children.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 211-216.—156 4th-6th graders were used to test a series of hypotheses that appraised the S's receptiveness and responsivity to social reinforcement. Sarason's Test Anxiety Scale for Children, "The Class Play," teacher ratings, and school records were the sources for the basic data. It is concluded that: (a) sociometric status, visibility, and the self-concept of girls are positively related to academic performance while for boys the relationship was not significant; (b) a curvilinear relationship exists between incentive values and high test anxiety; and (c) intrinsic personality traits and external contingencies effect the child's responsiveness to social reinforcement.—H. Kaczowski.

5020. Dain, Robert N. (U. Texas) **Differential effects of effort- and ability-oriented reinforcers on children's academic performance.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5282.

5021. Davis, Wesley A. (U. Florida) **Academic achievement and self-disclosure of high school students and their parents.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 145.

5022. Deady, Gene M. (U. California, Berkeley) **The effects of an increased time allotment on student attitudes and achievement in science.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 246.

5023. Donovan, John C., Salzman, Leonard F., & Allen, Peter Z. (U. Rochester, Medical & Dental School) **Patterns of learning in medical school.** *Journal of Medical Education*, 1969(Jul), Vol. 44(7), 589-594.—Presents increments and decrements of factual knowledge among 7 classes of medical students over a 5-yr period. The National Board of Medical Examiners "Minitest," which consists of 360 questions equally divided among 6 preclinical and 6 clinical disciplines, was employed as the test instrument. Results show that: (a) in all classes the increment in both basic and clinical science knowledge during each preclinical yr. was statistically significant ($p < .001$); (b) no class exhibited a significant decrement in basic science knowledge during the junior yr., an entirely clinical yr.; and (c) statistically significant decrements in basic science knowledge occurred during the senior yr. Implications of results for possible curriculum changes are discussed. A possible deficit in the study, i.e., introduction of a new curriculum in the 3rd yr. of the study making it

impossible to collect comparable base-line data from all classes, is noted.—*M. Maney.*

5024. Edelstein, Gerald. (Columbia U.) **Delay of gratification and school achievement.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 392-393.

5025. Fekart, Mohammad A. (Indiana U.) **A correlational study between self-concept and academic achievement of college freshmen and seniors.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5283-5284.

5026. Frender, Robert; Brown, Bruce, & Lambert, Wallace E. (Harvard U.) **The role of speech characteristics in scholastic success.** *Canadian Journal of Behavioural Science*, 1970(Oct), Vol. 2(4), 299-306. —Compared 2 groups of 93 French-Canadian 3rd grade boys in terms of verbal intelligence and various characteristics of speech. Ss in both groups came from low social class homes, and were similar in measured nonverbal intelligence. The essential difference between groups was school achievement; 1 group had average grades of B or above, the other, C or below. It was found that the groups differed reliably in verbal intelligence and in particular speech characteristics, analyzed by an experienced linguist. Distinctive patterns of speech differentiated the 2 groups even with verbal intelligence statistically controlled. Results are discussed in terms of current psycholinguistic theories of social-class differences in speech and language. (French summary) —*Journal abstract.*

5027. Glynn, E. L. (U. Toronto, Ontario, Canada) **Classroom applications of self-determined reinforcement.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 123-132. —Compared self-determined, E-determined, and chance-determined token reinforcement treatments with a no-token treatment, in terms of effect on the learning of history and geography material in the classroom. Each treatment was assigned to 1 of 4 heterogeneous classes of 9th grade girls. An initial base-line period preceded the differential reinforcement period, and a token withdrawal period followed. Subsequently, the self-determined treatment was employed in all 3 token reinforcement classes, before a final base-line period occurred. Findings include a similarity of initial base-line performance for all classes, an equal superiority of self-determined and E-determined treatments to chance-determined and no-token treatments, and significant improvement from initial base line to final base line for self-determined and E-determined treatments, but not chance-determined and no-token treatments. Differential token reinforcement experience was found to influence subsequent rate of self-determined token reinforcement.—*Journal abstract.*

5028. Goff, Charles E. (Boston U., School of Education) **A study of the relationship between non-cognitive factors and general intelligence to academic achievement at the junior high school level.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 220-221.

5029. Guinagh, Barry J. (Michigan State U.) **An experimental study of basic learning ability and intelligence in low socioeconomic populations.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 222.

5030. Hill, Floyd W. (U. Texas) **A study of the influence of socialization anxiety on the achievement of first-grade Mexican-American children.**

Dissertation Abstracts International, 1970(Jun), Vol. 30(12-A), 5285-5286.

5031. Hjelle, Larry A. (Villanova U.) **Internal-external control as a determinant of academic achievement.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 326. —Attempted to determine if internally controlled undergraduates would obtain significantly higher quality point averages (QPA), as an index of academic achievement, than their externally controlled counterparts. Ss were 41 internal and 98 external males and females as determined by Rotter's I-E scale and for whom QPAs were available. Results partially support the hypothesis, and possible factors affecting the internal-external dimension and academic achievement relationship are discussed.—*Author abstract.*

5032. Howe, Ann C. (U. Texas) **The effect of science instruction based on task analysis on children's acquisition of the ability to perform formal operational tasks concerning volume relationships.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5286.

5033. Hull, Ronald E. (U. New Mexico) **Sex-role identification and achievement.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 104.

5034. Khan, S. B. (Ontario Inst. for Studies in Education, Toronto, Canada) **Dimensions of manifest anxiety and their relationship to college achievement.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 223-228. —Investigated the hypothesis regarding the multidimensionality of the MA scale and the relationships between the emerged dimensions and college achievement. The scale was administered to 153 male and 107 female freshman undergraduates using a 5-point response scale. The Pearson product-moment correlations were factor analyzed for males and females separately. Factors common to both sexes are tension-anxiety, personal inadequacy, and agitation. Factors for males are hysteria and psychosomatic fitness. Factors for the females are interpreted to be inner tension and betrayal of inner self. Factor scores were correlated with GPA for 123 males and 90 females. Only the correlation between psychosomatic fitness and grades for males was significant. The multiple correlations between the optimal combination of the 3rd, 4th, and 5th factors and grades were .325 and .263 for males and females, respectively.—*Journal abstract.*

5035. Lazar, Meyer. (St. John's U., Jamaica, N.Y.) **Religious academic achievement of boys and girls of Hebraic Jewish orthodox day schools as related to selected variables.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 154-155.

5036. Lewin, Philip. (Cornell U.) **Home and self-concept factors related to differential academic achievement of teenagers in one-parent, father-absent families from two social classes.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5240.

5037. Lewis, Franklin D. (Texas Technological U.) **Motor abilities as related to reading retardation in two racial groups of male adolescents.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 397-398.

5038. Lewis, Lloyd A. (Florida State U.) **An empirical test of John B. Carroll's model of school learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5289.

5039. Lezotte, Lawrence W. (Michigan State U.) **The relationship between cognitive styles, scholastic ability and the learning of structured and unstruc-**

ured materials. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 228-229.

5040. Matell, Michael S. & Smith, Ronald E. (Purdue U.) **Approval motive and academic behaviors: The self-reinforcement hypothesis.** *Journal of Consulting & Clinical Psychology*, 1970(Oct), Vol. 35(2), 229-232. —Administered 2 course examinations under conditions differing in the degree to which performance was relevant to academic achievement goals to 60 undergraduates. Under high-relevance conditions, scores on the Marlowe-Crowne Social Desirability scale were unrelated to test performance. Under low-relevance conditions, however, need for approval was highly related to performance in high- and moderate-ability groups, but not in a low-ability group. In view of the absence of extrinsic approval incentives, the results are discussed in terms of a hypothesis that the approval motive cues of classes of behaviors which have been reinforced by the approval of others in the past, but which are currently reinforced and maintained through self-reinforcement.—*Journal abstract*.

5041. Meritt, Ray. (Delta State Coll.) **Academic performance of work-study students.** *Journal of College Student Personnel*, 1970(May), Vol. 11(3), 173-176.—Attempted to compare the GPAs of students employed on the Federal Work-Study Program with those of students who are members of social fraternities or sororities (i.e., Greeks). The sample consisted of 204 Work-Study students and 143 Greeks. A comparison was made between the composite American College Test (ACT) score of each group and the 1st semester GPA of each group. The Greeks had a significantly higher mean ACT score than did the Work-Study Ss, however, when the GPAs of each group were compared, no significant difference was obtained. This finding corroborates those of earlier studies and suggests the idea that economically deprived students who receive an opportunity to attend college tend to compensate for their shortcomings and work more diligently. It is also considered that the Work-Study student may be a special kind of person.—R. H. Mueller.

5042. Roelke, Patricia L. (Indiana U.) **Reading comprehension as a function of three dimensions of word meaning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5300-5301.

5043. Romine, Benjamin H. (Duke U.) **The effects of the interaction between a personality characteristic and an environmental characteristic on the achievement of female college freshmen when ability is controlled.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5301.

5044. Sandoval, Jonathan H. (U. California, Berkeley) **The influence of similar and contrasting interpolated learning on the retention of meaningful discourse.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 236.

5045. Singer, Carroll R. (New Mexico State U.) **Eye movements, reading comprehensions, and vocabulary as effected by varying visual and auditory modalities in college students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 164.

5046. Spencer, Robert L. (North Texas State U.) **A study of the relationship of situational anxiety to vocal solo performances of college freshmen voice students.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 238.

5047. Spino, William D. (Indiana U.) **Semantic**

differential patterns of selected college freshmen as a basis for achievement differentiation. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 165.

5048. Starr, Howard A. (East Texas State U.) **An investigation of the application of achievement motivation seminars to college freshmen as a device for obtaining greater selected traditional college successes during the freshman year.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 239.

5049. Steen, Arleen M. (U. Iowa) **The effectiveness of listening lessons in the kindergarten as determined by the Listening Response Test.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 311-312.

5050. Styles, Marvalene H. (Florida State U.) **Personality characteristics, self-concept, vocational aspiration and academic performance of Negro freshmen at a predominantly white university as compared with Negro freshmen at a predominantly Negro university.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5249.

5051. Trojan, David J. (U. Kentucky) **Diffuse reference group influence and academic performance.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 469.

5052. Vallianos, Fred. (U. Virginia) **A study of selected psychological factors and their implications for educational self-management.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 242.

5053. Wesselman, Roy L. (Texas Technological U.) **A study of the extent of association among teacher dogmatism, educational attitudes, and pupil achievement in mathematics.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 88.

5054. Zink, Blanche P. (Loyola U., New Orleans, La.) **Is lip movement so bad?** *Catholic Educator*, 1970, Vol. 40(8), 38-40.—14 sections of white 4th grade children of middle status in 5 elementary schools furnished the reservoir from which those children who attained 90-110 IQ on the California Short-Form Test of Mental Maturity were selected. Reading level was determined by results of the Reading Comprehension test of the Iowa Tests of Basic Skills. "Easy" material used in the test had readability level about 1 yr. below the pupil's reading level; "difficult" material was approximately the same as the pupil's reading level. Skin-lip electrodes recorded the electrical activity during silent reading. Findings showed a significant (.01) relationship between reading achievement and lip movement; also between difficulty of reading material (.05) and lip movement. There were no significant differences in incidence of lip movement between boys and girls.—A. M. Cawley.

Prediction

5055. Giebink, John W. & Birch, Robert. (U. Wisconsin) **The Bender Gestalt Test as an ineffective predictor of reading achievement.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 484-485.—Correlations between the Bender-Gestalt Test scores and Metropolitan Readiness Tests scores on 2nd graders were nonsignificant. The results suggested caution in putting diagnostic importance to perceptual motor factors in reading.—E. J. Kronenberger.

5056. Gross, Morris B. (Lehman Coll., City U. New York) **Pre-school prediction of academic achievement.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 278.—Studied the complete elementary school records of

43 students to determine the stability of achievement performance, factors associated with academic achievement, and the feasibility of identifying scholastic aptitude before 1st grade entrance. It was found that a pattern of achievement is set before formal schooling begins and remains fairly consistent through the 8th grade. The correlation between IQ and achievement was high and education-mindedness of the home was related to achievement.—*Author abstract.*

5057. Hutton, Jerry B. (U. Houston) **Relationships between preschool screening test data and first grade academic performance for Head Start children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 395.

5058. Lester, Eva P., Muir, R., & Dudek, Stephanie Z. (Allan Memorial Inst., Montreal, Quebec, Canada) **Cognitive structure and achievement in the young child.** *Canadian Psychiatric Association Journal*, 1970(Jun), Vol. 15(3), 279-287.—Reports recent findings from a longitudinal study with 100 middle-class kindergarten children on early school learning which indicates that the Piaget measures of cognitive functioning at the kindergarten level are reliable predictors of achievement in Grades I and II. Their predictive value remains statistically significant even after the IQ effect is partialled out. A combined test including the best Piaget subtest (Seriation and Time) with the Picture Arrangement from the WISC and the total score from the Lincoln Osseretsky (Motor Development test), when administered at kindergarten, gives a surprisingly high prediction for achievement at Grades I and II. Significance of these findings is discussed. It is suggested that the Piaget tests at this level tap an important dimension of development, possibly that related to individuation and ego autonomy. (French summary)—*Journal summary.*

5059. Romine, Ben H., Davis, Junius A., & Gehman, W. Scott. **The interaction of learning, personality traits, ability, and environment: A preliminary study.** *Educational & Psychological Measurement*, 1970(Sum), Vol. 30(2), 337-347.—Peterson's College Student Questionnaire, Part I (CSQ-I), was administered to 250 female freshmen at a college in the 98th percentile of Pace's College and University Environment Scales (CUES). The schools were matched on several Astin variables. The regression between predicted GPA and actual GPA was found. At both campuses Ss were classified high, moderate, or low independent on the basis of their CSQ-I scores. Tests of significance between errors of estimate, slope, and intercepts revealed that at the "supportive" campus a dependent student would earn a higher GPA than an independent student of the same ability. At the impersonal campus a high ability dependent student outperformed the independent student of the same ability, but the independent low ability student outperformed the dependent one in that college environment.—*N. M. Chansky.*

Overachievement & Underachievement

5060. Geer, Frances C. (Columbia U.) **The experience of underachievement at the college level.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 219.

5061. Kanter, Victor F. (Indiana U.) **A study of the relationship between birth order and achievement by overachieving early school starters and under-**

achieving late school starters at the sixth grade level. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 70-71.

5062. Meiselman, Jenny R. (U. North Carolina) **Variables related to the identification of under-achievers.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 230.

5063. Smith, Charles P. & Winterbottom, Miriam T. (City Coll., City U. New York, Graduate Center) **Personality characteristics of college students on academic probation.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 379-391.—In 2 separate studies underclassmen on academic probation (Ns = 27 and 22) were individually matched for aptitude with academically satisfactory students to investigate (a) nonaptitudinal factors differentiating probation students from matched students, and (b) how probation students who eventually have to withdraw differ from those who improve. Results based on interviews, questionnaires, and self-report measures indicate that probation students have unrealistically optimistic expectations concerning grades, attribute their difficulties to academic factors rather than personal concerns, and tend to be defensive, lacking in positive motivation for academic work, and relatively dependent on their parents. Students most likely to get off probation estimated their grades most accurately and had lowest test anxiety.—*Journal summary.*

CURRICULUM & PROGRAMS

5064. Berry, Gordon L. (Marquette U.) **A comparative study of selected personality characteristics of educationally disadvantaged adolescents enrolled in a continuation school and adolescents enrolled in a public high school.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 140.

5065. Bhooma, Vembakkam S. (U. Georgia) **The effects of selected blackout conditions on reading test item responses.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5277-5278.

5066. Carkhuff, Robert R. **The development of effective courses of action for ghetto school children.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 272-274.—Describes an experimental program to meet the needs of black students in an integrated junior high school. Appraisal of a 2-wk training program indicated that human relations skills can be developed through systematic procedures.—*H. Kaczowski.*

5067. Carlin, Larry D. & Hartzog, Ernest E. (United States International U., San Diego, Calif.) **Relationship between student participation in the "In-school" Neighborhood Youth Corps and school behaviors and attitudes.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5521-5522.

5068. Clark, Allan L. (U. Kansas) **Visual perception theories and their influence upon elementary-school disciplines.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5336.

5069. Cox, Otis. (U. Alabama) **Creative thinking in a high school experimental humanities program.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 214.

5070. Criswell, Eleanor. (Sonoma State Coll.) **Experimental yoga psychology course for college students: A progress report.** *Journal of Transpersonal Psychology*, 1970, Vol. 2(1), 71-78.—Describes a college course in yoga psychology which includes appropriate

body and mind activities and lectures covering theory of yoga and current physiological and psychological research. Students are encouraged to explore some aspect of yoga in depth. Some students have accepted yoga as a way of life and some have gone on to more advanced study. In general, students "seem to be increasingly aware of their daily states and how yoga can contribute to their effective functioning in many situations."—P. E. Lichtenstein.

5071. Davis, John W. (U. Southern Mississippi) **A study of cognitive development of southern culturally disadvantaged Negro children.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5282-5283.

5072. Deb, Maya. (U. Calcutta, India) **Experts' opinion on required abilities for high achievement in natural science.** *Psychological Studies*, 1969, Vol. 14(1), 47-50.—The 3 groups (headmasters, heads of departments, and foreign experts) showed high agreement as revealed by the Kendall coefficient of concordance (W). Intelligence was estimated to be the most important, numerical and mechanical abilities, respectively, were the next most important, and spatial and verbal abilities were assessed to be the least important for success in natural science.—U. Pareek.

5073. Drew, Walter F. (U. Southern Mississippi) **A comparison of effects of two experimental treatments on the cognitive development of culturally disadvantaged second grade Negro pupils.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 216.

5074. Feinman, Linda J. (Stanford U.) **An investigation of psycholinguistic factors contributing to comprehension difficulty in initial reading.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5163.

5075. Flom, James H. (U. Minnesota) **An investigation of growth in musical facts and concepts, in musical discrimination, and in vocal performance proficiency as a result of senior high school vocal music experiences.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5467-5468.

5076. Furman, DuWayne D. (U. Nebraska) **Intellectual development in preschool youngsters.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 218.

5077. Glasser, William. (Educator Training Center, Los Angeles, Calif.) **Schools without failure.** New York, N.Y.: Harper & Row, 1969. xiv, 235 p. \$4.95.

5078. Itskovich, G. M. **Razvitiye analiticheskikh sposobnostei v protsesse oprosa.** [Development of analytic abilities in the process of questioning.] *Srednee Spetsial'noe Obrazovanie*, 1970, Vol. 17(3), 19-22.—Suggests procedures and problems in physics for utilization in the development of analytic abilities in the secondary vocational student. They can be adapted to machineless programmed instruction.—I. D. London.

5079. Jensen, John L. (U. Nebraska) **Maternal attitudes of low socio-economic groups toward public elementary schools.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 105-106.

5080. Jurčo, Martin. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **Niektoré psychologické aspekty obsahu a štruktúry učebnej látky v strednej všeobecnovzdelávacej škole.** [Some psychological aspects of the contents and structure of the teaching matter at secondary general education schools.] *Jednotná*

Skola, 1969(Feb), Vol. 21(2), 133-148.—Deals with problems of content and structure of material taught from the viewpoint of personality psychology, development of the pupils' cognitive sphere, and the individual psychological differences among pupils. It is suggested that, with regard to content, there has been a 1-sided stress on development of the cognitive sphere and a neglect of development of the motivating moments in the pupils' personality. The need for developing the thinking process and rational abilities is stressed. Attributes of knowledge: content, informativity, and standard of generality and organization, are defined with greatest value assigned to systematic arrangement of knowledge. From the viewpoint of teaching, the greatest significance is assigned to abilities and interests of pupils, and a survey showing 5 fundamental aims of interest which should be taken into account in the differentiation of the teaching process is presented. (Russian summary)—*English summary*.

5081. Lindsten, Carin. (School of Education, Malmö, Sweden) **Elevpreferenser bid stoffval i hembygds-kunskap, årskurs 3.** [What do students in Grade 3 want to know more about?] *Pedagogisk-Psykologiska Problem*, 1969(Nov), No. 95, 101 p.—Analyzed what 3rd grade students want to know more about, and compared results of this need analysis with contents of school curricula and school books for this age level. Possible educational consequences are discussed, stressing a trend away from the traditional emphasis on the local area towards orientation about the surrounding world, wider both in time and space. (20 ref.)—*English abstract*.

5082. Meredith, Gerald M. (U. Hawaii) **Evaluation of speech-communication trends.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 287-290.—Compared the attitudes of 129 speech majors with 245 nonspeech majors on 3 components: program satisfaction, interest in speech performance skills, and interest in speech-communication trend. With respect to the 1st 2 components, there were no significant differences between the group means ($p > .05$). Speech majors exhibited a significantly higher level of interest in speech-communication trends ($p < .001$). Methodology is applicable to other curriculum problems in higher education.—*Journal abstract*.

5083. Naucér, Kerstin. (School of Education, Malmö, Sweden) **Nybörjarundervisning i tyska: Några uttalsproblem.** [First-year course in German: Some problems in pronunciation.] *Pedagogisk-Psykologiska Problem*, 1970(Aug), No. 109, 24 p.—Investigated to what extent and how rapidly the unfamiliar phonemes of German are assimilated by pupils in the 1st-yr German course. Tape recordings from 22 pupils, continuously recorded in the language laboratory during 1 school yr., were analyzed. It was found that (a) only a few obvious improvements of pronunciation could be pointed out, and (b) the capacity of pronunciation tends to decrease as the difficulty of the sentence increases.—*English abstract*.

5084. Neumeister, David E. (Holt Public Schools, Mich.) **Differences between 4th grade instructors on intelligence of boys and girls.** *Psychological Reports*, 1970(Feb), Vol. 26(1), 309-310.—To assess influence of 2 teachers on a class of 23 4th graders, the Level 3 Lorge-Thorndike Intelligence Test was administered in October and May. The female instructor operated on an established time schedule from September to December; while the male teacher generally operated on a flexible-differentiated schedule from January to June. No

significant changes in average class IQ occurred.—*Journal abstract.*

5085. Pascale, Mario A. (Columbia U.) **The effect of a visual-motor integration training program on beginning writing skills of kindergarten children.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 270-271.

5086. Popik, L. (Ed.) **Inostrannye yazyki v vyssheishkole.** [Foreign languages in the higher school.] Riga, USSR: Latvian State U., 1969. 96 p.—Presents a collection of 8 articles, 1 of which reports on an experimental comparative study of the semantic structure of words (A. A. Zalevskaya). The collection constitutes Vol. 119 of *Uchenye Zapiski* [Scientific Notes] of the Latvian State University.—*I. D. London.*

5087. Robinson, George W. (Texas Technological U.) **An investigation of relationships between certain psychological and socio-cultural variables and successful beginning string instrument study.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 81-82.

5088. Schevill, Helen S. (U. California, Berkeley) **Hierarchical processes in pitch delineation at the second grade level.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 308-309.

5089. Steiden, William E. (U. Kentucky) **A study of selected aspects of an experimental readiness program.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 87.

5090. Wintrode, Nevin L. (West Virginia U.) **An evaluation of the effect of a communication model designed to improve development of desirable attitudes toward safe driving.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 471-472.

5091. Zimet, Sara G. **A rationale for the inclusion of aggression themes in elementary reading textbooks.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 232-237.—Aggressive themes should be included in textbooks because they would enhance the integration of a child's life experiences and would expand his ego boundaries. Reading textbooks should function as a medium of acculturation as well as teaching reading skills.—*H. Kaczowski.*

Teaching Methods & Teaching Aids

5092. (School of Education, Malmö, Sweden) **Att arbeta med ett undervisningssystem: En presentation av UMT-projektets läromedel.** [Working with a teaching system: A presentation of the UMT-project's study materials.] *Pedagogisk-Psykologiska Problem*, 1970(Apr), No. 106, 38 p.—Presents a short explanation of the term "teaching system" and treats certain general consequences of the use of a system. Examples demonstrate how the system, methods of teaching German, has been built up for 1 grade's course. Attitudes and results are briefly described.—*English abstract.*

5093. Artemov, V. A. **Psikhologiya obucheniya inostrannym yazykam.** [Psychology of teaching foreign languages.] Moscow, USSR: Prosveshchenie, 1969. 280 p.—A book, based on the "achievements of Soviet psychology of foreign language teaching over the last 50 yr." and on the experimental research, conducted under the author's direction, on the psychological and phonetic aspects of such teaching. Extensive English summaries of the 15 chapters are included.—*I. D. London.*

5094. Bizhan, P. I. **Kabinet tekhnicheskikh sredstv**

obucheniya. [Office of technical teaching aids.] *Srednee Spetsial'noe Obrazovanie*, 1970, Vol. 17(3), 25-29.—Describes a collection of desirable teaching aids for the secondary vocational school, including equipment for self-instruction.—*I. D. London.*

5095. Brucker, Paul J. (Indiana U.) **The effects of an enclosed individual learning environment interacting with two personality traits on the achievement and opinions of college students learning through the use of programmed instruction.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 52-53.

5096. Bullard, John R. (Indiana U.) **An exploratory study of the effects of graphic slickness on cognitive and affective audience responses.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 53-54.

5097. Bumpus, Marguerite. (U. Massachusetts) **A study of the effects of positive suggestion and directed imagination on the reading achievement of sixth grade students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5158-5159.

5098. Bynum, James L. (Texas Technological U.) **The relationship of two teaching methods and the student self-concept.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 278.

5099. Fellner, Carl H. (U. Wisconsin, Medical School) **Paperback psychiatry.** *Journal of Medical Education*, 1969(Jul), Vol. 44(7), 585-588.—Asserts the need for educating medical students in the humanities as well as in the sciences, and suggests that "this task can be performed most easily by taking advantage of already existing cultural forms," e.g., material offered in easily accessible paperback novels, essays, and dramas. 1 such program that offered medical students an elective course in psychiatry in which contemporary novels and plays were studied is described.—*M. Maney.*

5100. Fitzpatrick, John C. (Fordham U.) **The relationships between the relative effectiveness of two teaching methods and selected non-cognitive variables of college students.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5284-5285.

5101. Grabowsky, Stanley M. (Syracuse U.) **Teaching catechetics with role playing.** *Catholic Educator*, 1970, Vol. 40(8), 30-32.—The steps to be followed in using role-playing in teaching include: (a) defining or selecting a problem, (b) setting up a situation and characters, (c) selecting the actors, (d) role-playing or acting the scene, (e) stopping the action, (f) discussing and analyzing, (g) repeating the role-playing, and (h) summary. The problem should be from human relations or social situations. Discussion should stick to the problem rather than to the actors.—*A. M. Cawley.*

5102. Haakonsen, Harry O. (Syracuse U.) **An investigation of the relationships between selected psychological characteristics of students and performance in an audio-tutorial genetics program.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 63-64.

5103. Holcomb, Charlie M. (Florida State U.) **A comparison of the effects of directed and non-directed laboratory experiences in qualitative analysis on retention and transfer of learning.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5309.

5104. Jones, Robert T. (Syracuse U.) **The effect of multi-channel audio stimuli on learning efficiency.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 226.

5105. Kost, Dennis R. (U. North Dakota) **Relation of individualized instruction to social acceptance, total adjustment, social adjustment, and personal adjustment.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 297.

5106. Löfgren, H. (Ed.) (School of Education, Malmö, Sweden) **UMT - projektets skrifter i sammandrag.** [The UMT Project: Abstracts of reports.] *Pedagogisk-Psykologiska Problem*, 1970(Aug), No. 110, 16 p.—Describes the background, aims, and organization of a project dealing with methods of teaching German, and summarizes data and reports published up to the present.—*English summary.*

5107. Mathis, Robert W. (U. North Dakota) **Operant learning rates as a function of internal control and task structure.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 399.

5108. Merrill, Irving R., et al. (U. California, Medical School, San Francisco) **Effectiveness of motion pictures at different stages of learning history-taking.** *Journal of Medical Education*, 1969(Jul), Vol. 44(7), 595-603.—Hypothesized that: (a) learning about patient history-taking from films varies according to which of 4 angles—subjective (patient only), O (physician only), lateral (both patient and physician), and combined (both patient and physician full face simultaneously on a split screen)—is used; and (b) visual information is most effective if presented in an abstract form during initial learning stages and in a detailed realistic manner during later stages. 8 film treatments were varied for 88 2nd yr. medical students at 2 stages of learning. In an independent study with 131 medical students, the relative contribution of the lecture and demonstration segments to learning were measured. Results on a 60-item test of learning and a questionnaire of perceived learning and enjoyment indicate that: (a) the 1st hypothesis was not supported, however, O and subjective angles led to slightly greater learning achievement; (b) there was strong support for the 2nd hypothesis; and (c) there was a highly significant positive relation between perceived enjoyment and perceived learning.—*M. Maney.*

5109. Mitchell, Merlin M. (Indiana U.) **The effect of augmented information feedback upon the performance of a motor skill by persons of differing perceptual ability.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 303-304.

5110. Pilon, A. Barbara. (Indiana U.) **Come hither, come hither, come hither: Black is indeed beautiful!** *Gifted Child Quarterly*, 1970(Sum), Vol. 14(2), 76-81.—Presents a bibliography for black children. The books and stories are chosen so as to enhance the positive self-image of black pupils.—*S. Krippner.*

5111. Schuck, Robert F. **A determination of the influence of set induction upon pupil perception of effective teaching, achievement, and retention in a unit on respiration in the BSCS curricula.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 228-231.—The effect of set induction techniques on 9th graders studying a unit of work in the Biological Sciences Curriculum Study (BSCS) was appraised through a series of achievement tests. Pupils taught by set induction performed significantly different from those exposed to more traditional methods. Teachers in the experimental group received statistically significant higher ratings on the Teacher Demonstration form than did the teachers in the control group.—*H. Kaczkowski.*

5112. Schuck, Robert F. **A social psychological**

view of large group instruction. *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 296-303.—This review of the social psychological aspects of team teaching suggests that this mode of instruction ignores the social and psychological aspects of the individual learner. It is suggested that the Getzles and Thelen model can generate a balance between institutional demands and individual need dispositions.—*H. Kaczkowski.*

5113. Schutte, R. C. & Hopkins, B. L. (Southern Illinois U.) **The effects of teacher attention on following instructions in a kindergarten class.** *Journal of Applied Behavior Analysis*, 1970(Sum), Vol. 3(2), 117-122.—In each of 20 daily sessions, a sequence of 10 simple instructions was given to a kindergarten class with 5 4-6 yr. old girls. In base-line sessions, the teacher did not interact with Ss, other than to give instructions. During these sessions, Ss followed the teacher's instructions 60% of the time. When the teacher began attending to each S if she followed an instruction, the mean percentage of instructions followed increased to 78%. Subsequently, the teacher again employed the base-line procedures and the percentage of instructions followed decreased to 68.7%. When the teacher again provided attention dependent on the S's following the instructions, the percentage of instructions followed increased to 83.7%. Results are consistent with research that has treated instructions as discriminative stimuli. General findings are that consequences of instructed behavior determine the extent to which the instructions are followed. (15 ref.)—*Journal abstract.*

5114. Shibbes, Burleigh H. (Boston U., School of Education) **Individual and team approaches in elaborative thinking.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 236-237.

5115. Trow, William C. **An educational model for social learning.** *Psychology in the Schools*, 1970(Jul), Vol. 7(3), 237-240.—Reviews the various instructional models currently employed in the schools. Suggests that social learning as well as cognitive learning should employ the following model for best results: assess-teach-evaluate.—*H. Kaczkowski.*

5116. Tyson, James C. & Carroll, Mary A. (Indiana State U.) **Conceptual tools for teaching in secondary schools.** Boston, Mass.: Houghton Mifflin, 1970. vii, 321 p. \$6.95.

5117. Yamakawa, Allan H., Horst, Ronald, & Feldman, Eugene P. (Curriculum Services, Chicago Daily News) **Motivate! A guide to creative teaching in the social sciences.** Chicago Daily News, Chicago, Ill.: 1968. 72 p.

PERSONNEL & INDUSTRIAL PSYCHOLOGY

5118. Fassina, A. & Petit, R. **Les erreurs de lecture en dessin industriel.** [Reading errors in industrial drawing.] *Bulletin Centre d'Etudes et Recherches Psychotechniques*, 1969(Jan), Vol. 18(1), 1-11.—Investigates whether a discrepancy exists between the actual writing of and the interpretation of technical drawings, and whether training in technical drawing is a sufficient prerequisite for the reading and interpretation of such drawings. 14 trade school students were given the task of detecting errors which were implanted into otherwise sound technical drawings. Results demonstrate both false error detections and a lack in perception of gross

errors. A course of study in reading and interpretation of technical drawings is advocated. (English summary) (15 ref.)—*B. A. Stanton.*

5119. **Froehlich, Dean K. The military advisor as defined by counterparts.** *HumRRO Professional Paper*, 1970(Mar), No. 9-70, 6 p.—Defines the characteristics of successful Military Assistance Program advisors as part of a research effort in applying scientific techniques to the selection, training, and management of advisors. Data describing the work of advisors were collected from both advisors and their counterparts. Characteristics and behaviors of the successful advisor as viewed by counterparts are discussed.—*HumRRO.*

5120. **Hill, James W., Bass, Alan R., & Rosen, Hjalmar.** (Western Michigan U.) **The prediction of complex organizational behavior: A comparison of decision theory with more traditional techniques.** *Organizational Behavior & Human Performance*, 1970(Sep), Vol. 5(5), 449-462.—Interviewed 48 electrical appliance repairmen concerning the consequences of bidding or not bidding on the "next highest level job." Ss then evaluated the desirability or undesirability of these consequences on a 7-point scale. Expectations of the probability of occurrence of these consequences were indicated on a scale of likelihood of occurrence. In addition, Ss responded to 2 semantic differential scales and the Need Achievement scale of the EPPS. Results of correlational analyses indicate that the decision theory technique was superior to the semantic differential and Need Achievement scales in predicting bidding behavior. (21 ref.)—*Journal abstract.*

5121. **Morgan, Brian S., Blonsky, Melvin R., & Rosen, Hjalmar.** (Boston Coll.) **Employee attitudes toward a hard-core hiring program.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 473-478.—Assessed attitudes of 214 employees at all organizational levels in a large utility company toward a program involving hiring the hard-core unemployed both before program initiation and after 3 mo. of experience with the program. Ss were administered the Consequences Model Questionnaire. The hypothesized ambivalence of management personnel was verified, as was the differential impact of the program on employees at various levels. In general, the initially positive responses toward the program gave way to a position of balanced neutrality, a state in which assets were counterbalanced by liabilities. Results are interpreted in terms of the impact of the initial position of top management on program operation.—*Journal abstract.*

VOCATIONAL CHOICE & GUIDANCE

5122. **Clemens, Bryan; Linden, James, & Shertzer, Bruce.** (Purdue U., Counseling Div.) **Engineers' interest patterns: Then and now.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 675-685.—Analyzed the SVIB patterns of a 1935 class of engineering students, their 1966 retests, and a 1966 sample from the same university. 2 multiple discriminant function analyses were performed: as 3 criterion groups and as 5 engineering specialty groups. A holdout sample was retained for cross-validation. The 1966 sample differed from the 1935 in scientific and management interests; the 1935 sample shifted its interests toward technical management. In cross-validation 80% of the protocols were correctly classified. The between specialty

discriminant function, however, yielded little useful results. (24 ref.)—*N. M. Chansky.*

5123. **Elton, Charles F. & Rose, Harriett A.** (U. Kentucky, Counseling & Testing Center) **Male occupational constancy and change: Its prediction according to Holland's theory.** *Journal of Counseling Psychology*, 1970(Nov), Vol. 17(5, Pt. 2), 19 p.—Investigated the relation of personality, as measured by the Omnibus Personality Inventory, and ability, as measured by the American College Test, to vocational choice, classified into the Holland system. Ss were 530 graduating males whose occupational patterns of change or stability were predicted by their scores as freshmen. Construct validity was provided for Holland's theory in some instances; in other cases, questions were raised. Data suggest that personality patterns of occupational groups are more a function of those who enter and persist in the group than of those who transfer into it. (24 ref.)—*Journal abstract.*

SELECTION & PLACEMENT

5124. **Asher, James J.** (San Jose State Coll.) **How the applicant's appearance affects the reliability and validity of the interview.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 687-695.—Rated TV tapes of interviews with 20 students enrolled in a statistics course by groups of Ss enrolled in an experimental psychology course. 1 group viewed the tape and rated it question by question (Q); 1 group viewed the tape and gave an overall rating (O); 1 group heard the tape and rated each question; and 1 group heard the tape and gave an overall rating. The Q format produced higher reliability coefficients than did the O. Viewing did not affect reliability but it did influence validity. Higher correlations with final exams and teacher paired-comparison ratings were obtained under the viewing condition.—*N. M. Chansky.*

5125. **Richardson, J. F.** (Psychological Research Unit, Albert Park Barracks, Melbourne, Australia) **Test R03(M): A second report.** *Australian Military Forces Research Report*, 1969, No. 4-69, 7 p.—Describes final procedures in the construction of a new recruit battery screening test, R03(M), equivalent to the current R03(X). It is concluded that R03(M) may be considered an equivalent form of the R03(X), and that its future operational use depends only upon the establishment of more fully representative norms.—*Journal abstract.*

5126. **Travaglio, Ray F.** (Pan American Petroleum Corp., Houston, Tex.) **Response differences among employment applicants.** *Personnel Journal*, 1970(Jul), Vol. 49(7), 593-597.—Analyzes the "responses of 464 applicants, of which 91 were hired . . . to perform a group of relatively homogeneous low level, routine, clerical jobs. Unfortunately, small numbers permit only a classification across race, not sex. However, 90% of the applicants are female." Results, based on an experimental employment test and a self-concept questionnaire across contemporary control variables showed that significant correlations do exist between test scores, questionnaire items indicating self-concepts, and interviewer ratings. Also, higher scoring applicants and higher self-concept are likely to receive higher interviewer ratings.—*P. L. Crawford.*

5127. **Van Damme, Francis.** (24 Ave. de Mars, Brussels, Belgium) **Résultats d'une utilisation du test P. F. de**

Rosenzweig en sélection d'agents de vente. [Results of using the Rosenzweig P. F. test in selection of salesmen.] *Revue de Psychologie et des Sciences de l'Education*, 1970, Vol. 5(2), 172-188.—3 theoretical patterns of personality of salesmen were submitted to an experimental control: Rosenzweig's Picture-Frustration Study was used to investigate the salesmen's outstanding characteristics and to compare the results of the test with the assumptions of the 3 theories. Significant differences were obtained between 31 successful sales trainees and 24 refused candidates, both samples coming from the same selection procedure including the Picture-Frustration Study. Salesmen proved to be much more self-controlled against frustration, and rejection, and more interested in surmounting hindrances according to the requirements of the job. (Flemish summary)—*English summary*.

TRAINING

5128. Duker, S. **Teaching listening: Recently developed programs and materials.** *Training & Development Journal*, 1970(May), Vol. 24(5), 11-15.—About 30% of 500 large corporations provided training in listening in 1963. The number of programs available has increased. Several specific programs are described; e.g., various combinations of tapes, texts, and programed instruction. "The materials reviewed in this article have added much to the feasibility of offering a course in listening as part of management and supervisory training...."—C. A. Bennett.

5129. Johnsrud, Myron D. (U. Wisconsin) **An experimental study of three variations of a method for self-determination of performance level.** *Dissertation Abstracts International*, 1970(Jun), Vol. 30(12-A), 5221-5222.

5130. Jones, Mark J. (Job Corps Center, Clearfield, Vt.) **Role playing as an educational and training device in a poverty-oriented multiracial group.** *Group Psychotherapy*, 1969, Vol. 22(3-4), 195-201.—Role-playing was used as a technique to prepare underprivileged youths for jobs as social service agents. Focus was on the growth and development of the individual. It had advantages both for instruction and for teaching personal and social awareness.—A. Krichev.

5131. Lau, Alan W., Lacey, Lynn, & Abrahams, Norman M. **A non-cognitive test battery as a predictor of Class "A" school performance.** *USN Personnel & Training Research Laboratory Technical Bulletin*, 1970(Mar), No. STB 70-5, 13 p.—As part of a program of evaluating noncognitive tests for use in predicting performance in a group of representative Class "A" schools, the Hand Skills Test (HST), Navy Activities Preference Blank (NAPB), and Navy Adjective List (NAL) were analyzed for their ability to augment the validity of Basic Test Battery (BTB) scores in predicting school performance. The noncognitive tests were administered to 1593 incoming students at 7 Class "A" schools varying widely in curriculum and to 389 students in the Submarine School. Scores were combined with BTB subtests to determine if noncognitive test scores supplemented BTB measures in multiple-regression equations. Analysis of the data indicates that neither the NAPB, NAL, nor the HST contributed significantly toward the prediction of school achievement beyond that currently attainable with the BTB.—*Journal abstract*.

5132. Newman, Lawrence E. & Steinberg, J. Leonard. (U. California, Medical School, Los Angeles) **Consultation with police on human relations training.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1421-1429.—Investigated the Los Angeles Police Academy's human relation training program which has been operational since 1965 (after the Watts' disorders). The program is discussed with relation to the various methods of presenting the material to the police trainees and cadets. The areas covered in the program include: (a) understanding and relating to ethnic minority communities—especially the Mexican-American and Negro communities; (b) handling service calls, i.e., psychiatric emergencies, family disputes, and youth contacts; (c) understanding and dealing with personal stress associated with the daily demands of police work; and (d) the meaning of police professionalism. By presenting the material in small discussion groups led by police officers, the program was able to communicate the far-reaching problems confronting police officers in their nonpunitive relations with the citizens of metropolitan Los Angeles. A brief mention of other similar programs in cities throughout the United States is also given.—P. R. Shibleski.

5133. Reinstein, Michael. (Ft. Benning, Mental Health Service, Ga.) **Group therapy for basic trainees: A means of coping with adjustment problems.** *Military Medicine*, 1970(Sep), Vol. 135(9), 760-764.—Group therapy was used as a method for encouraging self-expression, especially of hostile feelings, in men who were having difficulties in a recruit training situation. This program resulted in a reduction of the AWOL rate by $\frac{1}{2}$, the recycle rate by $\frac{1}{3}$, and the psychiatric discharge rate by $\frac{1}{2}$.—G. A. Clum.

5134. Taylor, John E. **Factors related to individual training.** *HumRRO Professional Paper*, 1970(Apr), No. 11-70, 5 p.—Presents findings of ongoing research on the design of strategies for conducting individual training. Studies conducted in laboratory and operational training settings assess the impact of individual difference, task, and training method variables on the design of training strategies. Findings bear directly on the army's requirements for designing efficient instruction for a training population that now includes large numbers of trainees in all mental categories of the Armed Forces Qualification Test.—*HumRRO*.

5135. Weingarten, Kenneth, et al. **Functional context training in an operational system.** *HumRRO Professional Paper*, 1970(Mar), No. 8-70, 9 p.—Describes a work plan for the development of a complete training model suitable for multiaptitude training populations and stressing individualized, self-paced learning in an operational functional context. Progress through the curriculum is determined by proficiency in task performance. The training model generates novel management problems and provides techniques for their solution.—*HumRRO*.

5136. Jones, Richard R. & Burns, W. J. (Oregon Research Inst., Eugene) **Volunteer satisfaction with in-country training for the Peace Corps.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 533-537.—Studied 248 Peace Corps volunteers' satisfaction with training in 8 Indian projects classified according to training time spent in-country—heavy-, light-, and no in-country training (ICT). 7 satisfaction scores derived from a training evaluation questionnaire were treated as dependent variables in a nested analysis of variance

design. Results indicate greater satisfaction with 3 training components for volunteers with heavy-, or light-vs. no ICT. Volunteer satisfaction was significantly higher for light than heavy ICT. Significant variations in mean satisfaction were obtained among different projects, within ICT groups. The efficacy of incountry vs. United States training programs and the desirability of evaluating projects using outcome measures other than volunteer satisfaction are discussed.—*Journal abstract.*

TASK & WORK ANALYSIS

5137. ———. **HumRRO studies in continuous operations.** *HumRRO Professional Paper*, 1970(Mar), No. 7-70, 11 p.—Conducted a laboratory and a field study to obtain data on performance decrements on tank crew tasks during 48 hr. of continuous combat operations, and to examine the degree of decrement in terms of its effect on tactical efficiency. Ss were 142 tank crewmen and 30 tank crews, respectively. Results illustrate the need for increased efficiency in obtaining human factors information, demanded by the increasing complexity of military tactics and equipment.—*HumRRO.*

5138. Brown, Frank L. & Jacobs, T. O. **Developing the critical combat performance required of the infantry rifle platoon leader.** *HumRRO Technical Report*, 1970(Apr), No. 70-5, 89 p.—Describes methods employed in work unit LEAD to identify and record the critical combat performances, knowledge, and skills required of the infantry rifle platoon leader. From over 200 small-unit combat actions ranging from World War II to Vietnam, some 6000 performances, knowledge, and skills were extracted, categorized into major subject areas, and recorded in 41 research by-products. The methodology developed by this research may be applicable to the identification of combat requirements of other military command or staff functions. Detailed descriptions of small-unit combat actions, recorded by unit historians, will provide useful sources of data for other similar research.—*HumRRO.*

5139. Bruyns, R. A. (Sector Arbeidszaken, Hoofdbureau der Nederlandse Staatsmijnen, Hague) **Werk en werkmotivatie in een geautomatiseerde industriële organisatie.** [Work and work motivation in an automated industrial organization.] *Mens en Onder-neming*, 1970(May), Vol. 24(3), 164-175.—Discusses the changes in the industrial system as a result of the continued and enlarged emphasis on automation. Projected changes in industry incorporate the shift in the task of the worker from an operator of a machine to an observer of the machine operation. The operator should also be able to diagnose the malfunction of the machine as well as to suggest improvements. Consequently the education of the operator will be upgraded. Automation will affect the organizational pattern from a line-and-staff to a functional organization with an altered pattern of the functions of administrative and supervisory personnel. The shifting in the preparation of the blue-collar workers will be in the direction of more technical training and for the white-collar workers from administrative training to technical training. Maslow's pattern of motivational categories is used to illustrate that the motivation of the personnel will shift from the goals of reducing physical needs and acquiring security to that of autonomy and self-realization. (16 ref.)—*A. J. Ter Keurst.*

5140. Burger, William J., Knowles, William B., & Wulfeck, Joseph W. (Dunlap & Assoc., Santa Monica, Calif.) **Validity of expert judgments of performance time.** *Human Factors*, 1970(Oct), Vol. 12(5), 503-510.—Describes an apparatus and method for validating estimates of performance time and reliability against empirical measures of human performance time and reliability. Measures of performance time were obtained on 5 tasks and were correlated with estimates of performance times obtained from 8 judges in a previous study. Median observed and estimated performance times were highly correlated ($r = .98$, $p < .01$). Estimates of maximum performance time corresponded to the 95th-100th percentiles of the observed distribution of performance time, but estimates of minimum performance time were high and scattered over the lower percentiles. The significant validity coefficient suggests the feasibility of using estimates of performance time in system-analytic models when empirical data are lacking and are too expensive to obtain.—*Journal abstract.*

5141. Greening, Charles P. & Wyman, Melvin J. (North American Rockwell, Autonetics Div., Anaheim, Calif.) **Experimental evaluation of a visual detection model.** *Human Factors*, 1970(Oct), Vol. 12(5), 435-445.—Performed a fixed-base simulation experiment to gather visual air-to-ground target recognition performance data for comparison with predictions from the autonetics detection model. Color motion picture imagery obtained during a low-altitude flight simulated the O's forward view. O performance was measured in terms of probability and range of correct target recognition. The autonetics detection model incorporates parameters related to the target, the environment, and O. In generating theoretical predictions from the model, values of all parameters were specified independently of the data obtained. No curve fitting techniques were used to improve the fit between the empirical and theoretical curves. Results indicate a close relationship between the obtained performance data and the model predictions. A product-moment correlation of +.53, significant at the .001 level, was obtained between the empirical and theoretical 50% recognition ranges.—*Journal abstract.*

5142. Schori, Thomas R. (U. South Dakota) **Tracking performance as a function of precision of electrocutaneous feedback information.** *Human Factors*, 1970(Oct), Vol. 12(5), 447-452.—Determined which of 3 degrees of preciseness of electrocutaneous feedback information results in the most accurate tracking performance for each of 2 levels of task difficulty. Contrary to expectations, the most precise (continuous) error information did not result in the best performance. On both levels of task difficulty, the best performance resulted when error information of an intermediate precision was used.—*Journal abstract.*

PERFORMANCE & JOB SATISFACTION

5143. Girona, Ricardo. (U. Florida) **The semantic differential as a tool in predicting the potential effectiveness of student nurses.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 220.

5144. Goodman, Paul S., Rose, Jerry H., & Furcon, John E. (U. Chicago, Graduate School of Business) **Comparison of motivational antecedents of the work performance of scientists and engineers.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 491-495. 66

scientists and engineers served as Ss. The 4 models assessed were direction of motivational orientation, source of motivational stimulation, job dedication, and an expectancy model. Work performance was measured by both self-reports and actual output of papers, patents, and books; and by self-reports of unpublished technical reports and formal talks. Results generally indicate that the expectancy model is a better predictor of work performance than the other 3 models.—*Journal abstract.*

5145. Lawler, Edward E. (Yale U.) **Job attitudes and employee motivation: Theory, research, and practice.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 223-237.—Research on job attitudes and motivation has shown that the relation between satisfaction and performance is a complex one. Satisfaction is an indicator of an employee's motivation to come to work but influences job performance very indirectly. Performance can under certain conditions directly influence satisfaction: Models for extrinsic motivation and for intrinsic motivation based on the interaction of expectancy, instrumentality, and importance attitudes are described. Implications for practice are presented. (30 ref.)—A. S. Thompson.

5146. Locke, Edwin A. (U. Maryland) **Job satisfaction and job performance: A theoretical analysis.** *Organizational Behavior & Human Performance*, 1970(Sep), Vol. 5(5), 484-500.—Argues that job satisfaction and dissatisfaction are outcomes of action. The effect of performance on satisfaction is viewed as a function of the degree to which performance leads to the attainment of the individual's important job values. Emotions, i.e., satisfaction and dissatisfaction, are important incentives to action in that they entail action tendencies (i.e., approach and avoidance). Emotions, however, are not seen as determining action. It is argued that performance is the direct result of the individual's specific work goals and these goals are determined by the individual's values, knowledge, and beliefs in the context of the situation as he understands it. (41 ref.)—*Journal abstract.*

5147. McGraw, James P. (U. Kansas) **A comparison of MMPI scores and other variables with subsequent ratings of Nazarene ministers by their district superintendents.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 157.

5148. Mobley, William H. & Locke, Edwin A. (U. Maryland) **The relationship of value importance to satisfaction.** *Organizational Behavior & Human Performance*, 1970(Sep), Vol. 5(5), 463-483.—Explored the relationship between the importance of a job aspect (value) to an individual and his degree of satisfaction and dissatisfaction with that aspect in an experiment with 381 undergraduates in 5 studies. 4 of these studies tested the hypotheses that value attainment and value frustration would produce more satisfaction and dissatisfaction, respectively, when the value was more important than when it was less important. The 5th study tested the hypothesis that the overall variability in satisfaction with a job aspect would be proportional to the importance of that aspect. The hypotheses were supported. It is suggested that the results provide a plausible explanation for the seemingly inconsistent results of previous studies in this area.—*Journal abstract.*

5149. Plag, John A., Goffman, Jerry M., & Phelan, James D. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **The adaptation of naval enlistees scoring in mental group IV on the Armed Forces Qualification Test.** *USN Medical Neuropsychi-*

atric Research Unit Report, 1967(Sep), No. 68-23, 11 p.—Evaluated differences in the adaptations of average and mentally marginal sailors during 4 yr. of military service. Ss with Armed Forces Qualification Test (AFQT) scores of 50 are significantly superior to Category IV enlistees on military performance measures in which cognitive abilities play an essential role. While mental group IV Ss have appreciably lower rates of overall naval effectiveness, they do not differ significantly from average enlistees with respect to disciplinary and illness rates. 4 preenlistment characteristics were found to be valid for predicting 4-yr naval effectiveness among Category IV personnel. These 4 variables were yr. of schooling completed, number of school expulsions, AFQT score, and number of arrests. An actuarial table, showing the probability of naval effectiveness as a function of different combinations of these 4 predictors, was constructed as a guide for the use of recruiting officers in making decisions concerning the enlistment of mentally marginal applicants.—*Journal abstract.*

5150. Rothe, Harold F. (Beloit Corp., Wis.) **Output rates among welders: Productivity and consistency following removal of a financial incentive system.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 549-551.—Analyzed production data for a group of welders for 48 wk. following the removal of a financial incentive system, and an accompanying loss of take-home pay. Productivity dropped immediately and then began to climb. 2 previously stated hypotheses relative to the effectiveness of incentives were examined. 1 hypothesis concerning the ratios of the ranges of intra- vs. interindividual differences was not supported. The 2nd hypothesis concerning the week-to-week consistency of productivity was supported. As productivity increased over a period of time, the consistency of productivity also increased.—*Journal abstract.*

5151. Siegel, Arthur I. & Federman, Philip J. (Applied Psychological Services, Inc., Wayne, Pa.) **Development of performance evaluative measures: Investigation into and application of a Fleet posttraining performance evaluative system.** Wayne, Pa.: Applied Psychological Services, Inc., 1970. 79 p.—Attempted the development and demonstration for providing feedback on the technical proficiency of Navy electronic maintenance personnel. The method relied largely on a personnel reliability index. The personnel reliability index is based on the compounding of probability of successful performance values for 8 factorially derived electronic job dimensions. Statistically significant differences were evidenced among the derived indices for the Naval ratings and job factors involved. A 2nd instrument was used, based on a Guttman scaled checklist. It yielded an absolute measure of performance.—P. Federman.

5152. Smith, Patricia C., Kendall, Lorne M., & Hulin, Charles L. (Bowling Green State U.) **The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.** Chicago, Ill.: Rand McNally, 1969. xiii, 186 p.

5153. van Beijnum, H. J., van Gils, M. R., & Verhagen, E. J. (U. Rotterdam, Netherlands) **Taakontwerp en organisatie: Verslag van een veldexperiment.** [Task design and organization: A report of a field experiment.] *Mens en Onderneming*, 1970(May), Vol. 24(3), 149-163.—Hypothesized and confirmed that worker morale and productivity would increase as a result of changes in the work situations that incorporate worker abilities to a

better degree. The situation was in a clearinghouse where the task was operating computers. The task was routinized and required a minimum of training. Few interpersonal exchanges occurred among the workers. The business was not concerned about employee satisfaction. There were 59 experimental Ss and 40 controls, all female. Beginning in May 1965, variation in tasks was permitted for experimental Ss in keeping with their abilities. Controls had been significantly superior in productivity during the 16 mo. preceding the start of the experiment. After the change in the experimental Ss' work patterns, productivity was almost equal to the controls. Also, worker satisfaction was significantly higher (.01 level) for experimental Ss than for controls after the change. (18 ref.)—A. J. Ter Keurst.

MANAGEMENT & ORGANIZATION

5154. Drabek, Thomas E. & Haas, J. Eugene. (U. Denver) **Laboratory simulation of organizational stress.** *American Sociological Review*, 1969(Apr), Vol. 34(2), 223-238.—Investigated organizational stress, possibly precipitated by natural disaster through realistic simulation. 3 teams of police communication room personnel participated in each of the 3 simulations with normal system demands. The teams then confronted system stress through a simulated disaster. Changes in team performance patterns under stress appeared related to strains existent in the system prior to stress and to incompatibilities between system structure and emergent system demands. Among the most important changes in group structure which increased system capacity was the gradual emergence of a display mechanism whereby intrateam activity became more shared. (37 ref.)—*Journal abstract*.

5155. Ivancevich, John M., Donnelly, James H., & Lyon, Herbert L. (U. Kentucky) **A study of the impact of management by objectives on perceived need satisfaction.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 139-151.—A before and after study of the need satisfactions of employees in 2 organizations revealed that the manner in which management by objectives was implemented and the frequency of feedback consultations affected need satisfaction. (16 ref.)—A. S. Thompson.

5156. Roberts, Karlene H. (U. California, Berkeley) **On looking at an elephant: An evaluation of cross-cultural research related to organizations.** *Psychological Bulletin*, 1970(Nov), Vol. 74(5), 327-350.—Categorizes the literature into 26 substantive areas and further classifies it on the bases of whether entries offer micro- or macro-data, and the vantage point from which research questions are asked. Thus, findings concerned with the characteristics of individuals in organizations, organizational subunits, organizational totalities, and organizational interactions are considered. The available work is considered in terms of 3 questions: (a) from this research, do we know anything new; (b) are investigations guided by theoretical principles that suggest relevant questions; and (c) are the methodological approaches useful? The problem of defining culture is discussed, and some of the variables that should be looked at in future work are suggested. A few substantive and methodological approaches that might be helpful are mentioned. (4 p. ref.)—*Journal abstract*.

5157. Sloan, Stanley. (U. Wisconsin) **Management development in hospitals: A case study.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 431.

5158. Thomson, Harvey A. (McGill U., Graduate School of Business, Montreal, Quebec, Canada) **Comparison of predictor and criterion judgments of managerial performance using the multitrait-multimethod approach.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 496-502.—Used the multitrait-multimethod matrix technique to examine the predictive validity of ratings of management potential derived from an industrial assessment center program. Ss were 71 professional, technical, and lower level managerial personnel. Psychologists' and managers' ratings on 13 assessment dimensions were correlated with supervisors' ratings of current job performance on the same dimensions. Ratings obtained of on-the-job performance were lower in quality than the predictor ratings. The median reliability of the criterion ratings was .52 compared to median reliabilities of .85 and .89 for the psychologists' and managers' ratings, respectively. Supervisors failed to differentiate the various dimensions. Results are compared with findings of other studies that used this technique to determine the sources of unreliability in the criterion.—*Journal abstract*.

SPECIAL ENVIRONMENTS

5159. Kondror, I. S. **Ocherki po fiziologii i gijene cheloveka na krainem severe.** [Essays on the physiology and hygiene of man in the far north.] Moscow, USSR: Meditsina, 1968.—This book deals with the problems of acclimatization of man, in which social factors are considered along with the "climatogeographical," since the interrelationship of man's organism with his environment is viewed as a "complex social-biological problem." The social setting for the interplay of physiological factors is considered to be of importance. Data are presented on the "psychophysiological status" of members of polar expeditions, staying for long stretches of time in a small group.—I. D. London.

5160. Ono, Hiroshi; O'Reilly, Joseph P., & Herman, Louis M. (York U., Downsview, Toronto, Ontario, Canada) **Underwater distance distortion within the manual work space.** *Human Factors*, 1970(Oct), Vol. 12(5), 473-480.—Measured apparent distance of a target within arm's length above and under water. 8 experienced and 8 novice divers wearing facemasks indicated apparent distances by reaching responses. The viewing conditions were (a) target and S in air environment, (b) target in water but S in air, and (c) target and S under water. Apparent distances were smaller in Conditions b and c than in a. This difference is attributed to the dissimilar convergence and accommodation requirements in the various conditions. There was little difference between the experienced and novice Ss. (15 ref.)—*Journal abstract*.

5161. Russotti, Joseph S. & Duffy, Joseph R. **An evaluation of three methods for unscrambling helium speech produced at depths of 800 and 1000 feet.** *U.S. Naval Submarine Medical Center Report*, 1969(Oct), No. 602, 5 p.—Evaluated 3 systems for unscrambling helium speech produced at simulated depths of 800 and 1000 ft. Recordings of the Modified Rhyme test read by an experienced male diver in a pressurized helium atmosphere were processed through 3 commercial frequency-shifting devices. The intelligibility of words passed through these systems was compared to scores obtained when the same helium recording was

presented directly without alteration and when presented at $\frac{1}{2}$ playback speed to groups of listeners. A within-Ss' design was employed with suitable counterbalancing so that no word was heard twice by the same listener. $\frac{1}{2}$ speed playback (58.5% intelligibility) was significantly superior to all other conditions. The Kay Electric Company Varivox (43.2% intelligibility) was significantly inferior to the other 2 commercial systems. The Industrial Electronics Corp. and the Gotham Audio Corp. units were equal in performance (50.7% and 51.0% intelligibility, respectively) and superior in intelligibility to unaltered helium speech (45.7%). Methods for adapting these units for improved operation at greater depths are suggested.—*Journal abstract.*

5162. Smith, Paul F. **Underwater hearing in man: I. Sensitivity.** *U.S. Naval Submarine Medical Center Report*, 1969(Feb), No. 569, 23 p.—Reviews all available research on the underwater hearing sensitivity of man. New data on the underwater hearing of divers with known air conduction and bone conduction levels were presented. It is concluded that: (a) man suffers a loss of sound pressure sensitivity upon immersion, (b) underwater hearing sensitivity is frequency dependent with peak sensitivity being about 61–64 db. above .0002 dynes/sq. cm. at 1 kHz., (c) air conduction auditory deficiencies are not reflected in underwater hearing levels unless the air conduction deficiencies are accompanied by bone conduction deficiencies, and (d) wet suit diving hoods reduce underwater sensitivity to sound by 25–35 db. at frequencies of 1 kHz. and higher. (29 ref.)—*Journal abstract.*

5163. Cahoon, Richard L. (U.S. Army Research Inst. of Environmental Medicine, Natick, Mass.) **Vigilance performance under hypoxia.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 479–483.—Tested vigilance performance by 20 young male military Ss on a 2-hr brightness discrimination task under 4 levels of hypoxia: 21% oxygen (sea level), 12.8% oxygen (13,000 ft.), 11.8% oxygen (15,000 ft.), and 10.9% oxygen (17,000 ft.). Results indicate a significant decrement in signal detection as a function of severity of hypoxia and task duration. Analyses of d' and β show a significant decrease in detectability of the signal as a function of hypoxia, but no change in caution of decision making. Individual variation in performance was related to field dependence as measured by the Embedded Figure Test (EFT). EFT score correlated negatively with false detection rate, and positively with RT and d' , indicating a negative relationship between field dependence and vigilance performance.—*Journal abstract.*

ADVERTISING & CONSUMER PSYCHOLOGY

5164. Nylen, David W. (U. Florida) **An analysis of product-fact versus psychosocial appeals in advertising: An application of the theory and methods of the behavioral sciences to a business problem.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-A), 47.

ENGINEERING PSYCHOLOGY

5165. ———. **Milestones: A directory of human engineering laboratories publications, 1953–1969.** Aberdeen Proving Ground, Md.: U.S. Army Human Engineering Laboratories, 1970. iii, 118 p.

5166. Barnes, John A. **Tactical Utility Helicopter**

Information transfer study. *U.S. Army Human Engineering Laboratories Technical Memorandum*, 1970(Mar), No. 7-70, 96 p.—Enumerated the task requirements of the Tactical Utility Helicopter Mission and presented the instrumentation that experienced pilots feel is necessary to perform these tasks. Film of eye movement was taken for 2 Ss while they were flying missions that incorporated these tasks. The film and the Ss' replies provided the information transfer requirements for the Tactical Utility Helicopter flight instrumentation.—*Journal abstract.*

5167. Cohen, Edwin & Follert, Richard L. (Singer Co., Link Div., Binghamton, N.Y.) **Accuracy of interpolation between scale graduations.** *Human Factors*, 1970(Oct), Vol. 12(5), 481–483.—Examines the accuracy with which engineering personnel can interpolate the position of a pointer or index between 2 scale graduations. Each of 20 Ss estimated the position of a mark on each of 99 5-in linear, ungraduated scales. Estimates were given in units over the range 0–100 units. The median error was only 1.5% of the distance between the 2 marked graduations. Accuracy was greatest at the ends and middle of the scale. Data indicate that interpolation of fifths and even tenths will provide accuracy satisfactory for most situations.—*Journal abstract.*

5168. Holding, D. H. (Ed.) (U. Louisville) **Experimental psychology in industry: Selected readings.** Baltimore, Md.: Penguin Books, 1969. 445 p. \$2.95(paper).—Contains a collection of papers by various authors on man-machine interactions, covering a broad range of human performance topics including human engineering, noise abatement, and quality control.

5169. Simpson, Duncan W. **Advanced training systems.** *Flight Safety*, 1968(Dec), Vol. 2(2), 30–31.—Established "the basic engineering guidelines for the design of an advanced training system," including record/playback, performance comparison, and adaptive training. The development of the performance comparison is covered in detail.—*G. Steele.*

Displays & Controls

5170. Dill, Amanda B. & Gould, John D. (IBM T. J. Watson Research Center, Yorktown Heights, N.Y.) **Flickerless regeneration rates for CRT displays as a function of scan order and phosphor persistence.** *Human Factors*, 1970(Oct), Vol. 12(5), 465–471.—Used 21 different scan orders and 2 phosphors (P-12 and P-38) in a computer-automated experiment. Results show that flickerless regeneration rates depended principally upon phosphor persistence; scan order had only a minor influence. The main effect of random and pseudorandom scanning was to reduce the disturbing effects of display flicker when it did occur, rather than to reduce significantly the regeneration rate at which flicker did not occur. (16 ref.)—*Journal abstract.*

5171. Hirsch, Richard S. (International Business Machines Corp., Research Lab., San Jose, Calif.) **Effects of standard versus alphabetical keyboard formats on typing performance.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 484–490.—Compared the typing performance of nontypists on 2 typewriter keyboards, 1 with a standard key arrangement and the other with keys rearranged in alphabetical sequence. Analysis included results for 40 Ss whose scores in a pretest were lower than 2 strokes/sec. Ss were divided into 2 groups. Following pretests on both standard and alphabetical

keyboards, each group practiced on 1 type of keyboard only. At regular intervals, Ss took 10-min tests on the assigned machines; and at the end of the practice, all Ss were tested again on both machines. Results indicate that untrained typists can enter correct data faster on a standard typewriter keyboard than on the sequential alphabetical keyboard.—*Journal abstract.*

DRIVING & SAFETY

5172. Bose, S., Roy, K. P., & Das Gupta, S. C. (Group of Hosp., Calcutta, India) **An attitude study of multi-accident omnibus drivers.** *Indian Journal of Applied Psychology*, 1969, Vol. 6(1), 3-12.—A study of 100 drivers on a 10-item 5-point attitude inventory on job satisfaction, social satisfaction, fellow relations, life Gestalt, and optimism showed that drivers with an antiattitude had more accidents. Cluster analysis revealed the presence of a single operational factor of the antiattitude contributing to more accidents. The degree of the antiattitude was positively related to the number of accidents.—*U. Parcek.*

5173. Gerathewohl, S. J., Morris, E. W., & Sirkis, J. A. (FAA, Office of Aviation Medicine, Washington, D.C.) **Anticollision lights for the supersonic trans-**

port (SST). *FAA Office of Aviation Medicine Report*, 1970(May), No. 70-9, 23 p.—Reviews data on visual perception and target detection in establishing a basis for the need to equip the SST with anticollision lights.—*W. E. Collins.*

5174. McBain, William N. (San Jose State Coll.) **Arousal, monotony, and accidents in line driving.** *Journal of Applied Psychology*, 1970(Dec), Vol. 54(6), 509-519.—Lack of alertness in monotonous work situations may result from lowered arousal induced by restricted and repetitive stimulation. Line driving is held to be monotonous in this sense, hence laboratory evaluation of a driver's resistance to monotony should predict his accident record. A highly repetitive, 42-min paced task was performed under controlled conditions by 20 line drivers. Self-reports on monotony susceptibility, intelligence test scores, and peer ratings were obtained. Supervisory ratings, traffic convictions, and objective driving measures were criteria in addition to accident records. Accidents of 1 type were predicted by task errors ($r = .63$; $p < .01$). Other relations in the correlation matrix are discussed, and a tentative hypothesis advanced concerning the relations among arousal, accidents, and driver behavior.—*Journal abstract.*



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This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

Psychological Abstracts (PA) attempts to cover the world's literature in psychology and related topics. PA publishes abstracts of published primary documents such as technical reports, journals, and monographs. Books and separates are covered by bibliographic citation with an additional annotation if the title is not definitive.

PA is published in two volumes per year (effective January 1971), six issues per volume. A cumulative index is published for each six-month volume.

A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

A cumulative index issue contains: Table of Contents for the six-month volume; complete list of all journals regularly searched by PA; list of volunteer abstractors; list of abbreviations used in the abstracts; the cumulative author index for the six-month volume; list of subject index heading terms; and cumulative subject index for the six-month volume, which consists of index heading terms, descriptive phrases for each abstract, four-letter abbreviations indicating languages other than English and abstract numbers.

Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

PA is computer-printed and because of necessary production procedures there is a possibility that on occasion the abstracts representing articles from a single issue of a primary journal may appear in several issues of PA, e.g., an issue of the *Journal of Psychology* may include 20 relevant articles; abstracts for 17 of these articles may appear in the May issue of PA, the other 3, in the June issue.

The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.).—(10) *Journal abstract*.

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., (*Parapsychology*).

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA—*Psychological Abstracts*.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA—*Psychological Abstracts*.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement (e.g., in.=inch, wk.=week, hr.=hour, etc.):

AA = Alcoholics Anonymous
 AC = alternating current
 ACTH = adrenocorticotrophic hormone
 AM = ante meridiem
 amp. = ampere
 bpm = beats per minute
 C = centigrade
 ¢ = cents
 CA = chronological age
 cc = cubic centimeter
 CER = conditioned emotional response
 CFF = critical flicker frequency
 CNS = central nervous system
 cps = cycles per second
 CR = conditioned response (or reflex)
 CRF = continuous reinforcement
 CRT = cathode ray tube
 CS = conditioned stimulus
 CVC = consonant-vowel-consonant
 db. = decibel
 DC = direct current
 DL = differential limen
 DNA = deoxyribonucleic acid
 DRL = differential reinforcement of low rates

E = experimenter
 ECS = electroconvulsive shock
 EEG = electroencephalogram (or -graphy)
 EKG = electrocardiogram
 EMG = electromyogram
 ESP = extrasensory perception
 Exp. = experiment

F = Fahrenheit
 ft-c = footcandle
 ft-l. = foot-lambert

g = gravity
 gm. = gram(s)
 GPA = grade-point average
 GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
 im = intramuscularly
 ip = intraperitoneally
 IQ(s) = intelligence quotient(s)
 ITI = intertrial interval
 iv = intravenously

kc. = kilocycle
 kg. = kilogram
 kg/m = kilogram per meter
 kHz. = kilo-Hertz

LD = lethal dose
 LSD = lysergic acid diethylamide

m. = meter
 M = mean
 M = mole or molar
 ma. = millampere
 MA = mental age
 MAO = monoaminoxidase
 mL. = millilambert
 mm. = millimeter
 mph = miles per hour
 msec. = millisecond(s)

N = number
 NREM = nonrapid eye movement

O = observer

p = probability
 % = percent

PM = post meridiem
 pps = pulses per second
 PRE = partial reinforcement effect
 PSE = point of subjective equality
 psi = pounds per sq. in.

r = product-moment correlation
 r = roentgen
 REM = rapid eye movement
 rms = root mean square
 RNA = ribonucleic acid
 rpm = revolutions per minute
 RT = reaction time

S = subject
 SEU = subjectively expected utility
 SPL = sound pressure level

TV = television

UCR = unconditioned response
 UCS = unconditioned stimulus
 UHF = ultrahigh frequency

V = volt
 VHF = very high frequency
 vs. = versus

YMCA = Young Men's Christian Association
 YWCA = Young Women's Christian Association

Test abbreviations include:

California E Scale (Ethnocentrism)
 California F Scale (Fascism)
 CMA scale = Children's Manifest Anxiety scale
 CPI = California Psychological Inventory
 CTMM = California Test of Mental Maturity
 EPPS = Edwards Personal Preference Schedule
 MA scale = (Taylor) Manifest Anxiety scale
 MMPI = Minnesota Multiphasic Personality Inventory
 MPI = Maudsley Personality Inventory
 16 PF = Cattell's 16 Personality Factor Questionnaire
 SVIB = Strong Vocational Interest Blank
 TAT = Thematic Apperception Test
 WAIS = Wechsler Adult Intelligence Scale
 WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
 Assoc. = associates
 Co. = company
 Coll. = college
 Corp. = corporation
 Dept. = department
 Div. = division
 Inst. = institute
 Hosp. = hospital
 Lab. = laboratory
 Inc. = incorporated
 U. = university

Ave. = avenue
 Bldg. = building
 Blvd. = boulevard
 Ct. = court
 Dr. = drive
 Ft. = fort
 Mt. = mount
 Pkwy. = parkway
 Pl. = place
 PO = post office
 Rd. = road
 St. = street
 N, S, E, W = North, South, East, West
 U.S. = United States
 USSR = Union of Soviet Socialist Republic

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GENERAL

5175. Zaslavskii, S. Ya. (Inst. of Cybernetics, Kiev, USSR) **Sluchainye reshayushchie sistemy: I.** [Random decision-systems: I.] *Problemy Bioniki*, 1970, No. 3, 30-35.—Examines apparatus which answer questions "arriving from an external medium." Memory and the Operators F and Q constitute the basic components of the apparatus. For a given question, Operator F performs the preliminary selection of information from the memory, while on the basis of the selected information Operator Q constructs the answer.—*I. D. London.*

5176. Guedes, Maria do Carmo. (Pontifica Universidade Católica de São Paulo, Brazil) **Sobre o uso do conceito de emoção na psicologia.** [Investigation of the concept of emotion in psychology.] *Revista de Psicologia Normal e Patológica*, 1968(Jul), Vol. 14(3-4), 164-169.—Delineates discrepancies in the use of nosological terminology in psychology. Reference is made to Wenger's investigation which demonstrated 20 different definitions of the word "emotion." 4 other investigations are reviewed which also suggest widespread discrepancy in the use of psychological terminology. As a means of clarification of psychological nosological terminology, a more scientific (psychophysiological) approach to behavior is suggested.—*B. A. Stanton.*

OBITUARIES

5177. Baker, Robert A. (U. Kentucky) **Contributions to the history of psychology: XIII. Richard Marlon Griffith: 1921-1969.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 317-318.—Presents a brief biographical sketch, emphasizing his work in psychopathology, clinical diagnosis, phenomenological psychology, and research in other areas of psychology.—*M. West.*

HISTORY

5178. Taverna, P. **Le basi della "Daseinanalyse" da Heidegger a Binswanger: I.** [The bases of "daseinanalyse" from Heidegger to Binswanger: I.] *Neuropsychiatria*, 1968(Jan), Vol. 24(1), 37-49.—Focuses on Heidegger's contribution.—*L. L'Abate.*

5179. Taverna, P. **Verso una psicologia fenomenologica.** [Toward a phenomenological psychology.] *Neuropsychiatria*, 1968(Jan), Vol. 24(1), 23-36.—Husserl, Heidegger, and Sartre should be considered as the precursors and founders of phenomenological psychology.—*L. L'Abate.*

PHILOSOPHY

5180. Fleetwood, Arthur H. (U. Michigan) **Cognitive, conative, and affective mental states: A project in philosophical taxonomy.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 797-798.

5181. Kivenko, N. V. **Izomorfizm biologicheskikh struktur i ego rol' v protsessakh vzaimodeistviya.** [Isomorphism of biological structures and its role in the processes of interaction.] *Problemy Bioniki*, 1970, No. 3, 116-120.—Analyzes 1 of the important questions concerning the problem of the structural organization of "material objects"—"the general principle of their formation." "Reflection [in Lenin's sense is viewed] as a process underlying the emergence of isomorphic relations between the structures of reflecting and reflected systems."—*I. D. London.*

5182. Meerloo, J. A. (34 Weedestein, Amsterdam, Netherlands) **The sense of time and history.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Jul), Vol. 72(4), 353-370.—Examines time as a structural concept, unravelling millions of years of genetic adaptation and condensing culture in a variety of symbols. With a variety of known and unknown body rhythms, and a multitude of memory traces, man confronts reality and forms his subjective concept of time, duration, and eternity. Bound to culture, language, and tradition, this occurs in different ways. Sense of time and history is related to biological functions, to the inner time clock, the sense of rhythm, and the speed of neuronic actions. Gradually, it becomes more related to personal and social schedules, and to religious, philosophical, and physical concepts of time and duration. Creative man builds his own time. Homo sapiens is the only creature with a conscious notion of time and death. (19 ref.)—*Journal summary.*

5183. Mounier, Emmanuel. **Personalism.** Notre Dame, Ind.: U. Notre Dame Press, 1952. xxviii, 132 p. \$2.25(paper).

5184. Parin, V. V. **Leninskaya teoriya otrazheniya i sovremennaya fiziologiya.** [Lenin's theory of reflection and contemporary physiology.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(4), 40-49.—Attempts to demonstrate the continuing force of Lenin's "theory of reflection [of an objective reality in man's consciousness]" from Pavlov's time to the present.—*I. D. London.*

5185. Sapozhnikov, R. A. & Tatamikova, G. A. **Informatsiya i preobrazovanie prirody.** [Information and the transformation of nature.] *Problemy Bioniki*, 1970, No. 3, 121-126.—Examines the views of the Russian physicist, N. A. Umov, on the transformation of nature and provides an interpretation of them from the viewpoint of contemporary information theory.—*I. D. London.*

5186. Shastri, Dinesh C. **The unconscious in Indian philosophy.** *Samiksa*, 1968, Vol. 22(1), 33-40.—Though nothing in Indian philosophy may be exactly equated with the Freudian "unconscious" and "preconscious," similar concepts are *adrsta* and *samskara* (or *karmasaya* and *jnanasaya*) meaning action-residue and knowledge-residue, respectively. *Adrsta* is more significant of the unconscious, and *samskara* more the preconscious. *Adrsta* is produced by previous, especially voluntary,

actions, and produces results in the form of events and experiences of pleasure and pain (some in this life and others reserved for the next). Samskāra is produced as subtle impressions of cognitions producing in turn different tendencies, proneness, and especially all recollections, also functioning in dreams, illusions, and hallucinations. Adṛṣṭa and samskāra are discussed within the context of the beliefs of various schools of Indian philosophy.—*T. N. Webster.*

5187. Timakov, V. D. **Teoreticheskoe nasledie V. I. Lenina i meditsinskaya nauka.** [Theoretical heritage of V. I. Lenin and medical science.] *Vestnik Akademii Meditsinskikh Nauk SSSR*, 1970, Vol. 25(4), 31-40.—Discusses the influence of Lenin's views and theories on various physiological and medical issues. Pavlovian theory is held to buttress Lenin's "theory of reflection [of an objective reality in man's consciousness]."—*I. D. London.*

PARAPSYCHOLOGY

5188. Honorton, C. & Carbone, M. (Maimonides Medical Center, Brooklyn, N.Y.) **A preliminary study of feedback-augmented EEG alpha activity and ESP card-guessing performance.** *Journal of the American Society for Psychical Research*, 1971(Jan), Vol. 65(1), 66-74.—Hypothesized that increments in alpha activity after operant training sessions would be associated with increments in ESP scoring level. 10 Ss took part in 10 sessions of EEG feedback training. The S, a digital frequency discriminator, and an audio oscillator made up a closed feedback loop. S's alpha activity activated a 250-Hz tone. Alpha abundance was registered on digital counters. At each session, Ss completed 2 ESP runs (nonfeedback), 2 4-min rest periods, 4 4-min feedback trials, and 2 more ESP runs (feedback). Only 2 Ss showed significant increments in alpha. A significant negative correlation ($p < .05$) was observed between percent of alpha and ESP scores in the nonfeedback condition. Results for the feedback condition were not significant.—*R. A. White.*

THEORY & SYSTEMS

5189. Allen, A. L. & Shannon, A. G. (U. Papua & New Guinea) **Note on a category model for an abstraction mechanism.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 591-594.—Presents a mathematical scheme which clarifies the mechanism of abstraction. A list of elementary mathematical terms is included. The main result is the proof of the existence of a free universal abstraction of a given set of ideas.—*Journal abstract.*

5190. Crovitz, Herbert F. (Duke U.) **Galton's walk: Methods for the analysis of thinking, intelligence, and creativity.** New York, N.Y.: Harper & Row, 1970. xii, 159 p. \$2.95(paper).

5191. Duijker, H. C. (U. Amsterdam, Psychological Lab., Netherlands) **Some introductory remarks on the concept of behaviour.** *Psychiatry, Neurologia, Neurochirurgia*, 1969(Sep), Vol. 72(5), 439-445.—The notion of behavior is generally used in the definition of modern psychology. The meaning of behavior, and the scope of psychology are examined. It is argued that if behavior is defined as the set of observable, or measurable, processes in an organism, such a definition is not suitable to indicate the field of any particular science. On the contrary, such distinctions must be based on empirical

data concerning not behavior itself, but its determinants.—*Journal summary.*

5192. Rapoport, Anatol. (U. Michigan, Mental Health Research Inst.) **The impact of cybernetics ideas on psychology.** *Kybernetika*, 1969, Vol. 5(5), 363-377.—Discusses the impact of cybernetic ideas in psychology in the area of the mind-body problem, on theories of the nervous system, and on social-ethical problems arising as consequences of automated technology.—*Journal abstract.*

5193. Reynolds, Janice M. (Ohio State U.) **A comparative analysis of behavioristic and transformational paradigms.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 839.

5194. Rosenbluth, Arturo. **Mind and brain: A philosophy of science.** Cambridge, Mass.: Massachusetts Inst. of Technology Press, 1970. xii, 128 p. \$5.95.

5195. Swartz, Paul. (U. Alberta, Edmonton, Canada) **A rose for behaviorism.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 364.—Cites quotations from writing by Marcel Proust in 1920 and 1925 illustrating the reinforcing effect of anxiety reduction. It is suggested that literary artists can, in this way, make contributions to the science of psychology.—*P. McMillan.*

EDUCATION & TRAINING

5196. Gregson, R. A. (U. Canterbury, Christchurch, New Zealand) **Problems of teaching the mathematical foundations of psychology.** *International Journal of Psychology*, 1969, Vol. 4(3), 239-246.—*S. E. Gavin.*

5197. Knox, Wilma J. (Veterans Administration Center, Biloxi, Miss.) **Obtaining a PhD in psychology.** *American Psychologist*, 1970(Nov), Vol. 25(11), 1026-1032.—Analyzed demographic characteristics of psychology graduate students entering 4 universities between 1955 and 1964 in relation to completion of the PhD or withdrawal. Of 593 Ss studied, 27.7% completed the PhD, 27.3% remained in school, and 45% withdrew. Mean time to completion was 3.77 yr. for Ss entering with a masters, and 5.07 yr. for those entering without one. Marital status and sex were significantly related to obtaining the PhD but not to time for degree completion. Age at entrance, graduate major, undergraduate major, and type of degree showed no relation to completion or withdrawal. Other related factors including the problem of dropouts are discussed. (17 ref.)—*Author abstract.*

5198. Lunneborg, Patricia W. (U. Washington) **Undergraduate psychology field work: The unwashed take over.** *American Psychologist*, 1970(Nov), Vol. 25(11), 1062-1064.—Describes a field work course which gives undergraduates the opportunity to participate in over 40 community agencies in the application of psychological theory and knowledge to society's problems. The primary purpose of the practicum is personal growth in the area of psychology within which the student plans to make a career or continue graduate studies.—*Author abstract.*

5199. Mansilla Trespalacios, Adolfo. **Prueba de intereses específicos para psicología.** [Test of specific interests for psychology.] *Revisita de Psicología*, 1968, Vol. 13(1-2), 17-40.—Describes an investigation of aptitude and interest to evaluate candidates best suited for the study of psychology. The 121-item test was administered to 48 psychology students, 68 architecture students, 28 sociology students, 62 medical students, and 56 engineering students. Areas of investigation included

(a) the nervous and endocrine systems, (b) psychological terminology, (c) psychology as a profession, and (d) the psychological evaluation of literary characters. Significant differences were found between the aptitudes and interests of psychology students and all other Ss except medical students. The test is recommended as a valid evaluation technique for aspiring psychologists. (27 ref.)—*P. Hertzberg.*

5200. Marques, Juracy C. (Pontifica Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil) **O ensino da psicologia como crescimento de grupo.** [Psychological training as group growth.] *Revista de Psicologia Normal e Patológica*, 1968(Jul), Vol. 14(3-4), 186-198.—Described the use of groups to provide training for psychology students. A group of 57 female, middle-class, psychology students (ages 16-32) was divided into an experimental group of 25 Ss who conducted discussions concerning the dynamics of behavior, and a control group of 32 Ss who conducted discussions concerning personality development (intellectual, emotional, and social), and wrote papers describing individual experiences with the group. Results confirmed the hypothesis that individuals in both groups would experience personal growth, however, Ss in the experimental group evidenced considerably greater resistance to participation than did Ss in the control group. The use of discussion groups in the training of psychologists was advocated as a means of promoting personality growth. (Portuguese summary)—*B. A. Stanton.*

5201. Morgenstern, Alan L. (U. Oregon, Medical School) **A criticism of psychiatry's Board examinations.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 33-42.—Argues that the testing system and actual physical make-up of psychiatry's Board examinations have been static since its origination, and that too many qualified people have been barred because of its archaic state. The relevance of having neurology and psychiatry linked for this testing process is questioned as is the length of the written examination (100 questions/hr) which could unjustly penalize the slow reader. It is suggested that the validity of the preparation, feedback system, and the oral examination need to be reevaluated in light of new educational premises. A discussion by D. A. Boyd follows. (36 ref.)—*P. R. Shibleski.*

5202. Tanco Duque, Rosa. (National U., Bogotá, Colombia) **Sobre un plan de estudios para la carrera de psicología.** [A curriculum for the psychology career.] *Revista de Psicología*, 1967, Vol. 12(1-2), 105-109.—Describes a proposed 5-yr program leading to the title of "psychologist," to be offered at the Psychology Department of the National University of Colombia. —*L. Zusne.*

PROFESSIONAL DEVELOPMENTS

5203. Gregory, Ian. (Ohio State U., Medical School) **Elimination of an internship requirement for medical licensure and board certification in psychiatry.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1557-1564.—Reports the results of 2 nationwide surveys conducted in relation to the American Board of Psychiatry and Neurology's recent decision to eliminate the internship requirement as a condition of eligibility for the Board examination. Results indicate a generally favorable attitude towards this decision, stating that, in this age of specialization, the field of psychiatry is always

expanding, and that the requirement for an internship in other fields of medicine prior to residency is unnecessary and a hindrance. The 2 surveys taken in the summer of 1969 were addressed to the corresponding officers of 40 state boards of medical examiners (100% response rate) and the chairmen of departments of psychiatry in 95 4-yr medical schools (90% response rate). The departments most reluctant to accept 1st-yr residents without prior internship tended to be (a) located in close proximity to affiliate societies of the American Psychoanalytic Association, (b) those not currently offering a rotating internship with emphasis on psychiatry, (c) those whose chairmen were born prior to 1916, and (d) those whose chairman's residency training was in close proximity to an affiliate society of the American Psychoanalytic Association.—*P. R. Shibleski.*

5204. Hicks, Leslie H., Leibowitz, Herschel W., Ross, Sherman, & Paller, Marsha. (American Psychological Association, Washington, D.C.) **A 1970 overview of sources of support for psychological research.** *American Psychologist*, 1970(Nov), Vol. 25(11), 1013-1025.—Provides information on funding sources for research activities. Grant and contract programs sponsored by various federal agencies are described, including those of the National Science Foundation, various branches of Health, Education and Welfare (the National Institute of Mental Health, the National Institute of Child Health and Human Development, the Office of Education, and the Social and Rehabilitation Service), and the Departments of Labor, Transportation, Defense, State, Justice, Housing and Urban Development, and the National Aeronautics and Space Program. Programs of 31 private foundations are also listed, including the foundation name and address, and the purposes and activities of the respective support programs.—*P. McMillan.*

5205. Miller, George A. (Rockefeller U., New York, N.Y.) **Assessment of psychotechnology.** *American Psychologist*, 1970(Nov), Vol. 25(11), 991-1001.—Discusses the importance for the field of psychology of assessing the costs and benefits of new technologies before they are introduced to society on a large scale. Examples are cited (i.e., the polygraph and personality testing) of instances of public concern over invasion of privacy by such psychotechnology. A code of priorities for assessing psychotechnology is suggested as a supplement to the present American Psychological Association code of ethics. Such a code would require compliance with the following criteria: validity, intelligibility, reliability, social relevance, safety, accountability, obtaining informed consent, avoidance of deception, emphasis on individuality, availability, and distributability (assessable to all rather than to a privileged subgroup). (17 ref.)—*P. McMillan.*

5206. Myers, C. Roger. (U. Toronto, Ontario, Canada) **Journal citations and scientific eminence in contemporary psychology.** *American Psychologist*, 1970(Nov), Vol. 25(11), 1041-1048.—Investigated the validity and reliability of publication citations as a measure of scientific eminence in psychology. Citations from 14 representative English language journals, published from 1962-1967, were examined. Results were compared with other indices of eminence, i.e., being listed in *American Men of Science*, receiving scientific contribution awards, election to presidency of the American Psychological Association, etc. Results suggest that journal citation provides an index that is correlated

with other measures of eminence. Difficulties from high journal citation and low eminence and the reverse of this are discussed. (30 ref.)—P. McMillan.

5207. Romano, John. (U. Rochester, Medical & Dental School) **The elimination of the internship: An act of regression.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1565-1576.—Argues that the elimination of the internship requirement "will seriously limit the future psychiatrist's unique contributions to his own field as well as to other areas of medical practice. Building upon this major thesis a rebuttal to I. Gregory's (see PA, Vol. 45:Issue 4) article is presented. Informative data are presented to support the contentions. (24 ref.)—P. R. Shibelski.

INTERNATIONAL PSYCHOLOGY

5208. Mankelinas, Mateo V. (National U., Bogotá, Columbia) **Psicólogo y sociedad.** [The psychologist and society.] *Revista de Psicología*, 1967, Vol. 12(1-2), 5-11.—On the occasion of the 20th anniversary of the Department of Psychology of the National University of Colombia, the history of the rise of psychology as a profession is reviewed, as well as the existing attitudes of the society toward psychology, and the psychologist's responsibilities to society.—L. Zusne.

GENERAL BOOKS & REFERENCE WORKS

METHODOLOGY & RESEARCH TECHNOLOGY

5209. Lambley, Peter. (U. Cape Town, South Africa) **Authoritarian trends in contemporary psychology: The dominance of the paradigm.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 575-582.—Attempts to show how the concept of authoritarianism can be applied, in a metatheoretical sense, to the activities of paradigms found in modern psychology. The argument is advanced that current paradigm-languages tend to obscure important epistemological issues and create an aura of authority that serves to curtail too self-critical thinking. (46 ref.)—*Journal abstract.*

5210. Sonne, John C. (Hahnemann Medical Coll., Philadelphia, Pa.) **Research as a rebellion.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 47-51.—"Really worthwhile research will only be done in the spirit of rebellion" by a person who is not satisfied with his present world. It is believed that society should think what it will of new ideas, test them, but should not control output. Insofar as society is resistant to new ideas, the researcher will be the rebel against this resistance. W. A. Phillips, who discusses this article, indicates he would prefer to defend the notion that research is narcissism, competition, and a game, rather than rebellion.—S. R. Greenwald.

MODELS & MATHEMATICAL MODELS

5211. Belyakov, R. V. **Rol' struktury v sistemakh modelirovaniya ritmicheskikh protsessov.** [Role of structure in systems for modeling rhythmic processes.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 134-138.—Examines the role of structure in systems which simulate rhythmic processes, and describes new

possibilities in modeling rhythmic lability.—I. D. London.

5212. Bratko, A. A. **Modelirovanie psikhiki kak évrísticheskaya problema.** [Modeling of the psyche as a heuristic problem.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 15-24.—Examines the possibility of classifying the models of psychic activity on the basis of completeness of reflection of the properties of the modeled object in the model.—I. D. London.

5213. Fischer, Gerhard H. (U. Vienna, Inst. of Psychology, Austria) **Datenmodelle und Parametermodelle.** [Data models and parameter models.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 212-219.—Discusses 3 approaches to measurement based on: (a) preestablished rules, (b) deterministic data models, and (c) probabilistic parameter models. The last approach is the most promising since it leads to concept formation and theory building. As an example, the application of Rasch's logistic measurement model on Rorschach and Holtzman tests is given. (French & English summaries) (18 ref.)—W. J. Koppitz.

5214. Fridman, L. M. (Inst. of General & Educational Psychology, Moscow, USSR) **O putyakh razvitiya matematicheskoi psikhologii.** [On the ways of the development of mathematical psychology.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 13-24.—Mathematical psychology is a branch of psychology in which psychological phenomena processes, and states are investigated by means of special mathematical models. It should not include all applications of mathematics in psychology, such as statistics and psychometrics. Its special object of investigation is not psychological phenomena but models of these phenomena. The characteristics of mathematical models are discussed and different classifications of models are presented. Differences between mathematical and other types of models are examined using Hull's work. The question concerning the kinds of psychological phenomena that mathematical psychology can be applied to cannot be answered yet. It must, however, be recognized as a special field of psychology. (English summary) (51 ref.)—L. Zusne.

5215. Nazarov, A. L. (Moscow State U., USSR) **Opyt éksperimental'nogo issledovaniya vzaimozavisimyykh protsessov.** [An experimental study of interdependent processes.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 37-50.—Presents a description and the results of a study on the control of mutually dependent processes, where in exteriorization of the processes is effectuated through the construction of an electrical model whose state is created by 2 interdependent functions regulated by 1 or more human operators. The findings contribute to an understanding of "coordinated control."—I. D. London.

5216. Shabanov-Kushnarenko, Yu. P. **Ob algoritma, lezhashchem v osnove inertsi i irradiatsii chelovecheskogo zreniya.** [On the algorithm lying at the basis of inertia and irradiation in human vision.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 195-201.—Analyzes a psychophysical model of human vision, possessing properties which correspond to inertia and irradiation.—I. D. London.

5217. Shabanov-Kushnarenko, Yu. P., Shul'gin, I. V., & Lopatchenko, B. K. **O matematicheskom modelirovanii uznvaniya.** [On the mathematical modeling of recognition.] *Problemy Bioniki*, 1970, No. 3, 149-152.—Analyzes recognition, from the viewpoint of the cybernetic "black box," as a process of transforming information, at whose basis lie certain algorithms. A

theorem is developed which reduces the task of searching for a common form of recognition-operator, "responding to an experimental law," to the simpler task of finding at least 1 partial form of the operator, "satisfying this law."—*I. D. London.*

5218. Starinets, V. S. **K voprosu o modelirovani lichnosti.** [On the modeling of personality.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 91-107.—Analyzes the basic stages for the construction of a global model of personality on the basis of a generalization of an earlier model for speech behavior, developed by the author.—*I. D. London.*

5219. Tversky, Amos & Krantz, David H. (Hebrew U., Jerusalem, Israel) **The dimensional representation and the metric structure of similarity data.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 572-596.—Demonstrates that a set of ordinal assumptions, formulated in terms of a given multidimensional stimulus set, yields essentially unique additive difference measurement of dissimilarity, or psychological distance. According to this model, dissimilarity judgments between multidimensional objects are regarded as composed of 2 independent processes; an intradimensional subtractive process, and an interdimensional additive process. Although the additive difference measurement model generalizes traditional metric models, the conditions under which it satisfies the metric axioms impose severe restrictions on the measurement scales. (15 ref.)—*Journal abstract.*

MATHEMATICS & STATISTICS

5220. Adams, Ernest W., Fagot, Robert F., & Robinson, Richard E. (U. California, Berkeley) **On the empirical status of axioms in theories of fundamental measurement.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 379-409.—Questions precisely what the empirical content is of axioms in theories of fundamental measurement. The basic concept in terms of which formal results are stated is that of data equivalence between 2 theories. 2 theories are data equivalent only if they are consistent with exactly the same finite sets of basic "observation" statements. The significance of data equivalence is that if 2 theories are data equivalent and their primitive notions are given the same interpretation, then no experimental test can refute 1 without refuting the other. Certain axioms (Archimedean and continuity conditions) are purely "technical" in the sense that the theory with the axiom in question is data equivalent to the theory without the axiom, whereas certain other axioms, previously treated as technical, are indirectly testable; i.e., have testable consequences when considered in combination with other directly testable axioms. The concept of data equivalence is used to analyze the R. D. Luce and J. Tukey axioms for conjoint measurement, axiom systems for interval measurement, for additive and bisection measurement, and for extensive measurement.—*Journal abstract.*

5221. Akins, Karen M. (U. Oklahoma) **On robustness of the F-test for correlated observations.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 541.

5222. Béjar Alamo, Juan. **Programación no lineal: Comparación de diversos métodos.** [Nonlinear programming: Comparison of various methods.] *Trabajos de Estadística y de Investigación Operativa*, 1969, Vol. 20(1),

17-34.—Presents various theories on the general problem of nonlinear programming: finding the maximum of function (x_1, \dots, x_n) of n variables when subjected to various restrictions represented by $g_i(x_1, \dots, x_n) \leq 0$; and $i = 1, 2, \dots, m$. Theories discussed include those of (a) Kuhn and Tucker; (b) Rosen (on gradient projection); (c) Zoutendijk and Kelley (on convex programming); (d) Carroll (on the created response surface technique for optimizing nonlinear restrained systems); and (e) Fracco and McCormick (on the slacked unconstrained minimization technique for convex programming).—*P. Hertzberg.*

5223. Boruch, Robert F. & Wolins, Leroy. **A procedure for estimation of trait, method, and error variance attributable to a measure.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 547-574.—Formulates a model requiring a restricted likelihood factor analysis. It states that an observation Y is composed of factorially weighted general, trait, method, and error scores. Weights, errors, and intercorrelations between factors, it is presumed, are derived from a multitrait-multimethod design. A goodness of fit test suitable to the model is described. Multiple interpretations of significant chi-squares are presented. 2 illustrative examples are given.—*N. M. Chansky.*

5224. Burke, C. J. (California State Coll., Hayward) **Density and length.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 466-477.—Provides an axiomatization of the density dimension together with a parallel axiomatization of length, which is completely equivalent to the classical 1. The strategy is to weaken the traditional identity and associativity axioms for length, respectively, to the solvability and interchange axioms presented—weaker axioms true for density as well as length. From an empiricist view, the crucial axioms are intermediacy (the density of a composition is intermediate between those of the components) for density, and extension (the length of a composition is no smaller than that of either component) for length. From a rationalist view, the crucial axioms are intermediacy for density and the Archimedean property for length. From either view, every axiom of either dimension is also true in the other, except the crucial ones.—*Journal abstract.*

5225. Campos, Leonel. (U. Manila, Philippines) **The measurement of consensus in pair-comparison studies.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 34-38.—Suggests that M. G. Kendall's coefficient of agreement, u , is not an appropriate measure of consensus in pair-comparison studies. A new index of consensus, $M(c)$, is described. It is further suggested that Kendall's own adaptation of the X^2 may be used, with minor modifications, to test the significance of a departure of $M(c)$ from a value of 0.—*Journal abstract.*

5226. Campos, Leonel & Santos, Josefina. (U. Manila, Philippines) **Mann-Whitney's U as an indicator of relationship.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 31-33.—Suggests that Mann-Whitney's U can be used to derive a measure of relationship, r_u , which is the rank-analogue of the product-moment point biserial, r_{pb} . It is further suggested that Mann-Whitney's U itself can be used to evaluate the significance of r_u . An empirical comparison between r_u and r_{pb} yields $r = .875$ suggesting a basic similarity in their behavior. This fact is interpreted to indicate that r_u is an adequate substitute for r_{pb} in situations where the latter does not apply.—*Journal abstract.*

5227. Carillo, Alfonso F. (Iowa State U.) **Estimation**

of variance after preliminary tests of significance. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 950.

5228. Carroll, Robert M. (Ohio State U.) A Monte Carlo comparison of nonmetric multidimensional scaling and factor analysis. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 896.

5229. Coles, Gary J. (U. North Dakota) Methodological note: An application of three-way analysis of variance in the estimation of inter-judge reliability. *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 569-570.—Describes an application of 3-way analysis of variance to the estimation of interjudge reliability in a psychological scaling investigation as suggested by R. L. Ebel (see PA, Vol. 27:771).—*Journal abstract*.

5230. Crott, Helmut W. (U. Mannheim, Inst. of Psychology, W. Germany) Simultaneous conjoint measurement: Ein Verfahren zur gleichzeitigen fundamentalen Messung mehrerer Dimensionen. [Simultaneous conjoint measurement: A procedure for the simultaneous fundamental measurement of several dimensions.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 220-233.—Discusses Luce and Tuckey's simultaneous conjoint measurement and its application by Tversky with regard to other fundamental measurement systems and multidimensional scaling methods. (English & French summaries) (22 ref.)—W. J. Koppitz.

5231. Data, S. An empirical study on the comparison of different methods of obtaining single-trial reliability estimates. *Journal of Psychological Researches*, 1969, Vol. 13(2), 67-70.—Odd-even, split-half, Guttman's "L4," and the Raju-Guttman formula all yielded the same reliability coefficients, while the Kuder-Richardson Formula 20 and the Saupe Formula R-20 yielded fairly good estimates near to the above 3 formulas. Of all the 7 methods, the Saupe Formula R-20 yielded the highest reliability coefficients and is judged the best.—U. Pareek.

5232. Elashoff, Janet D. (Stanford U., School of Education) Analysis of covariance: A delicate instrument. *American Educational Research Journal*, 1969(May), Vol. 6(3), 383-401.—Reviews the advantages and limitations of the analysis of covariance focusing on the assumption the data must satisfy if analysis of covariance is to be a valid technique. A description of the effects of unsatisfied assumptions on the covariance procedure and suggestions for checking the validity of the required assumptions are presented. Covariance analysis is compared to adjustments based on between-groups regression and designs incorporating matching or blocking. (32 ref.)—*Journal abstract*.

5233. Glass, Gene V. & Hakstian, A. Ralph. (U. Colorado) Measures of associates in comparative experiments: Their development and interpretation. *American Educational Research Journal*, 1969(May), Vol. 6(3), 403-414.—Difficulties with the use of such measures of association as T. L. Kelley's ϵ^2 and W. L. Hays's ω^2 stem from the conceptual complexity of categorical independent variables. By adding a single level to such molar variables as method of instruction, the value of ϵ^2 or ω^2 can change radically, misleading the researcher. Even when a variable is molecular, use of ϵ^2 or ω^2 in the fixed-effects model is questionable; a measure of association between 2 variables is interpretable only when levels of both are randomly representative. With a fixed-effects model, depending on the nature of the fixed

independent variable, the researcher should use graphical analyses or such inferential techniques as multiple comparisons and trend analysis.—*Journal abstract*.

5234. Gregson, R. A. (U. Canterbury, New Zealand) Quadratic similarities. *British Journal of Mathematical & Statistical Psychology*, 1970(May), Vol. 23(1), 53-68.—Presents an axiom set for similarities together with a set-theoretic definition of multidimensional similarity consistent with the axioms. A special case of relative similarity judgment, involving the simultaneous comparison of 3 stimulus pairs, called quadratic similarities, is empirically illustrated and related to the theory. The goodness of fit of the axiomatic theory is checked for both unweighted and differentially weighted versions. Agreement generally varies between Ss, but in some cases is very good, and is almost invariably improved slightly by weighting. (30 ref.)—*Journal abstract*.

5235. Hsu, Tse-Chi & Feldt, Leonard S. (U. Pittsburgh, Learning Research & Development Center) The effect of limitations on the number of criterion score values on the significance level of the F-test. *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 515-527.—Determined whether data arising from scales which yield a severely limited number of score values can be validly analyzed via F-tests. Score scales ranging from 5-2 points were studied. For each scale length, 3 populations of scores were created. Repeated samples of scores were drawn via computer from 1 or a combination of the populations. A completely randomized analysis of variance was carried out ($N = 11$ or 51 and $k = 2$ or 4) on each set of samples. The resultant empirical distributions of mean square ratios were compared to the appropriate F-distributions. The F-test was found to be quite robust with respect to limitations in the score scale.—*Journal abstract*.

5236. Koopman, Raymond F. (U. Illinois) Fitting multidimensional component model to binary data. Urbana, Ill.: U. Illinois, Dept. of Psychology, 1968. vii, 100 p.

5237. Kristof, Walter. (Educational Testing Service, Princeton, N.J.) A theorem on the trace of certain matrix products and some applications. *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 515-530.—Establishes a theorem giving attainable upper and lower limits for the trace of certain products of real matrices. These products are of the form $X_1\Gamma_1X_2\Gamma_2\ldots X_n\Gamma_n$ with orthogonal matrices X_i and diagonal matrices Γ_i where the matrices X_i are allowed to vary independently and unrestrictedly. The proof makes use of 2 lemmas. The theorem may find application in psychometrics when the trace of matrices is involved. (22 ref.)—*Journal abstract*.

5238. Levine, Michael V. (U. Pennsylvania) Transformations that render curves parallel. *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 410-443.—Presents 5 examples to indicate the desirability of having a general theory treating sets of curves that can be transformed into parallel curves. It is shown that a set of curves can be rendered parallel only if every pair of functions in the completion of a particular group associated with the curves is uncrossed. Under general conditions any 2 transformations rendering a set of curves parallel are related by a linear transformation. Methods for calculating transformations are proposed. Several structural properties of sets of curves which can be rendered parallel are proven. (24 ref.)—*Journal abstract*.

5239. Maxwell, A. E. (U. London, Inst. of Psychiatry, England) **Basic statistics in behavioural research.** Baltimore, Md.: Penguin Books, 1970. 126 p. \$1.95 (paper).

5240. Meyer, Edward P. (U. Wisconsin) **Some results concerning choice of uniqueness estimates, number of factors and determinacy of factor score matrices.** *Dissertation Abstracts International*, 1970 (Aug), Vol. 31(2-A), 646.

5241. Natapoff, Alan. (Massachusetts Inst. of Technology, Space Research Center) **How symmetry restricts symmetric choice.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 444-465.—In a symmetric choice experiment, the share of response found on the i th alternative, or state, S_i , is proportional to $F(S_i)$, a weight function that describes the results. The form of f is restricted by the symmetries of the experimental situation through a functional equation. The response distribution must obey that equation and the extraction of a satisfactory theoretical expression for it is analogous to the standard procedures used with differential equations to analyze mechanical systems. It is shown that every symmetric choice function, f , is equivalent to a simpler, normal function, the product of whose separate values is unity. This can simplify the discovery of simple formulas underlying otherwise obscure numerical results. Applications are given to behavioral problems. Applicability to symmetric neural channels, e.g., paired optic or auditory nerves is noted.—*Journal abstract*.

5242. Roskam, E. E. (Catholic U., Nijmegen, Netherlands) **The method of triads for nonmetric multidimensional scaling.** *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jun), Vol. 25(6), 404-417.—The method of triads is used to obtain data on the rank-order of similarities among stimuli by counting the frequency by which one pair is judged more similar than another. The true-rank order by this method is difficult to obtain as this technique produces only a subset of all pairs of pairs. Triadic data can be used to obtain a conditional similarity matrix provided no violations of transitivity occurred in the data collection. Possibly a generalization of J. B. Kruskal's and L. Guttman's methods for nonmetric scaling can accommodate intransitives. This generalization consists of applying the procedures for obtaining monotone values to each ordered subset in the data independently and then deriving the averages of these values. 4 methods of data-collecting and analyses were studied: rated data, ranked data, vote-counting, and triadic data. It is tentatively concluded that vote counting is most deficient; either rated data or ranked data can be used when little error is present; and triadic data is considered the most valid method.—*A. J. Ter Keurst*.

5243. Runyon, Richard P., McMichael, James S., & Corey, Jeffrey R. (C. W. Post Coll., Long Island U.) **Strength of statistical association for two-group independent sample experiments.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 595-598.—Presents a table giving values of ω^2 (strength of statistical association) for the independent sample t test. The use of this table will enable the researcher to report the percentage of variance in the dependent variable accounted for by the independent variable. Judgments of the import of experimental results are more appropriately based on the magnitude of ω^2 than on level of significance, t , or sample size.—*Journal abstract*.

5244. Saunders, D. R. (U. Colorado) **On the statis-**

tical treatment of remarkable data. *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 533-545.—Introduces "remarkability" as a quantifiable attribute of given data, on the basis of which the scientific value of data may be rationally judged. "Remarkability is measured in bits of information, and is computed from the relation of an observed to an expected probability, according to an equation." R is applicable to studies of hypothesis testing, factor analysis, item analysis, and multiple regression analysis.—*N. M. Chansky*.

5245. Speight, L. R. (Army Personnel Research Establishment, West Byfleet, England) **Serial dependency in the method of limits.** *British Journal of Mathematical & Statistical Psychology*, 1970(May), Vol. 23(1), 73-86.—Presents a simple Markov model of response dependency in psychophysical experiments. The constant method is briefly reviewed in the light of this model, and is shown to result in unbiased estimates of the psychophysical function. The method of limits is examined in more detail. Estimates of psychophysical function parameters obtained by this method, whether by averaging stopping-point values or by conducting a probit analysis on the derived data, are shown to be a function of the interstimulus interval chosen, the stopping criterion selected, and the degree of response dependency. However, bias is very small when stopping-point averages are employed, provided that the interstimulus interval is fairly large compared with the slope of the psychophysical function, and that use is made of a simple correction formula.—*Journal abstract*.

5246. Srivastava, S. R. (Vikram U., Ujjain, India) **A note on the estimation of a correlation coefficient incorporating a preliminary test of significance.** *Trabajos de Estadística y de Investigación Operativa*, 1969, Vol. 20(1), 113-115.—*P. Hertzberg*.

5247. Symons, Michael J. (U. Michigan) **A Bayesian test of normality with a mixture of two normals as the alternative and applications to "cluster" analysis.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 541-542.

5248. Timm, Neil H. (U. California, Berkeley) **Estimating variance-covariance and correlation matrices from incomplete data.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 649.

Factor Analysis

5249. Cattell, Raymond B. (U. Illinois) **The isopodic and equipotent principles for comparing factor scores across different populations.** *British Journal of Mathematical & Statistical Psychology*, 1970(May), Vol. 23(1), 23-41.—Describes within the ordinary factor analytic procedures, an equipotent method which throws scores from different groups into a combined standard score distribution, and operates on the scores of each group with its own factor estimation weights, but with the matrices for all the groups brought to equipotency. A more satisfactory isopodic procedure is also proposed, using covariance factoring, after 1st reducing artificial metric differences among variables by universe standardizing conversions. A more radical attainment of the isopodic goal is reached if the mean standardized covariance matrix is applied to the raw score deviations of members of all groups, brought into a combined distribution on each variable. (34 ref.)—*Journal abstract*.

5250. Clarke, M. R. (U. London, Inst. of Computer Science, England) **A rapidly convergent method for maximum-likelihood factor analysis.** *British Journal of Mathematical & Statistical Psychology*, 1970(May), Vol. 23(1), 43-52.—Gives a method of finding 2nd derivatives of the likelihood function and shows how they lead to a simple and rapidly convergent numerical method for the estimation of factor model parameters. These enable a Newton-Raphson method to be used for maximum-likelihood estimation in factor analysis. A useful feature of the method is an asymptotically correct expression for the sampling variances of the estimated parameters.—*Journal abstract.*

5251. Horst, Paul. (U. Washington) **Generalized factor analysis: II. Applications.** Seattle, Wash.: U. Washington, 1969. 98 p.

5252. McDonald, Roderick P. (Ontario Inst. for Studies in Education, Toronto, Canada) **The theoretical foundations of principal factor analysis, canonical factor analysis, and alpha factor analysis.** *British Journal of Mathematical & Statistical Psychology*, 1970(May), Vol. 23(1), 1-21.—Showed that principle (PFA), canonical (CFA), and alpha (AFA) factor analyses are particular cases of a scale-invariant factorizing procedure based on variance ratios of certain weighted combinations of variables. Standard derivations in the literature are shown, in contrast, to have unsatisfactory features. It is suggested that the choice between PFA, CFA, and AFA involves relatively independent choices of features of each, and that in most cases CFA is to be preferred. (26 ref.)—*Journal abstract.*

5253. Snyder, Frank W. (U. Illinois) **A unique variance model for three-mode factor analysis.** Urbana, Ill.: U. Illinois, Dept. of Psychology, 1968. v, 75 p.

COMPUTERS & PROGRAMING

5254. Aleev, L. S. & Astryukhin, A. A. **Opyt standartizatsii meditsinskoi informatsii i problema vvoda ee v EVM pri sozdanii informatsionno-polskovoi sistemy po nekotorym klassam nevrologicheskikh zabolevanii.** [An experience in standardizing medical information and the problem of feeding it into a computer when an information-search system has been created with respect to certain classes of neurological illnesses.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 204-212.—Analyzes the "principle of standardization" of neurological data, intended for the computer, in order to accumulate a "mass of information" with respect to 1 of the classes of neurological affections.—*I. D. London.*

5255. Boruch, Robert F. & Dutton, Jeffrey E. (American Council of Education, Office of Research, Washington, D.C.) **A program for testing hypotheses about correlation arrays.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 719-721.

5256. Branovitskii, V. L., Dovgiallo, A. M., & Mashbits, E. I. **Nekotorye voprosy raspredeleniya funktsii mezhdu chelovekom i vychislitel'noi mashinoy.** [Some problems in the distribution of functions between man and computer.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 6-15.—Analyzes several forms of "man-computer" systems and examines the requirements placed upon the different components of these systems and the languages of communication between man and the computer.—*I. D. London.*

5257. Dinuk, N. N. **Algoritmicheskii yazyk dlya svyazi pol'zovatelya TsVM s programmistom.** [Algorithmic language for communication between the user of the computer and the programmer.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 35-57.—Proposes an "incompletely defined graph-diagrammatic algorithmic language," which permits the utilization of any of the resources of ordinary mathematics in recording. The language is convenient for the planning of the tasks of algorithmization and of the algorithms.—*I. D. London.*

5258. Elster, Richard S. & Nystrom, Charles O. (U.S. Naval Postgraduate School, Monterey, Calif.) **A computerized method for controlling components' contributions to the variance of a composite.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 715-718.

5259. Fitzpatrick, Eugene D. & Berger, Charles R. (Illinois State U.) **Two-way analysis of covariance.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 725-726.

5260. Fitzpatrick, Eugene D. & Leicht, Kenneth L. (Illinois State U.) **Generalized analysis of variance.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 723-724.

5261. Hakstian, A. Ralph. (U. Alberta, Edmonton, Canada) **A computer program for oblique factor transformation using the generalized Harris-Kaiser procedure.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 703-705.

5262. Hakstian, A. Ralph. (U. Alberta, Edmonton, Canada) **A computer program for generalized oblique procrustes factor transformation.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 707-710.

5263. Lips, Orville J. (Iowa State U.) **A FORTRAN IV program (MPLGRP) for the computation of multiple group and group centroid factor solutions.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 711-712.

5264. Mostofsky, David I. (Boston U.) **Multiplexed recording of multiple events.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 349-350.—Summarizes some general considerations of a magnetic tape based data acquisition system, and describes a representative 10-event assembly. Both hard- and software are noted. Suggested computer routines are outlined.—*Journal abstract.*

5265. Parker, Randall M. (U. Texas) **A subroutine to estimate the critical value of factor loadings.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 713.

5266. Pospelov, D. A., Fedin, V. A., & Chelnokov, N. I. **Vzaimodeistvie cheloveka i vychislitel'noi mashiny kak primer sistemy "chelovek-avtomat."** [Interaction of man and computer as an example of "man-automatic machine" system.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 80-86.—Examines the problem of the interrelationship between the human operator at the controls of a computer and the computer itself. The goal of the study is the optimization of work expenditure of people in the general scheme of problem solving.—*I. D. London.*

5267. Roberge, James J. (Temple U.) **A computer program for calculating Kendall's rank correlation coefficients.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 737-743.

5268. Semenov, A. S. **Preobrazovanie povorota,**

perenosa i izmenenie masshtaba pri avtomaticheskoi obrabotke informatsii izobrazhenii. [Rotational and translational transformation and change of scale in automated treatment of information from images.] *Problemy Bioniki*, 1970, No. 3, 41-44.—Examines in analytic form the features of norm-setting for 2-dimensional images, presented by the spatial scanning method. The transformations, which reduce images to a standard form by means of recoding, are described.—*I. D. London.*

5269. Svintsitskii, V. M. *Filosofskii analiz ponyatiya upravleniya v kibernetike*. [Philosophical analysis of the concept of control in cybernetics.] Kief, USSR: Naukova Dumka, 1968. 105 p.—A Marxist analysis, affirming that, while cybernetics has very much to contribute to the solution of many complex problems such as human thinking and behavior, it cannot solve them with merely the resources of its own conceptualized system.—*I. D. London.*

TESTING

5270. Cappon, Daniel & Banks, Robln. (York U., Toronto, Ontario, Canada) "The birth of a test": The Sensory Quotient. *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 408-410.—A multimodal pattern-discrimination test has been used to differentiate sections of a general urban population: occupational groups within an industry, academic groups within a school, and persons attending performing arts. The differentiation is in terms of sensory competence based on performance on 4 sensory modalities, yielding both individual and group sensory profiles as well as an over-all score—the Sensory Quotient.—*Journal abstract.*

5271. Mednick, Martha T. & Silber, David E. (Howard U.) Comparison of two administration times for the Remote Associates Test: An attempt at partial replication. *Psychological Reports*, 1970(Oct), Vol. 27(2), 474.—In a partial replication of a study by M. T. Mednick and S. K. Halpern (see PA, Vol. 43:15002), 210 undergraduates were tested on the Remote Associates Test to determine if the time of test administration was related to performance. Ss' scores at the end of 15 and 40 min. of a single administration of the test were correlated with each other. For a portion of Ss, scores were also available on the Scholastic Aptitude Test (SAT) and the Vocabulary Test of the General Aptitude Test Battery (GATB-V). Results show substantial correlation between the scores on the RAT but extremely low correlations with the SAT and GATB-V. The latter result was not in agreement with earlier findings that the RAT correlated with intelligence measures.—*P. McMillan.*

5272. Rippey, Robert M. (U. Chicago) Rationale for confidence-scored multiple-choice tests. *Psychological Reports*, 1970(Aug), Vol. 27(1), 91-98.—Proposes a system for responding to and scoring multiple-choice tests in which students express their distribution of preference for options as well as their certainty in that distribution. Such a system of scoring allows the use of types of test items which have previously been ignored. (18 ref.)—*Journal abstract.*

5273. Sciortino, Rio. (Stevens Inst. of Technology) Solutions Attribute List: I. Factor structure for solutions of a task administered under neutral test-taking instructions. *Psychological Reports*, 1970(Oct), Vol. 27(2), 435-438.—Used the Solutions

Attribute List (SAL-1) to score 2440 responses given by 173 male and female undergraduates on a task from the Solutions Test. The task was administered under neutral test-taking instructions and in a test format having 3 parts, preparation, production, and revision. A principal components analysis was performed on the matrix of item correlations (SAL-1 items), with unities in the diagonal. When the matrix of principal components was rotated according to the varimax procedure, 3 factors were obtained: projects, acceptability, and specificity.—*Journal abstract.*

5274. Silverstein, A. B. & Fisher, Gary. (California Dept. of Mental Hygiene, Pacific State Hosp., Pomona) Test adequacy as a function of item structuring and substantive homogeneity. *Psychological Reports*, 1970(Aug), Vol. 27(1), 137-138.—Provides further support for 2 of D. W. Fiske's (see PA, Vol. 40:8255) hypotheses: the adequacy of a test is a direct function of the structuring of the items and their substantive homogeneity. The Stimulus Situation-Response Inventory of Anxiousness was administered to Ss as a part of a larger test battery within 1 mo. of 100 18-59 yr. old male prisoners' arrival at the Southern California Reception-Guidance Center of the Department of Corrections. Generally, the observed values are consistent with the pattern reported previously.—*Journal abstract.*

5275. Stanley, Julian. (Johns Hopkins U., Center for Social Organization of Schools) Definition of true score appropriate for estimated true scores. *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 525-531.—Relevant true scores vary with obtained scores. To satisfy classical test theory, errors of measurement sum to zero and true scores correlate zero with error scores. Thus, both the obtained score and the estimated true score found by linearly transforming the obtained score meet these requirements. Standard errors appropriate to obtained scores are presented and discussed. Distinction is made between a group variation about an array mean designated by the standard error of estimate and an individual's variation about his true score designated by the standard error of measurement. Inappropriate models for measurement errors are also discussed.—*N. M. Chansky.*

Construction & Validation

5276. Schubert, Josef. (U. Saskatchewan, Regina, Canada) The VRB apparatus: A cross-validation. *Psychological Reports*, 1970(Oct), Vol. 27(2), 571-574.—Reports cross-validation data for a test investigating the verbal regulation of behavior (VRB) as previously described by J. Schubert (see PA, Vol. 43:17165). Initial results were confirmed with a sample of 168 2-15 yr. old clinical Ss. VRB scores were significantly related to age and intelligence ($p < .001$). Split-half reliability of the final test battery was .92 ($N = 100$) and the correlation between VRB scores and MA was .79 ($N = 84$).—*Journal abstract.*

5277. Thorpe, Joanne & West, Charlotte. (Southern Illinois U.) Reliability of a test of game sense. *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 582.—Administered equivalent forms to 57 undergraduates on 2 days of testing. Pearson r 's for the 10 subtests ranged from .43-.75. The r for the total test suggested for use on a single day was .89, indicating a stable estimate.—*Author abstract.*

EXPERIMENTATION & OBSERVATION

5278. Brandt, Lewis W. (U. Saskatchewan, Regina, Canada) **Control or reduction of variables? An experimenter inclusive model.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 80-82.—Proposes a communication flow chart representing the experimental situation. Codings by E and S are discussed as uncontrollable intrapersonal variables whose number may be reduced by E serving as S. It is suggested that the designer of an experiment weigh the possible gain from the reduction of the number of uncontrollable variables against the possible loss of information from having only a single S.—*Journal abstract.*

5279. Bruhl, Dieter & Solar, Diana. (U. California, Inst. of Human Development, Berkeley) **Systematic variation in the clarity of demand characteristics in an experiment employing a confederate.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 55-60.—Randomly assigned 60 female undergraduates to observe an autokinetic light under 1 of 3 conditions, a no-confederate condition, a silent-confederate condition, and a talking-confederate condition. Predictions derived from M. T. Orne's construct of demand characteristics were generally confirmed, including: (a) variance of social influence scores was greatest for Ss with a confederate whose estimates were unknown to S; and (b) conformity to the verbal estimates of a confederate was greatest for Ss who believed E expected conformity. Findings could not be explained by achievement striving or self-persuasion.—*Journal abstract.*

5280. Johnson, Ronald W. & Adair, John G. (U. Manitoba, Winnipeg, Canada) **The effects of systematic recording error vs. experimenter bias on latency of word association.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 270-275.—6 male and 6 female undergraduate Es tested 96 male and 96 female undergraduate Ss on a word association task in an attempt to assess the effects of high and low levels of inducement of E expectancy, and the magnitude of O or recorder error and bias affecting Ss' responses, when data were obtained by biased Es. A significant expectancy effect was observed and results indicate that neither O or recorder error nor bias affecting Ss' responses could singularly account for the presence of E-expectancy. The nonsignificant interaction of Level of Inducement \times Expectancy failed to support the hypothesis that high vs. low concern for the data on the part of the principal investigator affects the magnitude of the expectancy effect.—*Journal abstract.*

5281. McFadden, Dennis. (U. Texas) **Three computational versions of proportion correct for use in forced-choice experiments.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 336-342.—Compared 3 commonly used measures of performance in forced-choice experiments, all called proportion correct, as response bias, bias in the stimulus outcomes, and level of performance were varied. Some of the characteristics of the various versions are examined, but no position is taken on which is the computational version of choice.—*Journal abstract.*

5282. Neufeld, Richard J. (U. Calgary, Alberta, Canada) **Generalization of results beyond the experimental setting: Statistical versus logical considerations.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 443-446.—Discusses the conventional distinction between fixed and random variables in analysis of

variance. It is suggested that certain incidental conditions prevailing when experimentation occurs, e.g., time(s) and place(s) of experimentation, can be classified as unbalanced independent variables. Given this classification of these incidental conditions, generalization of experimental results beyond situations exactly duplicating that set of conditions attendant to the experiment, requires either statistical or logical provision. As statistical provision for the entire complex of incidental conditions prevailing during an experiment would be infeasible, logical considerations must be employed in generalization of results beyond the experimental context. It is suggested that to consider incidental conditions of the experimental situation as being unbalanced independent variables should lead to vigilance regarding those incidental conditions possibly contributing to the obtained experimental outcome. Since generalization of obtained results beyond the experimental setting is contingent upon logical considerations, it is suggested that the validity of such logical provision should always be verified by E.—*Journal abstract.*

5283. Schauer, Eric. (Claremont Graduate School & University Center) **Demand characteristics in a quasi-psychophysical experiment.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 424.

APPARATUS

5284. Dayan, S. V. **Issledovanie nekotorykh svoystv kharakteristicheskoi funktsii perseptrona.** [Study of some properties of the characteristic function of the perceptron.] *Problemy Bioniki*, 1970, No. 3, 51-59.—Examines some optimal characteristics of a self-training machine of the perceptron-type. The concept of a "perceptronic characteristic function" is introduced, and some properties, to be expected of the simplest 3-layered perceptron, are investigated. This function can be applied to the analysis of more complex perceptrons, including those with cross-connections.—*I. D. London.*

5285. Maldonado, Héctor. (Inst. Venezolano de Investigaciones Científicas (IVIC), Caracas, Venezuela) **An automatic recorder to register the praying mantis' response to the presence of a moving object.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1337-1340.

5286. Masterson, Fred A. (U. Delaware) **An automated choice learning apparatus for rats.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 74.—Describes an apparatus consisting of a partitioned turntable enclosed in a cylindrical drum. 2 retractable bars with food-chutes mounted above provide the response choices. The rat is moved away from the bars by a 1 rpm 180° rotation of the turntable.—*M. West.*

5287. Mevs, A. V. & Treier, V. V. **Adaptivnyi klassifikator na porogovykh elementakh.** [The adaptive classifier in threshold elements.] *Problemy Bioniki*, 1970, No. 3, 69-74.—Analyzes certain problems in the application of multilayered adaptive classifiers, containing more than 1 adaptive threshold element "for the realization of complex dividing surfaces." The properties of a model of a 2-layered adaptive classifying apparatus for the recognition of objects are explored.—*I. D. London.*

5288. Perline, Irvin H. (Colorado State U.) **Tubular plexiglas maze.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1341-1342.

5289. Porges, Stephan W. & Fitzgerald, Hiram E. (West Virginia U.) **An inexpensive method for programming stimuli using magnetic tape.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 124-127.

5290. Ruder, K. F., Jensen, P. J., & Brandt, J. F. (U. Kansas, Bureau of Child Research) **An apparatus and procedure for the perceptual study of speech pauses.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 287-289.—Describes the pause adjustment device which "allows E to maintain control of silent interval duration through recording techniques in which the part of the sentence preceding a pause of interest is recorded on Track A and the remainder of the sentence... is recorded on Track B. Pause duration is controlled by S or E...." With this device it is possible to compare durations of fluent and hesitation pauses within identical syntactic and phonetic environments.—M. West.

5291. Spears, R., Smith, G., & Casey, K. L. (U. Michigan) **A pulse height discriminator and post-stimulus histogram system using integrated circuits.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1327-1329.

5292. Stewart, Daniel J. & Anisman, Hymie. (Memorial U., Animal Behavior Lab., St. John's, Newfoundland, Canada) **An automated one-way avoidance apparatus.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 545-546.—An easily constructed, automated avoidance apparatus permitted both 1-way and shuttle-avoidance learning. A comparison between 1-way and shuttle avoidance indicate that the former is more rapidly acquired.—Journal abstract.

5293. Strahan, Robert. (U. Rochester) **A simple device for the polygraphic recording of judgments.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 135-137.

5294. Tsepkov, G. V. **Mnogokanal'nyi generator metok vremeni sistemy sbora, preobrazovanlya i obrabotki fiziologicheskoi informatsii.** [Multichannel generator of time-signs for a system of collecting, transforming and treating physiological information.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 227-233.—Describes apparatus which is a component part of a biological measuring information system, intended for the synchronization of electronic apparatus utilized in neurophysiological research.—I. D. London.

5295. Val'kova, G. Ya. **Ob oboshchenii po podobliyu v pertseptronakh s perekrestnymi svyazami.** [On a generalization with respect to similarity in perceptrons with cross-connections.] *Problemy Bioniki*, 1970, No. 3, 60-68.—Analyzes certain problems in training perceptrons to generalize with respect to similarity. It is shown what limitations must be placed on the construction of a perceptron in order that it possess the property of generalization with respect to similarity.—I. D. London.

5296. van Riesen, H. **An improved instrument for fast implantation of small pellets in the brain.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1335-1336.

5297. Zaslavskii, S. Ya. **Analiz odnogo klassa reshayushchikh sistem.** [Analysis of one class of decision systems.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 57-66.—Analyzes a class of decision systems—apparatus capable of responding to questions, arriving from an external medium, with answers that change with time.—I. D. London.

5298. Zaslavskii, S. Ya. (Inst. of Cybernetics, Kiev, USSR) **Sluchainye reshayushchie sistemy: II.** [Ran-

dom decision-systems: II.] *Problemy Bioniki*, 1970, No. 3, 36-40.—A further investigation of apparatus, in which answers to questions are handled with the aid of a sequential criterion of probability relationships.—I. D. London.

EXPERIMENTAL PSYCHOLOGY

5299. Bugelski, B. R. (State U. New York, Buffalo) **Words and things and images.** *American Psychologist*, 1970(Nov), Vol. 25(11), 1002-1012.—Explores and evaluates the current renaissance of interest in imagery as a cognitive mechanism, with reference to its role in associative learning, mediation, meaning, and personality. The variable of time is stressed in the formation of effective imagery in mnemonic research. Experiments are described in which Ss, instructed to image but not to learn, were unable to prevent learning. Imagery is relatively free from interference in memorizing successive lists, and highly effective in recall of long lists of concrete and abstract words. Abstract words are frequently transposed into concrete representations. Research employing 3-6 yr. old deaf children without language of any known variety supports assumptions about imagery. (30 ref.)—Author abstract.

PERCEPTION

5300. Anderson, Norman H. (U. California, San Diego) **Test of adaptation-level theory as an explanation of a recency effect in psychophysical integration.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 57-63.—In Exp. I, 20 undergraduates lifted 3 weights in sequence under instructions to judge the heaviness of the last weight. Contrary to adaptation-level theory, these judgments failed to show a contrast effect; instead they showed a small positive context (assimilation) effect. In Exp. II, 40 undergraduates lifted 2 weights in sequence and then judged the heaviness of the 1st or the 2nd. Again, a small positive context effect was observed. A negative time-order effect was also obtained for homogeneous sequences, both of high and of low weights, also contrary to adaptation-level theory. (24 ref.)—Journal abstract.

5301. Beninghof, William J. (Northeastern U.) **A functional analogy between speech and color perception and its implementation for sensory replacement.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 847.

5302. Cashdan, Sheldon & Zung, Burton J. (U. Massachusetts) **Effect of sensory modality and delay on form recognition.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 458-460.—Exposed 60 undergraduates to a randomized sequence of 58 3-dimensional geometric forms of various sizes and shapes. 20 Ss received visual exposure, 20 Ss received haptic exposure, and 20 Ss received joint visual and haptic exposure. $\frac{1}{2}$ of the Ss in each of the 3 modality conditions were given a recognition test on each object concurrent with exposure to the object, while the remaining Ss were tested subsequent to object exposure. All recognition testing was conducted in the visual modality. Results indicate that Ss performed significantly better on the basis of visual and bimodal input than with haptic input exclusively. The imposition of a delay resulted in significantly poorer performance. A

strong trend toward significance suggests that the effect of a delay is most pronounced with bimodal input.—*Journal abstract.*

5303. Gregory, R. L. (U. Edinburgh, Scotland) **On how little information controls so much behaviour.** *Ergonomics*, 1970(Jan), Vol. 13(1), 25-35.—Discusses perception as a process of the selection of internal models in terms of which incoming data are used to shape behavior. The advantages and disadvantages to the organism of using such models are outlined. The way in which models operate is considered in the light of evidence from perceptual illusions: these can be regarded as cases where a wrong model has been selected, or errors of scaling have occurred. It is suggested that some of the bizarre imagery in dreams and certain abnormal states can also be understood in these terms. When compared with a computer, the perceptual mechanism and its models resemble an analog rather than a digital system. (French & German summaries)—*Journal abstract.*

5304. Haslam, Diana R. (U. Bristol, England) **Lateral dominance in the perception of size and of pain.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 503-507.—Studied perception of size and pain in 55 right-handed and 15 left-handed Ss. For right-handed Ss a significant relationship was found between these 2 types of perception in that Ss who tended to underestimate size with the dominant hand also had a higher pain threshold for the hand as compared with the nondominant hand.—*Journal abstract.*

5305. Hengen, Nona. (Western Washington State Coll.) **The perception of danger in action illustrations.** *AV Communication Review*, 1970(Fal), Vol. 18(3), 250-262.—80 undergraduates were asked to judge the amount of danger in various situations presented in 2 sets of pictures by ranking them from the most to the least dangerous. Pictures varied in 3 characteristics: degree of control, degree of fear, and degree of drop off cliff. Results indicate that significant interpretation differences resulted when selected cues in the pictures were varied from a situation where the cues combined to produce a maximum condition for evoking fear and danger, to a situation in which the cues combined to produce a maximum condition for evoking feelings of escape and safety.—*Journal summary.*

5306. Lobb, Harold. (U. Western Ontario, London, Canada) **Asymmetrical transfer of form discrimination across sensory modalities in human adults.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 350-354.—Investigated symmetry of cross-modal transfer by training 80 undergraduates to discriminate irregular heptagons from transformations, either visually or tactually, and then repeating the procedure with the other modality. Comparisons with unimodal control groups indicated that visual training increased the accuracy of identifying equivalent primary forms by touch. No transfer effect was detected from touch to vision, although the difficulty of visual and tactual discrimination was approximately equated. This finding contradicts a not uncommon belief that cross-modal transfer is superior from touch to vision in normal adults.—*Journal abstract.*

5307. Overmier, J. Bruce. (U. Minnesota) **A note on subception.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 519-524.—Notes that the usefulness of subception in the analysis of problems in perception and personality is

dependent upon the hypothetical autonomic discriminatory process being more sensitive than the conscious discriminatory process. A recently proposed index by K. Chun and T. R. Sarbin (see PA, Vol. 42:11441) of subception was analyzed and found not to require greater autonomic sensitivity as a condition for subception. It is shown that random nondiscriminatory autonomic responding can result in subception of discriminatory verbal responding given this index. A simple graphic analytical procedure based upon modern psychophysical techniques is recommended and demonstrated.—*Journal abstract.*

5308. Rashid, M. A. (Establishment Div., Government of Pakistan) **Rhythmic perception and human behaviour: III. Rhythmic perception, age, intelligence, and musical perception.** *Pakistan Journal of Psychology*, 1970(Jun), Vol. 3(1-2), 3-15.—Presents the 3rd and 4th experiments of a series designed to examine the relation between rhythmic perception and human behavior. In Exp. III 47 boys and 49 girls from 3 secondary schools in Liverpool, England were divided into 12 groups in a $3 \times 2 \times 2$ factorial with age (9, 12, and 15 yr.), intelligence (as measured by the Progressive Matrices and Mill Hill Vocabulary scale scores), and musical perception (as measured by the 1st test of the Wing's Music Test) as independent variables. The dependent variable was rhythmic perception as measured by tests constructed by the author. Results indicate all main effects and the Age \times Intelligence interaction were significant. Exp. IV involved a similar design, differing only in age groups: 18-30, 40-50, and 60-70 yr. Results indicate significance for all main effects and no interactions. With further analysis it is concluded that: (a) there is a gradual increase in rhythmic perception ability from 9-15 yr., with no difference between 18-30 and 40-50 yr. age groups, but a decrease in the 60-70 yr. age group; (b) rhythmic perception is closely related to intelligence; and (c) rhythmic and musical perception do not appear to be related in 9- and 12-yr-olds, but from 15 yr. forward there is a positive relationship.—*R. Wiltz.*

5309. Ross, John & Di Lollo, Vincent. (U. Western Australia, Nedlands) **A consistent failure of the power law for lifted weight.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 289-290.—In the course of a series of experiments concerned primarily with contrast effects in the judgment of lifted weights, a set of results has accumulated that appears to speak decisively against a power law for lifted weight formulated by S. S. Stevens and E. Galanter (see PA, Vol. 33:2792). In each case the method of direct magnitude estimation was employed. The significance of these findings is discussed.—*Journal abstract.*

5310. Rule, Stanley J., Curtis, Dwight W., & Markley, Robert P. (U. Alberta, Edmonton, Canada) **Input and output transformations from magnitude estimation.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 343-349.—Obtained judged magnitudes of difference in area of paired circles and magnitude estimations of the circles making up the pairs from 12 undergraduates. The difference judgments were subjected to nonmetric scaling, and a 1-dimensional solution was obtained. The relationships between scale values and physical area and between judged difference and derived distance were each characterized by power functions. The product of exponents from the 2 functions closely predicted judgments of individual circles. Judgments of differences between paired weights were subjected to the

same analysis. The relationships between scale values and physical weight and between judged difference and derived distance were power functions for both pooled data and data from individual Ss, indicating that in- and output transformations in magnitude estimation are power functions.—*Journal abstract.*

5311. Welford, A. T. (U. Adelaide, South Australia) **Perceptual selection and integration.** *Ergonomics*, 1970(Jan), Vol. 13(1), 5-23.—Presents broad principles and recent theoretical and practical trends in the area of perceptual selection and integration. Perception involves both a selection from, and an integration of, the data conveyed to the brain from the sense organs. Selection seems to be made in terms of both simple sensory qualities and more complex semantic aspects of incoming data, and appears to result in unwanted data being attenuated. It is achieved at some cost, as is shown by the fact that selection commonly takes a time which increases with the degree of specificity to which it is carried. Research results do not yet fully agree upon the extent to which different features of incoming data are selected simultaneously or successively. Perceptual integration appears to achieve economy of decision in the sense that it enables a large quantity of incoming data to be handled as a limited number of units. Of the various ways in which this is achieved, the extraction of rates of change and of time-sequences, the imposition of schemata or templates from past experience, and the building of perceptual frameworks in both space and time are considered. (French & German summaries) (77 ref.)—*Journal abstract.*

Illusion

5312. Cooper, Michael R. & Runyon, Richard P. (C. W. Post Coll., Long Island U.) **Error increase and decrease in minimal form of Mueller-Lyer illusion.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 535-538.—Based upon prior research showing that the error associated with the Sander parallelogram is maximal when the diagonal lines are physically omitted rather than physically present, an attempt was made to determine if a similar finding might result from eliminating the shaft in the Müller-Lyer illusion. Ss were 28 undergraduates. An interaction was found between shaft vs. no-shaft condition and fins-in vs. fins-out. Eliminating the shaft significantly increased error in the fins-in condition and significantly decreased error in the fins-out condition. Results are consonant with the previous study involving the Sander parallelogram.—*Journal abstract.*

5313. Day, R. H. & Wong, T. S. (Monash U., Clayton, Victoria, Australia) **Radical and tangential movement directions as determinants of the haptic illusion in an L figure.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 19-22.—Describes 2 experiments, with 14 volunteer Ss in each, on the difference in haptically judged extent of 2 raised edges forming an L. Data from Exp. I show that when movements of the outstretched arm and finger along both components of the L are tangential, there is no difference in their apparent lengths, but that when movement along 1 is tangential and the other radial, the latter is apparently longer. In Exp. II a different type of movement involving different joints was required, but results are essentially the same. Data from both experiments confirm earlier findings on the relative apparent extents of tangential

and radial movement and are interpreted as demonstrating the absence of a relationship between visual and haptic illusions of length in an L figure.—*Journal abstract.*

5314. Graham, C. H. & Gillam, B. J. (Columbia U.) **Occurrence of theoretically correct responses during rotation of the Ames window.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 257-260.—Tested the hypothesis that reversals in the Ames window are the outcome of a resolution of ambiguous differential angular velocity cues by linear perspective cues. A parallel projection of the window on an opal glass screen was used as the stimulus. 14 Ss almost always reported 2 apparent reversals/rotation. The long vertical side of the figure was always apparently in front of the short vertical side. Results are interpreted to be in line with theoretical expectations.—*Journal abstract.*

5315. Gregory, Richard L. (U. Edinburgh, Scotland) **Visual illusions.** *Scientific American*, 1968(Nov), Vol. 219(5), 66-76.—Reviews and illustrates some of the visual illusions described by investigators during the past century (e.g., the transparent rhomboid of Necker in 1832 and the illusion by Franz Müller-Lyer in 1889). It is suggested that nonvisual characteristics of perception must be associated with the visual image, by learning or possibly through heredity, for external objects to be recognizable from their retinal images. Perception may be a "matter of looking up information that has been stored about objects and how they behave in various situations." Illusions may, therefore, be the "result of the imperfect solutions available to any data-handling system faced with the problem of establishing the reality of objects from ambiguous images."—P. McMillan.

5316. Kolars, Paul A. & Pomerantz, James R. (U. Toronto, Ontario, Canada) **Figural change in apparent motion.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 99-108.—Students of illusory motion have usually presented identical shapes as stimuli. The present experiments used disparate shapes and studied the way Ss (5 clerical employees and 2 authors) resolved the disparities. 3 kinds of resolution were found: translation (traditional beta motion), plastic deformation of contours, and rotation of rigid shapes in depth. Increasing stimulus duration increases the likelihood of all 3, but changes in depth occur at longer interstimulus intervals than changes of shape. The influence of shape itself in resolving disparities was found to be very small, and when more than 1 change was required to resolve a disparity, the multiple changes were found to occur simultaneously. (15 ref.)—*Journal abstract.*

5317. Moses, Franklin L. & DeSisto, Michael J. (Tufts U.) **Arm-movement responses to Müller-Lyer stimuli.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 376-378.—Investigated similarities between eye- and arm-movement patterns during the Müller-Lyer illusion to find out if characteristics of a visual illusion would be reflected in tracings of an unseen arm. 6 stimuli, 3 experimental and 3 control, were presented 5 times to each of 7 undergraduates who were familiar with the illusion. Data were analyzed by measuring lengths of tracings and by making intraindividual comparisons using t tests for correlated means. Results for the arm are similar to those reported elsewhere for the eye. Arrows with outward-directed obliques were traced longer than arrows with inward-directed obliques, as well as longer than control stimuli. Agreement between eye- and arm-movement responses to the illusion lend support for

using each technique to investigate stimuli that affect man's distance metric.—*Journal abstract.*

5318. Stevens, Joseph C. & Rubin, Lee L. (John B. Pierce Foundation Lab., New Haven, Conn.) **Psychophysical scales of apparent heaviness and the size-weight illusion.** *Perception & Psychophysics*, 1970(Oct), Vol. 8(4), 225-230.—14 adult Ss used the method of magnitude estimation to scale the apparent heaviness of a set of 40 cylindrical objects that varied in weight, volume, and density. There were 3 main conclusions: (a) For any constant volume, heaviness grows as a power function of weight; the larger the volume, the larger the exponent of the power function. The family of such power functions converge at a common point in the vicinity of the heaviest weight that can be lifted. (b) For any constant density (i.e., weight proportional to volume), heaviness does not grow as a power function of weight. (c) For any constant weight, heaviness decreases approximately as a logarithmic function of volume; the constants of the log function depend systematically on the weight of the object. The outcome furnishes a broad quantitative picture of apparent heaviness and of the size-weight illusion (Charpentier's illusion).—*Journal abstract.*

5319. Zenhausen, Robert; Hansen, Karen, & Sobrien, Sonya. **Order effects in perception of two trapezoidal illusions.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 355-366.—Performed 2 experiments in which 96 experimentally naive Ss with normal vision served in more than 1 condition to determine order effects on 2 trapezoidal perceptual illusions. In Exp. I expected differences in illusory experiences were a function of complex order effects. In Exp. II similar order effects significantly influenced the number of illusory experiences reported for 3 angles of oscillation.—*Journal abstract.*

Time

5320. Gibbon, John & Rutschmann, Ruth. (New York State Psychiatric Inst., New York) **Temporal order judgment and reaction time.** *Science*, 1969(Jul), Vol. 165(3891), 413-415.—Proposes a model which predicts judgment of the temporal order of stimuli from simple RT. Visual data show covariation of the 2 measures with luminance changes, and suggest that (a) temporal order judgments reflect a biased response criterion, and (b) the motor component of RT has little variability relative to variance in receptor system latency.—*Journal abstract.*

5321. Graef, Jed R. (U. Michigan) **The influence of cognitive states on time estimation and subjective time rate.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 897.

5322. Hoyer, William J., Jones, Elvis C., White, Roland S., & Maconachy, William V. (Frostburg State Coll.) **Effects of knowledge of the ITI on time estimates.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 392-394.—Exp. I with 37 undergraduates investigated the effect of knowledge (K) of a 10-sec ITI on estimates of 4 different durations (8, 12, 20, and 32 sec.). The main effect of K was significant ($p < .005$). Exp. II examined the effect of K over trials using a single interval (27 sec.). Ss were 28 naive undergraduates. The main effect of K was significant ($p < .005$), but the $K \times$ Trials interaction was not significant. The effect of K was immediate, and in both experiments, facilitated time estimation.—*Journal abstract.*

VISION

5323. Dewar, Robert. (U. Calgary, Alberta, Canada) **Adaptation to displaced vision: Amount of optical displacement and practice.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 313-316.—Examined the influence of 2 variables, length of exposure and amount of optical distortion, on adaptation to displaced vision in 104 16-28 yr. old right-handed Ss. The extent of adaptation was positively related to number of trials in a task involving spatial localization of a target displaced by a wedge prism. A substantial adaptation (38%) was produced after only 2 trials. The adaptation was also positively related to degree of optical displacement, except at the highest level used. Findings are discussed in terms of availability of information about the discrepancy between vision and task. (21 ref.)—*Journal abstract.*

5324. Gippeneiter, Yu. B., Romanov, V. Ya., & Smirnov, S. D. (Moscow State U., USSR) **O dvizhenii glaz i ruki v protsesse schëta élementov test-ob"ekta.** [On movement of the eyes and hand in the process of counting the elements of a test object.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 51-56.—11 Ss participated in a study of the motor component in visual counting (simultaneous presentation of 7-26 stripes in 2-3 min. with angular density of 7'-10' and 20'-35', with and without pressing a push button with each count). It is shown that certain characteristics of the saccadic movements of the eye, when counting, are not connected with the function of taking in visual information as such, but are determined by the specific nature of the operation performed. The necessity of discrete motor acts in the process of counting is disclosed. These acts may be localized in the different motor organs, and in specially organized conditions transference of the function of discrete counting is possible from the eyes to the hand.—I. D. London.

5325. Gordeeva, N. D., et al. (Moscow State U., USSR) **Issledovanie informatsionnogo poiska pri formularnom sposobe pred'yavleniya informatsii.** [Study of informational search when the formulary method of presenting information is employed.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 71-79.—Reports results of 4 experimental series in a study of the parameters of visual search (time, duration, and number of fixations; their temporal and spatial distribution; route of eye movements) as a function of method of presenting information (formulary and mixed). 5-30 formularies were employed with the number of parameters ranging from 1-7. Time of search is shown to be a function of the number of formularies and parameters found in the informational field. Average duration of visual fixation was not a function of the number of formularies and parameters. Investigation of the trajectories and of the number of steps involved in visual search made it possible to understand the sequence and logic of the operations which entered into the composition of informational search. Change in the structure of the informational field, brought about through analysis of the trajectories and number of steps utilized in informational search, provided a necessary basis for a sharp diminution in time of informational search.—I. D. London.

5326. Hill, Adrian R. (City U., London, England) **Towards a psychophysical scale of visibility.** *American Journal of Optometry & Archives of American*

Academy of Optometry, 1970(Jan), Vol. 47(1), 36-44.—Scaled the sensory mode "ease of seeing" by the technique of direct magnitude estimation in an experiment with 20 architecture students. The derived scale is a power function of visual acuity measured with equivalent stimulus values. Findings suggest that, if visual acuity measurements are to be representative of the sensation "ease of seeing," then the character sizes on visual test charts must be graded in a geometric progression of visual angle. A scale of visual utility is proposed in which it is possible to express changes in basic visual acuity measurements (e.g., Snellen fractions), in terms of multiples or fractions of unitary changes in visibility. (24 ref.)—*Journal abstract*.

5327. Markoff, Joseph I. (Syracuse U.) **Monopic and dichopic measures of spatio-temporal and luminance factors in the increment threshold.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 382.

5328. Murashko, A. G. & Serdyuchenko, V. Ya. (Inst. of Radioelectronics, Kharkov, USSR) **Linearizovannaya model' kraevogo kontrasta zreniya.** [Linearized model of border contrast in vision.] *Problemy Bioniki*, 1970, No. 3, 3-15.—Describes a linearized model of border contrast in the human visual organ. The reactions of the model to the different types of input signals, recognized as classic in studies of the reactions of the visual system, are deduced. It is shown that the model is applicable for those cases where abrupt changes in brightness within the visual picture do not exceed 10%.—*I. D. London*.

5329. Nefedov, Yu. I., Chervov, V. G., & Bugai, Yu. P. **Modelirovanie protsessov pervichnoi obrabotki informatsii v zritel'nom analizatore s pomoshch'yu televizionnoi sistemy.** [Modeling the processes involved in the primary treatment of information in the visual analyzer with the aid of a television system.] *Problemy Bioniki*, 1970, No. 3, 142-148.—Analyzes a physical model of the simplest nervous systems, constructed on the basis of TV apparatus, utilizing a regulated form of defocusing of the scanning rays in the transmission and reception TV tubes.—*I. D. London*.

5330. Shabanov-Kushnarenko, Yu. P. & Shul'gin, I. V. **Matematicheskaya model' preobrazovaniya koordinat v pole zreniya.** [A mathematical model for the transformation of coordinates in the visual field.] *Problemy Bioniki*, 1970, No. 3, 127-128.—Examines several questions concerning the "transformation of the visual picture in visual sensation." It is shown that it is possible to consider the coordinate system in a plane, perpendicular to the visual axis, as undeformed only in the central part of the visual field; deformation of the coordinate system takes place in the peripheral parts of the visual field.—*I. D. London*.

5331. Tresselt, M. E., Mayzner, M. S., Schoenberg, K. M., & Waxman, J. (New York U.) **A study of sequential blanking and overprinting combined.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 261-264.—By presenting alphabetic and other types of input characters, in either adjacent or the same spatial locations on the face of a CRT interfaced to a digital computer and by varying in systematic ways the interstimulus intervals and display orders of the several sequentially presented inputs, there has evolved blanking-overprinting paradigm. The use of such a paradigm with 24 adult Ss disclosed that the visual system can operate in a very sensitive and highly selective manner,

clearing the 1st of 2 overprinted inputs that are separated in time by as little as 50 msec., while selectively inhibiting the 2nd of these 2 overprinted inputs, if appropriate blanking inputs are present. (20 ref.)—*Journal abstract*.

5332. Uttal, William R. & Hieronymus, Ramelle. (U. Michigan) **Spatio-temporal effects in visual gap detection.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 321-326.—Studied the ability of the visual system to process temporal information with regard to the interactions between temporal and spatial stimulus dimensions. A comparison of results of 2 experiments with 4 female Ss indicates that the eye is able to discriminate temporal gaps in a train of visual flashes better when the flashes are spatially superposed than when they are dispersed. The inertial and integrating properties of the visual receptor seem to hinder the discrimination less than does spatial dispersion. However, an analysis of the results, using J. Z. Levinson's low-pass filter model, suggests that the increased discrimination is due to the recoding of the temporal stimulus information along a brightness dimension, and thus the true temporal properties of the visual system are probably better described by the dispersed rather than the overlapped condition. Other experiments are also reported that deal with the ability of human Ss to deal with the temporal information pattern of visual stimuli.—*Journal abstract*.

5333. Wade, N. J. (U. Dundee, Scotland) **Effect of prolonged tilt on visual orientation.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 423-439.—Views visual orientation during lateral tilt in terms of orientation constancy. The postural systems involved in the maintenance of constancy are considered to be the otolith, neck, and trunk. The relative contribution of these systems was investigated by obtaining visual verticality judgments immediately upon and several min. after head, body, and trunk tilts. Due to the apparent nonadaptation of the otolith system any changes in visual orientation resulting from prolonged tilt would be attributed to adaptation of the proprioceptive system stimulated. For 30° head tilt visual orientation overconstancy was reduced by about 2°, reflecting the influence of the neck system. Prolonged body tilts of 30, 60, and 90° reduced the constancy operating by approximately 1, 3, and 8°, respectively. This indicates the contribution of the trunk system, which increased with increasing degrees of body tilt. The above interpretations received strong support from experiments involving trunk tilt, which stimulates only the neck and trunk systems. (35 ref.)—*Journal abstract*.

5334. Wade, N. J. (U. Dundee, Scotland) **Visual orientation during lateral head tilt when upright and supine.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 420-422.—Investigated egocentric visual orientation of 10 undergraduates with lateral head tilts relative to the upright and supine trunk. A significant difference was found in the trend of visual head axis judgments between 40° left and 40° right head tilt for the 2 conditions: they varied systematically with the degree of tilt for the upright but not for the supine condition.—*Journal abstract*.

Perception

5335. Baird, John C., Lewis, Charles, & Romer, Daniel. (Dartmouth Coll.) **Relative frequencies of numerical responses in ratio estimation.** *Perception &*

Psychophysics, 1970(Nov), Vol. 8(5-B), 358-362.—Investigated the frequency of different numerical responses in ratio estimation as a function of the numerical categories actually used by 116 Ss. Analyses were conducted for 3 series of experiments involving magnitude and free-ratio estimation for the attributes of stimulus length, area, and distance. It was found that Ss use certain numerical categories (e.g., multiples of 1, 10, and 100) much more frequently than others (e.g., 37.5) and that the choice of category depends upon the order of magnitude of the response. The statistical implications for ratio scaling are worthy of notice.—*Journal abstract*.

5336. Berlyne, D. E. (U. Toronto, Ontario, Canada) **Novelty, complexity, and hedonic value.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 279-286.—2 experiments, in which 136 undergraduates were exposed to sequences of colored shapes, investigated effects on ratings of "pleasingness" and "interestingness" of variables that had previously been shown to affect ratings of "novelty." Results indicate that both pleasingness and interestingness increase with novelty. These findings run counter to those of experiments indicating an inverse relation between novelty and verbally expressed preference. 2 further experiments using 96 Ss examined effects of some variables that might account for this apparent discrepancy. Homogeneous sequences declined in judged "pleasantness" more than sequences in which several stimuli were interspersed, and simple stimuli became less pleasant as they became less novel, while complex stimuli declined less or became more pleasant. Findings are related to hypotheses regarding mechanisms of hedonic value. 2 crucial predictions were confirmed in a 5th experiment. (19 ref.)—*Journal abstract*.

5337. Bernstein, Alvin S., et al. (State U. New York, Downstate Medical Center, Brooklyn) **Orienting response and apparent movement toward or away from the observer.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 37-45.—In an experiment with 80 paid volunteer Ss, it was found that the orienting response (OR) displayed heightened reactivity in both GSR and pulse volume components to the onset of apparent movement in the visual field. Presenting filmed geometric patterns, both movement toward, and movement away from, S produced greater OR than that elicited simply by the changes in line thickness and density involved. However, movement toward S especially triggered strong and relatively enduring ORs. Results suggest that the onset of movement in the visual field is associated with a momentary increase in perceptual receptivity. When environmental objects appear to approach S, such heightened receptivity may continue for a relatively prolonged period. Where movement away from S occurs, however (at least where innocuous, nonmeaningful stimuli are involved), this initially heightened sensitivity promptly diminishes, possibly because the receding stimulus is of little further significance. (16 ref.)—*Journal abstract*.

5338. Clare, Dennis A. (Cornell U.) **A study of principles of integration in the perception of written verbal items.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 409.

5339. Grossberg, Mitchell. (Massachusetts Inst. of Technology, Lincoln Lab.) **"Backward masking" of simple detection latencies.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 308-312.—Determined simple detection latencies with stimuli that comprised 2 suc-

cessive flashes. The 2nd flash either equaled or exceeded the 1st in luminance, duration, or both. When a low-luminance flash preceded either a low- or a high-luminance flash, the flashes summated, yielding latencies that were shorter than the latency for the 1st flash alone. In the limit, when the 2nd flash was intense and followed the 1st by a short time, the latency for the paired flashes behaved as if it was determined by the 2nd flash alone. This limit was analogous to the retroactive interference in studies of the neurophysiological concomitants of backward masking. S was 1 highly trained adult. However, the S in masking studies detects the 1st flash despite interference by the 2nd, whereas the present S detected the onset of the stimulus light. The need for an analysis of the S's response under masking is thus indicated.—*Journal abstract*.

5340. Halmiová, Ol'ga; Dornič, Stanislav; Jelenková, Alena, & Arochová, Ol'ga. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Effect of short-term memory load and strength of the nervous system on search time.** *Studia Psychologica*, 1970, Vol. 12(3), 238-243.—A comparison of search time in a simple task and in 1 with short-term memory loading showed it to be significantly prolonged in the latter tests. In an experiment with 30 16-18 yr. old boys and girls, Ss recalled correctly only 15% from the given stimuli. When they were divided into a strong and a weak group, differences of statistical significance became apparent in favor of the weak group when short-term memory was loaded. (Czech & Russian summaries)—*Journal abstract*.

5341. Hershberger, Wayne A. & Urban, Daniel. (Northern Illinois U.) **Three motion-parallax cues in one-dimensional polar projections of rotation in depth.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 380-383.—A polar projection of a dotted line rotating in depth incorporates 3 distinct cues to direction of rotation: (a) the direction (D) in which the motion of dots on opposite ends of the line are periodically congruent, (b) the order (O) in which the dots reach their respective limits of angular displacement in the visual field, and (c) the differential retinal velocity (V) of dots on the near vs. the far side of the axis of rotation. 24 undergraduate Os repeatedly viewed each of 3 polar projections of a dotted line rotating in depth; 1 incorporating only cue V, another, cues D and V, and a 3rd, cues O and V. Os' identification of rotation direction using cue V alone was better than chance, and improved significantly with the addition of either of the other cues. Performance improved with practice using the 2-cue projections but declined using the V projection.—*Journal abstract*.

5342. Kinsbourne, Marcel & Evens, Nicholas. (Oxford U., Inst. of Experimental Psychology, England) **Is the word frequency effect on recognition threshold a function of transitional probability?** *Psychological Reports*, 1970(Aug), Vol. 27(1), 143-145.—Frequently used 5- and 6-letter words incorporate letter sequences of higher digram and trigram frequency than rare words. This could account for some or all of the frequency of usage effect on word recognition threshold.—*Journal abstract*.

5343. Krueger, Lester E. (Harvard U.) **The effect of acoustic confusability on visual search.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 389-400.—Ss searched more slowly through same-sounding visual displays in which the letters, when pronounced,

matched the vowel sound of the target letter than through different-sounding displays indicating that Ss do form acoustic representations of display letters in visual search. Ss were 10 undergraduates in Exp. I, and 20 in Exp. II. Ss also made more errors on same-sounding than different-sounding displays. Search was slowed to a greater extent on same-sounding displays for Ss who more frequently subvocalized the target letters.—*Journal abstract.*

5344. Krylova, N. V. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Izuchenie pri pomoshchi samonastraivayushchegosya éksperimenta nekotorykh osobennostei ritmicheskoi dvigatel'noi deyatel'nosti cheloveka.* [Study of some features of rhythmic motor activity in man, making use of the self-adjusting experiment.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 305-312.—5 Ss participated in a computer-involved study of the features of tracking temporal intervals between clicks when the stimulating rhythm undergoes sudden change. 2 distinct mechanisms of transition to a new rhythm were established (a) "sliding" (gradually, by small steps), if, at the moment of change in rhythm, the S was engaged in exact tracking (interval between stimuli changed by 5% of the given magnitude); (b) "saltation" (by sharp, extrapolational steps), if the S was in a state of discordance when the interval is changed by 10-20%. The magnitude of change in the interval between stimuli influenced the character of the transition only if, at the moment of change in the rhythm, S was engaged in exact tracking. If at that moment S was in a discordant state, the transition to the new rhythm occurred as a "saltation." The character of the transitions was under the same conditions for all the intervals investigated (.3, 1, 2 sec.).—*I. D. London.*

5345. Mack, Arien. (New School for Social Research) *An investigation of the relationship between eye and retinal image movement in the perception of movement.* *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 291-298.—Investigated whether or not eye movements accompanied by abnormal retinal image movements, movements that are either or both at a different rate or in a different direction than the eye movement, predictably lead to perceived movement. 14 undergraduate Os reported whether or not they saw a visual target move when the movement of the target was either dependent on and simultaneous with their eye movements or when the target movement was independent of their eye movements. Observations were made when the ratio between eye and target movement was 2/5, 1/5, 1/20, and 0. All these ratios were tested when the direction of the target movement was in the same, opposite, and at right angles to the movement of the eyes. Eye movements, target movements, and reports of target movement were recorded. Results indicate that a discrepancy between eye and target movement greater than 20% predictably leads to perceived target movement, whereas a discrepancy of 5% or less rarely leads to perceived movement. Results are interpreted as support for the operation of a compensatory mechanism during eye movements.—*Journal abstract.*

5346. Marshall, A. J. (U. Western Australia, Perth) *Sensory and attentional devices in visual perception.* *Australian Psychologist*, 1969(Mar), Vol. 3(3), 124-139.—Discusses some work concerned with perception under various kinds of difficult viewing conditions, focusing on sensory and attentional devices and

Galton's studies. Possibilities for what might be gained by carrying out further studies are also considered.

5347. Masland, Richard H. (Stanford U., Medical School, Div. of Neurology) *Visual motion perception: Experimental modification.* *Science*, 1969(Aug), Vol. 165(3895), 819-821.—In an experiment with 45 male undergraduates, it was found that if a human O fixates a moving spiral pattern for 15 min., a negative aftereffect of motion is perceived when he inspects a stationary spiral 20 hr. later. The illusory motion is seen only when the stationary test stimulus falls upon the portion of the retina which had been stimulated by real motion. Thus previous stimulation can cause a relatively long-term modification of vision.—*Journal abstract.*

5348. Metelli, F. (U. Padova, Italy) *An algebraic development of the theory of perceptual transparency.* *Ergonomics*, 1970(Jan), Vol. 13(1), 59-66.—Describes an experiment concerning the dependence of the perception of transparency upon both figural relationships and color-relationships in a pattern. By expressing in algebraic terms the chromatic aspects of the perceptual phenomenon of transparency and solving the resulting system of 2 equations, it was possible to deduce from the solutions some necessary conditions of the phenomenon, which were confirmed by results of qualitative experiments. (French & German summaries)—*Journal abstract.*

5349. Mikhailov, S. A. & Pitanova, A. V. (Moscow State U., USSR) *O simul'tanirovaniĭ posledovatel'nogo ryada razdrzheniĭ v zritel'noi sisteme cheloveka.* [On simulation of a successive series of stimulation in the human visual system.] *Psikhologicheskĭe Issledovaniya*, 1969, No. 1, 134-138.—5 Ss participated in a study to (a) elucidate the process whereby the entire contour of plane geometrical figures may be simultaneously perceived when separate elements of the contour are successively fed into the visual system as inputs, and (b) determine the temporal characteristics of this process. Data, resulting from utilizing different speeds for the scanning cycle, are presented.—*I. D. London.*

5350. Neisser, Ulric. (Cornell U.) *The processes of vision.* *Scientific American*, 1968(Sep), Vol. 219(3), 204-214.—Discusses the role of the eye and the brain in various aspects of visual perception and memory. It is noted that neither in perceiving nor in remembering is there a lasting copy of the optical input as in the case of a camera or a recording instrument. In perception, complex patterns are selected from input and fed into "constructive processes of vision" so that the inner experience of a perceiver usually corresponds well with the external environment. Visual memory differs from perception in that it is based primarily on stored instead of current information but entails a similar process of synthesis.—*P. McMillan.*

5351. Paivio, Allan & O'Neill, Brian J. (U. Western Ontario, London, Canada) *Visual recognition thresholds and dimensions of word meaning.* *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 273-275.—Obtained tachistoscopic recognition thresholds from 10 undergraduates for nouns with high or low values on 1 dimension of meaning while 2 others were controlled. Frequency, imagery concreteness, and meaningfulness (m), were varied in different lists in 1 experiment, frequency and m in a 2nd, and m alone in a 3rd. Ratings of familiarity were also obtained to supplement frequency as a measure of familiarity. Results show that ease of

visual recognition was most strongly related to frequency and familiarity. Imagery was unrelated to thresholds when familiarity and m were controlled. Meaningfulness showed a small but consistent positive relation to ease of recognition even with the other variables held constant. Except for the puzzling effect of m , results are consistent with the view that perceptual recognition is primarily dependent upon the familiarity of the target stimulus and not upon associative processes evoked by it. (17 ref.)—*Journal abstract*.

5352. Rousseau, Robert & Lortie, J. Yves. (U. Laval, Quebec, Canada) **Decrease and increase in target detection induced by adjacent borders.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 483-488.—Controlled the facilitatory effect on target detection due to the distance between inducing fields and the duration of target presentation. 2 experienced Os participated in the study. It appeared that such an effect exists for a distance of $1^{\circ}3'$ between the active fields. However, it seems to be strongly related to a critical range of duration of target presentation. (20 ref.)—*Journal abstract*.

5353. Sanders, A. F. (Inst. for Perception RVO-TNO, Soesterberg, Netherlands) **Some aspects of the selective process in the functional visual field.** *Ergonomics*, 1970(Jan), Vol. 13(1), 101-117.—Reviews a group of experiments on performance as a function of display angle, describing the perceptual strategies used with signals at various angular separations. Exp. I used a simple 4-choice discrimination task. Results show a nonlinear decrease of performance as a function of display angle, related to the necessity of making eye and head movements when shifting from 1 signal source to the other. It is suggested that the nonlinearity is due to changes of strategy. A preliminary theory about selective processes is formulated and tested in a number of tasks. (French & German summaries) (27 ref.)—*Journal abstract*.

5354. Smith, W. M. (Dartmouth Coll.) **Visually-guided behaviour and behaviourally-guided vision.** *Ergonomics*, 1970(Jan), Vol. 13(1), 119-128.—Outlines temporal integration in perceptually-guided behavior, and the effects of disturbing the normal temporal and spatial relationships between perceptual display and responding action. Characteristics of the cybernetic, feedback model of behavior are discussed, and evidence is cited showing that the effects are often highly specific to particular tasks and are affected by difficulties from factors other than temporal and spatial disturbances. A reappraisal of accepted ideas on sensory-motor performance is suggested, which will more thoroughly incorporate the implications of sensory feedback resulting from action. (French & German summaries) (19 ref.)—*Journal abstract*.

5355. Sylvester, John D. **The concept of the "visual computer" and its exploration by the use of drugs.** *Studia Psychologica*, 1970, Vol. 12(3), 227-237.—Argues that the Gestaltist's position on visual perception and associated theories are untenable with the known facts of perception, and that most learning theories of perception are incomplete. A cybernetic theory of visual perception is presented which (a) helps to resolve the nature-nurture controversy, (b) describes details of higher cortical processes, and (c) accounts for the connection between personality and individual differences in perception. 2 experiments are described, using a combination of cue reduction and drugs. Results indicate that in conditions

of cue reduction, both size and shape constancy are diminished by sodium amyltal, a depressant drug. Probabilities indicate a reduction of efficiency of the perceptual computer rather than a reduction of physiological cues. Experiments strongly support the concept of a visual computer as described in this study. (Czech & Russian summaries) (22 ref.)—*Journal abstract*.

5356. von Békésy, Georg. (U. Hawaii, Lab. of Sensory Sciences) **Apparent image rotation in stereoscopic vision: The unbalance of the pupils.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 343-347.—In binocular vision the apparent rotation of an object relative to the frontal plane seldom corresponds with the actual rotation. The reason for this is a difference in the brightness of the object in both eyes. Unbalance was produced by placing a density filter before 1 eye of each of 3 Os, and the corresponding rotations were then measured. The rotations were affected by the irradiation in the eye, as a physical component, but also by the lateral inhibition in the visual nervous system. If the object and the background had a different color but there was no brightness difference on the edges of the object, there was no distorted rotation. (17 ref.)—*Journal abstract*.

5357. Wade, N. J. (Max Planck Inst. for the Physiology of Behavior, Seewiesen, W. Germany) **The effect of stimulus line variations on visual orientation with head upright and tilted.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 177-185.—Investigated the effects of different line length, width, and luminance on the visual vertical with head upright and tilted in 5 experiments with 10 undergraduates each. With head upright the visual vertical was located accurately under all combinations of stimulus properties. With 30° head tilt the E-effect was produced, and its magnitude was not affected by variations in line luminance and width (at constant luminous flux). The E-effect was reduced by increased line width (at constant luminance) and length. The former was attributed to an interaction between line width and luminance. The latter was considered to be due to differential eye movements when scanning a longer line, as brief presentation of the line abolished the line length difference. Although the variations in the E-effect were small relative to the orientation constancy operating, consideration should be given to the stimulus properties used when comparing data from different experiments.—*Journal abstract*.

5358. White, Murray J. (Victoria U., Wellington, New Zealand) **Visual field differences and the recognition of alpha-numeric material.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 311-317.—8 male graduate and undergraduate students identified and localized letters and digits from displays presented, at brief exposures, (a) to the left of a central fixation point, (b) to the right of fixation, and (c) to the left and right of fixation. No differences were observed with respect to visual fields in identification scores, but a significant interaction between visual field and presentation condition was found in localization scores.—*Journal abstract*.

5359. Young, Forrest W. (U. North Carolina, L. L. Thurstone Psychometric Lab.) **Nonmetric scaling of line lengths using latencies, similarity, and same-different judgments.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 363-369.—Investigated the relation between various ways of deriving psychophysical functions for line length. A 2-phase computer-

controlled experiment in which the stimuli were pairs of lines was performed by 15 undergraduates. In Phase I, the pair was presented for several seconds and S made a category judgment of the similarity of the lines. In Phase II, the pair was presented for a very brief period of time and S decided whether the lines were the same or of different lengths. 3 sets of data were analyzed: (a) the similarity judgments, (b) the proportion of correct judgments, and (c) the latency of the correct different judgments. An individual differences analysis indicates that there were individual differences in the similarity and latency data. This analysis was not applicable to the proportion data. Nonmetric scaling reveals that the psychophysical functions based on all 3 sets of data were essentially identical. (16 ref.)—*Journal abstract*.

Size & Distance & Depth Perception

5360. Dymerskiĭ, V. Ya. & Belik, Ya. Ya. (Moscow State U., USSR) *O vospriyatii izmeneniya udalennosti ot ploskoi poverkhnosti*. [On the perception of changes of distance from a plane surface.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 125-128.—Presents the derivation of a mathematical formula, yielding a measure of change, at each given moment, of the visible speed of points in the visual field with change in distance of the O, moving perpendicularly to the plane.—*I. D. London*.

5361. Epstein, William & Morgan, Cynthia L. (U. Wisconsin) *Adaptation to uniocular image magnification: Modification of the disparity-depth relationship*. *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 322-329.—Exposed 12 undergraduates with uncorrected vision to a meridional size lens for 1 hr. Measures of adaptation and aftereffect showed significant adaptive shifts. 12 controls, who were exposed to nondistorting plain glass for 1 hr. did not show shifts. Results are a reevaluation of the relationship between binocular disparity and perceived depth as a result of exposure to informational discrepancy.—*Journal abstract*.

5362. Farnè, M. (U. Bologna, Italy) *Visual after-effects in the third dimensions: The importance of margins*. *Ergonomics*, 1970(Jan), Vol. 13(1), 83-88.—Experimentally naive medical students, 10 in each of 4 conditions viewed a surface slanted from the frontal plane at 67°. In the 1st condition, this surface had a regular, horizontal texture and was seen through a square window that hid its edges. In the 2nd condition, the same surface was seen between margins which appeared to converge with distance due to perspective effects. In the 3rd condition, the texture was oriented vertically, and seen through the window. In the last condition the surface from the 3rd condition was seen with margins as in the 2nd condition. After having inspected this surface for 5 sec., Ss had to judge the distances of 2 vertical, parallel lines, shown for 250 msec. Results show that the line falling in the place that corresponded to the more distant part of the surface was seen as nearer than the other. This illusory displacement was stronger when the texture of the surface was vertical, and when it was displayed between margins. The 3rd condition presents a clear example of visual aftereffects in the 3rd dimension that cannot be explained in terms of aftereffects which occur in the frontal plane. (French & German summaries) (20 ref.)—*Journal abstract*.

5363. Freeman, R. B. (Pennsylvania State U.) *A psychophysical metric for visual space perception*.

Ergonomics, 1970(Jan), Vol. 13(1), 73-81.—Proposes a new psychophysical metric for the measurement of visual cues in space perception. Its application to the discrimination of distance by means of binocular disparity, monocular movement parallax, and linear perspective is discussed. Experiments are described in which the validity of the proposed psychophysical metric is tested in relation to judgments of visual slant and shape. (French & German summaries) (19 ref.)—*Journal abstract*.

5364. Lit, Alfred & Vicars, William M. (Southern Illinois U.) *Stereocuity for oscillating targets exposed through apertures of various horizontal extents*. *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 348-352.—Assessed the separate effects of several interrelated temporal variables on binocular depth discrimination as measured in a 2-rod test apparatus. Equidistance settings were obtained from 2 highly trained undergraduates for a black target oscillating in a frontal plane at each of 5 velocities, and viewed against a constant illuminated background through 29 different horizontal apertures. Combinations of target velocities and aperture sizes were selected to produce a series of 8 constant target viewing times (.15, .25, .4, .5, .8, 1, 1.5, and 2 sec.). Both the constant and the variable errors of the equidistance settings were analyzed in terms of the relative deleterious effects produced by increased target velocity and reduced horizontal aperture. The deleterious effects are discussed with respect to the contribution of presumed loss in neural integration for the changing luminous-energy distribution patterns on each retina, energy losses occurring in each pair of stimulated binocular retinal elements along the path of image movement, decreases in target viewing time, and reduction in the number of binocular retinal elements being stimulated. (20 ref.)—*Journal abstract*.

5365. Mack, Arien & Chitayat, Deanna. (New School for Social Research) *Eye-dependent and disparity adaptation to opposite visual-field rotations*. *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 352-371.—Demonstrates eye-dependent perceptual adaptation and adaptation to altered retinal disparity in the absence of cyclotorsion. Os were exposed to a binocular prism system that produced 5°, opposite rotations to the 2 eyes. Tests of monocularly perceived vertical and of binocularly perceived stereovertical were administered before and after exposure. Results indicate simultaneous and opposite eye-dependent changes in the monocular perception of vertical, and adaptive binocular changes in the perception of stereovertical, such that 0 disparity evoked the experience of depth. Photographic measurements of cyclotorsion were made during testing to determine whether the adaptive changes were a function of oculomotor changes. No cyclotorsion was found. (26 ref.)—*Journal abstract*.

5366. Natadze, R. (Tbilisi State U., USSR) *O nekotorykh proyavleniyakh kategorial'nosti vospriyatiya*. [On some manifestations of the categorality of perception.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 25-34.—Pairs of drawings of objects were presented tachistoscopically to Ss for size judgments. 1 of the objects in a pair was typically larger in nature than the other (e.g., umbrella and mushroom), but the size of the drawings was approximately the same. In all cases the drawing of the smaller object was perceived to be larger, even when objectively it was slightly smaller. When the same objects were presented in outline

drawings only so that they often were not identified, the relative size of the drawings was perceived correctly. The overestimation of the drawing of the smaller object occurred because Ss actually compared not the size of the drawings themselves but the size of representatives of specific object categories whose retinal images happened to be equal. The S's set, established by previous experience with objects, exercised its contrast effect and the drawing of the smaller object appeared larger. (English summary)—*L. Zusne*.

5367. Phillips, Richard J. (University Coll., London, England) **Stationary visual texture and the estimation of slant angle.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 389-397.—Examined the suggestion that a gradient of retinal stimulation from an irregularly textured surface is used in the estimation of slant. There are several measures that could form such a gradient. 8 pictures of slanting surfaces were constructed with the aid of a computer. These consisted only of texture elements: outline circles and ellipses. 12 undergraduates studied pairs of pictures and indicated which had the greater tilt. By varying separately the gradients of element size and element density, it was possible to show that only the former contributed appreciably to the impression of slant. Only some of the measures considered are consistent with this result. —*Journal abstract*.

5368. Reading, Rogers W. (Indiana U., Div. of Optometry) **The threshold of distance discrimination for objects located outside Panum's area.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Feb), Vol. 47(2), 99-105.—Measured thresholds of distance discrimination on 2 male 17 and 21 yr. old Ss by using an apparatus that presents the targets intermittently and asynchronously and monitors gross eye movements. The use of the method of constant stimuli makes possible stable measurements of depth discrimination for objects located as far away from the fixation point as 302.4 min. of arc.—*Journal abstract*.

5369. Vickers, D. (U. Adelaide, South Australia) **Evidence for an accumulator model of psychophysical discrimination.** *Ergonomics*, 1970(Jan), Vol. 13(1), 37-58.—Describes an accumulator model, in which sampled events may vary in magnitude as well as probability, and which can be developed to give a good account of much of the available data on psychophysical discrimination. 2 experiments are reported with 5 female 22-27 yr. old volunteers, in which S pressed 1 of 2 keys as soon as he had decided whether the longer of 2 simultaneously presented lines was on the left or right. Results are inconsistent with a runs or recruitment process, but accord well with predictions from the accumulator model. Other evidence consistent with such a mechanism is reviewed. (French & German summaries) (64 ref.)—*Journal abstract*.

5370. Wittenberg, Sidney; Brock, Frederick W., & Folsom, William C. **Effect of training on stereoscopic acuity.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Sep), Vol. 46(9), 645-653.—Attempted to determine if stereoscopic acuity can be improved by training. 16 20-29 yr. old Ss were measured with stereometric cards in a telebinocular and divided into a control and an experimental section. The latter underwent training in an instrument in which they repeatedly adjusted 1 virtual object to lie in the same fronto-parallel plane as another virtual object. Post-training retest showed that both groups had improved

performance. The experimental section demonstrated far greater improvement, a difference statistically significant at the .01 level, indicating that stereoscopic acuity had been improved by training.—*Journal abstract*.

Color Vision

Form & Pattern Discrimination

5371. Alluisi, Earl A. & Thurmond, John B. (U. Louisville) **Relative effects of figural noise and rotation on the visual perception of form.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 547-554.—48 undergraduates responded in a paper-and-pencil figure-cancellation task to 4 x 4 metric histoforms. Both random and constrained or Redundancy-I figures were used with both rotated and nonrotated noise-free choice figures, and with nonrotated choice figures perturbed by 12.5 and 25% visual cell noise. In terms of both the speed and accuracy of cancellation, perceptual performance with random figures was better than with constrained, and increases in visual noise produced monotonic decrements in performance. Although choice-figure rotation had no significant effect on accuracy, it produced decrements in speed equivalent to decrements that might be expected with nonrotated choice figures perturbed by 3.6 and 9.4% visual noise in the random and constrained-figure conditions, respectively. (17 ref.)—*Journal abstract*.

5372. Brown, Bill R. & Rebbin, Thomas J. (U. Louisville) **Simultaneous vs sequential discriminations of Markov-generated stimuli.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 353-357.—Required 48 undergraduates to make same-different classifications of Markov-generated histoforms that were distortions of 3 different prototypes. Task memory requirements were varied by presenting stimuli either simultaneously or sequentially for comparison, and the effects of shifts in memory requirements were also assessed. Classification performance in all cases was found to be superior under the simultaneous condition. Postshift performance was strictly a function of the mode of stimulus presentation following the shift, rather than the memory requirements present in the initial trials. Results, coupled with the observed relationships between performance and a measure of individual stimulus variability under the 2 memory conditions, strongly suggest that prototype encoding has limited relevance to performance in the same-different classification task used here.—*Journal abstract*.

5373. Connor, Denis J. (U. British Columbia, Vancouver, Canada) **Lateral inhibition and the area operator in visual pattern recognition.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 193.

5374. Corcoran, D. W. & Rouse, R. O. (Medical Research Council, Cambridge, England) **An aspect of perceptual organization involved in reading typed and handwritten words.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 526-530.—Reports 3 experiments of identical design, but using different basic materials. In Exp. I the probability of recognizing tachistoscopically presented typed and handwritten words was found: (a) when the 2 types of materials were presented in separate lists, and (b) when presented together in a mixed list when Ss did not know what type of material to expect next in the sequence. In

Exp. II, 2 handwritings were employed and in Exp. III, upper- and lowercase typed material was used. The mixed condition resulted in poorer performance than the unmixed condition only in Exp. I when typing and handwriting were used. In Exp. II and III, mixing had no effect. It is suggested that different recognition programs are used for typed and handwritten characters.—*Journal abstract.*

5375. **Donderi, Don & Case, Bruce.** (McGill U., Montreal, Quebec, Canada) **Parallel visual processing: Constant same-different decision latency with two to fourteen shapes.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 373-375.—Showed 14 high school and undergraduate Os 2, 5, 8, 11, or 14 geometric shapes at a 200-msec exposure. The maximum visual extent was the same for all numbers of shapes. The stimulus conditions were: all shapes identical, 1 shape different from the rest, and, for 5-14 shapes, 3 shapes different (4 shapes in all). The number of shapes, the condition, and the shapes used varied randomly through the sequence of 160 exposures. Decision latency to correct same or different response was independent of the number of shapes presented. Correct same and 3-different decisions were faster than 1-different decisions, but with 2 shapes different decisions were faster than same. Results suggest that same-different decisions are made with information processed in parallel from many stimuli.—*Journal abstract.*

5376. **Fudin, Robert.** (Long Island U.) **Letter structure factors in the recognition of alphabetical arrays presented in the right and left visual fields.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 555-559.—6-letter nonsense arrays made up of the letters H N Z D W J were tachistoscopically exposed either to the right or left of fixation at 4 displacements to 20 Ss. Structurally similar letters (i.e., H and N) tended to be recognized with greater difficulty than dissimilar items. The possible effect of letter structure was investigated separately in the 1st 1/2 of targets (letters 1, 2, and 3) and in the last 1/2. This effect was almost exclusively limited to the array half at each displacement which, because of its position in the visual field, fell in an area of greater visual acuity.—*Journal abstract.*

5377. **Houssliadas, L.** (U. Thessaloniki, Greece) **Perception of changes of form associated with phenomenal compression.** *Ergonomics*, 1970(Jan), Vol. 13(1), 67-72.—Describes visual stimuli associated with the perception of pressure or compression. It is suggested that (a) such experiences are mediated by specific changes of form of a stimulus in connection with the simultaneous movement of another stimulus; and (b) subjective factors are either ineffective or play a limited role. Experiments are reported which contribute to an understanding of conditions which determine our perception of causal relations. In this sense, the present study is an extension of A. Michotte's work on the perception of causality, which (a) describes a stimulus structure associated with experiences of compression which Michotte regarded as impossible to produce experimentally; and (b) shows that prior movement by the agent is not always essential for the perception of causal relations. (French & German summaries)—*Journal abstract.*

5378. **Ohera, Lubomir.** **On the problem of separability of some pattern recognition learning systems.** *Kybernetika*, 1969, Vol. 5(5), 420-436.—Investigates the separating capacity of a certain class of pattern recog-

nition learning systems. The systems learn from given labeled sample patterns in such a way that after the learning period is over all the given sample patterns are placed exactly to the same category in which they were labeled to belong. Estimations of the upper bound of the number of dichotomies separable by those systems are presented.—*Journal abstract.*

5379. **Thurmond, John B.** (U. Louisville) **Effects of discriminability and choice-figure rotation on visual perception of form.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 519-525.—Measured the effects on form perception of 2 conditions of rotation (provided by rotated and nonrotated choice figures) at different levels of discrimination difficulty. The stimuli were 6 × 6 constrained or Redundancy-I metric histoforms. 5 levels of discriminability were provided by use of different degrees of similarity between target and choice figures. In each of the 5 difficulty conditions, 24 undergraduates responded in a paper-and-pencil figure-cancellation task in both conditions of choice-figure rotation. Separate analyses of errors and response times indicate that perceptual performance with nonrotated choice figures was better than with rotated and that performance decreased as discrimination difficulty increased. In terms of the number of correct identifications/min, performance was proportional to discrimination difficulty and the detrimental effect of choice-figure rotation was constant over the levels of difficulty employed.—*Journal abstract.*

Eye Movement

5380. **Felipe, Abraham I. & Mahl, George F.** (U. Philippines, Manila) **Exploration of some mechanisms involved in blinking to visual sexual stimuli.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 25-30.—Tested the hypothesis that visual sexual stimuli would increase the rate of blinking and explored some possible mechanisms involved in the relationship between such stimuli and the blinking response. A conditioning experiment was run using 40 male undergraduates, 20 of whom were conditioned with the use of sex pictures and the rest with the use of landscape scenes as the UCS. An auditory stimulus was used as CS for 10 Ss of each group; a visual stimulus was used as CS for the remaining Ss. The sexual pictures elicited significantly more blinks than the landscapes, and both visual and auditory CS elicited more blinks when conditioned to the sexual pictures than when they were conditioned to the landscapes. The number of blinks elicited by the visual CS was not significantly different from that elicited by the auditory CS when both stimuli were conditioned to the sexual pictures. Results suggest that (a) the effect of the sexual pictures on arousal level is a critical factor in producing an increased blink rate, and (b) the sensory modality of the arousing stimulus is not critical. It is possible, however, that the latter might have only been due to the number of acquisition trials used.—*Journal abstract.*

5381. **Johnson, D. D. & Torok, N.** (U. Illinois, Medical School, Chicago) **Habituation of nystagmus and sensation of motion after rotation.** *Acta Otolaryngologica*, 1970(Mar), Vol. 69(3), 206-215.—Studied the habituation effect of repeated rotatory stimulation on 5 20-36 yr. old normal adults. A total of 20 identical rotatory stimulations were applied and the postrotatory nystagmus was registered by the photoelectric technique.

While Ss kept their eyes open in darkness, the frequency of the nystagmus was counted and no response decline was observed. On the contrary, some increase in the intensity of the postrotatory nystagmus was found. The perception of the sensation of motion following the sudden stop of a $180^\circ/\text{sec}$ angular velocity was also studied. Great variability was encountered but no consistent response decline occurred. The duration of the postrotatory nystagmus showed similar characteristics, i.e., variable responses but no signs of habituation. (German summary) (26 ref.)—*Journal abstract*.

5382. Khomskaya, E. D. & Denisovskii, G. M. (Moscow State U., USSR) *Individual'nye osobennosti makrodvizhenii glaz pri dlitel'noi smene tochek fiksatsii*. [Individual features of macromovements of the eyes with lengthy fixation.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 57-70.—11 Ss participated in a study of certain oculomotor parameters, amenable to some voluntary control: duration of fixation; speed and uniformity of shift in movement from 1 fixed point to another. Findings are detailed. All Ss were found capable of (a) adequate evaluation of the quality of their performance in attempting a "maximally rapid" movement, and (b) "correct establishment" for themselves of ocular displacement in such a way as to produce an "optimally rapid" movement (greater stability for the indices of frequency and uniformity of eye movements over a 5-min period).—J. D. London.

5383. Lenox, John R., Lange, Arthur F., & Graham, Kenneth R. (Stanford U., Lab. of Hypnosis Research) *Eye movement amplitudes in imagined pursuit of a pendulum with eyes closed*. *Psychophysiology*, 1970(May), Vol. 6(6), 773-777.—Prior claims that Ss imagining an oscillating pendulum with eyes closed can produce eye movements corresponding to those found when the S's eyes are actually pursuing the moving pendulum are refuted by using 12 undergraduates to show that the apparently smooth movements under imagination are not truly sinusoidal, and tend greatly to exceed the amplitude of the pendulum's excursion.—*Journal abstract*.

5384. Putz, Vernon R. (U. Wisconsin) *A feedback analysis of dynamic visual acuity and eye motion*. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 937.

5385. Steinbach, Martin J. (York U., Downsview, Ontario, Canada) *Aligning the eye to the actively or passively positioned hand*. *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 287-288.—In a test of static alignment of the eye to the nonvisible fingertip, whether the hand was positioned by S or by E made no difference in the eye's consistency of localization of the fingertip. Ss were 5 male undergraduates. This result suggests that the outflow (efference) issued to move the arm was not supplying the oculomotor system with any more information about fingertip position than that already present from proprioceptive sources. It is consistent with earlier findings on tracking self-moved targets where useful information in the efferent signal was concerned with the self-moved target's acceleration and velocity changes rather than its position.—*Journal abstract*.

Brightness & Contrast Discrimination

5386. McDonnell, P. M. (U. New Brunswick, Fredericton, Canada) *The role of albedo and contrast in a test of selective attention*. *Perception & Psycho-*

physics, 1970(Nov), Vol. 8(5-A), 270-272.—Demonstrated the operation of a selective process under conditions that eliminated exploratory behavior, receptor adjustments, and that could not be construed as abstraction. 30 undergraduates were given a choice RT test to tachistoscopically exposed stimuli under 3 conditions of brightness and contrast. 4 targets equally spaced in brightness units were presented either on a black, a medium gray, or a white background. If a selective process was found to operate, it was hoped to separate the effects of albedo and contrast as factors determining priority in selection. Results confirm that Ss chose the stimuli of highest contrast, but in the event that contrast was equivalent for 2 stimuli, the target of highest albedo was chosen significantly more often. (17 ref.)—*Journal abstract*.

5387. Sperling, George. (Bell Telephone Lab., Murray Hill, N.J.) *Model of visual adaptation and contrast detection*. *Perception & Psychophysics*, 1970(Sep), Vol. 8(3), 143-157.—Proposed a 3-component model of spatial vision, consisting of a feedback stage, a feedforward stage, and a threshold detector. The components correspond to physiological processes; in particular, the feedforward control signal corresponds to the "surround's" signal in the receptive fields of retinal ganglion cells. The model makes appropriate qualitative predictions of: (a) a square-root law for detection at low luminances; (b) a Weber law at high luminances; (c) additivity of threshold masking effects at high background luminances; (d) receptive fields that, in the dark, consist only of an excitatory center and that, in the light, also contain inhibitory surrounds; (e) the variation of spatial characteristics of receptive fields depending on the temporal characteristic of the test stimulus used to measure them; (f) the subjective appearance of Mach bands; (g) sine-wave contrast-threshold transfer functions; (h) the frequent failure of disk-detection experiments to demonstrate inhibitory surrounds; and (i) various 2nd-order threshold effects, i.e., reduced spatial integration for long-duration stimuli, reduced temporal integration for large-area stimuli, and the increased effect of background luminance on the detection of large-area stimuli. Predictions are improved by assuming there exist various sizes of receptive fields that determine thresholds jointly. (41 ref.)—*Journal abstract*.

AUDITION

5388. Egger, G. J. & Ivinskis, A. (U. Newcastle, New South Wales, Australia) *An investigation into the development of melodic interval discrimination*. *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 187-191.—Used J. R. Trotter's melometer to investigate some proposals concerning melody discrimination. An analysis of covariance which controlled for scores on the Wing Test of Musical Intelligence shows that discrimination differed in artists ($N = 8$), professional musicians ($N = 8$), and students ($N = 8$). The significant difference between the groups indicates 3 levels of discrimination, 1 of which was attributed to musical training and the other to some underlying ability common to the fine arts. This finding was contrasted with some of Trotter's proposals, the method was evaluated and some possible limitations of the experiment given.—*Journal abstract*.

5389. Gillespie, Allen R. (U. Washington) *Selective listening: The processing of simultaneous auditory*

stimuli. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 912-913.

5390. Savage, C. Wade. (U. California, Los Angeles) **The measurement of sensation: A critique of perceptual psychophysics.** Berkeley, Calif.: U. California Press, 1970. x, 578 p. \$15.

Perception

5391. Baekeland, Frederick & Hoy, Patrick. (State U. New York, Downstate Medical Center, Brooklyn) **Vigilance before and after sleep.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 583-586.—In an auditory vigilance (signal detection) task, 13 normal adult males missed more signals and made more false reports 10 min. after awakening in the morning than at night before bed. Higher confidence levels were associated with correct signal detections made before bed than with those made in the morning, and Ss were more confident when they responded to signals than when they made false reports.—*Journal abstract.*

5392. Cuddy, Lola L. (Queen's U., Kingston, Ontario, Canada) **Training the absolute identification of pitch.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 265-269.—Studied 2 methods for training the absolute judgment of pitch, and reference and series training. Reference training concentrated during training on the identification of 3 reference tones in a set of 9 pure tones, while series training gave equal weight during training to the identification of all 9 tones. Results of pre- and posttraining tests, scored for the number of correct judgments, show that reference training was more effective than series training for listeners with musical experience. In addition, discriminability scaling of pre- and posttest performance indicates that reference training was particularly effective for training listeners with musical experience ($N = 12$) when the 9 tones of a set were grouped into 3 pitch classes—high, medium, and low pitch. Listeners without musical experience ($N = 12$) benefited from both training methods, but their overall improvement was less than that for musical listeners. (25 ref.)—*Journal abstract.*

5393. Fatkin, L. V., Feigenberg, I. M., & Tsitskaridze, M. A. **O nekotorykh determinantskh sensomotornoi deyatel'nosti.** [On some determinants of sensorimotor activity.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 47-55.—Studied auditory reception of Morse signals in 2 national champions in Morse signal reception by the ear. The signals were random sequences of letters and digits, varying in the number of symbols used (2-32 bits of information), length of blocks of identical signals, and speed of transmission. Errors in reception were measured in the typewritten script of the messages made by the operators. Contrary to Hick's law, the number of errors decreased with increasing information content of the messages. Increased speed of signal presentation affected sequences of low information content most. With $m = 8$, and increase from 90-220 signals/min had no effect on error rate. 2 important factors determined performance: presence of blocks of identical signals and auditory discriminability of signals. The type of error made by the operator depended on the size of the alphabet used in a message. The relationship of these factors to short-term memory and their interaction in determining performance is discussed. (English summary)—*L. Zusne.*

5394. Schulman, Arthur I. & Greenberg, Gordon Z. (U. Virginia) **Operating characteristics and a priori**

probability of the signal. *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 317-320.—2 experiments in auditory signal detection produced changes in the operating characteristic as the a priori probability of signal occurrence, $p(SN)$, was varied. The signal was a sinusoid of 1000 Hz. presented for 250 msec. against a continuous background of noise to 6 listeners. In Exp. I, 3 values of $p(SN)$ —.25, .50, and .75—were paired with each of 3 signal intensities. In Exp. II, the signal intensity was fixed and $p(SN)$ was assigned values of .10, .25, .50, .75, and .90. On normal-normal coordinates, operating characteristics were fitted to the points obtained from the 4-point rating scale used by Ss. Such operating characteristics may be specified by 2 parameters: d' , an index of detectability related to d' , and m , its slope. While d' was found to be independent of $p(SN)$, m was found to be a joint function of $p(SN)$ and signal intensity. Results are discussed against the background of the theory of signal detectability.—*Journal abstract.*

Speech Discrimination

5395. Gilbert, Harvey R. (U. Wisconsin) **The assessment of learning rate, listener confidence ratings and recall as criteria for evaluating the transmission capabilities of speech communication systems.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 945.

5396. Hagness, Don E. (U. Illinois) **A preliminary investigation of the Modified Rhyme Test as a test of speech discrimination.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 945-946.

5397. Holloway, C. M. (Medical Research Council, Cambridge, England) **Consonant recognition with two levels of decision complexity.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 467-474.—Selected the particular items appearing in a message set to control precisely the number of dimensions relevant to the discrimination task, and estimated performance in terms of the discrimination of each relevant dimension. No evidence is found for a perceptual tuning effect even though it is argued that the conditions of the present experiment represent those most favorable for its elicitation. (18 ref.)—*Journal abstract.*

5398. Lushchikhina, I. M. (Leningrad State U., USSR) **Effektivnost' selektivnogo audirovaniya v rachevoi kommunikatsii.** [The efficiency of selective listening in verbal communications.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 56-64.—Ss either repeated selectively verbal messages transmitted through headphones or executed commands so given. Messages varied in length and content, SPL, and length of intervals between messages. Results revealed 2 stages in selective listening: a lower stage in which simple physical discrimination of an incoming message occurred, and a higher stage in which identification of words and meanings occurred. If the regularities present in the lower stage were perceived, the 2nd stage took less time. Thus, it was more effective to present messages at a definite level of intensity. Still greater effect was achieved by enhancing the acoustical contrast between needed and unneeded messages. The grammatical structure of messages also had a definite effect on the receiver's performance. Informational analysis confirmed the hypothesis that stages in the discrimination of verbal communications differ in complexity. (English summary)—*L. Zusne.*

Audiometry

5399. Lidén, G. & Kankkunen, A. (U. Göteborg, Sahlgren's Hosp., Sweden) **Visual reinforcement audiometry.** *Acta Oto-Laryngologica*, 1969(Feb), Vol. 67(2-3), 281-292.—Describes visual reinforcement audiometry—a new technique for testing hearing in very young children and a modification and simplification of conditioned orientation reflex audiometry by T. Suzuki and Y. Ogiba. Instead of using the sound localization or eye deviation reflex as a response criterion, a non-directional technique was used and 4 different types of responses were accepted to the tone stimulation: reflexive behavior, investigatory, orientation, and spontaneous responses. Hearing levels of 120 normal hearing children of different age groups obtained with both methods are presented. (French & German summaries) (15 ref.)—*Journal abstract.*

5400. Scharf, B. & Fishken, D. (Northeastern U.) **Binaural summation of loudness: Reconsidered.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 374-379.—Measured loudness functions for a 1000-Hz tone and a white noise, presented monaurally and binaurally, by the methods of magnitude estimation and magnitude production. Results suggest that the ratio of binaural to monaural loudness for tone and noise is between 1.6 and 1.85 over an intensity range from 40- to 110-db SPL. Within this range, the ratio for white noise increases with SPL, but does not exceed 2. The loudness functions for monaural and binaural tones are power functions with the same exponent, whereas those for noise are not power functions but are bowed, on log-log coordinates, relative to the tone functions, being steeper below about 50-db SPL and flatter above. The loudness of binaural noise increases more rapidly with SPL than the loudness of monaural noise. (15 ref.)—*Journal abstract.*

CHEMICAL SENSES

5401. Pryor, Gordon T., Steinmetz, Gerald, & Stone, Herbert. (Stanford Research Inst., Life Sciences Div., Menlo Park, Calif.) **Changes in absolute detection threshold and in subjective intensity of supra-threshold stimuli during olfactory adaptation and recovery.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 331-335.—Studied olfactory adaptation and recovery to methyl isobutyl ketone at a concentration 10 times the absolute detection threshold in 2 human Ss. A combined psychophysical procedure was used that allowed comparisons of changes in threshold (I_1) with changes in the subjective intensity of supra-threshold stimuli. Information was also obtained on the effect of the adapting stimulus on the psychophysical power function for this odorant. A threshold detection procedure was used to estimate changes in I_1 ; an unstructured magnitude-estimation procedure was used to monitor changes in the subjective intensity of supra-threshold stimuli and the psychophysical power function. Results suggest an increase in the exponent of the power function with increasing adaptation.—*Journal abstract.*

5402. Steinmetz, Gerald; Pryor, Gordon T., & Stone, Herbert. (Stanford Research Inst., Life Sciences Div., Menlo Park, Calif.) **Olfactory adaptation and recovery in man as measured by two psychophysical techniques.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 327-330.—Investigated olfactory adaptation and

recovery in 4 male and 2 female adults using 2 psychophysical procedures: modified category scaling and threshold detection. Both procedures yielded similar qualitative information regarding loss and recovery of olfactory sensitivity as a function of time and concentration of adapting stimuli. However, quantitative differences were observed that could be partially attributed to artifacts inherent in each procedure. Often more than 50% adaptation (and recovery) occurred within the 1st 2 min. with either test procedure. In all experiments the rate of adaptation and recovery was greater at the higher of 2 adapting concentrations ($10 \times$ and $20 \times$ the detection threshold I_1). Recovery occurred more rapidly than adaptation. The usefulness of both techniques is discussed in terms of the overall problem of characterizing the olfactory adaptation and recovery process in man.—*Journal abstract.*

SOMESTHESIA

5403. Culver, Charles M. (Dartmouth Medical School) **Errors in tactile localization.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 420-427.—In a test of tactile localization, 75 17-18 yr. old undergraduate nursing students were lightly stimulated at points on their palm, and then indicated on outline drawings where they felt they had been stimulated. Both the amount and direction of localization error were measured. There was a slight tendency for all Ss to displace their judgments toward their thumbs. Left-handed Ss displaced their judgments in a wristward direction significantly more than did right-handed Ss. The overall amount of localization error was not related to hand or eye dominance but was significantly related to a measure of visual suppression.—*Journal abstract.*

5404. Diespecker, D. D. (U. Newcastle, New South Wales, Australia) **Short duration signals and learning a simple vibrotactile code.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 319-324.—20 male and 20 female undergraduates in 4 groups learned a 9-element vibrotactile code in which there were 3 intensities and 3 durations of signals. The durations of signals were varied over groups to determine whether at least 1 group of Ss would be unable to learn the code due to the brevity of the signals. There were no significant differences between the groups over 10 trials although durations ranged from 1, 3, and 5 sec. for Group 1 to .01, .18, and .36 sec. for Group 4. Data suggest that it may be possible to shorten signal durations in a practical vibrotactile communication system provided interstimulus intervals are carefully selected.—*Journal abstract.*

5405. Vierck, Charles J. & Jones, Marshall B. (U. Florida, Medical School, Div. of Neurosurgery) **Size discrimination on the skin.** *Science*, 1969(Jan), Vol. 163(3866), 488-489.—Tested the hypothesis that size discrimination would demonstrate a sensitivity that is not generally recognized for the skin senses in an experiment with 4 Ss. Reasons are given for rejecting the 2-point threshold as the standard measure of spatio-tactile resolution. As alternative techniques, thresholds were obtained for disc-size and disc-annulus discriminations. Disc-annulus thresholds are comparable to 2-point values, but disc-size thresholds are smaller by a factor of 10. Thus, at least part of the cutaneous system is better organized for localization and sizing of a stimulus than for detection of discontinuities in it.—*Journal abstract.*

ENVIRONMENTAL EFFECTS

5406. **Cahoon, Richard L.** (U.S. Army, Research Inst. of Environmental Medicine, Natick, Mass.) **Vigilance performance under hypoxia: II. Effect of work-rest schedule.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 619-626.—18 adult males performed a visual vigilance task for 2 hr. while breathing either 21% O₂ (sea level) or 10.9% O₂ (17,000 ft.). The 2-hr trial period contained either no rest periods, 1 10-min rest period, or 3 10-min rest periods. Vigilance performance deteriorated under 10.9% O₂, and the introduction of rest periods did not reduce this decrement. Of 2 individual difference measures taken, IQ and sensation-seeking score, only IQ related to vigilance performance and only at sea level (21% O₂).—*Journal abstract.*

SLEEP & FATIGUE & DREAMS

5407. **Aarons, Louis.** (Union U., Albany Medical Coll.) **Evoked sleep-talking.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 27-40.—Evidence for modifications of verbal behavior without awareness when awake, increased spontaneous sleep-speech by post-hypnotic suggestion, and discriminative motor responses during sleep suggested the possibility of induced/conditioned sleep-talking. 3 students with no history of sleep disturbance or talking were trained for a total of 8 nights with avoidance-escape conditioning to sleep talk. The administration of light and tone stimuli followed schedules based on sleep stage and time (continuous, variable and fixed interval), with Ss at first naive and later informed. Reinforcements of vocalization through reductions or elimination of stimuli were adjusted to maximize responding without awakening S. Responses varied from groans, sighs, and unintelligible mumbling to coherent speech with and without affective tone, related and unrelated to the experiment, and rich or stereotyped. Latency and frequency of sleep responses over successive nights may depend on the interaction of stimuli intensity levels with type of sleeper (light/deep). Avoidance vocalizations, behavioral and transient EEG awakening significantly decreased from Stage 1-4. Conditioning techniques may be feasible in the development of sleep-talking skills. (21 ref.)—*Journal abstract.*

5408. **Florica, Vincent, et al.** (FAA, Civil Aeromedical Inst., Physiology Lab., Oklahoma City, Okla.) **Physiological responses of men during sleep deprivation.** *FAA Office of Aviation Medicine Report*, 1970(May), No. 70-8, 16 p.—Studied 6 control and 6 sleep-deprived (84 hr.) Ss in pairs. Following the 1st sleep loss night, psychomotor performance ("Kugelmaschine") of sleep-deprived Ss was significantly below that of controls. However, urinary excretion patterns were similar for both groups and body temperature regulation was not affected.—*W. E. Collins.*

5409. **Phoebus, Eric; Taub, John M., Globus, Gordon G., & Drury, Robert.** (U. California, Irvine) **Sleep stage characteristics of extended sleep in normal Ss.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 526.—Studied the physiological patterns of sleep in 12 Ss following 2 normal nights of sleep (average 7.1 hr.) and 2 nights of extended sleep (average 9.1 hr.). On nights of extended sleep compared to nights of regular sleep, the Ss had significantly more sleep in Stage 2 ($p < .001$) and Stage REM ($p < .01$). The 2 sleep conditions did not differ significantly in Stage 1 or Stage 3-4. Results, and

other data on groups of Ss who habitually sleep for long or short durations, indicate that the amount of Stage 3-4 tends to be constant as total sleep time varies, and that with an increase in sleep length the increase in Stage 2 and Stage REM is independent of prior sleep habits of normal or long sleep.—*Author abstract.*

5410. **Webb, Wilse B. & Friel, Janette.** (U. Florida) **Characteristics of "natural" long and short sleepers: A preliminary report.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 63-66.—Compared the psychological, physiological, and intellectual characteristics of long and short sleepers among 1st-yr college students who indicated their typical sleep length on an entering questionnaire. 3 populations were obtained from follow-up interviews: 12 short sleepers, 10 continuing long sleepers, and 9 long-changed sleepers (originally long sleepers now sleeping less than 7½ hr/night). Data collected included a psychological test battery, college entrance scholastic scores, and physical examination statistics. Analysis comparing the 3 sleep-length groups on each measure yielded no statistical differences. It is concluded that in an achieving young adult population, self-selected extremes in sleep length do not appear to result in obvious adverse consequences.—*Journal abstract.*

HYPNOSIS & SUGGESTIBILITY

5411. **Broman, Harvey J.** (Emory U.) **The effects of stress and anxiety on suggestibility.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 910.

5412. **King, David J.** (State University Coll. New York, Oswego) **Note on suggestibility and clustering.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 316.—Administered the Harvard Group Scale of Hypnotic Susceptibility to 50 Ss. 1 mo. later Ss were used in a clustering study. "Correlations, computed between the suggestion measure and clustering, number-of-words, and categorical intrusions" were, respectively: .05, .14, and -.12. It is concluded that "suggestibility does not appear to relate to the various retention measures used in studies of recall of lists whose items belong to several categories."—*M. West.*

5413. **London, Perry & McDevitt, Ronald A.** (U. Southern California) **Effects of hypnotic susceptibility and training on responses to stress.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 336-348.—Studied performance and physiological responses to stress among 64 male undergraduates, of whom 32 were high in hypnotic susceptibility and 32 low, in 3 individual sessions, 1 unstressed and 2 under stress of cold and electric shock. Each session included 2 performance tasks, monitored on 8 physiological measures. Cold stress was produced by cooling an environmental control chamber to 35° F; shocks were randomly administered an average of 20 sec. apart. After the 1st 2 sessions (1 stressed, 1 unstressed) ½ of the Ss in each susceptibility group received 6 hr. of autohypnotic training in resisting stress and performing optimally. Hypnotic susceptibility critically influenced most of the dependent measures. High and low hypnotic susceptibles differ significantly on a number of performance and physiological parameters, and susceptibility frequently interacted with stress and training. Training was variably effective as a stress resistance technique. (38 ref.)—*Journal abstract.*

5414. **Spanos, Nicholas P.** (Boston U.) **A reply to**

Tellegen's "Comments on 'Barber's reconceptualization of hypnosis'." *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 268-269.—Responds to T. X. Barber's (see PA, Vol. 45:Issue 4) argument that T. X. Barber's attribution of circularity to the concept hypnosis is incorrect and that the hypnotic state constitutes a useful hypothetical construct for investigating the phenomena traditionally subsumed under the rubric hypnosis. However, an analysis of Tellegen's arguments concerning circularity indicates that they are based on erroneous assertions concerning hypnotic state theory and, therefore, do not constitute a challenge to Barber's contention. Although Tellegen may be correct in suggesting that hypnosis can be employed as a useful hypothetical construct, this remains to be demonstrated.—*Journal abstract*.

5415. Spanos, Nicholas P. (Boston U.) **Barber's reconceptualization of hypnosis: An evaluation of criticisms.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 241-258.—Presents all criticisms leveled at T. X. Barber's theoretical and experimental endeavors and evaluates each criticism. It is concluded that Barber's reformulation of hypnosis capably withstands criticisms, and that special-state theorists have not as yet satisfactorily answered his challenge to their basic assumptions. (2 p. ref.)—*Journal abstract*.

5416. Tellegen, Auke. (U. Minnesota) **Some comments on Barber's "Reconceptualization" of hypnosis.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 259-267.—Critically discusses T. X. Barber's assertions concerning the hypnotic-state construct and hypnotic research. The charge that hypnotic-state theories are circular and tautological is found unwarranted. Also, the fallibility of hypnotic indicators and induction techniques is considered no more reason for rejecting the hypnotic-state concept than for abandoning other well-established constructs. The empirically-based formulation is primarily methodological and appears not to be motivated. The value of Barber's contributions to a more rigorous and critical empiricism in the area of hypnosis is acknowledged.—*Journal abstract*.

MOTIVATION & EMOTION

5417. Gentry, William D. (Duke U., Medical Center) **Sex differences in the effects of frustration and attack on emotion and vascular processes.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 383-390.—Explored the effects of frustration (test-failure) and attack (insult) on mood, aggression, and vascular arousal in 30 male and 30 female undergraduates. Systolic and diastolic blood pressure were recorded prior to and immediately following provocation and Ss rated their feelings on a postexperimental mood questionnaire. Results indicate that both types of provocation led to increased vascular activity. Males evidenced a greater rise in systolic pressure than females; whereas, no sex differences were noted for diastolic changes. No differences were found between frustration and attack regarding their effect on vascular arousal. On the mood ratings, females tended to rate themselves as being weaker than males regardless of the treatment. Experimental females also reported more felt depression after being frustrated or attacked than did control females, a pattern of emotional response not shown by

male Ss. No differential effects were observed for aggression.—*Journal abstract*.

5418. Goldstein, Jeffrey H. (Temple U.) **Humor appreciation and time to respond.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 445-446.—Presented cartoons varying in content (nonsense, aggressive, sexual) and complexity (low, moderate, high) to 24 male undergraduates. Dependent variables included humor rating and time to respond to the cartoons. Within-cell correlation between these 2 variables was $-.288$. Response time was more affected by complexity of nontendentious than of tendentious humor.—*Journal abstract*.

5419. Greaves, George & Daves, Walter F. (Georgia State U.) **Effects of shock on performance in visual backward masking.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 534.—Attempted to determine if increased motivation would enhance information extraction in the metacontrast situation. 10 Ss were tested in a forced-choice discrimination task in which the targets (A, O, or blank) were masked by a ring. $\frac{1}{2}$ of the Ss were shocked for incorrect performance, and $\frac{1}{2}$ were not shocked. Masking was effective in both groups, and the shocked group performed more poorly under both masked and unmasked ($p < .001$) conditions.—*Author abstract*.

5420. Knapp, Barton W. (Syracuse U.) **A study of some relationships between age and response to induced failure stress.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 900.

5421. Plot, James M. (Temple Buell Coll.) **Effect of threat of shock on pupillary response in a problem-solving situation.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 587-593.—Presented 2 groups of 7 18-19 yr. old undergraduates each with 2 series of 3 multiplication problems which served as the problem-solving task. On the 1st series of problems Ss were run under identical conditions to establish response base lines between groups. On the 2nd series of problems the experimental group was threatened with shock for an incorrect answer. Comparisons were made on response latency, correct responses, absolute pupil size, and pupillary dilation during problem solving. The only significant difference between groups was the degree of pupillary dilation while solving the 2nd series of problems. Results are discussed within the context of the coping process under the threat of stress and are related to previous research on the pupillary response as a measure of mental activity.—*Journal abstract*.

5422. Valueva, M. N. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Porogi obnaruzheniya zvukovykh signalov, sochetayemykh s bolevym razdrazheniem nablyudatelya ili ego partnera.** [Detection thresholds of acoustic signals combined with painful stimulation of the observer or his partner.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 714-715.—30 18-30 yr. old Ss (24 males, 6 females) participated in a study of the "features of neurophysiological mechanisms of complex forms of social motivation." A series of experiments was conducted where an acoustic signal preceded painful electrostimulation of the experimental O or, supposedly, of his experimental partner; such stimulation eventuating if the acoustic signal was not detected by the O. For the former, "fear for oneself" is involved; for the latter, "fear for the other person." Results show that, when personal escape from pain is the motive of activity

(signal detection), emotional tension is somewhat higher than when success in performance of the task (signal detection) precludes pain for the other person. Conversely, for the latter case, the level of attention is higher.—*I. D. London.*

5423. Wijting, Jan P., Wollack, Stephen, & Smith, Patricia C. (Bowling Green U.) **A factor analytic study of the subjective components of activation.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 635-640.—315 undergraduates cited personal examples of experiences involving high, moderate, and low levels of activation and described each of these experiences in terms of 132 adjectives and adjectival phrases. Data were subjected to varimax factor analyses: 12 interpretable high-, 9 moderate-, and 5 low-activation factors were extracted. The relevance of these results to activation theory and to G. Wolf's analysis is discussed.—*Journal abstract.*

5424. Wilson, Alan & Wilson, Arthur S. (Veterans Administration Center, Wood, Wis.) **Psychophysiological and learning correlates of anxiety and induced muscle relaxation.** *Psychophysiology*, 1970 (May), Vol. 6(6), 740-748.—Tested the hypothesis that muscle relaxation would reciprocally inhibit anxiety during a paired-associate learning task. Male general medical patients were divided into high, medium, and low anxiety levels and muscle tension, muscle relaxation, and normal tension groups. Paired-associate learning efficiency, as well as heart rate, skin conductance, integrated EMG, respiration rate, and finger temperature during learning were measured. Partial substantiation for the hypothesis was obtained for high anxiety Ss, but data for other groups are inconsistent with the hypothesis. An alternative explanation is suggested. Heart rate was the physiological variable which best discriminated the groups. (31 ref.)—*Journal abstract.*

ATTENTION & EXPECTANCY & SET

5425. Compton, J. William. (National Center for Mental Health Services, Training, & Research, Washington, D.C.) **Experimenter bias: Reaction time and types of expectancy information.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 159-168.—Each of 9 undergraduate male Es received general (personality and IQ), specific (expected performance), or no information about 136 female undergraduates. All information was fabricated. Ss' RT and photo-ratings were used to assess E-expectancy effects. Contrary to the findings of other investigators, Ss' photo-ratings were not significantly influenced by the specific expectancy of E, but their RTs were. Ss' photo-ratings and RTs were not significantly influenced by Es who received general information about their Ss.—*Journal abstract.*

5426. Davenport, W. G. (U. Newcastle, New South Wales, Australia) **Vigilance for simultaneous auditory and vibrotactile signals.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 159-165.—In a vigilance situation 9 male and 7 female undergraduates performed 3 separate 70-min watches, an auditory one (A), a vibrotactile one (C), and a simultaneous auditory-vibrotactile one (AC), to find if an improved detection rate might not be obtained by increasing the number of display channels to a single O. Results show that the AC channel had a significantly higher detection rate than either the A or C channels alone, the A channel being superior to the C channel. There was also a significant decrement over time for the A and C channels alone, but not for the AC channel. For both the A and C channels

alone there was a significant increase in Ss' thresholds over time. There was an insignificant increase for the AC channel. Paralleling these changes were large increases over time in Ss' criterion (β) for the A and C channels, and a small increase for the AC channel. The auditory and vibratory senses thus appear to be interdependent.—*Journal abstract.*

5427. Eriksen, Charles W. & Rohrbaugh, John W. (U. Illinois) **Some factors determining efficiency of selective attention.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 330-342.—Determined the efficiency of selective attention as a function of the number of elements in the display and the physical spacing between adjacent elements in 2 experiments. 6 paid undergraduates served as Ss in Exp. I and 4 in Exp. II. Results are interpreted in terms of an attentional focusing process.—*Journal abstract.*

5428. Herzog, Thomas R. (U. Michigan) **The effects of set on the development of a percept.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 928-929.

5429. Israel, Nancy R. (New York U., Research Center for Mental Health) **Maintenance of attention: Leveling-sharpening differences in a randomization task.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 571-581.—In a task requiring the random generation of binary digits, 24 accuracy sharpening Ss were superior to accuracy leveling Ss in sustaining the randomness of longer binary words across time. Results are interpreted as stemming from stylistic differences in the maintenance of attention during tedious and monotonous tasks. Results also support the prediction that levelers and sharpeners as measured by the lag score would be less differentiated on the randomization task than accuracy levelers and sharpeners since the lag score involves a kind of attention, that is, to context and long-term change, which is largely irrelevant to the randomization task. (23 ref.)—*Journal abstract.*

5430. Mackworth, Jane F. (Radcliffe Inst., Cambridge, Mass.) **Vigilance and attention: A signal detection approach.** Baltimore, Md.: Penguin Books, 1970. 189 p. \$1.65(paper).

5431. Sodhi, Surender S. (Memorial U., Newfoundland, St. John's, Canada) **Uznadze's set and second language learning.** *International Journal of Psychology*, 1969, Vol. 4(4), 317-319.—160 educational psychology students who had no French language background prior to high school, but who studied it during senior high school, were divided into good and poor 2nd-language learners on the basis of relationship of scores on the School and College Ability Test and the French form of the Cooperative Foreign Language Test. Trials needed for good and poor 2nd-language learners to acquire set fixation do not differ significantly. In extinction of set, the differences between means yield significance well beyond the .01 level. The latter result implies that poor 2nd-language learners exhibit the properties of a static set. Poor 2nd-language learners appear to shift from set to set with difficulty and are thereby hindered in learning a 2nd language. Results from other studies corroborate those found in the present investigation.—*S. E. Gavin.*

5432. Zelniker, Tamar. (Tel-Aviv U., Israel) **Perceptual attenuation of an irrelevant auditory verbal input as measured by an involuntary verbal response in a selective-attention task.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 52-56.—Delayed auditory feedback (DAF) normally causes

involuntary stuttering. If attenuation of irrelevant input occurs with selective attention, then a situation requiring Ss to attend to 1 auditory input, and ignore a 2nd consisting of DAF, will produce less stuttering than a situation including the same 2 inputs but in which selective attention is not required. 12 female undergraduates and 12 2nd grade boys repeated aloud digits delivered to their left ear and ignored the DAF of their own voice delivered to their right ear. Ss in both age groups stuttered less in a selective-attention than in a nonselective-attention condition. Results support the hypothesis that irrelevant input is attenuated where the stimuli presented to Ss exceed their processing ability.—*Journal abstract.*

MOTOR PERFORMANCE

5433. Critchley, E. M. (Preston Royal Infirmary, England) **Reversals in language: The importance of kinaesthetic feedback mechanisms.** *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(12), 722-725.—Based on results from a prospective study of 53 high school students in 1st- and 2nd-yr typing classes and a study of errors made by typists taking part in world typing championships, the orthodox hypotheses relating reversals in language to developmental defects of visuospatial or temporal orientation are criticized. Results show that: (a) errors involving reversals and transpositions persist in typing beyond the learning period, (b) the tendency to reversals is not a universal attribute of the learning process of all language skills, and (c) transpositions are closely related to the accuracy of kinesthetic discrimination. It is concluded that the relationship of reversals and transpositions to schemata involving visuospatial "dysmaturity" has been overemphasized.—*M. Maney.*

5434. Federico, Pat A. (U.S. Air Force, Lowry AFB, Human Resources Lab., Colo.) **Some effects of inflating information feedback on the acquisition of a discrete lever-positioning response.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 447-459.—160 military trainees who were randomly placed into 4 equal groups were taught to displace a lever to an initial target by an error training procedure. Unknown to these Ss, the target position shifted; Ss were then trained to move the lever to this new target. During this phase of countertraining (CT), information feedback (IF) was inflated by different factors for each of the 3 experimental groups. The control group in this stage received the same unamplified IF which all groups were given during initial training. Ss receiving exaggerated IF neither engaged in more hunting behavior for the CT target, nor oscillated around it over and above those Ss not given misproportioned IF. Individual differences in responding were greater for the control group than any of the experimental groups. The 2nd 1/2 of countertraining for all groups was marked by a progressive deterioration in S-alignment. The most pronounced effects of IF distortion did not occur during the 1st CT trial as expected. All Ss approached at the same rate a common asymptote as a limit. There was an absence of any powerful tendency to persevere in moving to the initial target during countertraining. The cognitive relationship established by some of the groups between the IF- and R-scale did not differ, suggesting that some of the transformations adopted were psychologically meaningless.—*Journal abstract.*

5435. Holt, Laurence E., Travis, Thomas M., & Okita, Ted. (Dalhousie U., Halifax, Nova Scotia, Canada)

Comparative study of three stretching techniques. *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 611-616.—Compared 3 techniques for increasing range of motion—fast stretch (ballistic), slow stretch, and isometric contraction of the agonist (IA), followed by a concentric contraction of the antagonist (CA), a modified version of proprioceptive neuromuscular facilitation—using 24 normal male Ss. Controlling for serial order effects, 6 groups of 4 Ss each were administered the treatments, and the differences between pre- and postexercise measures were observed. Multiple regression analysis indicates the superiority of the IA-CA approach.—*Journal abstract.*

5436. Iskander, Amin & Rutenfranz, Joseph. (Justus Liebig U., Max Planck Inst., Giessen, W. Germany) **Zum Problem Lohnender Pausen beim Erlernen einer Spurverfolgungs-Tracking-Aufgabe.** [Motivation pauses in tracking tasks.] *Studia Psychologica*, 1970, Vol. 12(2), 134-146.—Experiments on the effect of pauses on training in tracking on rotary equipment have shown training with pauses to be superior to that without pauses. This has also been found in experiments with O. Graf's driving simulator according to the principle of tracking. Other studies indicate that performance improves with the length of the pauses between individual training periods. The pause-induced increments in performance grow exponentially with the length of the pause; however, the effect of the pause declines in proportion to the length. Achievements in training sensorimotor skills are determined by the initial improvement in training. An average initial achievement does not permit a prediction of the expected performance, although this is possible in extreme groups whose initial achievement is either above, or below average. (Czech & Russian summaries) (31 ref.)—*English summary.*

5437. Marteniuk, Ronald G. & Wenger, Howard A. (U. British Columbia, Vancouver, Canada) **Facilitation of pursuit rotor learning by induced stress.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 471-477.—12 female and 18 male right-handed undergraduates practiced the pursuit rotor task over 2 days. 20 distributed trials were given on Day 1, and 10 further distributed trials 24 hr. later. Ss were randomly assigned to 3 groups: a related arousal, an unrelated arousal, and a control group. Arousal was increased by application of electric shock during Trials 6-15 on Day 1. The related arousal group were told they would be shocked if their performance did not reach an established criterion while the unrelated arousal group received random and unavoidable shock. Results show that performance in the 2 stress conditions was not different from that of a control group. However, when tested 24 hr. later, both stress groups demonstrated significant ($p < .05$) improvements in learning over the control group but no difference between themselves.—*Journal abstract.*

5438. Noble, Clyde E. (U. Georgia) **Acquisition of pursuit tracking skill under extended training as a joint function of sex and initial ability.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 360-373.—Trained 256 male and 244 female undergraduates of Caucasian ancestry on the United States Air Force Rotary Pursuit apparatus for 100 20-sec trials spaced by 10-sec rests. Results show that: (a) mathematical forms of the percentage time-on-target curves were independent of aptitude; (b) curves at 5 ability levels were exponential and highly predictable (average error <

0.3%); (c) significant trend differences revealed early divergence and later convergence; (d) initial ability, acquisition rate, and final level were positively correlated; (e) no significant age differences were found within the range of 17-41 yr.; (f) men were superior to women in tracking skill (more accurate, less variable), maintaining an average lead of about 7.8% time on target; (g) interactions with practice were found between aptitude and sex; (h) intratrial σ^2 values rose rapidly to a peak, then fell gradually with training; (i) intertrial γ values decreased (based on Block 1) from Blocks 2-20 and increased (based on Block 20) from Blocks 1-19; and (j) differentiation between Ss of low and high aptitude was maintained at advanced levels of proficiency ($\gamma > .50$) despite the decreasing intertrial γ pattern. (33 ref.)—*Journal abstract*.

5439. Smith, Leon E. (U. Iowa) **Speed of muscular contraction.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 171-176.—Individual differences between concentric forearm strength of 27 male undergraduates and concentric movement time (MT), eccentric MT, and strength contraction MT were found to be low. The speed to contract skeletal muscle is influenced by muscle length and the degree and type of contraction. Concentric forearm speed was more rapid than eccentric speed of movement. (15 ref.)—*Journal abstract*.

5440. Thomas, Ewart A. & Jones, Richard G. (U. Michigan) **A model for subjective grouping in type-writing.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 353-367.—Describes an experiment in typing in which the visual spacing in the text and the amount of linguistic structure in the material are varied. Results show that average typing speed is decreased both by removing visual spaces from the text and by decreasing the amount of structure in the material. Data are interpreted as evidence that there is response grouping in a typist's output, and a model is stated in which this grouping is attributed to the operation of a response-unit scanner. More detailed analysis by means of this model suggests a picture of serial and parallel information processing to be an adequate representation of the conversion of text into type.—*Journal abstract*.

5441. Weingarten, Gilad & Alexander, John F. **Effects of physical exertion on mental performance of college males of different physical fitness level.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 371-378.—Administered 2 mental tests to 13 physically fit and 9 less fit male undergraduates. Test 1 consisted of the 30 odd-numbered matrices from the Standard Progressive Matrices and Test 2 of the 30 even-numbered ones. Throughout Test 1 Ss performed a physiologically moderate work level on a treadmill and throughout Test 2 a physiologically unduly heavy work level. The cardiovascular responses indicate a significantly higher exertion level in the less fit group during Test 2. Between group differences on test scores and time taken for test completion were insignificant on Test 1 but significant on Test 2, the fit Ss scoring higher and taking longer time. Within-group comparisons indicate that the fit Ss scored the same on both mental tests but took longer time for Test 2, whereas the less fit scored significantly lower on Test 2, taking shorter time for its completion. (25 ref.)—*Journal abstract*.

REACTION TIME

5442. Biederman, Irving & Kaplan, Robert. (State U.

New York, Buffalo) **Stimulus discriminability and S-R compatibility: Evidence for independent effects in choice reaction time.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 434-439.—In contrast to flexible capacity theories of information-processing behavior, discrete stage models generally assume that the functioning of 1 stage (e.g., stimulus discrimination) proceeds independently of the demands on some other stage (e.g., response selection). These alternatives were tested by factorially varying stimulus similarity and stimulus-response compatibility in a speeded brightness discrimination task with 16 adult Ss. The independent stage hypothesis was supported by the finding that, in general, the experimental variables did not have interactive effects on the means and higher order cumulants of the RT distributions. Some evidence, however, was found for weak interactive effects in the 1st of 2 sessions.—*Journal abstract*.

5443. Dimond, Stuart. (University Coll., Cardiff, Wales) **Reaction times and response competition between the right and left hands.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 513-520.—Interspersed in a series of signals for either right or the left hand response were a number of double signals which called simultaneously for response from both hands. Both the right and the left hands had an equal chance of taking precedence over the other, and an equal chance that their response would be delayed. The hand controlled by the dominant hemisphere responded 1st no more often than did the nondominant one. A degree of synchrony developed between the responses of the hands as the Ss experienced a greater number of signals for paired response. In Exp. II the hands were required to compete with one another after practice had been given in responding with only 1 hand. The effects of practice were not equal and opposite across the body. Practiced left hand responses were found not to be disturbed by the addition of a simultaneous signal for another response, whereas right hand responses were. This relationship exists in both right- and left-handed Ss, and results indicate differences in cerebral control between the hemispheres related not to handedness but to side of the body as such.—*Journal abstract*.

5444. Thornton, Jerry W. & Jacobs, Paul D. (U. Oklahoma) **Analysis of task difficulty under varying conditions of induced stress.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 343-348.—Examined 2 tasks (simple and choice RT) while varying 3 types of stressors (shock, threat of shock, and noise) and the stressor task relationship (i.e., task-related stress, task-unrelated stress, and no-stress). Ss were 36 undergraduates. 4 hypotheses were tested and 3 were supported in the simple RT task. There were no significant differences among stressors for either task, although greater differences were reported in the simple than in the choice RT task. A significant difference between the task-relatedness of stress levels in the simple task was interpreted as possibly due to a coping or protective adaptive mechanism in which increases in performance serve to reduce stress. Practical applications are examined.—*Journal abstract*.

LEARNING

5445. Berman, Marilyn; Fraser, Malcolm P., & Theios,

John. (U. Wisconsin) Learning a general maximum likelihood decision strategy. *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 393-397.—Displayed sequences of 25 uncertain binary events to 3 male and 6 female undergraduate and graduate students. The 1st i events were generated with probabilities p_1 and $1-p_1$. The remaining 25-i events were generated with probabilities p_2 and $1-p_2$. Ss estimated the point in the stimulus sequence where the probabilities changed. Ss were given 200 problems (sequences)/day for 17 days in 1 of 3 feedback conditions: true transition point, maximum likelihood estimate of transition, or both types of information. The p_1 , p_2 , and i for each problem were selected at random from uniform distributions. There were systematic feedback effects such that Ss' performance improved considerably under all the feedback conditions, but the performance of the dual and maximum likelihood feedback groups was better than that of the true feedback group. The behavior of the dual feedback group approximated that of the optimal maximum likelihood decision strategy. In all conditions, the proportion of exact detections of both the true transition and the maximum likelihood estimate increased with both the absolute difference between the 2 probability values and the absolute difference between the expected variances of the 2 components of the stimulus sequence.—*Journal abstract*.

5446. **Boudewyns, Patrick A. (U. Wisconsin) The effect of luminance in a two-choice probability learning situation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 407.

5447. **Cohen, David B. (St. Leo Coll., Fla.) Efficiency of learning when both incidental and intentional learning occur simultaneously.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 367-370.—Investigated the effect of incidental visual stimuli on the efficiency of learning factual material. Ss were 80 male and 80 female undergraduates. Verbal learning situations were employed to investigate whether tachistoscopically presented incidental word stimuli, intended to facilitate learning, would result in test performance which was: (a) improved and (b) related to stimulus magnitude, (c) sex, (d) color, or (e) the method of control of the presentation of focal material and cue word. Results imply the possibility to improve the efficiency of the learning of factual material in the classroom by as much as 42% if incidental and intentional learning occur simultaneously.—*Journal abstract*.

5448. **Dickie, Kenneth E. (Indiana U.) Effects of compressing visual information and field-dependence on acquiring a procedural skill.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 662.

5449. **Krasnoff, Alan & Boswell, John J. (U. Missouri, St. Louis) Two modes of generalization: A comparison.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 367-371.—64 undergraduates performed 2 independent generalization tasks to determine whether Ss who produced error responses on 1 task would produce error responses on the other task. Results show a significant intertask correlation but are insufficient to support individual case prediction.—*Journal abstract*.

5450. **Lumsden, J. (U. Western Australia, Nedlands) A critical comment on the Davenport and Halford RRT experiments.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 193-194.—Argues that W. G. Davenport and G. S. Halford's (see PA, Vol. 42:1677) and G. S. Halford and W. G. Davenport's (see PA, Vol.

45:Issue 4) claim that their results from a paired-associates task with a stimulus complex and 2 successive test trials to be inconsistent with the incremental learning theory is incorrect. It is suggested that the version of the incremental theory which they consider is not that of any advocate of incremental learning and seems to have been invented by Estes for polemical purposes. It is concluded that "if anything, the results put all-or-none [AON] theory under strain." A reply by W. G. Davenport and G. S. Halford follows in which it is agreed that they "have not demonstrated that an incremental view of learning is not empirically feasible." However, it is argued that "the several tests for AON learning used did not give results which are prima facie consistent with AON learning, but can be reconciled with incremental learning only if additional assumptions are made."—M. Maney.

5451. **Petrich, Judith A. (U. Pittsburgh) R-S unlearning as a function of degree of S-R unlearning.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 125-127.—Tested the hypothesis that unlearning is bidirectional and asymmetrical in an experiment with 96 undergraduates, in 6 conditions. In the experimental conditions, the A-B, A-C paradigm was employed, with A-C learning consisting of 16 trials on a single list in Condition E-1 and of 4 trials on each of 4 lists in Condition E-4. A retroactive-inhibition control condition was also included in the study. $\frac{1}{2}$ of the Ss in each condition were tested for A-B recall in Stage 3, and the other $\frac{1}{2}$ were tested for B-A recall by an unpaced modified free recall test. Results indicate that Conditions E-1 and E-4 both produced significant unlearning of A-B and that Condition E-4 produced a significantly greater decrement in A-B recall than Condition E-1. However, neither condition produced significant unlearning of B-A. Data suggest that unlearning is a unidirectional process.—*Journal abstract*.

Conditioning

5452. **Harvey, Brian & Wickens, Delos D. (Ohio State U.) Effect of instructions on responsiveness to the CS and to the UCS in GSR conditioning.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 98(1), 137-140.—Investigates a possible basis for the effect of differing instructions upon conditioned GSR magnitude, an effect which has been reported both by F. A. Hill (see PA, Vol. 41:5453) and by M. E. Dawson and P. Reardon (see PA, Vol. 44:3115). The experiment essentially repeats the procedures of these studies except that trials to the UCS alone were interpolated during conditioning and during extinction. 4 groups of 25 female undergraduates each were run, 2 with preconditioning instructions and 2 with anticonditioning instructions. The interstimulus interval was 500 msec. for 1 pair and 2000 msec. for the other pair. Results 1st corroborate the 2 earlier experiments, with the preconditioning groups showing greater response magnitude to the CS alone than did the anticonditioning groups. However, the same effect was found for the UCS-alone trials. This latter result suggests that the superior conditioning of the Pro group may be due to the nonassociative variable of UCR magnitude rather than an associative hookup factor.—*Journal abstract*.

5453. **Levis, Donald J. (U. Iowa) Effects of serial CS presentation on a finger-withdrawal avoidance response to shock.** *Journal of Experimental Psychology*,

1971(Jan), Vol. 87(1), 71-77.—Exp. I with 110 male undergraduates, compared the performance of 2 serial (S, followed by S₂) and 2 nonserial CS conditions on a finger-withdrawal avoidance response. The CS-UCS interval was 800 msec. Light served as the CS and shock served as the UCS. Nonserial CS conditions produced faster response latencies and more responding than serial CS conditions. Exp. II provided data suggesting that the differences noted in Exp. I were a function of the length of the CS-UCS interval employed. Shorter intervals (300 and 600 msec.) eliminated the latency difference between conditions, while a longer interval (1200 msec.) increased it. Possible interpretations of the data are discussed.—*Journal abstract.*

5454. Morrow, M. C., Seiffert, P. D., & Kramer, Lorr L. (Georgia State U.) **GSR conditioning and pseudoconditioning with prolonged practice.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 39-44.—Gave 2 groups of 14 undergraduate Ss each 16 conditioning or pseudoconditioning trials/day for 5 days. The compound (light-tone) CS was paired with a 3.5-ma electric shock (interstimulus interval = .5 sec.) in the conditioning group but the stimuli were not paired in the pseudoconditioning group. On Day 6 both groups received 2 counterbalanced CS-element test trials and then 18 CS-compound extinction trials. During acquisition, the conditioning group produced significantly larger GSRs over-all than the pseudoconditioning group, and the former's responses generally increased over test trials on each day while the latter's responses declined. There was an over-all decrease in GSR magnitude overnight in the conditioning group and an over-all rise in the pseudoconditioning group. The GSR was significantly smaller in the conditioning group on the 1st element test trial than it was on the 1st compound trial on Day 5, but it was not significantly different from the final compound trial on Day 5, or from the mean of the 1st 2 compound trials on Day 6. There was a sustained, statistically significant difference in mean magnitude between the 2 groups across the extinction trials with very little evidence of any extinction effects.—*Journal abstract.*

5455. Mugg, Gregory J. (Emory U.) **Simultaneous compound stimulus effects in classical salivary conditioning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 935-936.

5456. Sheehan, Peter W. (U. New England, Armidale, New South Wales, Australia) **Factors affecting mediation of E-bias effects in verbal operant conditioning.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 647-650.—Investigated the mediation of E-bias effects on the relationship between awareness and verbal conditioning in 3 studies with undergraduates. The hypotheses were tested that such effects are determined in part by: (a) the personality of E, (b) E's knowledge of S's conditioning performance, and (c) the closeness of contact between the biasing authority and E's being biased. Results for a Taffel-type conditioning task support the last 2 hypotheses but not the 1st.—*Journal abstract.*

5457. Tanck, Roland H. (George Washington U.) **Conditioning the pupillary reflex with control for the orienting response.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 643-646.—Attempted to achieve conditioning of the pupillary reflex under conditions designed to limit the effects of the orienting response. Data were obtained for 14 undergraduates who observed a series of lights of 4 colors, each presented 30 times for

7.5 sec. in random order. A mild electric shock was paired with 1 of the colors during the middle 3rd of the experiment. Comparisons of pupil diameters during various stages of the study show a significant level of conditioning.—*Journal abstract.*

Verbal Learning

5458. Cramer, Phebe. (U. California, Berkeley) **Magnitude and selectivity as independent factors in semantic generalization.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 509-524.—4 experiments investigated the effect of modifying the arousal of implicit associative responses (IARs) during training on producing subsequent changes in the magnitude and selectivity of IAR-mediated generalization. Ss were 26, 28, 29, 27, and 39 undergraduates. Results indicate that training procedures which require the S to focus on the critical stimuli (CSs) increase correct CS recognition, but decrease the overall magnitude of mediated generalization. Selectivity of the generalization effect was shown to be a function of time allowed for IAR occurrence during training. In all conditions, priming was effective in modifying specific IAR arousal. Results were replicated in a 5th experiment. (17 ref.)—*Journal abstract.*

5459. Kausler, Donald H., Erber, Joan T., & Olson, Gayle A. (St. Louis U.) **Taxonomic instances as right or wrong items and selection strategies in verbal-discrimination learning.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 428-435.—Instances of a single taxonomic category served as either the right (R) or wrong (W) items of a verbal-discrimination list. 60 undergraduates served as Ss. Relative to a control condition having unrelated items on the list, learning was markedly accelerated when the instances were R items, but it was only slightly accelerated when the instances were W items. Additional evidence provided by the free recall of R and W items support the conclusion that a general selection strategy mediated the verbal-discrimination learning only when the positive instances defining class membership occurred as R items.—*Journal abstract.*

5460. King, David J. (State University Coll. New York, Oswego) **Influence of interitem interval in the learning of connected discourse.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 132-134.—Evaluated the total-time hypothesis where the learning material consisted of connected discourse. A total of 560 undergraduates were randomly distributed into a 7 × 2 × 2 × 4 design. The dimensions of the design represented 7 lengths of learning material, sex, 2 lists, and 4 interitem intervals. Results do not support the total-time hypothesis.—*Journal abstract.*

5461. Lippman, Louis G. (Western Washington State Coll.) **Serial isolation effect as related to list-end demarcation.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 135-137.—Ends of a 12-CVC serial list were either demarcated (ITI) or disguised (no ITI plus extralist items preceding the 1st item on the 1st trial only), and the 7th item was either isolated or nonisolated. Ss were 80 undergraduates. Differential performance at the locus of the isolated item supported an interpretation that in a list having a disguised starting point, the isolated item functions as a starting point for the series.—*Journal abstract.*

5462. Miller, Adam & McCrimmon, Russell. (St.

Cloud State Coll.) **Stimulus and response variations in learning artificial linguistic systems.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 215-222.—Studied in 2 experiments with undergraduates the learning and reproduction of simple, artificial linguistic systems. In Exp. I, the nature of the stimuli and responses did not affect learning efficiency for 45 Ss, but the arrangement of associations between stimulus characteristics and response parts did affect learning efficiency of a main system and the reproduction of a subsystem after learning. In Exp. II the overlap in stimulus characteristics for adjacent stimuli facilitated learning for 40 Ss. Stimulus-response explanations of results were adequate to account for the relationships reported and relied upon the concept of learning sets for language structure.—*Journal abstract.*

5463. Mueller, John H. & Pickering, James P. (U. Missouri) **Correction procedures in three-alternative verbal-discrimination lists with intertrial associations.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 401-411.—Varied intertrial associative relationships in 3-alternative verbal-discrimination lists, using either specific correction (the word itself) or outcome correction (right, wrong) with a 2×4 factorial. 5 male and 5 female undergraduates served as Ss. All of the associative lists were learned faster with outcome-correction feedback than was the control list, in which there were no interpair associates (NA list); but with specific-correction feedback, only the list in which both associates were right (AR list) was learned faster. The facilitation with outcome correction is attributed to a change in the chance level of guessing for the lists in which both associates were wrong (AW list) or in which the associates were both right and wrong in different pairs (AB list), and to a summation of rehearsal and implicit response in the AR list. The failure to find interference with specific correction for the AW and AB lists resulted from the ceiling effect that occurred because of the slow presentation rates.—*Journal abstract.*

5464. Nelson, Douglas L., Wheeler, Joseph, & Bercov, Steven. (U. South Florida) **Variations in item availability and distinctiveness and the role of temporal constancy cues in serial anticipation.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 463-464.—Manipulated high and low meaningfulness and formal similarity within a serial anticipation task with 128 undergraduates under conditions in which temporal constancy cues were, or were not, eliminated. Findings suggest that as item availability and distinctiveness decreased, there was a proportionally greater reliance upon the retrieval cues associated with constant temporal position. When meaningfulness was low and similarity high, 75% of Ss showed little or no progress in learning the list, even after 100 trials, if the temporal constancy cues were eliminated.—*Journal abstract.*

5465. Oakes, William F. (City Coll., Graduate Center, City U. New York) **On awareness in verbal operant conditioning and discrepant results.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 274.—Contends that findings by S. L. Mandel and L. D. Goodstein (see PA, Vol. 44:4487) do not "contrast sharply" with previous findings that color naming between trials has no significant bearing on performance.—*M. West.*

5466. Popp, Richard J. (U. Pittsburgh) **Unlearning as a function of relative A-B, A-C associative strengths.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 421.

5467. Šípoš, Ivan. (Slovak Academy of Sciences, Bratislava, Czechoslovakia) **Verbálne podnety ako experimentálne premenné veličiny.** [Verbal stimuli as experimental variables.] *Studia Psychologica*, 1970, Vol. 12(3), 188-213.—Summarizes a series of experiments with verbal stimuli. In Exp. I Ss rated expressions of, e.g., frequency, and quality, on a numerical scale. According to the character of response distribution, semantically definite and indefinite words were ascertained which involved various forms of uncertainty. Exp. II describes a similar analysis of some expressions from Eysenck's Maudsley Medical Questionnaire. Exp. III deals with interval scales of monodimensional semantic continua set up with the aid of the method of successive intervals. Exp. IV investigated the RT to color naming, coded in view of S's (verbal) response by means of words of high and low verbal frequency. In general, high-frequency words enabled a prompter response than low-frequency words. Exp. IV followed recognition of 40 in a group of 160 words, matched for word frequency, grammatical categories, and combination of memory in- and output: vision-vision, vision-hearing, hearing-vision, and hearing-hearing. Performance was not significantly affected by the character of in- and output. An analysis of dispersion, however, indicates a significant difference in regard to word frequency, and this in favor of low-frequency words. Likewise, nouns were remembered best. In recognition, the quality of performance declined as a function of time. Results confirm that the verbal signal in any experimental work in psychology is a variable which requires analysis. (Russian summary) (39 ref.)—*English summary.*

5468. Smith, Sandra & Jensen, Larry. (U. Calgary, Alberta, Canada) **Test of the frequency theory of verbal discrimination learning.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 46-51.—Prior to verbal discrimination (VD) learning, 72 undergraduates pronounced the items in the list. $\frac{1}{3}$ practiced only the correct items, $\frac{1}{3}$ the incorrect, and $\frac{1}{3}$ both correct and incorrect items. $\frac{1}{2}$ of the Ss were told which items would be correct, and $\frac{1}{2}$ were uninformed. The frequency theory of VD learning predicts that Ss practicing the correct item would perform best on the subsequent VD learning. Ss practicing both items should initially make the most errors, but should then improve faster and finally excel Ss practicing only incorrect items. Information about which item would be correct should have no effect. Results support the predictions. Information did not facilitate performance except on the 1st trial.—*Journal abstract.*

5469. Wollen, Keith A., Fox, Robert A., & Lowry, Douglas H. (Washington State U.) **Variations in asymmetry as a function of degree of forward learning.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 416-419.—Hypothesized that associative symmetry would obtain when forward learning was either low or high, whereas asymmetry would occur when forward learning was intermediate. Forward and backward recall for 80 undergraduates were compared on a trial-by-trial basis throughout the entire course of paired-associate learning. The design included factorial combinations of noun imagery (high vs. low) and testing direction (forward vs. backward). The procedure involved study trials in the forward direction alternating with tests which were always in the backward direction (for the backward condition) or always in the forward direction (for the forward condition). Training was taken

to the criterion of 1 perfect trial. For both low and high imagery, the difference between forward and backward curves increased from near 0 when forward learning was low, to a maximum when forward learning was 77% complete, and then back to 0 as forward learning neared 100%. Data provide an interpretation of why some Es found associative symmetry, whereas others did not.—*Journal abstract.*

Verbal Paired Associate Learning

5470. Birnbaum, Isabel M. (U. California, Irvine) **Recall of a word list after interpolated reading.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 412-419.—Investigated the effects of natural language activity on the retention of a word list with 68 undergraduates. After learning a paired-associate list of high-frequency words, Ss in a control group engaged in a pattern-selection task while Ss in 3 experimental groups read descriptive materials. $\frac{1}{2}$ of the words from the list were embedded in the reading material. Accuracy and latency of recall of the word list was measured 21 min. after the end of original learning. There was no difference between groups in the number of words correctly recalled; in all 3 experimental groups, however, there was a significant increase in the latency of recall of responses only for pairs which had been embedded in the interpolated reading material. It is concluded that natural language activity can have specific interfering effects on the recall of a word list.—*Journal abstract.*

5471. Bower, Gordon H. (Stanford U.) **Imagery as a relational organizer in associative learning.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 529-533.—Mental imagery improves paired-associate (PA) learning relative to overt rehearsal. The effect might be due to increased reliability of stimulus encoding or to increased relational association produced by imagery. These hypotheses expect different outcomes when imagery and rote-rehearsal Ss are compared on memory tests of stimulus recognition and on recall of the response term conditional upon stimulus recognition. 30 high school graduates learned PAs using 1 of 3 methods—rote repetition, interactive imagery, or separation imagery. Associative recall was highest for interactive-imagery Ss and lower and equal for rote- and separation-imagery Ss. No differences in stimulus recognition appeared. Evidence supports the relational-organizing interpretation of the PA effect of imagery in opposition to the stimulus-distinctiveness or reliable-encoding explanations.—*Journal abstract.*

5472. Duffy, Thomas M. (U. Illinois) **Mnemonics and intralist interference in paired-associate learning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 927.

5473. Houston, John P. (U. California, Los Angeles) **Effects of audiences upon learning and retention.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 449-453.—72 male undergraduates learned either an A-B or successive A-B, A-C paired-associate lists. The A-B list was always learned alone, while the A-C list was learned either alone or in the presence of a passive audience of 2. In support of R. B. Zajonc's drive interpretation of the effects of audiences, and in contrast to the prediction based upon a distraction interpretation, the presence of an audience during 2nd-list learning resulted in a reduction in retroactive inhibition. Exp. II with 80 male undergraduates suggested that the effects obtained in Exp. I could not be accounted for in terms of

the functional cue properties of the audience.—*Journal abstract.*

5474. Levin, Irwin P., Williams, Jeral R., Dulberg, Corinne S., & Norman, Kent L. (U. Iowa) **Performance in a verbal transfer task as a function of preshift and postshift response dominance levels and method of presentation.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 469-471.—Investigated some effects of response dominance level (defined by free association norms) on paired-associate learning and transfer in 2 experiments with 64 undergraduates each. The experiments differed in terms of the manner in which the stimuli and response alternatives were presented, including both recall and recognition procedures, and in the use of a within-Ss vs. a between-Ss manipulation of pre- and postshift response dominance levels. Ss consistently made fewer errors when the response to be learned (either pre- or postshift) was high in dominance level than when it was low, indicating the generality of previous findings. Differences between the experiments in regard to the effects of preshift response dominance level on postshift performance and in the incidence of overt intrusions of the preshift response on postshift trials are discussed.—*Journal abstract.*

5475. Martin, Edwin & Mackay, Stephen A. (U. Michigan) **A test of the list-differentiation hypothesis.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 311-321.—Tested the idea that original and interpolated paired-associate learning in a negative transfer paradigm produce list-differentiated response sets by cluster analyzing unstimulated, freely recalled responses. 48 female undergraduates served as Ss. List-determined recall organization failed to occur both in immediate and in delayed recall under the stimulus-response (S-R) interference paradigm (S₁-R₁, S₂-R₂) but did occur under the control paradigm (S₁-R₁, S₂-R₂).—*Journal abstract.*

5476. Osborne, Francis H. (Syracuse U.) **The effect of intralist response similarity and response meaningfulness on transfer under the A-B, A-Br paradigm.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 419-420.

5477. Runquist, Willard N. & Blackmore, David. (U. Alberta, Edmonton, Canada) **Individual differences in interference from stimulus similarity.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 141-143.—6 high school Ss learned 55 6-item paired-associate lists in which the stimuli shared 0, 1, or 2 letters in the same position for all items of a list. There were 7 different similarity relations with S learning 6, 0 lists on Day 1 and 1 list exemplifying each relation on each of 7 days thereafter. Consistent with previous studies, most Ss showed decrements in performance as number of identical letters increased, but no consistent effect of position. The magnitude of the effect decreased over days, but was still present at the termination of the experiment.—*Journal abstract.*

Reinforcement

5478. Berman, Mark L. (Pennsylvania State U.) **Effects of response cost and reinforcement magnitude on performance on programmed materials.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 17-18.—Manipulated response cost and reinforcement systematically over a range of values in order to assess effects on performance on programmed materials. 32 Ss earned or lost points with monetary value for successful or unsuccessful performance in reading and learning

textual material. Performance was found not to be related in a direct manner to reinforcement magnitude. It is noted that Ss prefer to do accurate, rather than simply rapid, work.—*Journal abstract.*

5479. Blank, Harriett D. & Monge, Rolf H. (Syracuse U.) **Effects of awareness of alternative incentive magnitude and shifts in magnitude on card sorting.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 119-125.—Examined the absolute and relative interpretations of incentive magnitude. 80 Ss aged 20-67 yr. sorted cards for 20 trials. During Trials 1-13, Ss responded under either high or low reward (25¢ vs. \$3) and were either aware or unaware of the alternative incentive size. Rewards were earned for a women's club. Neither interpretation was supported, as no differences were found. 1/2 of each group was shifted to the alternative size and all Ss sorted for 7 more trials. No effects of shift were found. Failure to find differences in either phase is discussed in terms of the incentive used and its delivery to the organization. (16 ref.)—*Journal abstract.*

5480. Hekmat, Hamid & Lee, Young B. (Wisconsin State U.) **Conditioning of affective self-references as a function of semantic meaning of verbal reinforcers.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 427-433.—Conditioned affective self-references (ASRs) verbally using 3 different reinforcers: "wonderful," "mmm-hmm," and "good." Ss were 40 undergraduates divided randomly among 4 groups: "wonderful" contingent, "good" contingent, "mmm-hmm" contingent, and "mmm-hmm" noncontingent to ASRs. The group reinforced with "wonderful" produced the highest and the 1 with "mmm-hmm" the lowest frequency of self-references. The verbal reinforcer rated positively highest on Osgood's semantic differential scales produced the strongest conditioning effect. Results suggest that classical conditioning of meaning may underlie the establishment of reward value of verbal reinforcers. Osgood's semantic differential scales are of considerable value in identifying the magnitude of verbal reinforcers in behavior modification research and practice. (20 ref.)—*Journal abstract.*

MEMORY

5481. Bjork, Robert A. & Allen, Ted W. (U. Michigan) **The spacing effect: Consolidation or differential encoding.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 567-572.—Theoretical explanations of the spacing effect fall into 2 classes: those that attribute the advantage of 2 spaced presentations over 2 massed presentations to better consolidation of the 1st presentation, and those that attribute the advantage to better encoding of the 2nd presentation. An experimental test of the 2 classes of theory are reported, with 30 undergraduates serving as Ss. Rather than manipulate spacing, the information processing difficulty of the activity interpolated between 2 presentations of an item was varied. Consolidation-type theories imply decreasing consolidation with increasing difficulty of the interpolated activity. Recall performance following 2 presentations separated by a difficult task was found to be slightly but consistently better than performance following 2 presentations separated by an easy task. Results favor encoding-type theories.—*Journal abstract.*

5482. Blake, Denise & Mitchell, M. J. (U. Canterbury, Christchurch, New Zealand) **Effect of replacing correct items during paired-associate recall.** *Psy-*

chological Reports, 1970(Oct), Vol. 27(2), 427-430.—In 2 experiments with 40 undergraduates, it was found that replacing items correctly recalled during paired-associate learning gave no advantage over receiving completely new items on each trial. Superficially, this result appeared to support all-or-none theory, but item analyses show item difficulty to be a confounding factor. Failure of the drop-out paradigms to provide critical tests of all-or-none predictions is discussed.—*Journal abstract.*

5483. Bruce, Darryl & Papay, James P. (Florida State U.) **Primacy effect in single-trial free recall.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 473-486.—Hypothesized that the primacy effect may be due to initial list members being relatively free of proactive inhibition (PI), spending longer time in a limited-capacity rehearsal buffer, or being associated with stronger retrieval cues. In 3 experiments using a single-trial free-recall procedure, undergraduates (N=84, 160, and 213, respectively) were sometimes presented a forget cue during a list. The cue meant that they were not responsible for recalling any of the words which preceded it, only those which followed it. Since the primacy effect over the functional beginning of such lists was not diminished, the PI hypothesis was rejected. Tests of memory for list members which Ss were under the impression they could forget showed consistently depressed retention of items immediately preceding a forget cue. This result was more in harmony with a rehearsal-buffer notion than a stronger-retrieval-cues position. (23 ref.)—*Journal abstract.*

5484. Craik, Fergus I., Gardiner, John M., & Watkins, Michael J. (U. London, Birkbeck Coll., England) **Further evidence for a negative recency effect in free recall.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 554-560.—Examined results of F. I. Craik (see PA, Vol. 44:13805) experiment which indicated that the final words in a free-recall list were retrieved least well in a 2nd recall session. This negative recency effect was found to hold for reminiscence items and, to some extent, for prior list intrusions in recall. 2 further experiments showed that words retrieved in free recall were subsequently recognized less well if they had been presented late in their original input list. Undergraduates served as Ss. There was some evidence that a pattern of primacy and negative recency also held for the recognition of words not retrieved in free recall. It is concluded that terminal words in a free-recall list, although best recalled immediately, are thereafter least available in memory.—*Journal abstract.*

5485. Doll, Theodore J. (State U. New York, Stony Brook) **Motivation, reaction time, and the contents of active verbal memory.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 29-36.—Demonstrated the effect of motivation on information exchange between active and inactive memory in an experiment with 16 undergraduates. 2 sets of verbal items—1 recently viewed and the other memorized earlier—were presented for recognition. In 1 condition, reward was contingent on RT to recent probes only; in another condition, reward was contingent on RT to memorized probes only. In both conditions, RT was fastest to the items that were eligible for reward. Other findings suggest that this result is due to Ss' strategy of transferring the eligible set to active memory and consequent displacement or decay of ineligible items. 1st, error rate for recent probes was

greater when they were ineligible than when they were eligible. 2nd, the difference in RT for eligible and ineligible items increased with the amount of time the eligible set could be stored in active memory. 3rd, the effect of increased time in active memory depended on the stringency of the RT criterion for reward. And finally, the serial position functions for eligible items were generally indicative of rehearsal, while those for ineligible items were typical of unrehearsed items.—*Journal abstract.*

5486. Drew, Clifford J. & Altman, Reuben. (U. Texas) **Effects of input organization and material difficulty on free recall.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 335-337.—Compared the free recall performance of 30 undergraduates as a function of 2 degrees of external input organization and 2 levels of material associative strength. Ss recalled significantly more responses from organized than unorganized lists. S's performance was significantly influenced by difficulty of material. Material difficulty did not interact with degree of organization.—*Journal abstract.*

5487. Elliott, Lois L. (Central Inst. for the Deaf, St. Louis, Mo.) **Pitch memory for short tones.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 379-384.—A 300-msec tone was judged as higher or lower in pitch than another 300-msec tone that occurred 8 sec. earlier by 10 young adults with normal hearing. The intervening time either was unfilled or contained a 400-msec interpolated tone. This interpolated tone occurred either just after the 1st tone or just before the final one, and was of a frequency either inside or outside the critical band of the target frequency. Performance for the silent-interval condition was about as good as has been reported for pitch discrimination with no delay when the target was 250 Hz. but was slightly poorer for the target at 1550 Hz. Presence of the interpolated tone decreased the slope of the psychometric function and produced constant errors for 9 Ss. These effects were more pronounced when the interpolated tone occurred 50 msec. after the target than when it preceded the comparison tone by 50 msec. Both brevity of the target tone and occurrence soon thereafter of an interpolated tone are required to produce constant errors of pitch memory. (17 ref.)—*Journal abstract.*

5488. Fillenbaum, Samuel. (U. North Carolina, Chapel Hill) **On coping with ordered and unordered conjunctive sentences.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 93-98.—Determined whether 143 undergraduates were sensitive to the difference between sentences involving an ordered "and" (*) and those involving an unordered "and" (+), a distinction contingent upon knowledge of some semantic properties of the conjoined verbs. Performance on 2 comprehension tasks revealed that Ss did distinguish between + and * sentences. Consistent with this, performance on a memorial task indicated that when verb order was permuted, Ss were significantly more likely to falsely recognize + sentences than * sentences, to be expected if verbs in sentences of the latter kind but not of the former are entered in memory in ordered fashion. The principal unexpected finding is that on the paraphrase task, even when 2 additional strengthened versions were also employed, verb order was often permuted for disordered * sentences, normalizing them and assimilating the order of events described to conventional order.—*Journal abstract.*

5489. Forrester, William E. (State U. New York, Oswego) **Retroactive inhibition and spontaneous recovery in the A-B, D-C paradigm.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 525-528.—While significant retroactive inhibition (RI) was found in both modified-modified free recall and paced recall for A-B, A-C, and A-B, D-C paradigms, no RI was produced by a nonlearning task requiring a high rate of overt verbal responding in 160 undergraduates. Relative recovery was found for the A-B, D-C condition and absolute recovery for A-B, A-C. Results are discussed in terms of an unlearning of contextual associations hypothesis and a response-set interference hypothesis.—*Journal abstract.*

5490. Foss, Donald J. & Cairns, Helen S. (U. Texas) **Some effects of memory limitation upon sentence comprehension and recall.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 541-547.—Investigated the relationship between available short-term storage, sentence comprehension, and recall in a study in which 36 undergraduates were presented with word lists of varying lengths (0, 2, or 4 words) and then a sentence. 2 types of sentences (high or low in complexity) were used. Ss 1st recalled the word list and then, if correct, the sentence. Sentence recall varied inversely with list length, and recall of complex sentences was degraded relatively more than recall of simple sentences as list length increased. In another condition, Ss simply had to interrupt sentence rehearsal by saying 2 words before sentence recall. Results parallel the results of the 2-word condition, showing that interruption was the important variable. Various explanations of this finding were discussed.—*Journal abstract.*

5491. Gardner, Rick M. (U. Nevada) **Signal detection theory and recognition memory.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 412.

5492. Golovan', E. T. **Model' assotsiativnoi pamyati.** [Model of associative memory.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 31-35.—Proposes a model for memory of the "2nd [Pavlovian] signal system," on the basis of which it may be possible to explain several of its properties.—*I. D. London.*

5493. Greeno, James G. (U. Michigan) **Conservation of information-processing capacity in paired-associate memorizing.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 581-586.—Reviews data that impose constraints on hypotheses regarding the role of temporal variables in memorizing, including results that apparently disconfirm J. G. Greeno's time-sharing hypothesis. An alternative hypothesis is proposed, in which it is assumed that S occasionally attenuates his rate of processing information for memory, with the probability of attenuation being relatively high when the item being presented is still in short-term memory as a result of a recent presentation. (15 ref.)—*Journal abstract.*

5494. Gupton, Tec & Frincke, Gerald. (U. Manitoba, Winnipeg, Canada) **Imagery, mediational instructions, and noun position in free recall of noun-verb pairs.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 461-462.—Studied free recall of noun-verb pairs using a factorial design employing 2 levels of noun imagery (high and low), instructions to think of a picture that goes with the pair or no instructions, and noun-verb or verb-noun pair ordering with 32 undergraduates. In each condition, Ss were shown 12 noun and verb pairs at

a 2-sec rate for 5 trials. A recall following the last trial showed significant memory facilitation due to high-imagery noun members ($p < .001$), instructions to use imaginal mediators ($p < .001$), and noun-verb ordering ($p < .01$). The Imagery \times Instructions interaction was significant ($p < .01$). Instructions were facilitative for pairs with high-imagery nouns but not for those with low-imagery nouns. Results are interpreted as an extension of previous findings on effects of imagery on the free recall of single items and paired-associate learning. Effects of presentation rate on the efficiency of mediational instructions and Ss' ability to employ imaginal mediators are discussed.—*Journal abstract.*

5495. Halacy, D. S. (Phoenix Coll.) **Man and memory.** New York, N.Y.: Harper & Row, 1970. 259 p. \$6.95.

5496. Harwood, Elsie & Naylor, G. F. (U. Queensland, Brisbane, Australia) **Recall and recognition in elderly and young subjects.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 251-257.—59 60-80 yr. old Ss and 58 15-48 yr. old Ss were repeatedly shown 20 drawings of common objects at the rate of 1/2 sec until a criterion of 80% recall was achieved. Ss then believed their task complete, but were retested after 4 wk. for both recall and recognition. Elderly Ss proved significantly inferior to control Ss in both recall and recognition, and found recall more difficult than young Ss. No correlation was found between delayed recall or delayed recognition and the time actually spent in original learning or the number of exposures of the stimulus material. Delayed memory (both in recall and recognition) correlated significantly with the original level of immediate recall achieved in satisfying the criterion.—*Journal abstract.*

5497. Hintzman, Douglas L. & Block, Richard A. (U. Oregon) **Memory judgments and the effects of spacing.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 561-566.—55 paid volunteers saw a long series of words which varied in frequency ($F = 1, 3, \text{ or } 5$), and in spacing, ($S = 0, 1, \text{ or } 5$). 1/2 the Ss then judged frequency of occurrence of the words, and these judgments were an increasing function of spacing, $S = 0 < S = 1 < S = 5$. The other 1/2 judged the number of times in succession each word had occurred, and these judgments, correctly, were higher for $S = 0$ than for $S = 1$ or 5. Results indicate that some information about massed items is stored, and that on a retention test Ss can discriminate this information about spaced items. 2 explanations are suggested.—*Journal abstract.*

5498. Ioselevich, L. M. (Moscow State U., USSR) **Ob invariantakh ob'ema pamyati.** [On the invariants of memory-volume.] *Psikhologicheskoe issledovaniya*, 1969, No. 1, 143-148.—10 Ss participated in a comparative study of the invariants of short- and long-term memory in the memorization of the same material. Results show that the volume of short-term memory tends to invariance when measured in terms of number of symbols retained; that of long-term memory also tends to invariance when measured in terms of number of units of information retained.—I. D. London.

5499. Klapp, Stuart T. (U. California, Berkeley) **Individual differences in nonverbal memory for visually presented material.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 899-900.

5500. Lamendella, John T. (U. Michigan) **Long-term memory, conceptual structure and a theory of**

generative semantics. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 645.

5501. Laughery, Kenneth R. & Pinkus, Allen L. (State U. New York, Buffalo) **A simulation model of short-term memory: Parameter sensitivity studies and implications for two current issues.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 554-571.—Formulates a simulation model of human short-term memory (STM) which postulates a number of basic information processes which are executed in a serial fashion and each has an associated time parameter. The model also postulates that information is lost from memory as a result of decay. The nature of this decay is exponential and its rate is a model parameter. Several studies were simulated in which the processing-time and decay-rate parameters were manipulated to determine the model's sensitivity to their parameters. Also, the model's performance was examined as a function of whether or not visual information is stored in STM and whether order information is retained perfectly or lost as a result of decay. Results of these simulated studies are compared to experimental data to determine at which parameter values and under which conditions of visual and order information storage the model performs most appropriately. (22 ref.)—*Journal abstract.*

5502. Lewis, Marion Q. (Iowa State U.) **Categorized lists and cued recall.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 129-131.—Investigated effects of list-item cues on free recall of categorized lists with blocked and random category presentation. 5 lists containing 6 7-word categories were presented to 40 undergraduates: for cued conditions, cues were 1 word from each category. Cueing increased recall with blocked but not random presentation.—*Journal abstract.*

5503. Lewis, Marion Q. & Bartz, Wayne H. (Iowa State U.) **Learning and the memory stores.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 465-466.—Duoprocess memory theories predict differential effects of repetition of short-term memory (STM) and long-term memory (LTM) items: learning is characteristic of LTM but not STM. In a free recall experiment with 20 undergraduates, single items were repeated as a function of serial position from 1 list to the next. Recent items were considered to represent primarily STM; early items were considered LTM. Results show large learning effects for (LTM) items repeated from early serial positions, but small learning effects for repeated recency (STM) items. Results are interpreted as supporting duoprocess models of memory.—*Journal abstract.*

5504. Locke, John L. & Fehr, Fred S. (U. Illinois) **Subvocal rehearsal as a form of speech.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 495-498.—Gave 11 adults a serial recall task using visually presented disyllabic words characterized by the presence or absence of letters representing labial phonemes. Analysis of EMG activity at a chin-lip site demonstrated significantly greater mean peak amplitudes for labial than for nonlabial words during presentation and rehearsal periods, supporting the hypothesis that subvocalization during learning is actually a form of speech. (23 ref.)—*Journal abstract.*

5505. Lovitskii, V. A. **O zabyvanii informatsii.** [On the forgetting of information.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 73-79.—Proposes an algorithmic model of human memory, on the basis of which certain of its properties, in particular, the

forgetting of information, are investigated.—*I. D. London.*

5506. Lovitskii, V. A. *Posledovatel'naya klassifitsiruyushchaya sistema kak model' nekotorykh protsessov verbal'noi sistemy pamyati: I.* [The sequential classifying system as a model for certain processes in the verbal system of memory: I.] *Problemy Bioniki*, 1970, No. 3, 16-23.—Describes the properties of the cognizing elements, from which there is formed during the training process the structure of the 1st level of memory in the model of elementary perception and word reproduction. The requirements that the "sequential training inputs" must meet are examined.—*I. D. London.*

5507. Lovitskii, V. A. *Posledovatel'naya klassifitsiruyushchaya sistema kak model' nekotorykh protsessov verbal'noi sistemy pamyati: II.* [The sequential classifying system as a model for certain processes in the verbal system of memory: II.] *Problemy Bioniki*, 1970, No. 3, 24-29.—Examines the manner in which a sequential classifying system, defined by the properties of its cognizing elements, functions. Problems are adduced, whose solution reduces to operations on letter combinations without requiring the use of connections between the latter.—*I. D. London.*

5508. Madigan, Stephen A. (U. Toronto, Ontario, Canada) *Intraserial repetition and coding processes in free recall.* *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 933-934.

5509. Melton, Arthur W. (U. Michigan) *The situation with respect to the spacing of repetitions and memory.* *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 596-606.—The revival of interest in the effectiveness of spaced practice, as compared with massed practice, in learning is attributed to the abandonment of the constraints of serial and paired-associate list learning and the discovery of stable benefits from spaced practice in continuous paired-associate learning, short-term memory for individual items, and single-trial free-recall learning. Comments are made about the preceding symposium papers by B. J. Underwood, N. C. Waugh, and J. G. Greeno, and some data on the differential effects of spacing of repetitions in free-recall learning are introduced in an effort to assess the current state of fact and theory. (23 ref.)—*Journal abstract.*

5510. Mueller, John H. & Jablonski, Eugene M. (U. Missouri) *Instructions, noun imagery, and priority in free recall.* *Psychological Reports*, 1970(Oct), Vol. 27(2), 559-566.—Exp. I varied instructional sets in free recall, with 60 undergraduates instructed to combine words into sentences, mental pictures, both, or left to their own strategy. The pictures group was superior on both high- and low-imagery items. There was no evidence for summation of availability for Ss with both, or for superiority of the sentences group on low-imagery items. Low-imagery words tended to be recalled early on acquisition trials but to be late in output on a delayed test. Exp. II with 60 Ss used only own strategy and pictures instructions for lists varying orthogonally on imagery and frequency, with $\frac{1}{2}$ of the Ss in each group informed of the general list composition. The latter seemed to have no effect, and the pictures set was effective only for high-imagery items. The priority effects were most pronounced for the low-imagery-high-frequency subset.—*Journal abstract.*

5511. Natkin, Gerald & Stahler, Elizabeth. (Bucknell

U.) *The effects on adjunct questions on short and long-term recall of prose materials.* *American Educational Research Journal*, 1969(May), Vol. 6(3), 425-432.—Investigated the effects of adjunct questions and preexposure to adjunct questions on immediate and delayed recall of prose material. It was predicted that with no preexposure, adjunct questions would lead to recall gains over time, while with exposure, performance would drop over time. 28 undergraduates were given either no or 15-min preexposure, and then a passage containing either 0 or 25 adjunct questions. All Ss were tested on the 2nd passage immediately upon completion and 1 wk. later. Results confirm the predicted interaction effect, and are interpreted as demonstrating that adjunct questions can have an arousal-producing effect, which diminishes with repeated exposures.—*Journal abstract.*

5512. Nevel'skii, P. B. & Mel'nik, I. M. *Vliyaniye irrelevantnoi informatsii na zapominaniye u cheloveka.* [Influence of irrelevant information on human memorization.] *Problemy Bioniki*, 1970, No. 3, 108-111.—Irrelevant information, bearing no relation to the goal content of human activity, exerts a negative effect on the memorization of useful information. The coding of information, where only useful information is presented to the human operator, increases the carrying capacity of his short-term memory and, consequently, of the entire man-machine system.—*I. D. London.*

5513. Perfetti, Charles A. & Goodman, Doba. (U. Pittsburgh, Learning Research & Development Center) *Semantic constraint on the decoding of ambiguous words.* *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 420-427.—Studied the effects of semantic context on decoded word meaning by means of recognition memory. In Exp. I, 101 female undergraduates were tested for single-word recognition under 1 of 3 conditions, 2 of which constrained the interpretation of semantically ambiguous words in 1 of 2 ways. In a 3rd condition, Ss heard the ambiguous words as part of a word list. The main result was that false recognitions were induced to associates of the ambiguous word that reflected the meaning cued by its sentence. False recognitions to noncued associates than to control words were not significantly more frequent. In additional experiments with 92 undergraduates, the effect of single-word context on the recognition of ambiguous words were studied by varying which of 2 cue words preceded an ambiguous word. Whereas Exp. I indicates that decoding is determined by sentence context, the remaining experiments suggest that single words have little or no effect.—*Journal abstract.*

5514. Polzella, Donald J. & Rohrman, Nicholas L. (U. Michigan) *Psychological aspects of transitive verbs.* *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 537-540.—Exp. I, with 30 undergraduates, replicated a previous finding by N. L. Rohrman (see PA, Vol. 43:3456) and N. L. Rohrman and D. J. Polzella (see PA, Vol. 43:1991) that transitive verbs are more difficult to recall than intransitive. Exp. II with 30 undergraduates examined the associations to, and response latencies of, transitive, and intransitive verbs. Latencies of responses did not differ, but the form class of responses was significantly different. Transitive verbs elicited more noun responses. It is suggested that the lexical entry provided for transitive verbs by N. Chomsky is psychologically real and will account for the observed differences.—*Journal abstract.*

5515. Rohrman, Nicholas L. (Florida State U.) **More on the recall of nominalizations.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 534-536.—2 experiments with 30 undergraduates each. demonstrated that transitive verbs and inanimate nouns in isolation were more difficult to recall than intransitive verbs and animate nouns. Thus, explanations of recall differences based on node counting indices are questionable. It is suggested that lexical representations will account for the recall differences observed in single items. However, the relation between syntactic complexity and lexical representation is still unresolved.—*Journal abstract.*

5516. Rosenberg, Sheldon & Jarvella, Robert J. (U. Illinois, Chicago) **Semantic integration and sentence perception.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 548-553.—Presented a mixed list of semantically well-integrated (SWI) and semantically poorly integrated (SPI) sentences for shadowing to 20 undergraduates under quiet and 20 Ss under noise (5-db signal-to-noise ratio). The SWI and SPI sentences were balanced for length, number, and stress of syllables, number and type of phones, noun animateness, and word frequency. An incidental-recall task followed 1 trial of shadowing. As anticipated, shadowing under quiet was virtually perfect for both SWI and SPI sentences, noise reduced shadowing overall and SWI sentences were shadowed better than SPI sentences under noise. Incidental learning of SWI material was enhanced by noise, and noise produced a difference in incidental learning in favor of SWI material. (15 ref.)—*Journal abstract.*

5517. Ross, John. (U. Western Australia, Nedlands) **Extended practice with a single-character classification task.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 276-278.—Gave extended practice to 4 undergraduates on a single-character classification task with 4 nested checklists of Sizes 1, 2, 4, and 8 defining positive sets. RT reduces with practice, but is linear with the logarithm of checklist size at all stages of training, and transfers to characters of large size and different case.—*Journal abstract.*

5518. Rubenstein, Herbert; Garfield, Lonnie, & Millikan, Jane A. (Lehigh U.) **Homographic entries in the internal lexicon.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 487-494.—89 undergraduates distinguished between English and nonsense words, which were displayed singly. The display persisted until S pressed the yes-key if he thought the stimulus was English or the no-key if he thought it was nonsense. The response times were faster for English than nonsense, faster for words of higher frequency than lower frequency, and faster for homographs than nonhomographs. It is hypothesized that word recognition in general requires consulting the internal lexicon. A model of the underlying processes is sketched which proposes that words of higher frequency are recognized sooner because their lexical entries are marked earlier for comparison against the stimulus information. It is also proposed that homographs are recognized sooner than nonhomographs since homographs have more lexical entries available for comparison against the stimulus information.—*Journal abstract.*

5519. Slak, Stefan. (U. Toledo) **Phonemic recoding of digital information.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 398-406.—Studied the effect of phonemic recoding on human memory with the aid of a phonemic code permitting recoding of random

decimal numbers into phonemic sequences, so that 1 phoneme contained the same information as a decimal digit. 2 Ss underwent intensive code training. In Exp. I-IV, 2 Ss were tested repeatedly on memory span, usual and self-paced serial learning, and recognition; in Exp. V and VI, 1 S was tested repeatedly on free learning and self-paced free recall tasks. Testing was with and without phonemic recoding. In Exp. VII, a recoding group of 10 undergraduates was compared with a control group (N = 10) on a serial-learning task. Phonemic recoding resulted in a dramatic improvement in performance in all experiments. In Exp. VIII with 60 undergraduates, memory span for phonemically encoded digits was higher than for uncoded digits. The recoding effect was interpreted in terms of substitution of a less redundant for a more redundant form of information. The constant chunk recall hypothesis was not supported.—*Journal abstract.*

5520. Smirnov, B. A. **O kiberneticheskikh model-yakh pamyati.** [On cybernetic models of memory.] *Problemy Bioniki*, 1970, No. 3, 112-115.—Examines 1 of the possible approaches to "macromodeling of the processes of memory." A formula is developed for computing the "probability of information-service" in short- and long-term memory as well as the probability of loss of information. Parameters, characterizing the activity of memory, are introduced. The proposed model can be utilized in the construction of a general model of human activity, connected with the acceptance, preservation, and reproduction of information.—*I. D. London.*

5521. Smith, Marilyn C. & Ramunas, Susan. (U. Toronto, Ontario, Canada) **Elimination of visual field effects by use of a single report technique: Evidence for order-of-report artifact.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 23-28.—When Ss are asked to recall verbal materials tachistoscopically presented simultaneously in both visual fields, recall is typically better for items in the left visual field. Some Es have interpreted this finding as indicating a perceptual mechanism that necessitates scanning the memory trace in a left-to-right order, with fading of the elements in the right field while those in the left are being scanned. An alternative explanation is that since Ss tend to report the items in a left-to-right order, there is fading of the memory trace for the right-hand elements during the relatively slow task of reporting the earlier items. To differentiate between the 2 theories, 25 right-handed 15-22 yr. old students reported only 1 item, as indicated by tactile vibration of 1 of their fingers immediately after presentation of the visual materials. Using this technique, no left-right field differences were found. Exp. II, with 6 right-handed undergraduates, examined the effect of varying the interval between presentation of items and occurrence of the signal indicating the letter to be recalled. Even with intervals of 2000 msec., no left-right differences were found. (17 ref.)—*Journal abstract.*

5522. Sokolov, E. N. (Moscow State U., USSR) **Issledovanie pamyati na urovne makroreaktsii.** [Study of memory at the macroreational level.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 441-452.—An analysis of a number of experiments leads to the discernment of 3 basic types of trace effects: (a) "Retention of heightened excitability for 15-30 sec. after termination of the action of a preceding stimulus." On repetition of the signals with smaller intervals, the trace effects summate, leading to shortening of latent periods, increase in reliability of signal detection, and decrease in

the variability of the parameters of orienting and motor CRs. (b) "Retention for a long time of a trace in the form of a nervous model of the experienced stimulus, securing the selective suppression of orienting reactions and the selective intensification of CRs to the repeated stimulus." The temporal sequence of signals is 1 of the parameters, fixed in the "nervous model [counterpart] of the stimulus." (c) "Stamping in of a 'given standard' after single presentation [thereof], which is kept in the memory in spite of possible interference on the part of the test stimuli, utilized in the experiment." The trace of the "given standard," which determines reliably the reactions to a signal, does not coincide with the "process of the nervous model [counterpart] of the stimulus"—a model which is elaborated with respect to the entire system of utilized stimuli. In its turn, extinction of the orienting reactions during formation of the "nervous model of the stimulus" occurs against a background of increased excitability, arising with repetition of the stimulus. If trace effects in the form of heightened excitability quickly disappear with time and disclose no effect of accumulation as the experiments proceed, then the trace effect in the form of extinction, although easily abolished by incidental stimuli and weakened with interruptions in the experiments, discloses, nevertheless, accumulation from 1 experimental day to another.—*I. D. London.*

5523. Swanson, James M. & Wickens, Delos D. (U. Texas) **Preprocessing on the basis of frequency of occurrence.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 378-383.—Used the release from proactive inhibition (PI) methodology to test R. C. Oldfield's (see PA, Vol. 40:3726) suggestion that human memory is organized in part on the basis of frequency of occurrence. 160 undergraduates served as Ss. 120 words, of either high or low frequency were chosen from the Thorndike-Lorge word book. Ss received triads composed of verbs or nouns on all trials. An observed release from PI identified frequency of occurrence as an encoding category and supported the underlying assumptions of Oldfield's model.—*Journal abstract.*

5524. Teghtsoonian, Martha & Teghtsoonian, Robert. (Smith Coll., Clark Science Center) **Transitory effect of number of alternatives on performance in a recognition task.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 467-468.—The number of choices required to locate a previously seen item among a group of alternatives is inversely related to the number of alternatives (n) provided. 2 groups of 28 Ss were given 3 trials for recognition learning of 16 3-digit numbers, making their selections from 4 and 16 alternatives/item, respectively, with the correct item displayed after each choice. Each group was split into 2 subgroups so that for the succeeding 3 trials, 1/2 of each group continued with the same number of alternatives while the other 1/2 shifted to the other value of n. Results show that n always has a pronounced effect on any given trial, but that the effect does not extend to subsequent trials when n has been changed. The number of alternatives is a parameter of performance but not of learning in this recognition task.—*Journal abstract.*

5525. Thorsheim, Howard I. (U. Illinois) **The influence of mediator strength on retention.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 940.

5526. Tulving, Endel & Psotka, Joseph. (Yale U.) **Retrospective inhibition in free recall: Inaccessibility of information available in the memory store.** *Journal*

of Experimental Psychology, 1971(Jan), Vol. 87(1), 1-8.—Produced retrospective inhibition under free recall conditions in an experiment in which 128 high school and university students learned and subsequently recalled from 1-6 categorically structured lists. The observed retrospective inhibition was attributable mainly to the lowered probability of recall of word categories as higher order memory units. Recall of words within recalled categories was not greatly affected. Presentation of category names as retrieval cues largely removed retrospective effects and restored word recall to nearly its original level. It is concluded that retrospective inhibition in free recall of organized lists (a) represents a state of memory in which higher order units of information are available but not accessible in the memory store, (b) reflects altered stimulating conditions brought about by interpolated learning, and (c) can be described as an instance of cue-dependent forgetting. (15 ref.)—*Journal abstract.*

5527. Tulving, Endel & Thomson, Donald M. (Yale U.) **Retrieval processes in recognition memory: Effects of associative context.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 116-124.—Recognition of a single word is impaired when another, associatively related, word accompanies it at the time of the test. Recognition of a word presented at input as a member of an associatively related pair is impaired when the other member of the pair is removed or changed at test. These context effects suggest that retrieval or utilization of stored mnemonic information in a recognition-memory task depends on both availability and accessibility of this information. It is argued that nominally identical input and test items may sometimes be encoded differently because of their different cognitive environments, with the consequence that the "old" test item as a retrieval cue fails to provide access to the stored information about the earlier occurrence of its copy. Results of an experiment with 60 undergraduates, and their interpretation disagree with the widely held view that "there is no retrieval problem in recognition memory." (16 ref.)—*Journal abstract.*

5528. Underwood, Benton J. (Northwestern U.) **A breakdown of the total-time law in free-recall learning.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 573-580.—Reports 5 experiments in which single-trial free recall followed various frequencies of repetition under massed (MP) and distributed (DP) schedules. In all experiments the DP schedule resulted in better recall than the MP schedule, and the difference between MP and DP increased as the frequency of repetition increased. This was true for sentences, nonsense syllables, and words. Various activities inserted between successive words in the lists did not change the basic findings. (15 ref.)—*Journal abstract.*

5529. Uteush, E. V. **Analiz psikhofiziologicheskikh osobennostei cheloveka-operatora na osnove modelirovaniya vzaimozavisimosti pamyati i deyatelnosti: I.** [Analysis of the psychophysiological features of the human operator on the basis of modeling the interconnections between memory and activity: I.] *Problemy Bioniki*, 1970, No. 3, 129-134.—Analyzes the processes involved in the preservation of information in memory as processes embedded in a dynamic system, so that memory can be studied by the methods employed to investigate dynamic objects. The traditional methods of psychology for evaluating habit and memory are seen as special cases of a more general method of studying memory as a dynamic object. An interpretation of the

findings of A. N. Leont'ev's research is made the basis of this view. "The process of developing the structure and volume of buffer-memory as a function of age" is modeled as a "multi-capacity object with a time span of 4.2 yr."—*I. D. London.*

5530. Uteush, E. V. *Analiz psikhofiziolozicheskikh osobennostei cheloveka-operatora na osnove modelirovaniya vzaimozavsimosti pamyati i deyatelnosti: II.* [Analysis of the psychophysiological features of the human operator on the basis of modeling the interconnections between memory and activity: II.] *Problemy Bioniki*, 1970, No. 3, 135-141.—Reflex systems with memory are described as objects with concealed cycles. Statistical criteria are proposed for the trainability of the human operator. Experimental confirmation of the usefulness of these criteria is adduced.—*I. D. London.*

5531. Warrington, Elizabeth K. & Silberstein, M. (National Hosp., London, England) **A questionnaire technique for investigating very long term memory.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 508-512.—Describes a questionnaire technique, based on public events, for quantifying memory over long periods of time. Independent groups of Ss were tested at intervals of 6 mo. on a recall and multiple choice version of the questionnaire. A consistent relationship between memory and both age of Ss and passage of time was found. An error analysis is presented.—*Journal abstract.*

5532. Zacker, Joseph W. (City Coll., City U. New York) **Effect of reverie on recall of word associates.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 423-426.—Postulated that amnesia for childhood events may be due to differences between the child's and the adult's states of consciousness rather than repression alone. 12 male undergraduates underwent each of 2 experimental conditions, 1 designed to foster alertness, the other a reverie state. Prior to each experimental condition Ss studied stimulus words, each paired with 1 of 2 associates. 1/2 of the words had 1 associate more typically a child's response and 1 more typically a young adult's response. After each experimental condition S named the 1st associate he recalled for each stimulus word. As predicted, more child-associates were recalled after the reverie condition than after the alert condition.—*Journal abstract.*

Short Term & Immediate Memory

5533. Buschke, Herman & Kintsch, Walter. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Rehearsal strategies and the serial-position curve in immediate free recall of ordered items.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 347-352.—Studied immediate free recall of random strings of 10 numbers with 12 paid undergraduates under 4 experimental conditions: as each number was presented, Ss either had to recall the previous number (recall n-1), recall the number just presented (recall n), read the number (read aloud), or were silent (free recall). Overall recall was the same in all conditions. Recall and order of recall by serial-position changed systematically, with an increasing recency and decreasing primacy effect from free recall through read aloud and recall n to recall n-1. These changes in recall order and serial-position curves suggest that differential rehearsal of items is decreased by requiring retrieval during presentation.—*Journal abstract.*

5534. Campos, Leonel & Siojo, Luis. (U. Manila, Philippines) **The recall of single paired associates with an A-B, A-Br sequential paradigm.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 39-42.—Adopted a sequential A-B, A-Br paradigm in a short-term memory task to test the possibility that novel combinations of the same stimulus and response items would result in proactive interference (PI) in the recall of paired associates. Ss were 108 male undergraduates. No definite evidence of increasing PI was found, thus supporting the notion of a "limited capacity" hypothesis as an explanation for short-term memory behavior.—*Journal abstract.*

5535. Cohen, Ronald L. & Granström, Kjell. (U. Uppsala, Sweden) **Reproduction and recognition in short-term visual memory.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 450-457.—Tested reproduction and recognition in short-term visual memory. In Exp. I, it was confirmed that the ability to reproduce visual figures in short-term memory correlated with the ability to describe them. No such correlation was obtained when recall was by recognition. In Exp. II and III the mechanisms involved in the 2 types of recall were investigated by varying the character of the task interpolated in the retention interval. Results support the view that reproduction has a verbal component which is lacking in recognition.—*Journal abstract.*

5536. Detterman, Douglas K. & Ellis, Norman R. (U. Alabama) **A factor analytic demonstration of two memory processes.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 484-493.—Obtained a principal component solution and varimax rotation for 8 studies using a serial position (SP) probe technique for studying short-term memory. The factor pattern which emerged showed the 1st and middle SPs to load on the primacy factor, while the middle and last positions loaded on the recency factor. Results are consistent with the view that short-term memory is composed of 2 processes, primary and secondary memory. 1 study supports the notion that immature humans show a rehearsal deficit. (17 ref.)—*Journal abstract.*

5537. Dornič, S., Chalupa, B., & Sehnalová, J. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Recall of symbols used in a searching task.** *Studia Psychologica*, 1970, Vol. 12(2), 120-124.—Ascertained the relationship between the quantitative characteristic of performance in searching letters and dials on search panels and their subsequent recall. Each panel was comprised of 49 elements. 1 group of Ss searched 20, another 10 elements. The 2nd stage of the experiment ascertained the total number of recalls and that of errors. 20 19-20 yr. old girl students took part in each variant of the experiment. Search of dials proved to be substantially more difficult than that of letters. However, the number of correct recalls of dials was higher than that of letters (significantly so when 20 elements were searched). Causes of the differences in performance during perceptual analysis are discussed. It is understood that different stages of information processing are involved, in which a number of variables are utilized. The task of perceptual analysis is made significantly more difficult by a double information encoding in dials; dial recall is easier than that of letters because it can draw support from more associations. (Czech & Russian summaries)—*Journal abstract.*

5538. Dornič, Stanislav & Kuric, Jozef. (Slovak

Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Aesthetic preference and short term memory: Serial position effect.** *Studia Psychologica*, 1970, Vol. 12(2), 156-158.

5539. Halmiová, Ol'ga & Dornič, Stanislav. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Effect of short-term memory loading on performance in an attention test.** *Studia Psychologica*, 1970, Vol. 12(3), 246-247.

5540. Herman, Louis M. & Bailey, David R. (U. Hawaii) **Comparative effects of retroactive and proactive interference in motor short-term memory.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 407-415.—Tested 48 male undergraduates for their short-term memory (STM) (24 sec.) for discrete force responses as a function of selected activities occurring either prior to (PI) or following (RI) the criterion force response. On a given trial, the activity was either (a) production of a 6-sec force response of greater magnitude than the criterion, (b) a 6-sec force response of lesser magnitude than the criterion, (c) counting backwards for 6 sec., or (d) passively sitting (control). All variables were within-Ss effects except for the inter-response interval (IRI), either 4 or 14 sec., separating an activity and the criterion response. Significant differences in recall of the criterion as a function of the 4 different activities was observed for RI but not for PI. The effects of the activities were considerably greater at the 14-sec than at the 4-sec IRI for the RI condition. There was no effect of the IRI variable for the PI condition. Comparisons were made with prior significant within-trial PI effects in motor STM, with prior significant RI effects in motor STM, and with a variety of findings from studies of verbal memory. (19 ref.)—*Journal abstract.*

5541. Kantowitz, Barry H. (U. Wisconsin) **Recognition and recall in short-term motor memory.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 930.

5542. Mohan, Jitendra. (Panjab U., Chandigarh, India) **Reminiscence, personality and disinhibition.** *Studia Psychologica*, 1970, Vol. 12(2), 147-150.—Analyzed the personality determination of the effect of disinhibiting stimulus on reminiscence in pursuit rotor performance. 40 female postgraduates, divided into 4 groups on the basis of their scores on the MPI, acted as Ss. In a 300-sec work period, a disinhibiting light flash was introduced for 2 sec. after 290 sec. of practice. Results indicate the negative influence of disinhibitory stimulus on the reminiscence of extroverted Ss. The dimension of neuroticism failed to give any definite indication. (Czech & Russian summaries) (20 ref.)—*Journal abstract.*

5543. Morganstein, Stanley. (2942 W. 5th St., Brooklyn, N.Y.) **Effect of encoding on short-term memory.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 387-392.—Investigated the effect of encoding on short-term memory, in which S serial-recalled binary sequences of stimuli whose length varied (2, 4, and 8). 36 undergraduates were presented with sequences of red and green lights under 3 retention intervals (2, 4, and 16 sec.) for 1 experimental session. Accuracy and latency were found to approximate, respectively: bow shaped and inverse bow-shaped functions of number of changes of state within sequences. Results are interpreted to reflect the use of a provisional verbal code whose measure is its length.—*Journal abstract.*

5544. Puff, C. Richard. (Franklin & Marshall Coll.) **Role of clustering in free recall.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 384-386.—Compared single-trial free recall for 76 undergraduates given a categorized word list (C list) and 40 Ss given a noncategorized list (NC list). There was no difference in the amount recalled from the C list by Ss who exhibited significant clustering and those Ss whose clustering did not exceed chance, but both C-list groups recalled more words than the group given the NC list. The occurrence of clustering at the time of output does not, therefore, seem to be an important determinant of the amount that can be remembered.—*Journal abstract.*

5545. Reitman, Judith S. (U. Michigan) **Short-term verbal retention with interpolated verbal and non-verbal signal detection.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 938.

5546. Shulman, Harvey G. (Ohio State U., Human Performance Center) **Encoding and retention of semantic and phonemic information in short term memory.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 499-508.—Used a probe recognition task to evaluate the relative effectiveness of semantic and phonemic encoding in short-term memory (STM). On each trial a list of 10 words was presented at a rate of either 350, 700, or 1400 msec/word. Recognition was tested with a probe which could be a homonym, a synonym, or identical to 1 of the words in the list. The retention functions for all 3 probe types were similar in shape, supporting the hypothesis that semantic encoding is possible in STM. An interaction between type of encoding and rate occurred, indicating that encoding is a time-dependent serial process.—*Journal abstract.*

5547. Shulman, Harvey G. (U. Michigan) **Presentation rate, retention interval, and encoding in short-term recognition memory for homonyms, synonyms, and identical words.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 939.

5548. Underwood, Benton J. & Freund, Joel S. (Northwestern U.) **Word frequency and short-term recognition memory.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 343-351.—In Exp. I, high-frequency words resulted in poorer recognition performance than did low-frequency words only when the new words on the test were also high-frequency words. 30 undergraduates were assigned to each of 4 conditions. With low-frequency words recognition was nearly errorless. These findings are interpreted by assuming that a frequency attribute dominates recognition performance, and that frequency information for high-frequency lists is influenced by implicit associational responses. Since performance on the recognition test deteriorated during testing, Exp. II used retention intervals of up to 6 min. and show that this effect for low-frequency words was not due to the testing itself but to forgetting over time; for high-frequency words, the results were less clear-cut. It is suggested that forgetting may be retarded by increased temporal discrimination between old and new words.—*Journal abstract.*

5549. Waugh, Nancy C. (Harvard Medical School, Boston, Mass.) **On the effective duration of a repeated word.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Oct), Vol. 9(5), 587-595.—Reports 3 experiments on immediate free recall. Lists of words were read rapidly or slowly or at a variable rate; some items occurred only once while others were presented 2 or more times within a list, either in immediate succession

or at widely separated locations. Results indicate that an item's frequency of recall depends not only on how often it is presented, and for how long, but also on the average duration of the items that surround it. When the rates at which items occur exceed the rate at which they can be processed for storage, S evidently attends fully to each in turn; while in the opposite case he evidently tries to distribute his attention as evenly as possible among all of them.—*Journal abstract.*

THINKING

5550. Cohen, Gillian. (Inst. of Experimental Psychology, Oxford, England) **Search times for combinations of visual, phonemic, and semantic targets in reading prose.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-B), 370-372.—12 graduate and undergraduate Ss read passages of prose, canceling targets that were visual (letters), acoustic (phonemes), or semantic (words of a specified category). Each of the targets occurred singly and in all possible double and triple combinations. Comparison of the search times revealed that semantic processing adds little or no extra time when combined with acoustic or with visual and acoustic searches, i.e., it occurs in parallel. Other combinations of processing yield search times that are slightly faster than a serial model would predict and are best interpreted as reflecting an overlapping sequence of operations.—*Journal abstract.*

5551. Luchins, Abraham & Luchins, Edith H. (State U. New York, Albany) **Wertheimer's seminars revisited: Problem solving and thinking: I.** Albany, N.Y.: State U. New York, Faculty-Student Assn., 1970.—After a preface containing descriptions by students of Wertheimer the teacher, seminars are centered around verbatim remarks by Wertheimer. The topics discussed are: how to initiate the study of thinking; the concept and teaching of area; good and bad solutions; genuine, productive solutions; the role of chance in problem solving of trial and error and of insight; the role of structure and of experience; logic and the genuine solution; some problems involving physics, extensions of Wertheimer's approach to teachings area; teaching algebra, completing the square; and some aspects of the creativity problem in thinking. Each chapter reports several unpublished investigations done with Wertheimer as well as experimental outgrowth; questions are raised for future research. The discussion and experiments are related to enduring problems of thinking, learning, and teaching as well as the contemporary theory and practice, e.g., learning by discovery, Piaget's theory. A commentary after each chapter attempts to elucidate philosophical and historical questions. (250 ref.)—*Author abstract.*

5552. Luchins, Abraham & Luchins, Edith H. (State U. New York, Albany) **Wertheimer's seminars revisited: Problem solving and thinking: III.** Albany, N.Y.: State U. New York, Faculty-Student Assn., 1970.—This volume focuses on theoretical and practical problems in the understanding and control of habituation and reorganization of behavior. It presents Wertheimer's views about theoretical and pedagogical issues concerning mechanization, transfer of training, creativity, rigidity of behavior, discrimination and verbal learning, psycholinguistics, computer simulation of human thinking, concept formation, resistance to new ideas in science, ways to train doctoral students for research and how to write research reports. Topics covered include:

the Einstellung effect, a case history of the study; demonstrations and discussions of Einstellung effects; Einstellung effect and repetition; attitudes and assumptions that lead to Einstellung; explaining the experiment results; towards an understanding of Einstellung; theoretical issues and Einstellung effect; proposals for research; recent experiments on the Einstellung effect; on reorganization and problem solving; and experimental outgrowths on reorganization. Scores of experiments which were completed or started with Wertheimer as well as current research that are outgrowths of the discussion are published for the first time.—*Author abstract.*

5553. Roberge, James J. (Temple U.) **Further examination of mediated associations in deductive reasoning.** *Journal of Experimental Psychology*, 1971 (Jan), Vol. 87(1), 127-129.—Studied the effect of syllogistic figure upon reasoning errors and certainty of judgment in 26 male and 26 female undergraduates. Results indicate significant differences in both number of errors ($p < .01$) and certainty of judgment ($p < .05$) according to syllogistic figure. No significant sex differences were found. In general, the results are consistent with theory and research in both verbal learning and deductive reasoning.—*Journal abstract.*

Problem Solving

5554. Broadwell, E. Christian. (Colorado State Coll.) **A research design correlating achievement in a science game playing heuristic with personality type, self-evaluation, and problem solving ability.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 376-377.

5555. Poznyanskaya, É. D. & Tikhomirov, O. K. (Moscow State U., USSR) **O funktsiyakh dvizhenii glaz.** [On the functions of ocular movements.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 25-30.—Presents a cinematographic study of eye movements accompanying the solution of problems in chess. The movements are shown to be associated with those elements constituting a single system whose solution possibilities are to be tested. The data of eye behavior make possible an objective analysis of mental activity in problem solving.—*J. D. London.*

5556. Rollings, Harry; Bethel, Barbara, & Deffenbacher, Kenneth. (U. Nebraska, Omaha) **Relevant cue placement effects in concept identification tasks.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 9-12.—2 experiments, with 100 and 80 undergraduates, employed an enforced verbal encoding procedure to determine whether there were relevant cue placement effects on performance in 2 simple concept identification (CI) tasks. In Exp. I—a single-cue CI task—the serial position of the relevant cue in the encoding order and the encoding method, grammatical or nongrammatical, were varied. A pronounced serial position effect and a method of encoding effect were obtained. Exp. II, a redundant relevant cue (RRC) CI task, varied the degree of RRC separation in the encoding order and method of encoding. There was faster learning if the 2 RRCs were separated by 2 irrelevant cues than if they were separated by none; the method of encoding did not contribute significantly to performance. There was a somewhat greater tendency for both RRCs to be learned if they were next to each other in the encoding order.—*Journal abstract.*

5557. Seymour, Philip H. (U. Dundee, Scotland) **Order of fixation effects in classification of word-shape pairs.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 440-449.—12 undergraduates classified the word-shape configurations circle/circle, square/square, circle/square, and square/circle by reporting "yes" for a relationship of congruence, and "no" for a relationship of incongruence. The latency of initiation of these reports was recorded, measured from the simultaneous onset of the displays. The order in which the word and shape were inspected had consistent effects on the latency, times being shorter where the word was seen before the shape. The relevance of this finding to an account of the conversion operations involved in a word-shape comparison is discussed. (22 ref.)—*Journal abstract*.

5558. Tikhomirov, O. K. & Vinogradov, Yu. E. (Moscow State U., USSR) **Emotsii v funktsii évrístik.** [Emotions in the heuristic function.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 3-24.—2 chess players of the 1st rank were used to study relationships obtaining between thinking and the emotional processes encountered in successive phases of "creative thinking [complex problem solving]": "the birth of the idea behind the solution, the discovery of the basic principle, etc." The GSR was chosen as chief indicator of the "states of emotional activation" during the attempt to arrive at "creative solutions" of complex chess problems. Recordings were also made of accompanying speech reactions. Results are presented under the following headings in sequence: (a) the general dynamics of skin resistance in the process of solving mental problems, (b) emotional activation and the formulation of the initial solution of a problem, (c) change in activity after a state of emotional activation has set in, and (d) the necessity of states of emotional activation. The study demonstrates the existence of a "sufficiently distinct connection between states of emotional activation and the discovery of the basic principle for the solution of a problem." It is shown that, in the solution of complex mental problems, the emotions serve a "heuristic function."—I. D. London.

Concepts

5559. Block, Karen S. (Ohio State U.) **Hypothesis sampling and dimension selection models of concept identification for problems with ternary dimensions.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 925.

5560. Giambra, Leonard M. (Miami U.) **Selection strategies for eight concept rules with nonexemplar start cards.** *Journal of Experimental Psychology*, 1971 (Jan), Vol. 87(1), 78-92.—Determined the extent of usage of the ideal strategies of focusing (and scanning) for 8 concept rules by the "matching" method of J. S. Bruner, J. J. Goodnow, and G. A. Austin and focusing index method of P. R. Laughlin (see PA, Vol. 42:16633). Ss were 6 undergraduates. Ideal focusing strategies for the concept rules with nonexemplar start cards were explicated. The order of usage of the focusing strategy was predicted, but not found, to be the inverse of the order predicted with the exemplar start cards. In addition, a 3-way interaction with number of irrelevant dimensions (IR) was expected and obtained, and was due to unpredicted changes in the relative order of usage of focusing with the 8 concept rules as the number IR

increased from 1 to 2 under exemplar and nonexemplar start cards. (19 ref.)—*Journal abstract*.

5561. Giambra, Leonard M. (Miami U.) **Selection strategies for eight concept rules with exemplar and nonexemplar start cards: A within-subjects replication.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 143-145.—Performed a partial replication of L. M. Giambra (see PA, Vol. 45:Issue 4) which investigated selection strategies with 8 concept rules (conjunction, disjunctive absence, inclusive disjunction, conjunctive absence, conditional, exclusion, biconditional, and exclusive disjunction) with exemplar and nonexemplar start cards. Ss were 10 undergraduates. With exemplar start cards, high correspondence with the results of Giambra was observed with regard to the relative degree of focusing strategy usage among the 8 concept rules. With nonexemplar start cards a poor correspondence with Giambra occurred and was attributed to a differential extended practice effect among the eight concept rules.—*Journal abstract*.

5562. Holas, Emil. (U. Palacky, Olomouc, Czechoslovakia) **Logique et psychologie de l'apprentissage des concepts.** [Logic and psychology of concept learning.] *International Journal of Psychology*, 1969, Vol. 4(3), 161-181.—Psychological and logical distinction and definition of concepts mark a central problem in investigating concept learning. Logical analysis of concept learning phenomena involves application of elementary theorems of logic and set theory. Concept learning depends on a precise algorithm. While logical features affect concept learning, other influences, such as memory, perceptual-motor activity, and the number of redundant examples involved are also implicated. Global characteristics of individual performance reveal the need for both stochastic models of learning and for logical and mathematical interpretation, since different operations appear fundamental to explain the complex process. (English abstract) (24 ref.)—S. E. Gavin.

5563. Joyner, Robert C. (York U., Toronto, Ontario, Canada) **Computer simulation of individual concept learning in the three-person common target game.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 478-514.—Constructed, following 5 laboratory studies, a computer model that simulated the behavior of the individual player in the 3-person common target game. The concept selection model, COMTARG, contained 3-model-relevant individual difference parameters and general deterministic mechanisms. Computer Ss were constructed according to a specified method of sampling the values of the 3 parameters. Program runs for the computer Ss were made previous to observing humans playing the game under 2 previously unobserved treatment conditions in a 6th experiment. A number of tests demonstrate that COMTARG compares favorably with the human grouped data and reveal some of COMTARG's limitations. (19 ref.)—*Journal abstract*.

5564. Seggie, J. L. (U. Newcastle, New South Wales, Australia) **Levels of learning involved in conjunctive and disjunctive concepts.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 325-333.—67 undergraduates in 4 groups learned conjunctive and disjunctive concepts under 2 conditions. The 1st condition required classification of the stimuli into positive and negative categories; the 2nd required that they be classified into neutral categories. The conjunctive concept was significantly easier to learn only when the Ss were required to classify the stimuli in positive/negative

terms. Under neutral conditions no difference existed between the 2 types of concept. It was found that all Ss could correctly state the truth value of the inverse of the learned concepts. However, none of the Ss who learned the conjunctive concepts in the positive/negative condition made use of the information available from the inverse, whereas Ss in all other conditions did.—*Journal abstract.*

DECISION & CHOICE BEHAVIOR

5565. Appelbaum, Mark I. (U. Illinois) **A methodological study of preference.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 893.

5566. Gutiérrez Cabria, Segundo. **Juegos no cooperativos de n personas y decisiones, en conflicto de interés.** [Noncooperative games of n persons and decisions, in conflict of interest.] *Trabajos de Estadística y de Investigación Operativa*, 1969, Vol. 20(1), 53-83.—Examines the motives for human decision through an analysis of information schemes on the entire decision problem. Noting that the aim of all decisions and games is to reach a point of equilibrium, the directions of J. F. Nash and Harsanyi are discussed. The Zeuthen principle is considered, along with the relation between the Nash principle and the Luce and Raiffa concept of psychological dominance. Numerical values to which a new decision rule is applied are shown to be subjective probabilities, but only with certain prefixed conditions. (20 ref.)—*P. Hertzberg.*

5567. Mann, Leon & Taylor, Valerie A. (Harvard U.) **The effects of commitment and choice difficulty on predecision processes.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 221-230.—Tested a derivation from conflict theory that bolstering of choice alternatives (spreading apart of their value) will occur in the period preceding a decision when the choice is difficult but not committing. Ss (N = 100 female undergraduates) were sorted into easy and difficult choice conditions on the basis of their initial ratings of 2 art prints which later were offered as choice alternatives. Commitment was manipulated by telling Ss that their decision could or could not be reversed after they had announced their choice. An additional condition was run in which commitment was strengthened by warning Ss that they would have to write an essay to justify their choice. Ss confronted with a difficult choice bolstered more, took more time to announce their decision, and felt less certain than those with an easy choice. Ss in the commitment condition took longer to announce their decision and felt less certain than those in the no commitment condition. Bolstering occurred under conditions of commitment and no commitment, but not when Ss were told they would have to defend their choice.—*Journal summary.*

5568. Payne, John W. & Braunstein, Myron L. (U. California, Irvine) **Preferences among gambles with equal underlying distributions.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 13-18.—Explored the relative merit of risk dimension (probabilities of winning and losing, and amounts to be won or lost) and moment (expected value, variance, and skewness) explanations of decision making under risk, using pairs of specially constructed duplex gambles. Ss were 40 undergraduates. The explicit (displayed) probability values were different for each gamble in a pair, but the underlying distributions were identical. Preferences

among these gambles were related to relationships among the displayed probabilities. This supports the concept of gambles as multidimensional stimuli to which Ss respond on the basis of displayed values on a set of risk dimensions. A preliminary model of the decision process is presented in flow-chart form.—*Journal abstract.*

5569. Pollatsek, Alexander & Tversky, Amos. (U. Massachusetts) **A theory of risk.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 540-553.—Develops a psychological theory of perceived risk. The theory is formulated in terms of an ordering of options, conceived of as probability distributions with respect to risk. It is shown that, under the assumptions of the theory, the risk of an option is expressible as a linear combination of its mean and variance. The relationships to other theories of risk and preference are explored. (34 ref.)—*Journal abstract.*

5570. Rios, Sixto. **Modelos matemáticos de resolución de conflictos.** [Mathematical models of conflict resolution.] *Trabajos de Estadística y de Investigación Operativa*, 1969, Vol. 20(1), 3-15.—Discusses decision processes in conflict situations in which 2 or more parties are in a decision making position and the final result depends on the actions or attitudes they choose. Based on the theories of Borel and Von Neumann, it is proposed that mathematical abstractions may be made from game situations involving rules of play, an operator governing each player's role, and axioms of rational behavior for each player. Rational behavior and optimal strategy are considered in relation to possibilities of consequences. Cooperative and uncooperative game theories are defined. Examples of hypothetical instances where game theories could be applied to governmental and business decisions are included.—*P. Hertzberg.*

5571. Roberts, Glyn C. (U. Illinois) **The effect of risk taking disposition, presence of others, and cooperation and competition on risk taking and performance.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 637.

5572. Streufert, Siegfried. (Purdue U.) **Complexity and complex decision making: Convergences between differentiation and integration approaches to the prediction of task performance.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 494-509.—Conducted a series of 3 experiments designed to measure effects of environmental complexity (information load, failure, and success) and complexity of personality structure on differentiation and integration in decision making. 11 dyad teams participated in the tactical and negotiations game under each condition. It was found that increases in load, success, or failure produced initially increasing and then decreasing integration levels. Differentiation levels increased and then remained constant. Differentiation exceeded integration. 66 structurally complex Ss exceeded 66 structurally simple Ss in integration scores, but not in differentiation scores. It is concluded that complexity theories dealing with differentiation and those dealing with integration may not be viewed as equivalent or widely related. Common theoretical predictions for differentiation and integration are placed in doubt. (36 ref.)—*Journal abstract.*

5573. Tan, Allen L. & Ilan, Leila C. (U. Philippines, Manila) **Empirical tests of correspondent-inference theory: I. Non-commonality of effects and correspondence.** *Philippine Journal of Psychology*, 1969(Jun),

Vol. 2(1), 8-10.—Tested E. Jones and K. Davis' hypothesized relationship between the number of non-common effects in pairs of choice areas and correspondence. In 2 identical 3×3 Latin squares, 3 levels of noncommonality of effects were manipulated in 3 pairs of choice situations. 90 undergraduates were Ss. The resulting analysis of variance confirmed the hypothesis that correspondence relates inversely to noncommonality of effects. A significant interaction effect also suggests that this relationship depends, to some extent, upon the type of choice situation involved.—*Journal abstract.*

PHYSIOLOGICAL PSYCHOLOGY

5574. ———. **Nikolai Vasil'evich Zimkin.** *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1518-1519.—On the occasion of his 70th birthday, recounts the life and work of N. V. Zimkin, noted for his contributions to the physiology of the nervous system and analyzers, occupational physiology, and the physiological bases of physical education and athletics.—*I. D. London.*

5575. **Bruce, Victor G. & Minis, Dorothea H.** (Princeton U.) **Circadian clock action spectrum in a photoperiodic moth.** *Science*, 1969(Feb), Vol. 163(3867), 583-585.—Initiated a circadian rhythm of egg hatching in the moth *Pectinophora gossypiella* with a brief light pulse. The action spectrum for this effect has a peak in the blue and near-ultraviolet region of the spectrum with a sharp cutoff above 500 nanometers and a more gradual cutoff below 390 nanometers. (15 ref.)—*Journal abstract.*

5576. **Fearing, Franklin.** (Northwestern U.) **Reflex action: A study in the history of physiological psychology.** Cambridge, Mass.: Massachusetts Inst. of Technology Press, 1970. xv, 350 p. \$3.45(paper).

5577. **Gaaze-Rapoport, M. G. & Pospelov, D. A.** **Nekotorye analogii mezhdru strukturami povedeniya biologicheskikh i tekhnicheskikh sistem.** [Some analogies between the behavioral structures of biological and technical systems.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 24-30.—Analyzes the assumptions underlying the construction of technical systems, possessing elements of behavior appropriate to some biological objects.—*I. D. London.*

5578. **Glick, Stanley D. & Jarvik, Murray E.** (Albert Einstein Coll. of Medicine, Yeshiva U.) **Differential effects of amphetamine and scopolamine on matching performance of monkeys with lateral frontal lesions.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 307-313.—Administered d-amphetamine and scopolamine to 4 monkeys with dorsolateral frontal lesions and 4 unoperated monkeys performing a delayed matching task. Although initially impaired following surgery, the performance of the frontal Ss on the delayed matching test had recovered to preoperative levels by the time of drug administration. Both drugs impaired the delayed and nondelayed matching performance of the unoperated controls. However, only scopolamine impaired the matching performance of the frontal Ss. The higher doses of both drugs initially decreased the tendencies of both the frontal and unoperated Ss to respond to the test stimuli. It is proposed that frontal Ss, unlike normals, learn to depend upon a nonadrenergic system to solve the

matching task and therefore are resistant to certain actions of amphetamine. (25 ref.)—*Journal abstract.*

5579. **Ivannikov, V. A.** (Moscow State U., USSR) **Orientirovochnaya reaktsiya kak reaktsiya prednastroiki pri neopredelennosti situatsii.** [The orienting reaction as preredying reaction when the situation is uncertain.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 149-158.—20 18-26 yr. old Ss participated in a study of speed of extinction of the different components of the orienting reaction as a function of degree of situational uncertainty and character of the organism's actions. EEGs recorded the electrical activity of the occipital, parietal-occipital, and motor areas of the cortex of both hemispheres; EMGs that of the ulnar extensors of both hands or the deep flexors of the fingers. GSRs were recorded from the foot. In 2 series of experiments, 2 photic signals ($p_1 = 1$, $p_2 = 0$; $p_1 = .5$, $p_2 = .5$) were presented 8-15 sec. apart, each eliciting a motor reaction in the appropriate hand. The data lead to the view that the orienting reaction is not merely a simple reflex, but a complex adaptive reaction under special conditions where uncertainty of prognosis exists.—*I. D. London.*

5580. **Kovach, Joseph K.** (Menninger Foundation, Topeka, Kan.) **Development and mechanisms of behavior in the chick embryo during the last five days of incubation.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 392-406.—Studied prehatching motility and prenatal postural reflexes, their involvement in prehatching turning and hatching behavior, and their possible developmental continuity with postnatal righting behavior by visual observation of 400 Rhode Island Red chicks and chick embryos and by electronic recording of their movements from fenestrated and intact incubating eggs. Data on the pattern, mechanisms, and development of prenatal motility suggest developmental continuities between the coordinated rotatory movements of the embryo that begin to appear on Day 17 of incubation and culminate in hatching and postnatal righting behavior. The prehatching turning phenomenon, in which the embryo takes up a spatial orientation that enables pipping in the upper surface of the egg, and the turning behavior during hatching were not found to be related. Contrary to earlier postulates, the former appears to be a passive reaction to gravity without the involvement of active behavioral factors.—*Journal abstract.*

5581. **Kucherov, I. S.** **Analiz kolebatel'nykh protsessov v biologicheskikh sistemakh.** [Analysis of oscillatory processes in biological systems.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 158-165.—Discusses a new approach to the study of the dynamics of oscillatory processes taking place in man and animals; which, when combined with appropriate mathematical procedures, leads to the disclosure of a new biological phenomenon—spontaneous trophic rhythm with a period of 10-16 days.—*I. D. London.*

5582. **Meitus, V. Yu. K.** **zadache opisaniya povedeniya organizma vo vneshnei srede.** [On the problem of describing the behavior of an organism in an external medium.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 86-90.—Analyzes the structural scheme of an organism functioning in an external medium. The general statement of the problem is formulated, and a simple example is presented.—*I. D. London.*

5583. **Merrifield, H. H. & Caliel, Robert J.** (Ithaca

Coll.) **Effect of an "overload" concentric training of the quadriceps on strength and limb circumference in females.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 563-568.—For 37 college-aged females measurements, including body weight, standing height, thigh circumference, and isometric quadriceps strength, were determined before and after an 8-wk progressive resistive exercise program. Thigh circumference changes of the average-weight Ss were compared with those of overweight Ss. The average-weight Ss showed small increases in thigh circumference whereas the overweight Ss showed small decreases.—*Journal abstract*.

5584. Murawski, Benjamin J. & Jones, Kenneth J. (Harvard Medical School, Boston, Mass.) **Correlation of somatic, biochemical, perceptual, and Rorschach data on 40 healthy male subjects.** *Psychophysiology*, 1970(May), Vol. 6(6), 761-772.—Used canonical correlation to investigate the interrelationships between somatic, biochemical, and psychological variables in 40 healthy male undergraduates. 4 roots (or factors) were extracted which demonstrated overlap in 4 sets of variables: (a) somatic (height, weight, body volume, body surface area); (b) biochemical (adrenal steroids, pepsinogen, creatinine, urine volume); (c) perceptual (Embedded Faces, Stroop Test, Time Estimation, Flicker Fusion); and (d) Rorschach indices. The first root linked style of spatial orientation with height. The 2nd factor extracted major loadings for all sets of variables and was dominated by big body size, high and variable biochemical values, and low perceptual control. The final factors were less well defined. Genetic or constitutional forces could be inferred and the interaction of personality, biochemical, and somatic variables was demonstrated. (36 ref.)—*Journal abstract*.

5585. Saltzberg, Bernard. (Tulane U., Medical School) **Circadian rhythms: A model for the interpretation of multimodal circadian spectra.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 121-123.—Postulates a nonlinear circadian model as the underlying process in the generation of biological data containing several significant non-24-hr rhythms. The model attributes observed multimodal dispersion to the nonlinear influence of processes which modulate the circadian rhythm, but which are very slow compared to 24-hr processes, and provides quantitative estimates of the period of this slow modulation, as well as the period of the basic circadian rhythm. Under this model, circadian data previously presumed to be anomalous gives a consistent derived basic rhythm of about 24 hr.—*Journal abstract*.

5586. Thayer, Robert E. (California State Coll., Long Beach) **Activation states as assessed by verbal report and four psychophysiological variables.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 86-94.—Examines the validity of controlled verbal reports of various activation states. A difference score design was used in which 4 psychophysiological measures and verbal ratings of various activation states were obtained in a base line and an activation period from 41 female undergraduates. Verbal reports were then correlated with individual physiological measures and composites or indices of physiological measures. Specifically, 2 kinds of physiological index were employed, 1 in which the S's physiological change score was represented by the single system showing the greatest change, and a 2nd index weighted equally by all 4 physiological measures. The physiological index using the single system showing the greatest activation yielded slightly greater correlations

with verbal report than the other index. Skin conductance and heart rate, the best combination of the 4 physiological systems measured, correlated as high as .62 with verbal report. Results demonstrate the usefulness and validity of controlled self-report and the relative superiority of skin conductance and heart rate among other physiological systems in correlations with verbal report.—*Journal abstract*.

NEUROLOGY

5587. ———, Elizaveta Pigasievna Kononova. *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 471.—Recounts the life and work of E. P. Kononova, whose major contributions were in the field of neuromorphology.—*I. D. London*.

5588. ———, Fedor Mikhailovich Slyusarev. *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 474.—Recounts the life and work of F. M. Slyusarev (1910-1969), noted for his research on affections of the peripheral nervous system.—*I. D. London*.

5589. ———, Vladimir Konstantinovich Krasuskii. *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 551.—Recounts the life and work of V. K. Krasuskii (1904-1968) known for his research in the "physiology of types of higher nervous activity."—*I. D. London*.

5590. Badalov, L. I. (1st Medical Inst., Leningrad, USSR) **K mekhanizmu vosstanovleniya zapasov adrenergicheskogo mediatora v aksonal'nykh okonchaniyakh.** [On the mechanism underlying the restoration of adrenergic mediator stores in axonal termini.] *Fiziologicheskii Zhurnal SSSR*, 1966(Jan), Vol. 52(1), 29-33.—16 dogs were Ss in a study to determine the possibility of restoring sympathetic influence on the smooth muscle (m. retractor penis) through (a) reduction of the adrenergic mediator in the axonal termini after reserpine-induced depletion of stores thereof and adrenocortical ablation, and (b) utilization by the axonal termini of noradrenaline injected into the blood stream. Excitatory transmission from the adrenergic nerve to the smooth muscle can be excluded through prior extirpation of the adrenal cortex and reserpine injection. Exclusion of synaptic transmission of excitation probably occurs as a result of depletion of the mediator. The restoration of synaptic transmission of excitation occurred 4 hr. after reserpine administration. Prolonged stimulation of the sympathetic motor nerve after reserpine administration hindered the restoration of sympathetic transmission of excitation, leading to the view that such restoration depends in some measure on the reduction of the mediator along the axons of the peripheral segment of the sectioned nerve. Noradrenaline administration in small doses exerted no influence on the restoration of excitatory transmission (at least in the 1st 15 min. following injection). The administration of noradrenaline in large doses restored the neuromuscular transmission of excitation immediately after its injection. With large concentrations of noradrenaline in the blood, the axonal termini appeared capable of its rapid assimilation and utilization in the capacity of mediator.—*I. D. London*.

5591. Boush, R. L., Ovsyannikov, A. V., & Farfel', V. S. (State Inst. of Physical Culture, Moscow, USSR) **Rol' sustavnoi afferentsii v razlichnykh rezhimakh myshechnogo sokrashcheniya.** [The role of articulatory afferentiation under different schedules of muscular contraction.] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 712-713.—Attempted to determine whether

the function of the articulatory receptors is that of only signalization concerning position and movement in the joint or whether their afferentiation is utilized also for regulation of muscular tension. Ss were 13 athletes, previously trained to (a) estimate passive positioning involving the elbow and its active positioning to a given angle, and (b) reproduce a definite magnitude of muscular tension (10-15% of maximum possible) under isometric and auxotonic conditions. Novocainization was used to exclude sensitivity of the elbow joint. The data support the possibility of participation of articulatory afferentiation in the regulation of muscular tension.—I. D. London.

5592. Bresler, David E. & Bitterman, M. E. (U. California, Los Angeles) **Learning in fish with transplanted brain tissue.** *Science*, 1969(Feb), Vol. 163(3867), 590-592.—Implanted material taken from fish embryos (the African mouth-breeder) during gastrulation at prospective tectal sites in host embryos of the same age and species. When mature, the hosts were trained in a series of habit reversals. 2 of 6 Ss showed progressive improvement in reversal (a phenomenon not typically found in fish, but characteristic of higher animals), 2 showed unusually few errors, and 2 behaved normally. Differences in performance were correlated with differences in brain structure.—*Journal abstract.*

5593. Efimova, G. V. (Inst. of General & Educational Psychology, Moscow, USSR) **O rol' yavlenii summatsii vzbuzhdeniya v mekhanizmakh umstvennogo sopostavleniya.** [On the role of excitation summation phenomena in mental comparison mechanisms.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 65-76.—11 university students were given several variants of a task in which they had to determine which 1 of 4 switches would turn on 1 of 4 lamps. Various combinations of signal lights and verbal instructions were used to structure each task. The purpose was to establish the role of neural summation in mental comparison. It is concluded that an increase in neural excitation corresponding to the lamp common to 2 lamp circuits occurred as a result of neural summation from excitation in the 1st and 2nd signal systems. Training trials indicated that when uniform reactions were required of both signal systems, performance was better than when divergent reactions were required. This is interpreted as a positive effect of the summation phenomenon on mental comparisons. The nature of errors made when the reactions were divergent indicates that summation in the 1st signal system is artifactual and affects Ss' performance adversely. (English summary) (31 ref.).—L. Zusne.

5594. Evans, C. R. & Mulholland, T. B. (National Physical Lab., Div. of Computer Science, Teddington, England) **Attention as a concept in neurophysiology.** *Science*, 1969(Jan), Vol. 163(3866), 495-496.—Reviews findings of a conference on neurophysiological aspects of the psychological concept of attention. Issues examined include: (a) relation of visual control systems to EEG occipital alpha rhythm, (b) evoked responses, (c) the role of the reticular activating system in the acquisition of CRs, and (d) habituation of response from single cells in brain and behavioral reactions.—P. McMillan.

5595. Gatev, V. A. & Ivanov, I. A. (Research Inst. of Pediatrics, Sofia, Bulgaria) **Vliyanie nagruzki na fiziologicheski poznyi tremor.** [Influence of loading on physiological positional tremor.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1450-1456—8 18-35 yr. old Ss participated in a tensometric study of the

influence of loading on positional tremor of the hand with respect to the forearm without and with loading (up to 1500 gm. plus weight of hand) when assuming and maintaining definite positions on command, in order to determine the origin of the tremor. With minimal loading or with top loading, the tremor decreased and in several cases disappeared. With unilateral activation of muscle antagonists, the amplitude and amplitudinal variability of the tremor were less than was the case with bilateral activation, while form and rhythm were closer to the norm. It is suggested that physiological positional tremor has an alpha-motoneuronal origin. (English summary) —I. D. London.

5596. Goldstein, Steven G. (U. Oregon, Medical School) **Strategies of research in human neuropsychology.** *Journal of Learning Disabilities*, 1969(Aug), Vol. 2(8), 403-406.—Argues that studies in human neuropsychology often fall prey to criterion problems because of a dependence on construct validity, and that such criteria are inappropriate and that only empirical criteria have some claim to validity in this area of research. The question of appropriate experimental designs is discussed and it is recommended that non-parametric statistics be employed in such designs.—*Journal abstract.*

5597. Gordon, Malcolm W. (Norwich Hosp., Abraham Ribicoff Research Center, Conn.) **Neuronal plasticity and memory.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 578-594.—Discusses neuronal plasticity as a widespread and general property of the neuron, going beyond the limitations that Pavlov thought were present. It is suggested that changes in response are intimately associated with use, and that genetic determination may play a smaller role than previously believed. All of the somatic therapies useful in psychiatry modify synaptic membrane activity. Means by which pathways can be selectively activated or deactivated, through learning or chemical interventions, may be discovered in future research. A chemical-functional model which may become possible as a basis for modification of behavior is outlined. (65 ref.) —*Journal summary.*

5598. Jacobson, Marcus. (Johns Hopkins U.) **Development of specific neuronal connections.** *Science*, 1969(Feb), Vol. 163(3867), 543-547.—Presents evidence for a theory dealing with an ontogenetic view of neuronal connectivity. In this view modifiability of neuronal connections in the adult is regarded as a continuation of developmental processes that are much more pronounced in the embryo. (27 ref.)

5599. Kaas, Jon; Hall, W. C., & Diamond, I. T. (U. Wisconsin, Lab. of Neurophysiology) **Cortical Visual Areas I and II in the hedgehog: Relation between evoked potential maps and architectonic subdivisions.** *Journal of Neurophysiology*, 1970(Sep), Vol. 33(5), 559-615.—Microelectrodes or surface macroelectrodes were used to record from the cerebral neocortex in 18 hedgehogs (*Eriacus europaeus*). Visual Area I occupies the caudal pole of the cerebral hemisphere and V II forms a narrow band on the lateral border of V I. Visual Areas I and II correspond to 2 architectonic areas, striate cortex and an adjacent belt, respectively. The cortex immediately lateral to V II responds to auditory stimuli, while the area immediately rostral to V I and V II is activated by mechanical stimulation of the body surface.—G. Westheimer.

5600. Kalinina, M. K. & Alyukhin, Yu. S. (Pavlov Inst.

of Physiology, Leningrad, USSR) **Potreblenie mozgom kisloroda v zavisimosti ot ego napryazheniya.** [Cerebral consumption of oxygen as a function of its tension.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1481-1486.—Ss were unnarcotized white rats in a study comparing (a) the absolute magnitude of oxygen tension (pO_2) in cerebral venous blood and in the cerebral tissue itself with (b) the absolute magnitude of cerebral O_2 consumption, given normal and decreased (10, 7.5, 6% O_2) content of O_2 in the air being breathed. Under normal conditions, mean O_2 consumption of the whole brain was 58 microliters/gm/min and that of the gray matter 79 microl/gm/min. The pO_2 of cerebral venous blood was 39-mm Hg; the lowest pO_2 in brain tissue, 23-mm Hg. The lowering of cerebral venous pO_2 down to 24-26 mm. Hg was accompanied by a twofold increase in cerebral blood flow, but cerebral O_2 consumption was maintained at the normal level. The critical value of cerebral tissue pO_2 , at which diminution in cerebral O_2 consumption began was established as at 8-10 mm. Hg. (English summary) (22 ref.).—*I. D. London.*

5601. Karpukhina, A. M. & Ponomareva, I. D. **O dvukh vidakh funktsional'nykh pokazatelei pri issledovanii dykhatel'nykh neuronov.** [On two forms of functional indices in the study of respiratory neurons.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 147-158.—Analyzes the electrophysiological indices of respiratory neurons. These indices can be divided into 2 groups—the invariant and the variable. Among the latter are: duration of neuronal discharge, number of impulses in a discharge, frequency-configuration of the discharge, and some others. The estimate of interneuronal interactions, as determined by the "logico-probability method," belongs to the invariant group. Conclusions are drawn concerning the functional significance of the different parameters analyzed.—*I. D. London.*

5602. Khayutin, V. M. & Chernilovskaya, P. E. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Khemochuvstvitel'nost' volokon dorsal'nogo koresha k ionam kaliya i glipoteza o perifericheskom mekhanizme boli.** [Chemoreactivity of dorsal root fibers to K-ions and the hypothesis of a peripheral mechanism of pain.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 3-6.—Used cats with sectioned dorsal spinal root L_1 to show that K ions are capable of exciting dorsal root fibers, producing "nociceptive reflexes." The threshold concentration for this effect is 20 mm/1, which is lower than that for the epicardial and small intestinal reflexogenic zones. Data suggest that the emergence of nociceptive reactions was due to excitation of the fine unmyelinated fibers, and not to special pain receptors.—*I. D. London.*

5603. Kolpakov, V. G. (Inst. of Cytology, Novosibirsk, USSR) **Issledovanie aktivnosti karboangidrazy krovi i mozga ustoichivyykh k zvuku i predraspolozhennykh k audlogennoi epilepsii belykh kry.** [Study of the activity of hematic and cerebral carboanhydrase in white rats resistant to sound and in those predisposed to audiogenic epilepsy.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 353-356.—The activity of hematic carboanhydrase in epileptic Ss was higher than in normal Ss, due apparently to a higher erythrocytic concentration in the blood. In epileptic Ss the activity of cerebral carboanhydrase was reduced. As the hemoglobin content in brain preparations was also reduced, it was assumed that this was due to a disturbance in cerebral blood supply; while reduction in the activity of cerebral

carboanhydrase reflected a smaller admixture of blood in the brain preparations of epileptic Ss.—*I. D. London.*

5604. Kováč, Damián & Horković, Gabriel. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **How to measure lateral preference: II.** *Studia Psychologica*, 1970, Vol. 12(3), 169-178.—Emphasizes methods in the area of complex responses, performance, and personality. Besides practical activities raised to the level of tests (use of scissors, writing one's name, etc.) special attention is devoted to laboratory measurements (simultaneous promptness, latoscope, tachistoscopic decoding of words, etc.). Measurements from the area of personality involve bioelectric skin reactivity patterns, neuroticism, anxiety, etc. Methods recommended in the study are reviewed concerning their use in research. Various hypotheses and concrete aims are outlined. (Czech & Russian summaries) (16 ref.).—*Journal abstract.*

5605. Koval'zon, V. M. (USSR Academy of Sciences, Lab. for the Study of Nervous & Humoral Regulation, Moscow) **Temperatura mozga.** [Brain temperature.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 516-524.—Presents a survey of the literature covering the following general problem areas: (a) several recording features of cerebral and arterial thermograms, (b) intracranial temperature gradients, and (c) brain temperature in sleep and in the waking state. (50 ref.).—*I. D. London.*

5606. Larionova, L. A. **Issledovanie protsessov rasprostraneniya aktivnosti v neironnoi seti s peremennymi vzbuzhdayushchimi i tormozyashchimi svyazyami.** [Study of the processes involved in propagating activity in the neuronal network with alternating excitatory and inhibitory connections.] *Problemy Bioniki*, 1970, No. 3, 98-107.—Investigated an excitable medium in the form of a flat neuronal network. The function of the network is always directed to maintaining at an optimal level certain characteristics of the neuron—"internal potential"—for each neuron. The neurons in the network are tied together by means of excitatory and inhibitory connections. The magnitudes and number of connections may be changed during the operation of the network. In the course of changing the magnitudes and the number of connections, the network undergoes training. The model is presented in the form of a computer program.—*I. D. London.*

5607. Magazanik, L. G. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **O mekhanizme vliyaniya diethylaminoethyl'ovogo élfra difenilpropilakusnoi kisloty (SKF-525A) na nervno-myshechnye sinapsy.** [On the mechanism mediating the influence of diethylaminoethyl ether of diphenylpropylacetic acid (SKF-525A) on neuromuscular synapses.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 10-14.—Isolated frog neuromuscular preparations of n. ischiadicus-m. sartorius, immersed in a solution of the potentiator, SKF-525A, in concentrations of 1.10^{-5} - 1.10^{-4} , were used in a micro-electrophysiological study of the influence of SKF-525A on neuromuscular synapses. The fact that, underlying the neuromuscular block brought on by depolarizing types of myorelaxants, exists desensitization of the postsynaptic membrane to mediator action was considered. While SKF-525A did not influence the amplitude of end-plate potentials, it did shorten to $1/2$ maximal amplitude. After inhibition of cholinesterase by proserine in the synapses, SKF-525A (2.10^{-5} - 3.10^{-5} M)

reduced the amplitude of end-plate potentials. In much smaller concentrations, SKF-525A suppressed responses to microionophoretic application of acetylcholine to end plates. A marked increase in desensitization to the action of acetylcholine was noted. It is thought that SKF-525A increases the desensitization of the postsynaptic membrane, influencing later changes in ionic permeability rather than on the cholinergic receptors. Increase of desensitization may be at the basis of the mechanisms controlling the potentiating action of SKF-525A considering the effects of depolarizing muscle relaxants.—*I. D. London.*

5608. **Mkrtychyan, S. O. Algoritm sinteza formal'nogo neirona s razreshayushchimi voloknami.** [Algorithm for the synthesis of a formal neuron with permissive fibers.] *Problemy Bioniki*, 1970, No. 3, 81-87. Instead of a "prohibitory fiber," a new type of fiber is introduced into the formal neuron—"a permissive fiber." Described is an algorithm for the synthesis of a formal neuron with permissive fibers in accordance with a given threshold schedule.—*I. D. London.*

5609. **Mkrtychyan, S. O. K voprosu o sinteze formal'nogo neirona po porogovoi diagramme.** [On the synthesis of a formal neuron in accordance with a threshold schedule.] *Problemy Bioniki*, 1970, No. 3, 75-80. Describes the "algorithm for an optimal formal neuron in accordance with a given threshold schedule."—*I. D. London.*

5610. **Murphy, E. H. & Venables, P. H. (Stanford U., Medical School) Effect of contralateral shock stimulation on laterality differences in the two shock threshold.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 475-477.—Contralaterally presented shock was found to bring about marked changes in 2 shock threshold determined for the right but not for the left finger. Shock consisted of square pulses, 1 msec. in duration. Results are discussed in terms of a suggestion that the level of excitability of the left hemisphere may be more easily disturbed than that of the right hemisphere.—*Journal abstract.*

5611. **Ovsyannikov, A. V. & Khomyakova, G. D. (All-Union Research Inst. of Physical Culture, Moscow, USSR) Dvigatel'naya prednastroika u cheloveka v usloviyakh vybora.** [Motor priming in man under conditions of choice.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 525-527.—Results based on data from 7 athletes show that, in Phases II and III of the latent period of the motor (leg) reaction to a visual signal, a certain functional priming of the segmental apparatus of the spinal cord occurred. Phase I was the interval of time from presentation of visual signal to 60 msec. before movement; Phase II, from 20-30 to 60 sec. before movement; and Phase III, the last 20-30 sec. before movement. Under certain priming conditions observed in Phase II, the priming bore a generalized character which evidently represents a "nonspecific" component of priming for future movement. There is basis for thinking that, for the organization of movement under conditions of choice, the higher nervous centers (sensorimotor cortex) utilize some suprasegmental intercalary system (e.g., the reticular formation and/or the calary system), involving a diffuse priming of spinal red nucleus), involving a diffuse priming of spinal pathways, in Phase III of the latent period—influences directly effecting voluntary movement. Securement of postural readjustment also enters into the function of the

intercalary neuronal system. Postural priming of the activity of the muscles of the lower extremities occurred in a standing man 30-50 msec. before voluntary movement. By the 2nd-3rd day, priming of the spinal segmental apparatus before movement in an aqueous medium was observed only in Phase III with its absence in Phase II.—*I. D. London.*

5612. **Potapov, V. I. Voprosy sinteza optimal'nykh funktsional'no gibkikh setei na formal'nykh neironakh.** [Problems in the synthesis of optimal, functionally flexible networks in formal neurons.] *Problemy Bioniki*, 1970, No. 3, 88-97.—Describes several properties of optimal, functionally flexible neuronal networks. The concept of the "basis of the set of all optimal, functionally flexible networks of delta variables" is introduced. Transformations are introduced to facilitate the process of synthesizing networks not included in the basis.—*I. D. London.*

5613. **Pozin, N. V. (Inst. of Automation & Telemechanics, Moscow, USSR) Gipoteza o mekhanizme polska i protoreniya putei v neironnoi seti.** [Hypothesis on the mechanism for search and for the formation of pathways in the neuronal net.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 343-352.—Presents a hypothetical mechanism based on known data on neurons and neuronal interaction. The mechanism for search utilizes 2 neuronal relays, the ratio of whose velocities determines the direction of search. Search is initiated after excitation of 1 stratum of input neurons. "Under search is understood the process of seeking out from among the output neurons 1 of which is connected with an effector, capable of compensating for or abolishing external influence." After attainment of the indicated goal, search is terminated. However, the act, itself, of compensating for external influence does not stop with this. For its continuation and performance, the formation of a stable connection between centers receiving input (afferent) signals and emitting output (efferent) signals is necessary. At the basis of such formation is an increase in the strength of connections between simultaneously excited neurons.—*I. D. London.*

5614. **Salas, Manuel; Schapiro, Shawn; & Guzman-Flores, Carlos. (Veterans Administration Hosp., Developmental Neuroendocrinology Lab., San Fernando, Calif.) Development of olfactory bulb discrimination between maternal and food odors.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1261-1264.—30 Wistar rats served as Ss. Electrical activity at 2 days of age was undetectable and both odors were without effect. From 6-30 days of age, there was a progressive discrimination between maternal odor and that of food as reflected by differential changes in all parameters of electrical activity studied. Results indicate that, during development, specific olfactory cues evoke characteristic olfactory bulb electrical changes which correlate with the expanding behavioral repertoire of the organism. Maternal odor recognition may be integrated earlier in the subcortical-rhinencephalic structures while recognition of food related odors occurs later and requires neocortical participation. These observations support a previous suggestion that during the early postnatal period odor from the maternal surround leads to a type of olfactory imprinting which later serves to identify and orient species members appropriately to each other. (16 ref.)—*Journal abstract.*

5615. **Tokarenko, I. I. (Medical Inst., Zaporozh'e, USSR) Soderzhanie nukleinykh kislot v nervnykh**

kletkakh kory golovnogo mozga pri sryve vysshei nervnoi deyatel'nosti. [Nucleic acid level in nerve cells of the cerebral cortex during breakdown of higher nervous activity.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 692-697.—Ss were 4 dogs, with electrodefensive-motor CRs to acoustic and photic stimuli, in a quantitative cytospectrophotometric study of nucleic acid level in the cells of different cortical zones (auditory, visual, motor, parietal) following breakdown of higher nervous activity due to the action of an intense sound of long duration (500 cps, 94 db.). Under the latter condition, a drop in total nucleic acid level was observed in the cortical points of the CRs and in the cortical representative of the defensive-motor CR. The decline was stable and was not made up for by synthesis of the nucleic acids. Selectivity with respect to different zones of the cerebral cortex was observed in the decrease of nucleic acids—the sharpest decrease being in the cortical cells of the auditory analyzer. Individual differences in degree of decline of cortical nucleic acid level were noted. Comparison of morphological data with the cytospectrophotometric indicates that the decline of nucleic acid level in the cortical cells under acoustic action occurred because of the functionally labile cytoplasmic RNA; simultaneously with this decrease, an increase was noted in the volume of the nerve cells along with hypertrophy of the nucleoli and an increase of RNA therein.—I. D. London.

5616. Tolkunov, B. F. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) *Izmeneniya vyzvannoi aktivnosti neuronov kory bol'shikh polusharii i retikulyarnoi formatsii krys pri funktsional'nom vyklyuchenii khvostatogo* [Changes in evoked neuronal activity of the rat cerebral cortex and reticular formation with functional exclusion of the caudate nucleus.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 488-494.—Immobilized unanesthetized white mice were used to study the influence of caudate nuclear exclusion on neuronal impulse activity in the parietotemporal areas of the cerebral cortex, and the reticular formation at the pontine level (making use of "spreading depression"). During exclusion of the caudate nucleus, marked tonic inhibitory influences continued without diminution. The effect of this exclusion was manifested in changes of another kind encountered in neuronal responses to stimulation of the sciatic nerve and in the transformation of the statistical structure of impulse activity. The most frequent form of neuronal reaction to exclusion of the caudate nucleus was a decrease in responses to stimulation along with simultaneous decrease in the frequency of spike discharges. In those cases where stimulation of the sciatic nerve changed the character of the temporal or serial relationship between neuronal discharges, exclusion of the caudate nucleus frequently decreased the magnitude of such changes. The data indicate the great diversity of the regulatory influences of the caudate nucleus and do not support the view that its structure is purely inhibitory in nature.—I. D. London.

5617. Trifonov, E. V. (Kirov Military-Medical Academy, Leningrad, USSR) *Statisticheskaya kontrol'ruemost' protsessa kak pokazatel' postoyanstva uslovii pri rabote s polozhitel'nymi uslovnymi refleksami*. [Statistical verifiability of a process as an index of the constancy of conditions in work with positive conditioned reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 587-592.—Presents an

application of the methods of quality control to research on higher nervous activity, and maintenance of the constancy of experimental conditions in studies of positive CRs.—I. D. London.

Neuroanatomy

5618. Pribram, Karl H. *The neurophysiology of remembering*. *Scientific American*, 1969(Jan), Vol. 220(1), 73-86.—Reviews experiments with monkeys investigating brain areas involved in the recall of various learned tasks. It is suggested that input into the brain is transformed by coding and recoding operations, essential in both memory storage and remembering. "These transformations generate a microstructure of post-synaptic events, which can be regarded as wave fronts that set up interference patterns with other (preexisting or internally generated) wave fronts, producing in their totality something resembling a hologram." For more complex and novel events, the "function of the association areas of the [cerebral] cortex turns out to be that providing a major part of the organizing process necessary to remembering: the reconstruction of an image from distributed mnemonic events."—P. McMillan.

LESIONS

5619. Beatty, William W. (U. Wisconsin) *Hormonal determinants of sex differences in avoidance behavior and reactivity to electric shock*. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 923.

5620. Blum, S. L. & Thiessen, D. D. (Stanford U., Medical Center) *Effect of ventral gland excision on scent marking in the male Mongolian gerbil*. *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 461-464.—Midventral scent glands of 12 gerbils were excised; nonglandular skin strips of 12 were excised; 12 received midline incisions through their glands but remained intact; and 12 received no operation. Groups did not differ in frequency of marking (rubbing the ventral area on floor pegs) during 5-min tests. In a subsequent study, 14 gland- and skin-excised Ss did not differ in the temporal distribution of marking over 7-min test periods. Prior marking experience did not affect results. Apparently, marking behavior is not regulated by some aspect of the gland. Implications for the nature of the hormonal control of marking are discussed.—*Journal abstract*.

5621. Makarenko, N. V. (Bogomolets Inst. of Physiology, Kiev, USSR) *Uslovnoreflektornaya deyatel'nost' krys, tireoidektomirovannykh v razlichnye periody ontogeneza*. [Conditioned reflex activity of rats, thyroidectomized at different periods of ontogenesis.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 432-440.—61 Ss were subjected to positive and differentiated motor-alimentary CRs to acoustic stimuli. Extirpation of the thyroid gland in 1-mo-old male Ss slowed down the formation of CRs and lengthened the latent period of the reactions. CRs gradually extinguished toward the 50th day after thyroidectomy. Extirpation of the thyroid gland in sexually mature male Ss made it impossible to elaborate stable CRs, increased the latent period, led to the frequent failure of emergence of the positive CR, and decreased general motor activity. However, no marked disturbances of CR activity were observed in thyroidectomized female Ss. The application of hormonal substitutive therapy to thyroidectomized Ss led to complete restoration of CRs and all previously

impaired functions of the organism. When thyroidine was no longer injected, the normalizing effect disappeared.—*I. D. London.*

5622. **Spryskova, N. A.** (Research Inst. of Human Morphology, Moscow, USSR) **Vliyanie total'noi i subtotal'noi tireoidéktomii na rost perevivnoi mul'tiformoi glioblastomy mozhechka krys.** [Influence of total and partial thyroidectomy on the growth of transplantable multiform glioblastoma of the rat cerebellum.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 95-97.—Studied 64 white rats to determine the effect of hypo- and athyroid states on the growth of transplantable multiform spongioblastoma in the cerebellum. Total and partial thyroidectomy led to prolongation of the incubation period and delayed the Ss' death.—*I. D. London.*

5623. **Stern, Jeffrey J.** (U. Michigan, Dearborn) **The effects of thyroidectomy on the wheel running activity of female rats.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1277-1279.—Observed the wheel running activity of 12 virgin albino female rats prior to and following thyroidectomy. Thyroidectomy of 9 Ss significantly reduced overall activity and increased the interval between activity peaks; thyroid feeding corrected these effects. Thyroid feeding did not correct the effects in 6 ovariectomized Ss. The continued administration of estradiol benzoate and progesterone increased activity in ovariectomized-thyroidectomized Ss. Results suggest that the activity reduction consequent to thyroidectomy is not a direct result of thyroid removal but an indirect result mediated by altered ovarian functioning.—*Journal abstract.*

5624. **Zislina, N. N. & Arkhipova, N. A.** (Research Inst. of Defectology, Moscow, USSR) **Vliyanie zritel'noi deafferentsii na pryamoï korkovyï otvet.** [Influence of visual deafferentiation on the direct cortical response.] *Zhurnal Vyssheï Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 635-643.—Studied the response of the visual and sensorimotor cortex to direct stimulation of its surface in 20 rabbits, 4-16 mo. after bilateral enucleation in 10 of them (6 subjected to enucleation 7-8 days after birth before opening of the eyes; 4 at the age of 5-7 mo.), in order to determine the mechanisms involved in the changes produced by visual deafferentiation in the summated EEG. It was hypothesized that the EEG waves and the primary negative wave of the direct cortical response are due to summation of the post-synaptic potentials, generated by axodendritic synapses in the apical dendrites of the pyramidal neurons. A significant decline of amplitude (by 56.5%) and reduction of duration (by 27%) of the primary negative phase of the direct cortical response were demonstrated in the visual cortex of the blinded Ss in comparison with intact Ss. A decrease in amplitude of the secondary positive wave appeared in blinded Ss, in comparison with intact Ss, only when stimulation of great intensity was applied, and did not exceed 17%. The amplitude of the negative wave of the direct cortical response in the sensorimotor cortex of the blinded Ss was lower by 20% on the average than that in intact Ss. The hypothesis is advanced that the reduction of the negative wave of the direct cortical response under influence of visual deafferentiation is due partly to atrophy of nerve elements in the cortical projection zone, and weakening of synaptic action in the intact synapses owing to the elimination of the flow of visual impulsations from the specific and nonspecific afferent systems.—*I. D. London.*

Brain Lesions

5625. **Adrianov, O. S. & Molodkina, L. N.** (Inst. of the Brain, Moscow, USSR) **K voprosu o vliyanii lobektomii na sposobnost' koshek reshat' ékstrapolyatsionnyu zadachu.** [On the influence of lobectomy on the ability of cats to solve an extrapolatory problem.] *Zhurnal Vyssheï Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 593-601.—15 Ss were used to study the influence of lobectomy on the ability of adult cats to engage in visual extrapolation, i.e., to "predict" the direction of movement of an alimentary stimulus disappearing from the Ss' field of vision. The effects of lobectomy on this ability were not identical. In Ss, adequately solving the extrapolatory problem before surgery, deterioration of the ability to extrapolate was observed; while in Ss with inadequate solutions, improvement. Changes in this ability were more marked in the case of relatively short preoperative periods of training.—*I. D. London.*

5626. **Atema, Jelle.** (U. Michigan) **The chemical senses in feeding and social behavior of the catfish, *Ictalurus natalis*.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 881.

5627. **Belenkov, N. Yu. & Goreva, O. A.** (Kirov Medical Inst., Gorki, USSR) **Rol' zadnikh bugrov chetverokholmiya v osushchestvlenii orientirovannogo refleksa.** [Role of the posterior colliculi in effecting the orienting reflex.] *Zhurnal Vyssheï Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 453-461.—15 cats with bilateral lesions of the posterior colliculi and 11 controls were used to study the influence of such lesions on the manifestation and extinction of the orienting reflex to clicks both as a whole and with respect to its individual components. Lesion of the posterior colliculi produced a sharp weakening, up to the point of complete disappearance, of the motor component of the orienting reflex in the 1st postoperative mo. Other components under study (EEG, cardiac, respiratory, GSR) did not change. The manifestation of the components of the orienting reflex to a photic stimulus in the surgically treated Ss was the same as for normal Ss. Lesion of the posterior colliculi changed the course of extinction of the orienting reflex to acoustic stimuli. Extinction of the somatic (EMG) component occurred more rapidly than in normal Ss, while the autonomic and EEG components extinguished slowly. The differences, observed in the manifestation and extinction of the orienting reflex in lesion of the posterior colliculi, point to the complex morphofunctional organization of this reflex, and the differential participation of different structures of the brain in its manifestation and extinction. The disturbance that occurred in the elaboration of CRs and in the spatial analysis of sounds of the posterior colliculi lesioned Ss was connected with a decrease in the somatic component of the orienting reflex, necessary for the localization of acoustic stimuli.—*I. D. London.*

5628. **Bush, Frederick W.** (Claremont Graduate School & University Center) **Limbic lesions and startle habituation.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 408.

5629. **Clark, Carol V.** (Veterans Administration Hosp., Denver, Colo.) **Effect of hippocampal and neocortical ablation on scopolamine-induced activity in the rat.** *Psychopharmacologia*, 1970, Vol. 17(4), 289-301.—Scopolamine was administered to naive male Holtzman albino rats with hippocampal (N = 27) or

cortical ($N = 27$) lesions and to 2 control ($N = 27$ each) groups. At drug doses of .2 and 1 mg/kg rats with hippocampal or cortical lesions had significantly greater activity than the sham operates. A group of Ss with electrolytic hippocampal lesions tested at .2 mg/kg scopolamine had transitory activity increases. Thus, the hippocampus is not necessary for the motor activating effects of the drug, nor is its ablation unique in producing increases in drug-induced activity.—*P. Federman*.

5630. Cohen, Jerome S. (U. Windsor, Ontario, Canada) **Exploration in the hippocampal-ablated albino rat.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 261-268.—16 male albino Holtzman rats with bilateral neocortical and hippocampal damage (HIPP group) explored a side alley off a straight runway much less frequently than 12 neocortical-ablated (CORT group) or 12 unoperated control Ss (NORM group) under conditions of reinforced and nonreinforced straight running. Changes in side-alley location failed to distract HIPP Ss from running down the straight runway. The NORM Ss decreased exploration to the same side alley but increased exploration to a novel-located side alley. The lack of exploration increase to the novel side alley in CORT Ss suggests that neocortical and slight hippocampal damage was sufficient to cause distraction deficits. When exploratory activity in the side alley was controlled, normal Ss ran faster down the main runway than brain-damaged Ss. (19 ref.)—*Journal abstract*.

5631. Dalby, David A. (U. North Carolina) **Effect of septal lesions on the acquisition of two types of active-avoidance behavior in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 278-283.—Trained 40 normal male albino rats and 40 rats with lesions of the septal region of the forebrain to a criterion of 9/10 avoidance responses in a 2-way conditioned avoidance response (CAR) habit and in a free-choice CAR task. Ss with septal lesions were retarded in learning the 2-way but not the free-choice problem, made more intertrial responses in both situations, and showed a greater tendency to avoid entering a location from which they had just escaped in the free-choice task. It is suggested that Ss with septal lesions are more fearful than normal controls. Differences in these results and those of previous experiments are discussed from the standpoint of this interpretation. (25 ref.)—*Journal abstract*.

5632. Deryabin, L. N. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Novyi sposob stereotaksicheskoi orientatsii golovnogo mozga krolika.** [New method for stereotaxic orientation of the rabbit brain.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1501-1504.—Describes and analyzes a new method for stereotaxic orientation of the rabbit brain which is free of preliminary selection of the rabbit with respect to age, weight, and the distance between the 2 conventional points of reference—beta and lambda.—*I. D. London*.

5633. DiCara, Leo V., Braun, J. Jay, & Pappas, Bruce A. (Rockefeller U.) **Classical conditioning and instrumental learning of cardiac and gastrointestinal responses following removal of neocortex in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 208-216.—Used a total of 40 normal and 40 neocorticate male albino Sprague-Dawley rats, paralyzed by d-tubocurarine, in 2 ex-

periments. Different groups of Ss received instrumental training and classical conditioning of either heart rate or intestinal activity. A control group consisted of Ss receiving random presentations of the CS and UCS used in the classical conditioning experiment. Results indicate that the intact neocortex is necessary for the instrumental learning of cardiac and gastrointestinal responses, but that it is not necessary for the classical conditioning of these responses. No relationship could be discerned between the cortical lesions, which included over 90% of the neocortex, and the extent of cardiac or gastrointestinal change achieved by either classical or instrumental training paradigms. (19 ref.)—*Journal abstract*.

5634. Glass, David H., Ison, James R., & Thomas, Garth J. (Veterans Administration Hosp., West Haven, Conn.) **Dysfunction in facilitation produced by prior classical conditioning in rats with lesions in midline cortex.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 385-391.—In Phase 1, 17 naive male Holtzman albino rats with lesions in anterior midline cortex and 18 operated controls ran in a runway either to a high sucrose reward, received goal-box placements to a high sucrose reward, or placements to a low sucrose reward. In Phase 2, all Ss ran to the low reward. Brain-damaged Ss previously run to high reward did not differ from comparable intact Ss. However, brain-damaged Ss placed to high rewards did not show subsequent normal facilitation of running speed but behaved in Phase 2 as if they had received low-reward placements in Phase 1. This effect was ascribed to lesion-induced dysfunction in the process by which classically conditioned emotional reward reactions energize instrumental performance, a dysfunction which is remedied by instrumental training.—*Journal abstract*.

5635. Hitt, John C., Hendricks, Shelton E., Ginsberg, Steven I., & Lewis, Joel H. (Texas Christian U.) **Disruption of male, but not female, sexual behavior in rats by medial forebrain bundle lesions.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 377-384.—In Exp. I and II with 31 and 26 sexually vigorous Sprague-Dawley male rats, bilateral electrolytic lesions in the paraformal medial forebrain bundle (MFB) virtually abolished mating. A postoperative anorexia was also observed, but smaller lesions curtailed mating without producing feeding deficits. In neither case was there evidence of gonodotrophic dysfunction. In Exp. III with 66 Sprague-Dawley spayed female rats, bilateral MFB lesions had no effect upon female sexual behavior (lordotic and soliciting behaviors) in Ss receiving weekly injections of estradiol benzoate (EB) and progesterone, but disrupted male sexual behavior (incomplete and complete copulatory patterns) in Ss receiving daily injections of testosterone propionate (TP). When hormone injection and testing procedures were reversed for these 2 groups, Ss initially tested for TP-induced male behavior showed normal female behavior, while lesioned Ss 1st tested for female behavior showed virtually no TP-induced male behavior. (15 ref.)—*Journal abstract*.

5636. Hothersall, David; Johnson, David A., & Collen, Arne. (Ohio State U., Lab. of Comparative & Physiological Psychology) **Fixed-ratio responding following septal lesions in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 470-476.—Assessed the effects of septal lesions upon the fixed-ratio behavior of 12 and 18 male Long-Evans rats.

In Exp. I it was found that, compared to a group of normal rats, Ss with septal lesions worked efficiently on much higher ratio requirements, and showed significantly higher response rates on all of the ratios employed. In Exp. II, the fixed-ratio behavior of groups of Ss tested as normals and then given either a septal lesion, a control operation, or a control rest period were compared. In Ss given septal lesions a clear facilitation of fixed-ratio responding was found, and this effect was not found in either of the 2 control groups.—*Journal abstract.*

5637. Kling, Arthur; Lancaster, Jane, & Benitone, Jerry. (U. Illinois, Coll. of Medicine, Chicago) **Amygdalectomy in the free-ranging vervet (*Cercopithecus Aethiops*).** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 191-199.—Lesions of the amygdaloid nuclei in the free-ranging vervet, performed in a field experiment, resulted in an avoidance of social interactions, lack of positive affective responses to solicitous behavior and physical contact by group members, and a tendency to withdraw and hide from human Os. None of the operated Ss resocialized; by contrast, unoperated controls upon release from temporary captivity showed fear and aggressive responses followed by flight, but eventually returned to their own or another group. Some forms of postoperative behavior previously noted in laboratory studies or during caging were not observed in the field.—*R. V. Hamilton.*

5638. Lorens, Stanley A., Sorensen, John P., & Harvey, John A. (U. Iowa) **Lesions in the nuclei accumbens septi of the rat: Behavioral and neurochemical effects.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 284-290.—Lesions in the nuclei accumbens septi (NAS) of 20 male albino rats produced: (a) transient increases in food intake without affecting water consumption, (b) increased activity levels, (c) increased sensitivity to electric shock, (d) increased postshock running, (e) more rapid acquisition of a conditioned avoidance response, and (f) a reduction in the telencephalic concentration of serotonin. The effects of NAS destruction could not be attributed to incidental damage of septal nuclei. Common effects (c-f above) of lesions in the NAS and septal area might be due to interruption of projections to and from the medial forebrain bundle. It is suggested that the NAS plays a role that is different from the remainder of the striatum and that it is functionally related to the limbic system. (20 ref.)—*Journal abstract.*

5639. Means, Larry W., & Douglas, Robert J. (East Carolina U.) **Effects of hippocampal lesions on cue utilization in spatial discrimination in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 254-260.—Tested 9 hippocampally damaged, 10 cortically ablated, and 9 normal Long-Evans rats for cue preference and utilization before acquisition, at criterion performance, and during extinction of a spatial discrimination task in a cross maze. Lesions did not alter preacquisition cue preferences and Ss in all 3 groups utilized response cues to perform the discrimination. The hippocampally damaged Ss demonstrated perseveration to response cues during extinction.—*Journal abstract.*

5640. Meshcheryakov, V. A. (Inst. of Experimental Medicine, Leningrad, USSR) **Regulyatsiya obshchego funktsional'nogo sostoyaniya golovnogo mozga pri povrezhdenii nespetsificheskikh struktur.** [Regulation of the general functional state of the brain in lesion of the nonspecific structures.] *Zhurnal Vysshei Nervnoi*

Deyatelnosti, 1969, Vol. 19(3), 534-536.—3 dogs with electrodes implanted into the mesencephalic reticular formation and the medial group of thalamic nuclei, were Ss in a study, utilizing classical salivary conditioning, of the influence of lesion of the nonspecific structures of the di- and mesencephalon on the regulatory mechanisms of the general functional state of the brain. The data suggest that the implantation of the electrodes into the nonspecific formations of the brain produces a primary lesion of the structures which play an important role in the maintenance of the level of cortical activity characteristic for the waking state. This promotes the emergence and maintenance of the neurotic states observed in the S.—*I. D. London.*

5641. Quay, W. B. (U. California, Berkeley) **Pre-circadian entrainment and associated characteristics of activity patterns following pinealectomy and reversal of photoperiod.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1281-1290.—Studied spontaneous running activity in individual female S₁ rats under controlled conditions. Matched siblings, 7 pinealectomized (p), 5 sham-operated (s), and 5 unoperated (u) at 22½-24½ wk. of age, were studied in their responses to 4 successive reversals ($\Delta\Phi=12$) of the environmental photoperiod when they were 27½-37½ wk. old. Initial mean shift in activity starting time following $\Delta\Phi$ was 6-7 hr. ahead in the p Ss as compared with the controls, and mean reentrainment time, according to activity starting time, was 3.03 + 1 days in the p Ss as compared to the controls. The post $\Delta\Phi$ activity of the p Ss also differed in showing a sharp differentiation of circadian (prelights-off) and photoperiod-dependent (postlights-off) segments of activity phase, and in having an unusually close temporal relation and suggested dependency to the white-lights-off Zeitgeber during the 1st days following $\Delta\Phi$. Possible contributions of age, experience, and central mechanisms underlying the pineal effects are discussed. (15 ref.)—*Journal abstract.*

5642. Roydes, Rona L. (U. Illinois) **Brain lesions and habituation of the head-shake response in the rat.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 939.

5643. Slotnick, Burton M., & Brown, David L. (National Inst. of Mental Health, Lab. of Neurophysiology, Bethesda, Md.) **Fear conditioning and passive avoidance in mice with septal lesions.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1255-1259.—In a 2-compartment choice test, 21 adult male CF-1 mice bearing septal lesions showed a well-discriminated fear response following punishment in the preferred compartment, but showed less freezing behavior than did controls. In Exp. II, these same experimental Ss showed significant deficits in passive avoidance and fear conditioning in a task which required response inhibition. Results offer support for the hypothesis that deficits in passive avoidance and fear conditioning following lesions of the septal area derive from the loss of inhibitory influences normally provided by this forebrain area. (32 ref.)—*Journal abstract.*

5644. Stovichek, G. V., Nikulin, V. M., & Zelenkov, R. I. (Medical Inst., Yaroslavl, USSR) **Nekotorye morfologicheskie kriterii afferentnoi spinnomozgovoi innervatsii vnutrennikh organov.** [Some morphological criteria of afferent cerebrospinal innervation of the internal organs.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 113-116.—Details the quantitative characteristics of the afferent connections with

the spinal cord of a number of organs. In the transverse slices of nerves of human and animal internal organs (heart, lungs, small intestine, liver, kidney), a number of conductors of large and medium caliber were encountered which, according to experimental and morphological data, were outgrowths of neurons from the vertebral ganglia. The number of viscerosensory fibers in the extraorganic nerves was not large. The degree of development of afferent connections with the spinal cord is different for the various organs. Following the indicated sequence, the heart has the most and the kidneys the least number of sensory conductors. Many internal organs possess local neuroreflex mechanisms and have no need for afferent spinal innervation for the implementation of specific functions.—*I. D. London.*

5645. Treichler, F. Robert & Dengerink, Harold A. (Kent State U.) **Visual and spatial probability learning by the rat: Selective decortication influences.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1229-1233.—Undertook the assessment of probability learning and reversal on spatial and visual tasks after anterior or posterior neocortical lesions. 60 male Holtzman albino rats were tested on a 70:30 probability gain in a double-bar apparatus using discrete trial correctional procedures. It is concluded that: (a) the spatial task yielded higher asymptotic choice of a more frequently reinforced alternative than the visual task, (b) anterior and posterior lesions showed no differential effects, (c) acquisition on the spatial task was slightly more rapid for normal than for operated Ss, (d) visual reversal was extremely difficult under the present conditions, and (e) trial-by-trial analyses showed little differentiation among the treatment conditions.—*Journal abstract.*

5646. Wolf, George; Dicara, Leo V., & Braun, J. Jay. (Rockefeller U.) **Sodium appetite in rats after neocortical ablation.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1265-1269.—Experimentally naive adult Sprague-Dawley rats with ablations of either the entire neocortex (N = 16) or just the sensory cortex (N = 7) including the taste projection area responded to sodium depletion or mineralocorticoid treatment by increasing their intake of sodium chloride solution. The natrorectic response of the decorticate Ss to sodium depletion was somewhat attenuated or delayed in comparison to 14 intact controls but their response to mineralocorticoid treatment was normal.—*Journal abstract.*

Brain Hypothalamic & Hippocampal Lesions

5647. Grossman, Sebastian P. & Grossman, Lore. (U. Chicago) **Surgical interruption of the anterior or posterior connections of the hypothalamus: Effects on aggressive and avoidance behavior.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1313-1317.—Transverse surgical cuts through the anterior hypothalamus, just anterior to the level of the ventromedial nuclei, which interrupted most, if not all of the anterior projections to and from the hypothalamus, inhibited intraspecies aggressive behavior in 48 albino Sprague-Dawley female rats but produced little or no change in shuttle box avoidance behavior. Transverse surgical cuts through the posterior hypothalamus, just posterior to the level of the ventromedial nuclei, which interrupted all posterior connections of the hypothalamus except those coursing through the fornix or the ventrolateral hypothalamus, markedly depressed shuttle box avoidance behavior but affected aggressive reactions little or not at all. Both

types of cuts produced hyperphagia and hyperdipsia but these effects had subsided in most Ss before the tests of avoidance and aggressive behavior were begun. Tests of motor coordination and catatonia indicate that the observed behavioral deficits could not be due to a general motor impairment. Implications of these results are discussed with reference to previously reported effects of parasagittal cuts which transect the lateral connections of the hypothalamus. (19 ref.)—*Journal abstract.*

5648. Hirsh, Richard. (California Inst. of Technology, Pasadena) **Lack of variability or perseveration: Describing the effect of hippocampal ablation.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1249-1254.—Once established, the behavior of hippocampally ablated animals is extremely resistant to modification. This may be described as perseveration, a tendency to repeat what has just been done, or as a lack of variability, a tendency to do just 1 thing. 5 intact, 8 neocortically ablated, and 11 hippocampally ablated Sprague-Dawley rats were run in a 4-choice situation. Hippocampal ablates show distributions of choices that depart more from 1 in which all 4 choices are equiprobable than do those of controls. Thus they may be described as lacking in variability. The probabilities of occurrence for each of the choices are used to predict sequential aspects of the behavior under an assumption of trial to trial independence, random combination. Perseveration and alternation are defined in terms of the direction of the deviation of the observed behavior from this prediction. For most hippocampally ablated Ss the predictions are accurate. A few may perseverate and a few may alternate. Control animals alternate. Hippocampally ablates may be described as failing to alternate. An explanation in terms of memory processes is advanced. (21 ref.)—*Journal abstract.*

5649. Kirakosyan, E. V. (Medical Inst., Erevan, USSR) **Ob uchastii mamillyarnykh yader gipotalamusa v regulyatsii eritropoëza.** [On the participation of the hypothalamic mamillary nuclei in the regulation of erythropoiesis.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 22-23.—Employed 25 rabbits, with bilateral electrolytic coagulation of the posterior hypothalamus in the region of the mamillary nuclei, in a study of the resultant changes in the system of humoral regulators of erythropoiesis-erythropoietins and several indices of peripheral blood and bone marrow. Such lesions caused a prolonged wave-like anemia which was most marked in the 3rd and 16th postoperative wk. The 1st wave on anemia was accompanied by a rise of erythropoietic activity of the blood, reticulocytosis, leucocytosis, etc. At the peak of the 2nd wave of anemia, a reduction occurred in the quantity of erythroblastic elements in the bone marrow without changes in the level of reticulocytes, leucocytes, and erythropoietins in the blood.—*I. D. London.*

5650. Meyer, Cornelius C. & Salzen, Eric A. (Quinnipiac Coll.) **Hypothalamic lesions and sexual behavior in the domestic chick.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 365-376.—Induced 110 Rhode Island Red × White Rock chicks primed with androgen to show copulatory behavior to a prone hand. Ss which showed strong copulatory patterns were then given bilateral electrolytic lesions in either the hypothalamus or preoptic area. Ss which had bilateral symmetrical lesions in the dorsal anterior hypothalamus showed a loss of copulatory

behavior which did not recover over postoperative tests. Symmetrical lesions in the lateral preoptic area, paleostriatum, or ventral anterior hypothalamus, as well as asymmetrical lesions in any region, impaired copulatory responses but they had recovered by the end of the postoperative test period. Sham lesions gave no disruption of copulatory responding. None of the lesions impaired aggressive behavior. Ss with deficits in copulatory behavior gained weight during the postoperative period and were able to discriminate and react emotionally both before and after surgery.—*Journal abstract.*

5651. Papsdorf, James D. & Woodruff, Michael. (U. Michigan) Effects of bilateral hippocampectomy on the rabbit's acquisition of shuttle-box and passive-avoidance responses. *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 486-489.—Determined the acquisition rates of 2-way active-avoidance and passive-avoidance responses for hippocampectomized, cortical control, and normal New Zealand rabbits. In agreement with investigations employing the rat, hippocampectomized Ss acquired the 2-way active-avoidance response more rapidly than controls, while demonstrating extremely poor passive-avoidance behavior.—*Journal abstract.*

5652. Udalova, G. P. (Leningrad State U., USSR) Vliyaniye razrusheniya nekotorykh yader gipotalamusa na vlstserokhimicheskie uslovnye refleksy. [Influence of extirpation of certain hypothalamic nuclei on viscerosensory conditioned reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 360-362.—Used 2 dogs to study the degree of participation of the hypothalamus in the "structure of the internal chemical analyzer." For study of the role of the hypothalamus in the analysis and synthesis of viscerosensory signals, the method of salivary CRs was utilized in combination with the complete and partial extirpation of certain hypothalamic nuclei. CRs were elaborated to irrigation of an isolated intestinal loop with a .25% solution of HCl, with water as the differentiator. A CR was also elaborated to a 440-cps tone, with a 600-cps tone as differentiator. In the latter CR, irrigation of the oral cavity with 10 ml. of a .4% solution of HCl served as unconditioned reinforcement. The essential role of the hypothalamus is shown in the activity of the viscerosensory analyzer. Extirpation in the region of the medial hypothalamus led to (a) a sharp decrease in the magnitude of the CR to irrigation of the intestinal loop with acid, (b) disinhibition of interoceptive differentiation, and (c) the absence of adequate reactions to changes in the acid base balance in the organism. Lesion of the preoptic region results only in a worsening of the differentiation of viscerosensory signals. Data suggest that the participation of different parts of the hypothalamus in the analysis of chemical signals from the small intestine and from changes in the internal environment of the organism is of uneven degree.—*I. D. London.*

BRAIN STIMULATION

5653. Deryabin, L. N. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) O stereotaksicheskoi orientatsii golovy krolika porody shinshilla v razlichnye periody postnatal'nogo ontogeneza. [On stereotaxic orientation of the head of chinchilla rabbits at different periods of postnatal ontogenesis.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 723-729.—Presents data on the incorrect

position of the zero horizontal plane in stereotaxic orientation of the head of nonstandard Russian chinchilla rabbits of all ages, when Sawyer, Everett, and Green's method is used. A new way of orienting the head of nonstandard rabbits is suggested.—*I. D. London.*

Chemical Stimulation

5654. Alekseeva, I. A. (Inst. of the Brain, Moscow, USSR) Izmenenie slozhnykh form uslovykh refleksov pod vliyaniem aplikatsii diétilamida lizerginovoï kisloty (DLK) i mescalina na korkovye kontsy slukhovogo i zgriel'nogo analizatora. [Change in complex forms of conditioned reflexes under the influence of the application of lysergic acid diethylamide (LSD) and mescaline onto the cortical termini of the auditory and visual analyzers.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 279-285.—Used 2 dogs and 4 cats to determine the features typifying the nervous processes in the visual and auditory analyzers when LSD (100 microgm.) and mescaline (2-4 mg.) are directly applied onto their cortical termini following the formation of complex forms of alimentary CR activity. CRs were elaborated to complex stimuli, components of which were directed to both the auditory and visual analyzers. Serving as conditioned signals were a simultaneous complex and 2 component chain stimuli. The direct application of LSD and mescaline onto the cortical termini of the auditory and visual analyzers changed the functional state of the CRs to stimuli, directed to these analyzers. Depending on the pattern of the complex stimuli (delayed, chain, simultaneous) and on the place of application, LSD and mescaline promoted the propagation of both excitatory and inhibitory processes, strengthening that process which is dominant in a given integrative activity. Data suggest that LSD exerts primary influence on nervous processes, directed to the visual analyzer; mescaline on those directed to the auditory analyzer.—*I. D. London.*

5655. Butuzov, V. G. (Inst. of Pharmacology & Chemotherapy, Moscow, USSR) O roli nishkodyashchego tormozheniya v osushchestvlenii deprirovushchego vliyaniya katekholaminov na simpaticheskii tonus i sosudodvigatel'nye refleksy. [On the role of descending inhibition in effecting the depressing influence of catecholamines on sympathetic tonus and vasomotor reflexes.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 65-69.—Injected immobilized narcotized vagotomized cats with (a) noradrenaline and adrenaline in doses of 200-300 microgm. into the lateral and 4th ventricles and the spinal epidural space; and (b) dopa (40 mg/kg injected iv) on tonic activity, reflex responses in sympathetic nerves, and vasomotor reflexes. Electroneurographic recordings were made of the tonic activity and reflexly evoked discharges in the cardiac and renal sympathetic nerves on stimulation of the afferent A and C fibers of the tibial and splanchnic nerves. The inhibiting effect of catecholamines and dopa increased considerably after decerebration and did not manifest itself in spinal Ss, whereas microinjections of noradrenaline (.1-5 microgm.) in the region of nucleus gigantocellularis and the inferior olivary complex sharply increased the inhibitory influence of these structures on tonic activity and reflex discharges in the sympathetic nerves. It is suggested that the catecholamines can activate the processes of reticulospinal inhibition, which influence the descending control of sympathetic and vasomotor tonus.—*I. D. London.*

5656. Castellucci, Vincent F. & Goldring, Sidney. (New York U., Medical School) **Contribution to steady potential shifts of slow depolarization in cells presumed to be glia.** *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 109-118.—Analyzed the relationship between cortical steady potential (SP) shifts and slow depolarization (SD) in presumed glial cells in 129 adult cats during direct cortical and thalamic stimulation. Results show that: (a) during direct cortical stimulation, SP shift and SD amplitudes diminish gradually from the surface downward, and a polarity reversal of SP shift is not seen even though the primary potentials that follow each stimulus do reverse; (b) with low frequency thalamic stimulation, SP shift and SD have similar distribution with both evident throughout the cortical thickness; (c) with high frequency stimulation, presumed glial cells continue to show SD in the cortical depth, but SP shifts can be bigger, smaller, or can reverse in polarity at lower levels; and (d) the effect of sodium pentobarbital on SP shift and SD is the same. Results indicate that presumed glial cells and neurons account for stimulus-bound, cortical SP shifts. It is suggested that with low frequency stimulation of cortex or thalamus, the SP shift reflects predominantly glial SD; at high frequency, SP shifts are a blend of glial and neuronal depolarization. (French summary) (34 ref.)—*Journal summary*.

5657. Davis, James R. (U. Wisconsin) **Eating elicited by intracranially injected norepinephrine and its interaction with insulin induced hypoglycemia: A new theory of mechanism of action.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 926-927.

5658. Friedman, Mathew J. & Wikler, Abraham. (U. Kentucky, Medical Center) **The effect of introhypothalamic microinjection of hemicholinium (HC-3) on the hippocampal theta rhythm of cats.** *Psychopharmacologia*, 1970, Vol. 17(4), 345-353.—Acute (N = 3) and chronic (N = 3) intact adult cat preparations were made with recording electrodes in the dorsal hippocampus and cerebral cortex, stimulating electrodes in the mesencephalic reticular formation, and an injectrode (an injection cannula-electrode assembly) in the posterior hypothalamus through which both electrical and pharmacological stimulation could be applied. 12-200 mg. hemicholinium suppressed the hippocampal theta rhythm of the reticular formation or the posterior hypothalamus. The latency for this effect was from 90 min.-3 hr. Reticular-induced desynchronization of the cortical EEG disappeared 2-5 hr. after drug administration. Reversal of the drug effect on the hippocampal theta rhythm occurred shortly after administration of carbachol, bethanechol, and pilocarpine. No consistent behavioral effects accompanied these changes in EEG. (15 ref.)—*Journal abstract*.

5659. Gumnit, Robert J., Matsumoto, Hideo, & Vasconetto, Costante. (St. Paul-Ramsey Hosp., Minn.) **DC activity in the depth of an experimental epileptic focus.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 333-339.—Created experimental seizure foci in the cortex of 45 cats by the topical application of penicillin. Glass micropipettes were used to record the DC field in the depth of the cortex underneath the focus. Vertically oriented dipoles of differing structure were found. In the area of intense surface negative ictal shifts, the maximum negativity was found in Layer V of the cortex. No reversal of sign was

found within the depths of the cortex, indicating that nearly the entire neuron was depolarized with the source of current flow located in the axons and/or the finest arborizations of the dendrites. In the periphery of the focus, where positive shifts can be recorded from the surface, the shifts reverse sign in the upper 300-500 μ of the cortex, and the maximum negativity also was located in Layer V. (French summary) (17 ref.)—*Journal summary*.

5660. Herz, A., Zieglängsberger, W., & von Freytag-Loringhoven, H. (Max-Planck Inst. für Psychiatrie, Munich, W. Germany) **Development of fields of local potentials in the caudate nucleus following microelectrophoretic application of glutamic acid and GABA.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 247-258.—35 nonanesthetized rabbits, the extent of the induced potential field was determined by means of double multibarrelled electrodes with intertip distances of 75-240 μ . The typical response evoked by single stimuli to midline structures of the thalamus showed 3 parts. These were well pronounced only after increase of neuronal excitability following microelectrophoretic application of glutamic acid: (a) a positive-negative wave accompanied by neurone discharges, (b) a flatter negative-positive wave without discharge activity, and (c) rhythmic after-discharges (spindles) consisting of arcade-shaped (16 cps) waves. The effect of glutamate was most pronounced in low spontaneous activity. Gamma aminobutyric acid (GABA) was particularly effective in inhibiting the glutamate-induced potentials. Relative independence of the various parts of the evoked response could be demonstrated when the intensity of thalamic stimulation and dosage of glutamate were varied. Local application of glutamate induced focal potentials of more than 1-mV amplitude, generated in an area having a radius of 100-150 μ . The area of these fields corresponded closely with the spread of glutamate. On the basis of histological studies, the maximal number of neurones contributing to these focal potentials was determined. (German summary) (38 ref.)

5661. Jaffard, Robert & Cardo, Bernard. (Lab. de Psychophysiologie, Faculté des Sciences, Talence, France) **Influence of intracortical injections of ribonuclease on the acquisition and retention of operant behavior and visual discrimination.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1303-1308.—In Exp. I the bilateral intracortical injection of 100 μ g. of ribonuclease in 14 male Sprague-Dawley rats considerably disturbed acquisition in the Skinner box. A correct acquisition was not obtained until 180 hr. after the injection. The Ss' level of activity was not modified; their food consumption diminished slightly. The same injection performed on 7 rats having already acquired this behavior pattern had practically no effect. In Exp. II, the bilateral intracortical injection of 100 μ g. of ribonuclease in 12 Ss disturbed the acquisition of visual discrimination. The injection had a far greater effect when the trials were spaced than when they were grouped. The meaning of these results is discussed. (18 ref.)—*Journal abstract*.

5662. Krylov, O. A., Kalyuzhnaya, R. L., & Tongur, V. S. (Inst. of the Brain, Moscow, USSR) **Vozmozhnost' peredachi uslovnoi svyazi posredstvom biokhimicheskogo substrata.** [The possibility of transmission of a conditioned connection by means of a biochemical substratum.] *Zhurnal Vyshei Nervnoi Deyatel'nosti*, 1969,

Vol. 19(2), 286-292.—Used white mice, in which electro-defensive or alimentary CRs had been elaborated to place in a T maze, to test the assumption that transfer of learning (CRs) from 1 animal to another is possible through utilization of a cerebro-biochemical substratum enriched with RNA. Ss were decapitated after training in the CR, with subsequent preparation of a brain extract. This extract (.02 ml.) was administered subdurally in symmetrical regions of the brain (Brodman's Field 4) of untrained Ss. Data indicate a tendency toward transmission of "acquired experience" by means of a cerebro-biochemical substratum. This tendency persisted in most cases for 2-3 days after administration of the brain extract from trained donors. Opposite actions of concentrated and diluted extracts of the brain are noted with respect to choice of the T arms by recipient Ss.—*J. D. London.*

5663. Warburton, David M. & Russell, Roger W. (U. California, Irvine) **Some behavioral effects of cholinergic stimulation in the hippocampus.** *Life Sciences*, 1969(Jun), Vol. 8(12, Pt. 2), 617-627.—The hippocampus has been implicated in the hypothesis of central neurochemical processes mediating behavioral inhibition which are cholinergic. Male Sprague-Dawley 90-120 day old rats were implanted with hippocampal cannulae and tested on a stable go-no go single alternation in Skinner boxes using a panel light for trial onset and liquid reward. Single alternation training was begun and the treatments consisted of administration of atropine sulfate, carbamylcholine chloride, physostigmine sulfate, and a saline control. After injection Ss were placed in the Skinner boxes and responses recorded for 1 hr. Atropine sulfate increased alternation errors but had little effect on ITI responses. Carbamylcholine chloride had the opposite effects with the magnitude of change greater for ITI responding than for alternation errors. Physostigmine sulfate produced a small increase in ITI responding and alternation errors. The minimum effective behavioral dose of atropine sulfate was also determined. These results demonstrate the behavioral sensitivity of the ventral hippocampus to both carbamylcholine chloride and atropine sulfate. The hippocampus is discussed as part of a pathway possibly mediating nonreinforcement effects. (23 ref.)—*W. E. Wood.*

5664. Winson, Jonathan & Miller, Neal E. (Rockefeller U.) **Comparison of drinking elicited by eserine or DFP injected into preoptic area of rat brain.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 233-237.—Injection of eserine into the preoptic area of the rat brain will cause water-satiated Ss to drink when water is made available 60 min. after injection but not beyond that time, whereas injection of diisopropyl fluorophosphate (DFP) will cause drinking up to 210 min. after injection. Ss were Sprague-Dawley rats. The drinking is presumably caused by inhibition of cholinesterase at cholinergic synapses. The cessation of drinking in the case of eserine, a reversible inhibitor, probably results from a drop in concentration at the site with time; in the case of DFP, a reportedly irreversible inhibitor, the cessation may be due to the resynthesis of a known isozyme of cholinesterase with a $\frac{1}{2}$ -life of 3 hr. or to spontaneous reactivation of the enzyme.—*Journal abstract.*

Electrical Stimulation

5665. Aquino-Cías, J., et al. (Academy of Sciences,

Inst. of Neurophysiology & Psychology, Havana, Cuba) **Epilepsia y cardiótonicos.** [Epilepsy and cardiotonics.] *Revista Cubana de Medicina*, 1968(Apr), Vol. 7(2), 171-181.—Investigated the effect of iv and topical corticosteroids on the duration of after-discharges on stimulation of the frontal cortex. 24 curarized and vagetomized cats and 10 cats which were curarized only served as Ss. Results show that ouabain and strophanthin prolong the duration of seizures induced by electrical stimulation. Topical application of these drugs elicited spikes at the application site which spread to neighboring cortical and subcortical structures, which resulted in a generalized seizure. Results are discussed in terms of ionic changes affecting both intra- and extracellular space which were caused by the cardiotonics. The effects of irritation on the aortic, carotid, and vagus zones and the direct action on the cell membrane of the neuron are discussed. (19 ref.)—*English summary.*

5666. Bloch, Vincent; Deweer, Bernard, & Hennevin, Elisabeth. (Lab. de Psychophysiologie, Faculté des Sciences, Lille, France) **Suppression de l'amnésie rétrograde et consolidation d'un apprentissage à essai unique par stimulation réticulaire.** [Suppression of retrograde amnesia and consideration of an experiment by a unique attempt at reticular stimulation.] *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1235-1241.—In order to avoid possible cumulative effects of repeated treatments, a 1-trial learning task based on a discrimination reversal technique with water as reinforcement was used. 4 groups of Wistar rats with chronically implanted intracranial and cortical electrodes were studied in a 1-trial discriminative learning based on water reinforcement. Group I, 90 sec. after the trial, received fluothane anesthesia in order to interrupt the consolidation period. Group II received very low intensity stimulation of the mesencephalic reticular formation during the 90-sec. interval between the end of the trial and anesthesia. Group III received reticular stimulation not followed by anesthesia. Group IV had a pseudotreatment (control). All groups were tested for retention of learning. Results show no retention for Group I; normal retention for II, with a performance identical with that of control group; III shows better retention than control group. Results indicate that a mild reticular stimulation during consolidation period even when delivered once, enhances memory storage. Results are discussed in relation to theory of consolidation and mechanisms of arousal. (18 ref.)—*Journal abstract.*

5667. Bogoslovskii, M. M. (Inst. of Experimental Medicine, Leningrad, USSR) **Elektricheskie otvety izollirovannoi kory v khronicheskom eksperimente.** [Electrical responses of isolated cortex in chronic experiment.] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 337-342.—Used 8 adult cats to study the electrical responses of the left hemispheric neocortex, surgically isolated from subcortical influences, when direct electrical stimulation was applied over a period of 6 postoperative mo. Electrodes were implanted in the supra- and ectosylvian gyri of both the isolated and intact hemisphere. The thresholds for the emergence of direct cortical responses in the isolated cortex, attained in the 2-3 wk. after the operation (.5-5 V.) declined afterwards to .1-.2 V. Both in the early and later periods after cortical isolation, the direct cortical responses of the middle suprasylvian gyrus of the isolated cortex were distinguished by their lower thresholds as compared with

other parts of the same gyrus and with other gyri. Direct cortical responses were easily propagated over the supra- and ectosylvian gyri of the isolated cortex to a considerable distance from the stimulation point.—*I. D. London.*

5668. Ciofalo, V. B. & Malick, J. B. (Schering Corp., Bloomfield, N.J.) **Evoked aggressive behavior in *Cebus apella*: A new world primate.** *Life Sciences*, 1969(Oct), Vol. 8(19, Pt. 1), 1117-1122.—Describes a successful attempt to evoke aggressive behavior in 5 *Cebus apella* monkeys utilizing brain stimulation under different environmental conditions. Direct leads between the brain and stimulator were used successfully in a free social environment.—*Journal summary.*

5669. Danilova, L. K. (Pavlov Inst. of Physiology, Leningrad, USSR) **Образование и структура пishchevykh uslovnykh reflektsov na fone stimulyatsii mindalevidnogo kompleksa.** [Formation and structure of alimentary conditioned reflexes against a background of stimulation of the amygdaloid complex.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 419-426.—Dogs, with electrodes chronically implanted into the amygdala, hippocampus, and several zones of the cerebral cortex, were used to study the influence of amygdaloid stimulation by current (0.5 V.) of various frequencies (1, 40, 100 impulses/sec) on the speed and dynamics of formation of positive alimentary CRs. It was established that speed of formation of alimentary CRs against a background of amygdaloid stimulation is not different from that of its formation under normal conditions and does not depend on either the frequency of the stimulating current or the degree of inhibition of secretion. The magnitude of CRs, elaborated with simultaneous stimulation of the amygdala, is considerably lower than the normal magnitude and is a function of the parameters of the stimulating current. Stimulation of the amygdala, especially high-frequency stimulation, brings about an impairment of the structure of the CR.—*I. D. London.*

5670. Davydova, E. K. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Izmenenie poroga dvigatel'noi reaktzii na pryamoie élektricheskoe razdrashenie kory v protsesse ugasheniya i vosstanovleniya pishchego uslovnogo reflektsoa.** [Change in the threshold of motor reaction to direct electrical stimulation of the cortex in the process of extinction and restoration of an alimentary conditioned reflex.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 531-533.—Dogs, in which alimentary CRs had been elaborated to direct electrical stimulation of the motor cortex, were used to study the change in excitability of the "cortical structure of the signal stimulus" in the process of extinction of the CR. The elaboration of the CR heightened the threshold of the motor reaction; extinction of the CR lowered it; restoration of the CR again heightened it. During stabilization of the CR, the threshold of motor reaction was heightened in comparison with the beginning period of its elaboration. Conversely, in the process of extinction, the threshold of motor reaction was lowered when the CR no longer appeared. The fact that, in the beginning period of extinction of the CR, the threshold of motor reaction was not changed, while in deep extinction it was lowered, is taken as evidence that, in the beginning, extinctive inhibition does not spread to the structural elements of the reflex "proper."—*I. D. London.*

5671. Devor, Marshall G., Wise, Roy A., Milgram, Norton W., & Hoebel, Bartley G. (Massachusetts Inst. of Technology) **Physiological control of hypothalamically elicited feeding and drinking.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 226-232.—Feeding and drinking elicited by electrical stimulation of the hypothalamus are under the control of factors which modulate normal hunger and thirst. In 7 adult male Wistar rats, and 6 Sherman albino female and 4 Long-Evans hooded female rats that both ate and drank in response to stimulation, food intake inhibited elicited eating but not drinking, whereas water inhibited elicited drinking but not eating. Deprivation had opposite effects. Thus, hypothalamically elicited behaviors are neither rigid nor undirected results of stimulation; food and water intake exert specific and homeostatically appropriate control over the neural systems involved in elicited feeding and drinking.—*Journal abstract.*

5672. Hurwitz, Harry M. & James, Robert E. (U. Tennessee) **Deferment of intracranial reinforcement: Incentive power of ICS.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1309-1312.—Tested 5 chronically implanted male hooded Long Evans rats with electrodes in the medial forebrain bundle for rates of self-stimulation under deferment of reinforcement and fixed interval procedures. Deferments between the lever press and the reinforcement of 0-15 sec. were investigated. Results demonstrate an extremely steep deferment gradient and a marked response rate differential between the fixed interval and deferment procedures. Results are interpreted in an incentive framework. (17 ref.)—*Journal abstract.*

5673. Kral, Paul A. (George Peabody Coll. for Teachers) **Interpolation of electroconvulsive shock during CS-UCS interval as an impediment to the conditioning of taste aversions.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 416.

5674. McKenzie, J. S. & Smith, Margaret H. (U. Melbourne, Victoria, Australia) **Hippocampal responses to neocortical stimulation in the chloralose-anesthetized cat.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 273-280.—In 44 male and female cats under chloralose or chloralose-urethane anesthesia, evoked field responses to single shock stimulation of the dorsolateral neocortex were recorded in the dorsal and posterior hippocampus with the use of tungsten microelectrodes. Large evoked potentials were observed in the adjacent white matter above the lateral ventricle, but responses located in the hippocampus were distinguished by laminar recording through the formation. Responses were of short initial latency, with negative-positive configuration at superficial levels. No responses were observed in the anteroventral hippocampus, but responses were present in the subjacent entorhinal area. Unitary responses were evoked regularly by septal or entorhinal stimulation but rarely by neocortical stimulation, during which they were positive-going, of low amplitude, and unstable. Cortically evoked unit discharges were located in alveus, stratum oriens and, in 1 instance, in stratum radiatum; they appeared to arise not from pyramidal cells, but from axons or small neurons. Results suggest a cortical projection to hippocampal interneurons, the significance of which requires investigation in unanesthetized animals. (French summary) (21 ref.)—*Journal summary.*

5675. Mendelson, Joseph. (Rutgers State U., Brain Research Lab.) **Food deprivation facilitates hypothalamic drinking.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1225-1227.—Implanted naive male hooded rats with chronic electrodes in the lateral hypothalamic drinking area and maintained them on ad lib water. 1-3 days of food deprivation slightly decreased the minimum amount of current necessary to induce the water-satiated Ss to drink. It is proposed that food deprivation exerts a facilitatory effect on the neural substrate governing water intake, but that this effect is usually obscured by the fact that food-deprived animals need less water to maintain their normal body-fluid balance.—*Journal abstract*.

5676. Mendelson, Joseph. (Rutgers State U., Brain Research Lab.) **Palatability, satiation and thresholds for stimulus-bound drinking.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1295-1297.—Implanted 5 Long-Evans hooded rats with chronic electrodes in the drinking area of the lateral hypothalamus. Their drinking thresholds for tap water and moderately strong saccharine and quinine solutions were measured. Ss were always satiated on the solution under test. Compared to water, their mean ad lib intake of the saccharine solution increased by 149% and that of quinine decreased by 52%. Their saccharine thresholds were lower than their water thresholds, and for 3 of the 4 Ss quinine thresholds were higher than those for water. Results are interpreted in terms of taste-dependent intensities of input to reward circuits in the lateral hypothalamus generated by feedback from drinking. It is tentatively concluded that for any given solution, the greater its palatability the less the level of satiation attained on it.—*Journal abstract*.

5677. Merrill, H. Kent & Anderson, D. Chris. (Veterans Administration Hosp., Psychology Research Lab., Phoenix, Ariz.) **Attenuation of a passive-avoidance response via reinforcing intracranial stimulation in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 274-277.—Trained 24 naive male Long-Evans rats to press a lever for hypothalamic ICS and tested on a passive-avoidance task. $\frac{1}{2}$ of the Ss were exposed to traumatizing inescapable footshock (preshock) prior to passive-avoidance testing and $\frac{1}{2}$ received no preshock. $\frac{1}{2}$ of the Ss received a 3-ma and $\frac{1}{2}$ a 1.5-ma punishing shock during passive-avoidance testing. Analysis of variance and a Newman-Keuls test show that passive avoidance developed only in Ss exposed to preshock and the 3-ma test shock.—*Journal abstract*.

5678. Posluns, Donald & Vanderwolf, C. H. (U. Western Ontario, London, Canada) **Amnesic and disinhibitory effects of electroconvulsive shock in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 291-306.—Ss were 878 naive male hooded rats. The ECS 1 sec. after learning in a 1-trial escape task, or 30 sec. after active-avoidance acquisition, induced no retention deficits. 1 ECS had no anterograde effect upon escape but facilitated avoidance acquisition 24 hr. later. The ECS 30 sec. after passive-avoidance training in a situation similar to the escape task produced retention deficits and, in 2 other passive-avoidance tasks, ECS produced temporally graded retention deficits (up to 10 and 60 sec., respectively). 5 ECSs before training increased retention deficits produced by 1 posttraining ECS in a passive-avoidance task but not in the escape task. Perhaps ECS concomitantly

induces a slight memory impairment and a slight impairment of movement inhibition, and these effects combine synergistically to produce retention deficits in passive-avoidance tasks. (40 ref.)—*Journal abstract*.

5679. Sakhiulina, G. T. & Serdyuchenko, V. M. (Inst. of Higher Nervous Activity & Neuropsychology, Moscow, USSR) **Elektrofiziologicheskoe vyrazhenie uslovnnykh refleksov zapazdyvaniya, obrazovannykh na preryvisto-otstavlennoe razdrasheniye spetsificheskogo yadra talamusa u koshek.** [Electrophysiological manifestation of retarded, conditioned reflexes formed in response to intermittent-delayed stimulation of the specific thalamic nucleus in cats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 528-530.—For 5 Ss, stimulus duration was 1 sec.; followed by a 4-sec interval, a 1-sec stimulus, etc., followed by alimentary reinforcement. The data indicate that, however deep the inhibition of the retardation characteristic for the 1st segment of the multiple series of stimulation, it was not accompanied by any late components whatsoever of growth potential. The phases, marking the gradual transition from inhibition to excitation, were characterized electrophysiologically by late negative components, developing with various latent periods. The longest latent period for the appearance of the late negative wave corresponded to a predominance of the inhibitory process; with the predominance of excitation, its latent period shortened progressively.—*I. D. London*.

5680. Schuckman, H., Kluger, A., & Frumkes, T. E. (Queens Coll., City U. New York) **Stimulus generalization within the geniculo-striate system of the monkey.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 494-500.—Trained 4 monkeys to press a lever in response to electrical ICS. 1 monkey trained to stimulation of the lateral geniculate body (LGB) failed to show any stimulus generalization (SG) when either the contralateral LGB or the striate cortex was stimulated. Similarly, no SG was seen in another S when LGB stimulation followed training to stimulation of the striate cortex. The SG was observed when stimulation of the striate cortex followed reinforced stimulation of other regions of the striate cortex. Results indicate that the consequences of electrical stimulation are not equivalent at all levels of the geniculo-striate system. (17 ref.)—*Journal abstract*.

5681. Segal, B. M., Nerobkova, L. N., & Rybalkina, S. V. (Research Inst. of Psychiatry, Moscow, USSR) **"Vlechenie" k alkogolyu pri stimulyatsii yader gipotalamusa u kryss.** ["Urge" for alcohol in stimulation of the hypothalamic nuclei in rats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 688-691.—22 rats, with electrodes implanted in the ventromedial, lateral, and dorsomedial nuclei of the hypothalamus, were used to study the influence on alcoholic consumption of negative and positive emotional reactions, arising on stimulation of the "system of punishment" and the "system of encouragement." The need for alcohol in rats was dependent on the functional state of the hypothalamic "system of punishment." Enhancement of the activity of this system through its electrostimulation, which was accompanied by an avoidance reaction, brought about increased alcoholic consumption under free-choice conditions. Stimulation of the "system of encouragement" and its autostimulation suppressed the alcoholic drive. These data help illu-

minate the pathophysiological mechanisms of several forms of the alcoholic drive.—*I. D. London.*

5682. Serdyuchenko, V. M. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Izmeneniya v kartine potentsialov narastaniya pri peredelke sovpadayushchikh uslovykh reflektov v sledovye.* [Changes in the picture of growth potentials in transformation of coincident conditioned reflexes into trace conditioned reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 357-359.—Used 5 adult cats to study the character of the "additional negative waves" which occur immediately after the growth potentials (augmenting responses) during the transformation of extant food procuring CRs into trace CRs. Ss were 1st taught to procure meat from a food trough with that forepaw with an electrode implanted in the cortical motor representative. A "coincident CR" (reinforcement at the 2nd sec. of the CS) was elaborated, with the CS provided by 3 sec. of rhythmic electrical stimulation of the thalamic nucleus, ventralis lateralis nerve. Transformation of the coincident CR into a trace CR was managed by postponing alimentary reinforcement to 3 and 5 sec. after cessation of the action of the conditioned signal. Negative waves of short latency, characteristic of coincident CRs, were not detected in the trace CRs; instead, those of long latency (60-80 msec.) were evident. These "additional negative waves" with long latent periods were recorded locally. The existence of a local and stable manifestation of such waves, immediately following the basic component of the growth potentials in trace CRs, indicates that the "additional negative waves" with long latent periods correspond to a process of active inhibition.—*I. D. London.*

5683. Shaber, Gary S., Brent, Robert L., & Rumsey, James A. (Thomas Jefferson U., Stein Research Center) *Conditioned suppression taste thresholds in the rat.* *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 193-201.—Determined the absolute taste-threshold values for saccharin, quinine hydrochloride, hydrochloric acid, and sodium chloride in 32 male adult Wistar rats, 8 Ss for each taste material, using a conditioned suppression behavioral protocol. Lateral hypothalamic stimulation was used as the reinforcement. The reinforcement (ICS) was not a discernible taste substance and, therefore, there was no interference with the measurement of absolute taste threshold. The taste thresholds were readily obtained within 3-4 wk. following surgical implantation of the hypothalamic electrodes and 2-3 wk. after the beginning of training. After training, a threshold value for each taste material was readily obtained during a 20-min experimental trial. (17 ref.)—*Journal abstract.*

5684. Steiner, Solomon S., Beer, Bernard, & Shaffer, Michael M. (Schering Corp., Bloomfield, N.J.) *Escape from self-produced rates of brain stimulation.* *Science*, 1969(Jan), Vol. 163(3862), 90-91.—Allowed 5 male albino rats to self-stimulate while their responses were recorded. Subsequently, prerecorded patterns of their brain stimulation were played back to them. All Ss learned to escape brain stimulation delivered in exactly the same manner as they had previously elected to receive it.—*Journal abstract.*

5685. Vardaris, Richard M. & Gehres, Larry D. (Kent State U.) *Brain seizure patterns and ESB-induced amnesia for passive avoidance.* *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1271-1275.—Produced retrograde amnesia in 32 male albino Holtzman rats receiving electrical stimulation of posterior cortex immediately

following footshock in a 1-trial passive avoidance situation. No retrograde amnesia was observed when the cortical stimulus was delayed 1 hr. 4 Ss having anomalous avoidance scores also produced abnormal brain seizure records in response to brain stimulation. It is concluded that brain seizure pattern is related to retention of the passive avoidance tendency.—*Journal abstract.*

5686. Vorob'eva, T. M. (Research Inst. of Neurology & Psychiatry, Kharkov, USSR) *O roli vzaimootnosheni nekotorykh elementov limbiko-retikulyarnogo kompleksa v reaktsii samorazdrasheniya.* [On the role of the interrelation between some elements of the limbicorecticular complex in the autostimulatory reaction.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 680-687.—G. Olds and P. Milner's autostimulation method was used on 35 white rats in order to procure a quantitative estimate of emotional behavior and be able to characterize the degree of functional activity of the cerebral structures, related to the integration of behavioral acts and emotions. The method facilitates estimation of the number, size, and spatial organization in the brain of centers of motivation and emotions. Systems of reinforcement are located in the mesencephalic reticular formation (MRF), septum, anterior hypothalamus, and, more compactly, in the posterior hypothalamus. A relative hierarchy of active zones of Olds exist, located in different structures of the limbicorecticular complex. The MRF, the central gray matter, and the posterior hypothalamic region facilitate the general functional activity of the Olds diencephalic centers, connected with emotional behavior. The hippocampus is capable of modulating the functional activity of the emotionally positive zones of the posterior hypothalamus, lowering the activity of its ventrolateral region and slightly facilitating that of its ventromedial region. The hippocamposeptal complex provides for primarily the inhibitory mechanisms of the Olds emotional centers. The data suggest that within the bounds of the limbicorecticular system differentiated relationships and a hierarchy exist, directed toward fine regulation of the activity of differentiated positive zones connected with the autostimulatory reaction.—*I. D. London.*

5687. Wayner, Matthew J. (Syracuse U., Brain Research Lab.) *Motor control functions of the lateral hypothalamus and adjunctive behavior.* *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1319-1325.

5688. Zuckermann, Emil C. & Glaser, Gilbert H. (Yale U., Medical School) *Slow potential shifts in dorsal hippocampus during "epileptogenic" perfusion of the inferior horn with high-potassium CSF.* *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 236-246.—Recorded slow potential shifts and responses to ipsi- and contralateral stimulation of dorsal hippocampus from basal and apical dendritic layers in 15 awake cats, using chronically implanted pipettes. Perfusion of the inferior horn with cerebrospinal fluid in which K⁺ concentration was raised from normal 3 mEq/l to 9-18 mEq/l induced, after 20-50 sec., an early DC shift (1-3 mV) only in the basal dendritic layer, reaching a plateau after 2-3 min. During this time no changes in the pattern of hippocampal evoked responses were observed. However, while the DC level was constant, large potentials, negative in basal dendrites and positive in apical dendrites, gradually developed in response to single stimuli, reaching a peak in 6-15 min. when a seizure discharge was triggered. During the last minute preceding the initiation of

paroxysmal discharge, the main transient of each response was followed by a long-lasting negative wave from basal dendrites and a synchronous positive wave from apical dendrites. Simultaneously another DC shift occurred by the overlapping of these late waves. Paroxysmal discharges then were superimposed on this DC shift. After the perfusion was discontinued, the excitability remained increased as 3/sec stimuli were able to trigger seizure discharges. During this same period the DC level in the apical dendritic layer did not change significantly but that from the basal layer slowly shifted to above its initial value. It is assumed that the initial DC shift, recorded only from the periventricular electrodes, was connected with changes in ependymovascular membranes, and that the K⁺ increased epileptogenic excitability by another mechanism than a global gradual depolarization of neurons. The slow potential shift accompanying the seizure was generated apparently by the development of paroxysmal depolarization and hyperpolarization shifts at the level of basal and apical dendrites.

ELECTRICAL ACTIVITY

5689. Aleev, L. S., Bunimovich, S. G., Gol'tsman, N. I., & Shpichenetskii, B. Ya. *Issledovanie vozmozhnosti bioelektricheskogo upravleniya global'nymi dvizheniyami tulovishcha.* [Study of the possibilities of bioelectrical control of global trunk movements.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 110-116.—Analyzes a method for bioelectrical control of certain global trunk movements via the use of the multichannel control system "Mioton."—I. D. London.

5690. Alekseev, Yu. N., Butenko, V. V., & Shaev, B. S. (Medical Inst., Voronezh, USSR) *Ustroistvo dlya avtomaticheskogo podscheta ostillyatsii élektromiogrammy razlichnogo urovnya.* [Apparatus for the automatic count of electromyogram oscillations at different levels.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1508-1510.—Describes and analyzes a device for the simultaneous automatic count of "fine" and "large" EMG oscillations, where the latter are defined as such, given input signals larger than 40 microv.—I. D. London.

5691. Balzano, E. & Jeannerod, M. (Centre National de Recherche Scientifique, Inst. de Neurophysiologie, Marseille, France.) *Activité multi-unitaire de structures sous-corticales pendant le cycle veille-sommeil chez le chat.* [Multi-unit activity of subcortical structures during the waking-sleep cycle of the cat.] *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 136-145.—Studied spontaneous multiunit discharges during the sleep-wakefulness cycle in cats with electrodes chronically implanted in pontine (PRF) and mesencephalic (MRF) reticular formations, raphe nuclei, and hypothalamus. Discharges were transformed into a continuous integration curve in which voltage was a function of frequency and amplitude. During slow wave sleep (SWS), the curve lowered progressively for all structures. During the transition between SWS and paradoxical sleep (PS), the curve showed: (a) progressive elevation for raphe nuclei 20-30 sec. before onset on PS, (b) an increase occurring in MRF and hypothalamus at the time of cortical activation, (c) no change for the PRF, and (d) a decrease for anterior hypothalamus. During PS the curve was tonically elevated for raphe nuclei, MRF, and hypothalamus, but remained at the SWS level for PRF.

During the phasic events of PS, sudden peaks of higher voltage were found predominantly in the PRF, where they were the only variation observed. Phasic phenomena induced by administration of reserpine were also accompanied by peaks of the curve, but only for the PRF. With regard to PS, results suggest that the raphe nuclei play an inducing role, the MRF is implicated in maintenance of cortical activation, and PRF is a source of the brief depolarizations associated with phasic phenomena. (39 ref.)—English summary.

5692. Bennett, M. V., Hille, Bertil, & Obara, S. (Albert Einstein Coll. of Medicine, Yeshiva U.) *Voltage threshold in excitable cells depends on stimulus form.* *Journal of Neurophysiology*, 1970(Sep), Vol. 33(5), 585-594.—A model excitable system is a capacitor in parallel with a "negative-slope element" that rapidly reaches an "N-shaped" steady-state current-voltage relation containing a region of negative slope. These predictions are realized experimentally using a capacitor plus a tunnel diode or a potassium-depolarized electroplaque with an N-shaped current-voltage relation. The same effects are demonstrated in a node of Ranvier and a normal electroplaque, although current-voltage relations for these membranes are only transiently N-shaped after a depolarization. Dependence of voltage threshold on both synaptic and applied currents must be considered in its experimental measurement.—G. Westheimer.

5693. Bond, H. W. & Ho, Philip. (Parke, Davis & Co., Research Lab., Ann Arbor, Mich.) *Solid miniature silver-silver chloride electrodes for chronic implantation.* *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 206-208.—Describes a simple method for constructing miniature nonpolarizable electrodes suitable for chronic implantation in laboratory animals. Favorable electrical characteristics of the electrodes are described. An example of records obtained from an implanted cat is presented which demonstrates long-term reliable monitoring of DC potentials from the brain. (French summary)—Journal summary.

5694. Chinaev, P. I., et al. *Preobrazovanie nepreryvnykh funktsii s pomoshch'yu iskusstvennykh neuronnykh setei.* [Transformation of continuous functions with the aid of artificial neuronal networks.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 186-195.—Analyzes the data of electrophysiological research on the excitability of nerve tissue, and describes the reaction of the tissue to stimuli of simple form as well as types of reactions which render secure the coding of the informational indices for the temporal function. The results of modeling these reactions with the aid of artificial neuronal networks are presented along with a number of oscillograms, confirming the similarity between the reactions of the artificial networks to the input signal and those of their biological prototypes. Analyzed are functional schemata for networks of neuroniform elements, capable of detecting and coding the informational components of the temporal function. Such networks can be utilized as a means for the "discretization" of continuous signals.—I. D. London.

5695. Daurova, F. K. & Gasanov, U. G. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Elektrofiziologicheskoe issledovanie vozbudimosti korkovogo kontsa slukhovogo analizatora v usloviyakh "pokrytiya."* [Electrophysiological study of the excitability of the cortical terminus of the auditory analyzer under conditions of "cover."] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 580-586.—5 immobilized cats, with and without pre-

vously elaborated positive winking CRs to clicks, were used to study the thresholds of primary responses in the auditory cortex under conditions of "cover," i.e., in the course of backward conditioning where unconditioned excitation preceded the "covered" stimulus. It is shown that, after many pairings of clicks with air puffs in the eye in reverse sequence (air puff, clicks), the thresholds of the primary responses in the auditory cortex markedly increased in both groups of Ss. Some thoughts are ventured on the formation of a new functional state in the cortical elements which pick up the "covered stimulus" (clicks) in backward conditioning.—I. D. London.

5696. Davis, Floyd A. (U. Illinois, Medical School, Chicago) Axonal conduction studies based on some considerations of temperature effects in multiple sclerosis. *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 281-286.—Performed electrophysiologic studies on isolated single lobster axons to determine the effect of temperature on conduction at the site of mechanical and thermal lesions. The block of conduction produced by these lesions is remarkably sensitive to small changes in temperature. Conduction can be restored by cooling the nerve, whereas with rewarming the block returns. Less than a 1° C change can determine whether conduction will occur. It is suggested that cooling may increase the safety factor of conduction enabling the impulse to jump over an injured area. Results support a hypothesis that the change in signs and symptoms with a change of body temperature in multiple sclerosis may be caused by an effect of temperature on axonal conduction. (French summary) (26 ref.)—*Journal summary*.

5697. Gusel'nikova, K. G., et al. (Moscow State U., USSR) O nekotorykh svoistvakh dendritov neironov obonyatel'noi lukovitsy lyagushki. [On some properties of the dendrites of neurons in the olfactory bulb of the frog.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1465-1470.—An intracellular microelectrode study, with recordings of 67 neurons located in the olfactory bulb of the frog: *Rana temporaria* and *R. ridibunda*. It is shown that the dendrites of the secondary and internuncial neurons of the frog olfactory bulb are synaptically excitable. The dendritic spike emerged when it was more distal to the 1st branching of the dendrites and was propagated in the orthodromic direction. The dendritic spike, evoked by weak stimulation, could be blocked in the dendritic furcational node. (English summary) (22 ref.)—I. D. London.

5698. Gutman, A. & Milyukas, V. (Medical Inst., Kaunas, USSR) Del'ta-volna kak summa vnekletochnykh potentsialov piramidnykh neironov: Teoreticheskaya otsenka amplitudy. [The delta-wave as the sum of extracellular potentials of pyramidal neurons: A theoretical estimation of amplitude.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 671-678.—Presents a mathematical analysis attempting to provide a quantitative expression of electrocorticogram potential as a function of intracellular potentials, in order to confirm the hypothesis that the delta-wave is a consequence of the postsynaptic potential of the pyramidal bodies, i.e., a change in polarization of the bodies of the pyramidal cortical cells. A formula is derived for transcortical potential for the simple case of uniform polarization of pyramidal cells over a large flat area of the cortex. A formula for purposes of calculation is also derived. The analysis is deliberately limited to delta-

activity, since here cellular discharges are maximally synchronized, thus leading to avoidance of the indefiniteness connected with the introduction of degree of synchronization.—I. D. London.

5699. Hillyard, Steven A. & Galambos, Robert. (U. California, Medical School, San Diego) Eye movement artifact in the CNV. *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 173-182.—During the preparatory interval between a warning click and a tone burst that signaled a lever press, a slow negative potential shift (contingent negative variation—CNV) was recorded from the scalp in 10 normal adults. When the eyes were closed, involuntary eye movements during the click-tone interval consistently generated potential shifts which spread from the corneo-retinal dipole to the scalp electrodes and thereby contaminated the CNV. The CNV was quantitatively partitioned into an artifactual component caused by ocular rotation (eye artifact potential—EAP), which summated with the 2nd component, presumably of cerebral origin, called the "true" or tCNV. The EAP amplitudes were estimated from concurrent recordings of the electrooculogram. In the average S, 23% or -6.1 μ V of the total CNV was comprised of EAP, and the EAP often reached from -10 to -15 μ V. The accuracy of the partition was verified by comparing tCNVs recorded with eyes closed and with eyes immobilized by fixation. The CNV produced during voluntary eye movements was similarly divided into a tCNV, which was tripled in amplitude when ocular responses were made with increased speed and effort, and an EAP, determined solely by the amount of ocular displacement. (French summary) (31 ref.)—*Journal summary*.

5700. Hirano, T., Best, P., & Olds, J. (Osaka City U., Japan) Units during habituation, discrimination learning, and extinction. *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 127-135.—Recorded unit responses with 62.5 μ fine wires implanted chronically in 15 rats. In each S, simultaneous recordings were made in hippocampus, midbrain, hypothalamus, and preoptic area. Results show that: (a) In hippocampus, there was no special response to novel stimuli, response increments appeared rapidly during conditioning, a difference developed between firing rates induced by CS+ and CS- control stimulus, and complete extinction of the increments in firing rates did not occur. (b) In midbrain, units initially responded to novel stimuli, and then showed continuous habituation; rate of discharge increased during conditioning, and a difference between patterns of firing induced by CS+ and CS- developed gradually and disappeared during extinction. (c) Hypothalamic units showed patterns of neuron responses similar to those of midbrain units but less pronounced. (d) Preoptic units showed relatively small responses to novel stimuli; these disappeared rapidly during habituation and no further responses occurred in conditioning or extinction trials. (French summary)—*Journal summary*.

5701. Humphrey, Donald R., Schmidt, E. M., & Thompson, W. D. (National Inst. of Neurological Diseases & Stroke, Bethesda, Md.) Predicting measures of motor performance from multiple cortical spike trains. *Science*, 1970(Nov), Vol. 170(3959), 758-762.—Obtained recordings simultaneously from several, individually selected neurons in the motor cortex of an unanesthetized monkey as he performed simple arm movements. With the use of comparatively simple

quantitative procedures, the activity of small sets of cells was found to be adequate for rather accurate real-time prediction of the time course of various response measurements. In addition, results suggest that hypotheses concerning the response variables controlled by cortical motor systems may depend upon whether or not the temporal relations between simultaneously active neurons are taken into account. (16 ref.)—*Journal abstract.*

5702. Irwin, Donald A. & Rebert, Charles S. (Southern Illinois U.) **Slow potential changes in cat brain during classical appetitive conditioning of jaw movements using two levels of reward.** *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 119-126.—Recorded slow potential changes (SPCs) from epidural motor cortex and subcortical areas in 24 mature, healthy cat brains. Before conditioning, a CS, elicited SPCs from the lateral hypothalamic area, the medial and the lateral amygdala. Tone-evoked SPCs did not occur in motor cortex, ventromedial hypothalamus and mesencephalic reticular formation. During conditioning, CS-evoked negative SPCs from motor cortex became increasingly larger in Ss receiving a large reward, but not in Ss receiving a small reward or pseudoconditioning. CS-evoked positive SPCs became larger in the lateral hypothalamic area in both reward groups, and were larger than those shown by a pseudoconditioning group. SPCs evoked by the CS and correlated with conditioning did not develop in the mesencephalic reticular formation, ventromedial hypothalamus, nor in medial and lateral amygdala. After conditioning, positive SPCs were shown to occur as responses to a large reward in motor cortex, lateral hypothalamus, and medial amygdala. The mesencephalic reticular formation responded to both reward levels with positive SPCs that did not differ significantly in magnitude. SPCs did not occur as responses to reward in lateral amygdala nor ventromedial hypothalamus. Results are discussed in terms of neuroanatomical specificity in the generation of subcortical SPCs and the motivating conditions necessary for the occurrence of SPCs in both cortical and subcortical areas. (French summary) (20 ref.)—*Journal summary.*

5703. Kas'yanov, V. M. & Pichkhadze, R. I. (Lenin Pedagogical Inst., Moscow, USSR) **Osobennosti sovместnoy raboty bol'shikh polushari pri formirovani dinamicheskogo stereotipa.** [Features of the joint activity of the cerebral hemispheres in formation of a dynamic stereotype.] *Zhurnal Vysshe Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 250-256.—Used 3 dogs, with "strong equilibrated quiet type" of nervous system to study the joint activity of the cerebral hemispheres in the formation of "systemic processes" (alimentary CRs to a stereotypic complex of stimuli) in the cortex. Complex stereotype of stimuli were employed: bell, buzzer, tactile stimulation of left thigh, same for right thigh at a symmetrical point, rhythmic flashes of light (150 W.), sound of bubbling. All stimuli served as positive signals, excepting the differential signals of buzzer and tactile stimulation of the right thigh. 3 phases were disclosed in the joint activity of the hemispheres in the process of forming a dynamic stereotype. Phase 1 was characterized by the elaboration of CRs to only separate components of the stereotype. A CR to an acoustic stimulus was developed sooner; to a dermatotactile stimulus later. In this phase, the hemispheres exhibited asymmetrical and nonconcordant activity

(chaotic secretory reactions). In Phase 2, positive CRs appeared to all components of the stereotype, while the negative CRs, in the form of differential internal inhibition, were unformed. The paired character of hemispheric function was manifested in the form of primarily asymmetrical reactions with dextral dominance. The magnitude of the secretory reactions declined and that of the latent periods increased. Phase 3 was characterized by marked stereotypic symmetrical reactions along with increased secretion and decreased latent periods of secretion. Restlessness in behavior disappeared, and instances of refusal to eat were reduced. Differential inhibition was formed only in Phase 3 when stereotypic reactions had been established to all the positive stimuli. Salivation in this phase, in response to a differential stimulus (buzzer), was slight with long latent periods and mainly asymmetrical manifestation. Null effects were often manifested in only 1 salivary gland.—I. D. London.

5704. Kots, Ya. M. (State Central Inst. of Physical Culture, Moscow, USSR) **Spinal'naya "nastroika" pered proizvol'nym fazicheskim dvizheniem, vypolnyaemym posle staticheskogo usiliya.** [Spinal "priming" before voluntary phasic movement, made after the application of static force.] *Zhurnal Vysshe Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 363-365.—Presents an EMG study of spinal "priming" before voluntary phasic movement (quick pressing of a pedal in response to a photic signal) against a background of initial impulse activity of the motoneuronal nucleus, resulting from light pressure against the pedal by the S through application of a constant force, controlled by a pointer dynamometer. Spinal "priming" is the gradual rise of reflex excitability of the spinal motoneurons of the muscle antagonists, preceding the onset of voluntary phasic movement (level of excitability indexed by amplitude of the reflex H response of the gastrocnemius muscle). Data indicate that the supraspinally directed transition of the motoneuronal nucleus from a state of rest to impulse activity or its transition from 1 level of nuclear activity to another is connected with preliminary priming of the reflex excitability of the motoneurons, lasting about 60 msec. Such "inertness" of spinal priming should be considered when analyzing the possibility and frequency of ongoing supraspinal corrections introduced into the course of voluntary motor performance.—I. D. London.

5705. Kuechenmeister, C. A. (U. Alabama) **Instrument for direct readout of log conductance (Log 1/R) measures of the galvanic skin response.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 128-134.

5706. Laux, Lothar & Fröhlich, Werner D. (U. Mainz, Inst. of Psychology, W. Germany) **Serielle Wahrnehmen, Aktualgenese, Informationsintegration und Orientierungsreaktion: II. Dimensionsanalyse von Massen des Hautwiderstandes (GHR).** [Sequential perception, microgenesis, integration of information and orienting reactions: II. Analysis of GSR measures and their dimensions.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 266-276.—7 frequently used measures of GSR collected from 81 Ss were factor analyzed. The analysis yielded 3 factors: time range, fundamental resistance, and change in resistance. These 3 account for 71% of the total variance. (English & French summaries) (18 ref.)—W. J. Koppitz.

5707. Lopes da Silva, F. & Storm van Leeuwen, W.

(Inst. of Medical Physics, TNO, Utrecht, Netherlands) **Electrophysiological correlates of behaviour.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(May), Vol. 72(3), 285-311.—Reviews a symposium of the Interdisciplinary Society of Biological Psychiatry and emphasizes the difficulty of establishing general ideas about the brain's work and its control function over behavior. An attempt was made to formulate a useful theoretical approach about brain function.—*Journal summary.*

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5709. Mainwood, G. W. & Lee, S. L. (U. Ottawa, Ontario, Canada) **Rat heart papillary muscles: Action potentials and mechanical response to paired stimuli.** *Science*, 1969(Oct), Vol. 166(3903), 396-397.—In an experiment studying the effects of paired pulses, it was found that electrical reexcitation of rat papillary muscle after a short interval (50-80 msec.) resulted in action potentials with no significant mechanical counterpart. The mechanical response recovered as the interval increased beyond 80 msec. The rate of recovery was slowed at low external calcium levels. It appears that the coupling mechanism passes through a refractory stage owing to the depletion of an intracellular "releasable calcium" fraction.—*Journal abstract.*

5710. Makarov, P. O. (Leningrad State U., USSR) **Interval vozbuzhdeniya i sovozbuzhdeniya pri sverkhshil'nykh razdrzheniyakh analizatorov cheloveka.** [Interval of excitation and coexcitation in superintense stimulation of the human analyzers.] *Zhurnal Vyssheĭ Nervnoĭ Deyatel'nosti*, 1969, Vol. 19(2), 301-304.—4 21-37 yr. old Ss participated in the study. Superintense brief optic stimulation, eliciting a painful reaction, produced in the visual system prolonged consequences (traces) in the form of changes in excitability, 100s and 1000s of times greater than the traces resulting from usual threshold and moderate stimulation. These traces had a phasic character: lowering of excitability is replaced by its heightening. In superintense stimulation prolonged phasic changes in excitability were observed in the stimulated sensory organ, and in neighboring sensory organs, not stimulated by the presented stimulus. Superintense stimulation of the eye produced changes in the excitability of the auditory and cutaneous analyzers. Similar results are obtained in the case of superintense acoustic and electrodermal stimuli. The interval of functional changes in the stimulated sensory organ is called the "interval of excitation" to distinguish it from the interval of functional changes in the neighboring sensory organs, called the "interval of coexcitation."—*I. D. London.*

5711. Mano, Nori-ichi. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Changes of simple and complex spike activity of cerebellar Purkinje cells with sleep and waking.** *Science*, 1970(Dec), Vol. 170(3964), 1325-1327.—Observed action potentials of cerebellar Purkinje cells in 3 intact monkeys during sleep and waking. Simple-spike activity (generated by the parallel fiber inputs to the Purkinje cell) was highest during sleep with REMs as compared with both waking and sleep with EEG slow waves. In contrast, complex-spike activity (generated by the climbing fiber inputs to the Purkinje cell) was lowest during sleep with REMs. The complex action potential of the Purkinje cell consists of an initial large spike

followed by 1 or more smaller secondary spikes, and the number of these secondary spikes was found to be independent of the background discharge frequency of the simple spike. This independence suggests a possible role of presynaptic factors rather than the excitability level of the Purkinje cell itself in determining the number of secondary discharges occurring in the complex spike.—*Journal abstract.*

5712. Marczyński, T. J., York, J. L., & Hackett, J. T. (U. Illinois, Medical School, Chicago) **Steady potential correlates of positive reinforcement: Reward contingent positive variation.** *Science*, 1969(Jan), Vol. 163(3864), 301-304.—A positive reinforcement with food produced high-voltage bursts of alpha activity over the posterior marginal gyrus in 6 cats deprived of food and water. This synchronization was always associated with a large (180-300 micro-V), positive steady potential shift comparable to that occurring during the onset of sleep. Since this shift was contingent upon the relative appropriateness and desirability of food reward, it was termed reward contingent positive variation. (16 ref.)—*Journal abstract.*

5713. Miller, Merrill M. & Levine, Ralph. (Stanford U., Medical Center) **Sleep analysis and a simple technique for selective deprivation of low-voltage fast-wave sleep in a species of deermouse P. m. bairdi.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 112-120.—In Exp. I electrocorticographic (ECOG) and EMG records were time-sampled from each of 3 P.m. bairdi when motionless with eyes closed. 60 5-sec intervals were categorized, by standard qualitative criteria, into 3 arousal states: low-voltage, fast-wave sleep (LVF); high-voltage, slow-wave sleep (HVS); or waking (W). Independently, each electrophysiological index was scored quantitatively either by counting large changes in ECOG potential or by rating intensity of EMG activity. Analyses indicate that the count and rating patterns were strongly associated with the initial qualitative judgments of arousal state, and that low EMG activity was concomitant with LVF. It was hypothesized that LVF could be reduced by curtailing low levels of muscle tonus. Exp. II tested such an hypothesis with 3 more P. m. bairdi. 60 5-sec ECOG and EMG records were similarly sampled (when S's eyes were closed), categorized, and independently quantified. Each S was perched over a shock-grid on a pedestal too small to permit total loss of muscle tonus. Records show only HVS and W but in ratios slightly altered from those observed for the 1st 3 Ss. Comparison of results suggests that, by preventing low muscle tonus, the pedestal-over-shock-grid can radically reduce the proportion of LVF in the sleep of P. m. bairdi.—*Journal abstract.*

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association (middle suprasylvian) cortex of the cat were recorded simultaneously with single microelectrodes and individual units were separated on the basis of their amplitude difference. During deep (slow wave) and intermediate (spindle) sleep there was a high probability of correlated firing with increased concurrent appearance of long periods of inactivity in the neuronal pairs. With a shift from sleep to wakefulness, correlation of silent periods between units was reduced and there was decreased probability of correlated firings. In this state, though long inactive periods appeared in individual neurons, they did not occur simultaneously. In behavioral arousal or in REM sleep (paradoxical sleep), the neuronal pairs discharged quite independently and the temporal patterns showed minimal correlation.—G. Westheimer.

5716. O'Gorman, J. G., Mangan, G. L., & Gowen, Joan A. (U. Queensland, St. Lucia, Brisbane, Australia) **Selective habituation of galvanic skin response component of the orientation reaction to an auditory stimulus.** *Psychophysiology*, 1970(May), Vol. 6(6), 716-721.—Tested the prediction from E. N. Sokolov's theory that, following orientation reaction (OR) habituation, size of OR return is proportional to the amount of difference between the new stimulus and the habituating stimulus using an auditory stimulus varying in frequency and intensity. 5 17-23 yr. old female undergraduates were allocated to each of 16 conditions (total N = 80), 3 conditions involving changes in frequency, 3 involving changes in intensity, 9 involving changes in both frequency and intensity, with 1 control condition involving a repetition of the habituating stimulus. Following habituation of the GSR component of the OR to a criterion of response failure for 3 successive trials, magnitude of GSR under the 16 conditions was measured. Contrary to E. N. Sokolov's theory, only increase in intensity had a significantly different effect on OR return. It was found that Ss habituating rapidly to the initial stimulus were less likely to show OR return to stimulus change. It is concluded that individual differences in habituation rate may be more important than stimulus difference effects in selective habituation.—*Journal abstract.*

5717. Peacock, Samuel M. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Averaged "after-activity" and the alpha regeneration cycle.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 287-295.—Stimulated 30 adults and children by repetitive flash and averaged the visual evoked response to study the relationship between after-activity and the alpha rhythm. Data suggest that after-activity is the averaged development of alpha regeneration following flash-induced block. A build-up of averaged response and after-discharge in linear relationship to the number of stimuli was not confirmed, nor was lateralization of this build-up observed. After-activity was seen to occur during the course of the long flash and cannot be considered an off response. It is suggested that the after-discharge well known in animal work is not seen in the human occipital cortex in response to flash, but rather with repetitive stimulation the alpha regeneration cycle is of sufficient stability to result in averaging of its stimulus-locked regeneration. (French summary) (20 ref.)—*Journal summary.*

5718. Ray, A. Joseph & Yates, J. Terry. (Carleton U., Ottawa, Ontario, Canada) **Spot welding for connecting chronically implanted electrodes.** *Electro-*

encephalography & Clinical Neurophysiology, 1970(Mar), Vol. 28(3), 320-321.—Describes a technique for spot welding electrodes to connectors. Advantages in chronic implantation are discussed, and other applications in electrophysiology are mentioned. (French summary)

—*Journal summary.*

5719. Smirnov, G. D., Mazurskaya, P. Z., & Kalantar, V. A. (Inst. of Evolutionary Morphology & Animal Ecology, Moscow, USSR) **Vliyaniye intensivnosti svetovyykh stimulov na reaktzii neironov zritel'noi kory krolika.** [Influence of intensity of photic stimuli on neuronal reaction in the rabbit visual cortex.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 627-634.—Ss were 25 immobilized rabbits and 120 visual cortical neurons were subjected to a microelectrode investigation in order to determine (a) change in the total number of spikes in neuronal reaction to photic stimuli of different brightness, (b) duration of the reaction, (c) temporal distribution of impulses after presentation of the photic stimulus, and (d) latent period of the response. In studying neuronal reaction in the visual cortex as a function of brightness of light, 3 groups of neurons were distinguished: those with gradual, selective, and monotonic types of reaction. In gradual type neurons, with increase in photic intensity, the number of impulses in the response increased along with the afteraction, while dispersion decreased along with the absolute value of the latent periods of the reaction. In neurons of the selective group, which reacted selectively to definite intensities of light and which were the most numerous, the greatest reaction may result from response to any illumination in the presented repertoire of brightnesses, including even the weakest illumination. In the monotonic group, reaction to the presentation of light with different brightness levels was the same. Judged by a number of indices (the number of spikes in the reaction, the magnitude of the afteraction, and temporal distribution of impulses), the selected neurons were primed to react to a definite brightness. In a number of cases a great degree of priming was detected: the reaction changed considerably with increase or decrease in brightness.—I. D. London.

5720. Sokolov, E. N. & Dubrovinskaya, N. V. (Moscow State U., USSR) **Ritmicheskiy razryad v perednem dvukholmii krolika.** [Rhythmic discharge in the anterior colliculi of the rabbit.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 328-336.—Used 11 narcotized rabbits to supply extracellular recordings of 60 anterior collicular neurons: (a) reactions to a singly presented flash of light, (b) changes of response in the course of 10 presentations of the stimulus, (c) reaction to different intensities of the stimulus (3-4 levels of brightness), and (d) restoration cycles and reactions to rhythmic photic stimulation. A description of the various light flashes employed are provided. Parallel recordings of spike and slow activity in the anterior colliculi disclosed neurons (12% of the recorded 60) which react to a flash of light with a rhythmic discharge, consisting of a series of 7-10 successive compact bundles of spikes. A correlation existed between bundles of action potentials and the negative components of oscillatory evoked potential, along with a correlation between intergroup intervals and the positive components. The stability of the discharge was demonstrated when the intensity of the stimulus was changed. Paired light flashes and rhythmic stimulation were utilized to demonstrate the independence of generation of the separate bundles of rhythmic

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5715. Noda, Hiroharu & Adey, W. Ross. (U. California, Los Angeles) **Firing of neuron pairs in cat association cortex during sleep and wakefulness.** *Journal of Neurophysiology*, 1970(Sep), Vol. 33(5), 672-684.—Spontaneous discharges of neuronal pairs in

association (middle suprasylvian) cortex of the cat were recorded simultaneously with single microelectrodes and individual units were separated on the basis of their amplitude difference. During deep (slow wave) and intermediate (spindle) sleep there was a high probability of correlated firing with increased concurrent appearance of long periods of inactivity in the neuronal pairs. With a shift from sleep to wakefulness, correlation of silent periods between units was reduced and there was decreased probability of correlated firings. In this state, though long inactive periods appeared in individual neurons, they did not occur simultaneously. In behavioral arousal or in REM sleep (paradoxical sleep), the neuronal pairs discharged quite independently and the temporal patterns showed minimal correlation.—G. Westheimer.

5716. O'Gorman, J. G., Mangan, G. L., & Gowen, Joan A. (U. Queensland, St. Lucia, Brisbane, Australia) **Selective habituation of galvanic skin response component of the orientation reaction to an auditory stimulus.** *Psychophysiology*, 1970(May), Vol. 6(6), 716-721.—Tested the prediction from E. N. Sokolov's theory that, following orientation reaction (OR) habituation, size of OR return is proportional to the amount of difference between the new stimulus and the habituating stimulus using an auditory stimulus varying in frequency and intensity. 5 17-23 yr. old female undergraduates were allocated to each of 16 conditions (total N = 80), 3 conditions involving changes in frequency, 3 involving changes in intensity, 9 involving changes in both frequency and intensity, with 1 control condition involving a repetition of the habituating stimulus. Following habituation of the GSR component of the OR to a criterion of response failure for 3 successive trials, magnitude of GSR under the 16 conditions was measured. Contrary to E. N. Sokolov's theory, only increase in intensity had a significantly different effect on OR return. It was found that Ss habituating rapidly to the initial stimulus were less likely to show OR return to stimulus change. It is concluded that individual differences in habituation rate may be more important than stimulus difference effects in selective habituation.—*Journal abstract.*

5717. Peacock, Samuel M. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Averaged "after-activity" and the alpha regeneration cycle.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 287-295.—Stimulated 30 adults and children by repetitive flash and averaged the visual evoked response to study the relationship between after-activity and the alpha rhythm. Data suggest that after-activity is the averaged development of alpha regeneration following flash-induced block. A build-up of averaged response and after-discharge in linear relationship to the number of stimuli was not confirmed, nor was lateralization of this build-up observed. After-activity was seen to occur during the course of the long flash and cannot be considered an off response. It is suggested that the after-discharge well known in animal work is not seen in the human occipital cortex in response to flash, but rather with repetitive stimulation the alpha regeneration cycle is of sufficient stability to result in averaging of its stimulus-locked regeneration. (French summary) (20 ref.)—*Journal summary.*

5718. Ray, A. Joseph & Yates, J. Terry. (Carleton U., Ottawa, Ontario, Canada) **Spot welding for connecting chronically implanted electrodes.** *Electro-*

encephalography & Clinical Neurophysiology, 1970(Mar), Vol. 28(3), 320-321.—Describes a technique for spot welding electrodes to connectors. Advantages in chronic implantation are discussed, and other applications in electrophysiology are mentioned. (French summary)—*Journal summary.*

5719. Smirnov, G. D., Mazurskaya, P. Z., & Kalantar, V. A. (Inst. of Evolutionary Morphology & Animal Ecology, Moscow, USSR) **Vliyaniye intensivnosti svetovyykh stimulov na reaktivnyy reaktion na zritel'noy kory krolika.** [Influence of intensity of photic stimuli on neuronal reaction in the rabbit visual cortex.] *Zhurnal Vysshey Nervnoy Deyatel'nosti*, 1969, Vol. 19(4), 627-634.—Ss were 25 immobilized rabbits and 120 visual cortical neurons were subjected to a microelectrode investigation in order to determine (a) change in the total number of spikes in neuronal reaction to photic stimuli of different brightness, (b) duration of the reaction, (c) temporal distribution of impulses after presentation of the photic stimulus, and (d) latent period of the response. In studying neuronal reaction in the visual cortex as a function of brightness of light, 3 groups of neurons were distinguished: those with gradual, selective, and monotonic types of reaction. In gradual type neurons, with increase in photic intensity, the number of impulses in the response increased along with the afteraction, while dispersion decreased along with the absolute value of the latent periods of the reaction. In neurons of the selective group, which reacted selectively to definite intensities of light and which were the most numerous, the greatest reaction may result from response to any illumination in the presented repertoire of brightnesses, including even the weakest illumination. In the monotonic group, reaction to the presentation of light with different brightness levels was the same. Judged by a number of indices (the number of spikes in the reaction, the magnitude of the afteraction, and temporal distribution of impulses), the selected neurons were primed to react to a definite brightness. In a number of cases a great degree of priming was detected: the reaction changed considerably with increase or decrease in brightness.—I. D. London.

5720. Sokolov, E. N. & Dubrovinskaya, N. V. (Moscow State U., USSR) **Ritmicheskiy razryad vperednem dvukholmnoy krolika.** [Rhythmic discharge in the anterior colliculi of the rabbit.] *Zhurnal Vysshey Nervnoy Deyatel'nosti*, 1969, Vol. 19(2), 328-336.—Used 11 narcotized rabbits to supply extracellular recordings of 60 anterior collicular neurons: (a) reactions to a singly presented flash of light, (b) changes of response in the course of 10 presentations of the stimulus, (c) reaction to different intensities of the stimulus (3-4 levels of brightness), and (d) restoration cycles and reactions to rhythmic photic stimulation. A description of the various light flashes employed are provided. Parallel recordings of spike and slow activity in the anterior colliculi disclosed neurons (12% of the recorded 60) which react to a flash of light with a rhythmic discharge, consisting of a series of 7-10 successive compact bundles of spikes. A correlation existed between bundles of action potentials and the negative components of oscillatory evoked potential, along with a correlation between intergroup intervals and the positive components. The stability of the discharge was demonstrated when the intensity of the stimulus was changed. Paired light flashes and rhythmic stimulation were utilized to demonstrate the independence of generation of the separate bundles of rhythmic

discharge. It is suggested that the rhythmic discharge of the anterior colliculi is connected with the functional organization of the receptive field of the retinal neurons, which selectively react to a definite speed of movement of an object in the visual field.—*I. D. London.*

5721. Treier, V. V. & Mevis, A. V. **Éksperimental'noe issledovanie adaptivnogo porogovogo élementa na élektrokhimicheskikh upravlyaemykh soprotivleniyakh.** [Experimental investigation of the adaptive threshold element in regulated electrochemical resistances.] *Problemy Bioniki*, 1970, No. 3, 45-50.—Describes studies on the adaptive threshold element, utilizing regulated electrochemical resistances as "weighted" coefficients.—*I. D. London.*

5722. Uno, Tadao. (Baylor U.) **The effects of awareness and successive inhibition on interoceptive and exteroceptive conditioning of the galvanic skin response.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 27-43.—Examines the conclusion from Soviet studies of interoceptive conditioning that interoceptive conditioning is unconscious, established at a slower rate, and is more resistant to extinction than exteroceptive conditioning. 48 paid volunteer Ss were classically conditioned to both interoceptive (0 and 50° C water in an intubated balloon located between the bronchial and diaphragmatic constrictions of the esophagus) and exteroceptive CSs (256- and 512-Hz tones at 60 db.). Significant intero- and exteroceptive conditioning of the GSR was obtained using responses occurring within the interstimulus or 1st interval (FIR) as well as the post-UCS or 2nd interval (SIR). FIR conditioning progressed at a slower rate to intero- than to exteroceptive stimulation whereas SIR conditioning was equally effective to both modes of stimulation. Unawareness of interoceptive stimulation or their reinforcement contingencies tended to eliminate FIR but not SIR conditioning. Although not statistically supported, successive inhibitory-excitatory compounding of intero- and exteroceptive CSs indicated stronger response tendencies to the interoceptive CSs when equated to exteroceptive conditioning strength. Results demonstrate the complexity of GSR conditioning when CS modality, response types, and awareness of CS-UCS contingencies are considered. (23 ref.)—*Journal abstract.*

5723. van Wulfften Palthe, P. M. **The psychogalvanic reflex as alarm system.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Jan), Vol. 72(1), 161-166.—Describes a self-contained device and procedure for measuring skin resistance which can be used as an alarm system in cases where continuous alertness is necessary. A study on the influence of music on an individual in solitude illustrates the practical application of the psychogalvanic reflex.

5724. Voronin, L. L. & Solntseva, E. I. (Inst. of the Brain, Moscow, USSR) **Sledovye éffekty posle polarizatsii otdel'nykh néyronov kory: Vnekletochnoe otvedenie.** [Trace effects after polarization of single cortical neurons: Extracellular recording.] *Zhurnal Vysheí Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 611-620.—In the greater part of the 136 neurons under study (Ss were unnarcotized rabbits) after both excitatory and inhibitory current prolonged changes of activity in the form of heightened and lowered frequency of discharges were noted in comparison with the initial level. With currents having a duration of not more than 20-30 sec., mean duration of afteraction was close in value to the duration of polarization. With prolonged (5-10 min.) polarization,

duration of the afteraction did not exceed 2-3 min. Trace effects were especially well expressed in neurons, which showed, against a background of current action, considerable changes in discharge frequency in the direction of heightening (gradual activation or "escape from inhibition"). No reliable changes in trace effects were observed after the administration of 30-40 mg/kg of nembutal. The findings are discussed in the light of other work using intracellular microelectrodes. It is suggested that trace effects, after both extracellular and intracellular polarization, are explainable not by the circulation of impulses in neuronal nets, but by the adaptive properties of excitable membrane. The 2 forms of effect after cessation of unidirectional extracellular current are explained by the fact that such current has a double action, depolarizing some parts of the membrane and hyperpolarizing others.—*I. D. London.*

5725. Wasman, Marvin; Morehead, Sherrod D., Lee, Ho-Young, & Rowland, Vernon. (Case Western Reserve U.) **Interaction of electro-ocular potentials with the contingent negative variation.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 103-111.—Recorded the contingent negative variation (CNV) from the vertex in 45 undergraduates and nurses during a 2-stimulus expectancy paradigm under varying conditions of eye closure and fixation. Simultaneously averaged electrooculograms (EOG) were recorded as a measure of eye movement. The amplitude of both CNV and EOG responses was significantly greater for the eyes closed and eyes open unfixed conditions as compared to the eyes fixated condition. CNV and EOG responses were often highly similar in terms of waveform. For the eyes fixated condition 3 patterns of CNV-EOG interaction were observed. 18 Ss demonstrated a CNV response of low amplitude in the absence of detectable EOG responses. 23 Ss showed a predominant pattern in which CNV responses of high amplitude and EOG responses were present. 4 Ss failed to show either a CNV or EOG response. There was considerable within S variability in the pattern of response with replicated blocks of trials. Thus contamination of the CNV by EOG potentials is reduced by eye fixation but not eliminated because of S variability in control of eye movement. (18 ref.)—*Journal abstract.*

Electroencephalography & Evoked Potentials

5726. Batuev, A. S. (Leningrad State U., USSR) **Lobnye doli bol'shikh polusharii kak apparat mezhanalizatornoi integratsii.** [The cerebral frontal lobes as apparatus for interanalyzer integration.] *Zhurnal Vysheí Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 270-278.—Used 7 adult dogs and 2 3-mo-old puppies to study the participation of the cerebral frontal lobes in the organization of alimentary motor CRs to a complex of simultaneous heteromodal stimuli (visual and auditory). Evoked potentials were recorded from the surface of the frontal cortex, the gigantopyramidal field, the temporal and occipital regions. The processes of interanalyzer integration were studied after ablation of different parts of the cortical section of the motor analyzer, including the frontal lobes. CRs to the simultaneous heteromodal complex (light + sound) and extinction of their components were slightly affected after extirpation of the gigantopyramidal field, but were sharply disrupted after frontal lobectomy. Along with its disturbance of inter-

analyzer synthesis, lobectomy produced no noticeable motor disorders. The degree of disorder of "analytico-synthetic activity" is a function of the dimensions of extirpation of the frontal lobes and the degree of cerebral maturation at the time of the operation. Recordings of evoked potentials in Ss under chloralose-nembutal narcosis disclose a convergence of auditory, visual, and dermomuscular afferent systems in the structures of the frontal cortex and in the gigantopyramidal field.—*I. D. London.*

5727. Belousova, Zh. A. (Medical Inst., Gorki, USSR) **K voprosu o lokalizatsii vyzvannykh potentsialov na svetovye razdrazheniya v kore bol'shikh polusharii.** [On localization of evoked potentials in response to photic stimulation in the cerebral cortex.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 707-709.—Utilized the Laplacian method to determine the actual locale of evoked potentials in response to light flashes in the cerebral cortex of 13 nembutalized cats. There was a considerable difference in localization of evoked responses when recorded by the Laplacian and the usual monopolar method. The latter method did not exclude registration of "passively propagating currents." The region for picking up true evoked responses to photic stimulation under nembutal narcosis was bounded by the cortical projection zone and the middle suprasylvian gyrus, excluding its anterior third.—*I. D. London.*

5728. Bert, J., Kripke, D. F., & Rhodes, J. (60 Ave. Cantini, Marseilles, France) **Electroencephalogram of the mature chimpanzee: Twenty-four hour recordings.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 368-373.—Obtained 24-hr EEG recordings from 3 sexually mature chimpanzees. Telemetry permitted the study of unrestrained Ss in their home cages, during both sleep and wakefulness. Ss slept a mean of 9 hr. 40 min. at night, but hardly at all during the day. The sleep EEG of Ss contained very few sigma rhythms, vertex sharp waves and K complexes as compared with adult human Ss or juvenile chimpanzees. Awakenings were very frequent, amounting to 17% of the sleep periods, and episodes of each stage were short because of frequent stage shifts. Stage REM occupied only 15% of the sleep recorded. Although findings confirm the general similarity of chimpanzee sleep patterns to those of humans, the records were actually more similar to recordings of lower primates. It is hard to explain these findings phylogenetically, and they may reflect the effects of captivity on laboratory animals. (French summary)—*Journal summary.*

5729. Birbaumer, Niels. (Vienna U., Inst. of Psychology, Austria) **Präventive Alpha-Inhibition und Angst.** [Prevention of alpha-inhibition and anxiety.] *Studia Psychologica*, 1970, Vol. 12(3), 179-187.—EEG alpha-waves are considered to be an electrophysiological manifestation of a preventive inhibition process. This inhibition prevents reception and processing of sequences of impulses as insignificant stimuli in the cortex. During avoidance experiments a count-down was made from 20-0 with S receiving an electric shock at 0. Synchronization as compared to the resting state (strong preventive inhibition), occurred in some Ss, and desynchronization in others. Ss with strong preventive inhibition were more anxious than those with a desynchronization EEG during an avoidance experiment. A possible explanation from the aspect of learning theory and physiology is given in regard to these

unexpected results. (Czech & Russian summaries)—*English summary.*

5730. Brendsted, A. N. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Izmenenie bioelektricheskoi aktivnosti mozga detei v protsesse formirovaniya slozhnogo navyka.** [Alteration of bioelectrical activity in the child brain in the process of forming a complex habit.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 372-374.—Observed 50 3-7 yr. old Ss while engaged in a special form of play activity: (a) putting together colored geometrical parts to match a model, and (b) putting together the components of a toy according to a model. The EEG changes are detailed. Data indicate that in a particular set of EEG changes appeared in the process of play activity involving construction based on models—an effect expressed in the emergence of groups of rhythmic oscillations of relatively high amplitude with a frequency of 4-7/sec. The dynamics of this effect indicate its connection with an "orienting-investigatory reaction" on the part of the child, possibly in that complex form which L. A. Orbeli has designated as the "what-can-you-do-with-this? reflex." It is suggested that the appearance of groups of waves of slow activity in the child EEG, reflecting an aspect of the orienting-investigatory reaction, is attributable to the incomplete maturation of several mechanisms in the cortex, thalamus, and hypothalamus, involved in execution of the orienting-investigatory reflex.—*I. D. London.*

5731. Butler, R. A., Keidel, W. D., & Spreng, M. (U. Chicago) **An investigation of the human cortical evoked potential under conditions of monaural and binaural stimulation.** *Acta Oto-Laryngologica*, 1969(Oct), Vol. 68(4), 317-326.—Recorded the human cortical potential evoked by a 1000-Hz tone in 10 students and faculty members under conditions of binaural and monaural stimulation which covered a wide range of stimulus intensities. Results show that (a) the curve for the amplitude, and for the area confined by the potential, increased with increases in stimulus intensity. At higher stimulus intensities, these curves leveled off. (b) Bilateral stimulation generated larger cortical potentials than monaural stimulation. (c) Latency of the potential decreased with increases in stimulus intensity. When the monaural stimulus was delivered to the ear contralateral to the active scalp electrode, the various components the potential showed consistently a shorter latency than when the monaural stimulus was presented ipsilaterally. (German summary)—*Journal abstract.*

5732. Chapman, Robert M., Shelburne, Samuel A., & Bragdon, Henry R. (Eye Research Foundation, Bethesda, Md.) **EEG alpha activity influenced by visual input and not by eye position.** *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 183-189.—Conducted an experiment to refute recent investigations which have suggested that elevation of the eyes is associated with a marked increase in EEG alpha activity. In preliminary and main groups of 13 and 22 Ss, an EEG electronic scorer measured the time that alpha activity was present from the left and right hemispheres in the following comparisons: (a) eye positions ahead vs. up in the light, (b) eyes ahead vs. up in the dark, and (c) eyes open vs. closed in the light. In the main group, fixation targets for the eye-ahead and eye-up positions were added. In the dark, where differential visual input was eliminated, the alpha index did not increase when eyes were elevated. Differences in alpha activity related

to eye position in the light condition were decreased when differential visual input was decreased by the use of fixation targets. The effects of variables confounded with eye position, e.g., patterned visual input to the retina, accommodation, fixation, and effort required to maintain a specified eye position, are discussed. It is concluded that the main variable that determined increase in alpha activity was reduction in visual input, either by closing the eyes or extinguishing the lights.

—*Journal summary.*

5733. Chizhenkova, R. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Fonovaya i vyzvannaya aktivnost' neuronov zritel'noi kory krolika posle vozdeistviya polem SVCh.* [Background- and evoked activity of neurons in the rabbit visual cortex after the action of an SHF field.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 495-501.—Studied the spontaneous and evoked activity of 63 neurons in the visual cortex of 8 unnarcotized alert rabbits after the action of a super-high-frequency (SHF) field (wavelength: 12.5 cm; 40 mw/cm²). After such action, 52.4 % of the visual cortical neurons exhibited altered spontaneous activity in the direction of increase or decrease. Neuronal responses to a light flash, as a rule, were facilitated by the action of the SHF field. Some neurons, which did not react to a light flash before the action of this field, began to respond to it after such action.—*I. D. London.*

5734. Efremova, T. M. & Trush, V. D. (Inst of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Issledovanie chastotnykh spektrov neuronnoi aktivnosti razlichnykh sloev zritel'noi kory krolika pri posloinom otvedenii vne deistviya afferentnykh razdrazhenii.* [Study of frequency spectra of neuronal activity in different layers of the rabbit visual cortex with layer-by-layer recording exclusive of the action of afferent stimulation.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 621-626.—6 unnarcotized nonimmobilized Ss were used to study the spectra of electrocorticogram (ECoG), using a microelectrode with a tip diameter of 1-5 microns, in order to determine the local spectral characteristics of the bioelectrical activity of different (5-6) layers of the cortex. The ECoG function of spectral density, $G(w)$, was computed as a Fourier transformation, utilizing the Hamming weighted function along with a correlation function. $G(w)$ provides a dependable assessment of the spectral density function of a stationary random process. EEG and ECoG power spectra, recorded from the same point of the visual cortex with an electrode having a diameter of 500 microns, were similar to each other. Spontaneous ECoG power spectra of the surface and deep layers of the visual cortex recorded with the microelectrode exhibited great similarity both in frequency composition and in relative prominence. All frequencies from 1-50 cps were represented in the spectra under study with prominence primarily in the range from 1-12 cps. The presence of wide-band spectral components is characteristic of these spectra. At the level of 900-1000 microns from the cortical surface, the ECoG power spectra differed considerably from those of the remaining levels: here a more or less equal prominence of all frequencies occurred in the range of 1-50 cps. The indicated level coincided with the inversion level of spontaneous and evoked activity.—*I. D. London.*

5735. Fruhstorfer, H., Soveri, P., & Järvillehto, T. (U. Helsinki, Inst. of Physiology, Finland) *Short-term habituation of the auditory evoked response in man.*

Electroencephalography & Clinical Neurophysiology, 1970(Feb), Vol. 28(2), 153-161.—Studied changes in the auditory evoked vertex response occurring in the course of a short train of clicks in 6 healthy male adults, to determine quantitatively the dependence of the response amplitude on the number of stimulus presentations and on the stimulus interval. S's vigilance and attention were controlled. The peak-to-peak amplitude of the individual response to the 1st stimulus of a train varied and was larger when the train was attentively expected. The amplitude distributions differed from normal in most cases. The peak-to-peak amplitude of the computed average response was smaller than the calculated mean amplitude of the corresponding single responses. With presentation of a stimulus train, all components of the average response except P_2 decreases rapidly in amplitude. With a 1-sec stimulus interval, the response had reached the asymptotic level at the 3rd stimulus. At a 3-sec stimulus interval, the decrease was less rapid and pronounced. In all cases the amplitude decrease followed approximately a negative exponential function of the number of stimulus presentations, and in part of the components, it coincided with a latency reduction. Results show that the human vertex response satisfies several main characteristics of habituation. (French summary) (20 ref.)—*Journal summary.*

5736. Genkin, A. A. & Mordvinov, E. F. (Kirov Military-Medical Academy, Leningrad, USSR) *Elektro-entsefalograficheskie korrelyaty gipnoticheskogo sostoyaniya.* [Electroencephalographic correlates of the hypnotic state.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 471-479.—8 18-21 yr. old easily hypnotizable Ss participated. A considerable decrease was established in the average level of asymmetry of duration of the phases of single EEG oscillations in the precataleptic stage of hypnosis as compared to the mean level of asymmetry in "usual alertness," defined as the state of an S sitting or lying comfortably with eyes closed. With deepening of the hypnotic state and its transition to natural sleep, the mean level of asymmetry disclosed a tendency to drop. Mean level of asymmetry in the precataleptic stage of hypnosis is shown to be a function of that for "usual alertness." A similar function was absent in the deep stages of hypnosis and natural sleep. Results (a) confirm the discrete character of the changes in mean level of asymmetry during transition from 1 functional state to another, and (b) make it possible to develop the hypothesis that there are in the CNS mechanisms which manage the regulation of the mean level of asymmetry. Mental activity in the hypnotic state produced increase in $1/2$ the cases, and, in the other $1/2$, decrease in the average level of asymmetry. Given similar activity, the direction of changes in mean level of asymmetry was the same in "usual alertness" and in hypnosis.—*I. D. London.*

5737. Guilbaud, G. (Lab. de Physiologie des Centres Nerveux, Paris, France) *Essai de classification des structures centrales au moyen des variations d'amplitude de leurs réponses évoquées somatiques au cours des cycles veille-sommeil.* [A classification of cerebral structures according to the amplitudes of their somatic evoked responses during sleep and wakefulness.] *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 340-350.—Studied the evolution of the amplitude and shape of responses evoked at various cortical and subcortical levels during different phases of sleep and wakefulness in 38 cats. Stimulating electrodes were also placed on the superficial radial

nerve and the means of groups of 25 responses were obtained. 3 groups of structures could be recognized according to the evolution of their responses during sleep: (a) primary structures (VPL, somato-motor cortex, SII cortex) in which the responses were largest during fast sleep; (b) convergent structures (centrum medianum, bulbar reticular formation, caudate nucleus, pallidum, putamen, antero-inferior portion of VL, antero-lateral and suprasylvian gyri) in which the amplitude of responses was large during slow sleep, but small during fast sleep or wakefulness; (c) mixed structures (claustrum, red nucleus, postero-superior portion of VL) showed responses with several components which behaved like one or other of the preceding types. In addition new components appeared during fast sleep. The late components of responses from mixed structures were abolished by ablation of the somato-motor cortex but were unaffected by cerebellectomy. The occurrence of late components in the responses of mixed structures during fast sleep was attributed to an increase in the excitatory influence which the somato-motor cortex normally exerts on subcortical structures. Reinforcement of an inhibitory influence of somato-motor cortical origin is also believed to occur during fast sleep. (45 ref.)—*English summary.*

5738. Hartley, L. R. (Medical Research Council, Cambridge, England) **The effect of stimulus relevance on the cortical evoked potentials.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 531-546.—Investigated the relationship between selective attention and the cortical evoked potentials and avoided some methodological artifacts. 12 21-65 yr. old Ss were divided into auditory and visual signal detection groups. Each group was required to detect infrequent signals of 1 modality in a random sequence of auditory and visual stimuli. Results provide no direct support for the postulated correlation between the 2 variables, but do suggest 2 possible explanations. (37 ref.)—*Journal abstract.*

5739. Hayes, R. W. & Venables, P. H. (Birkbeck Coll., U. London, England) **EEG measures of arousal during RFT performance in "noise."** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 594.—Measured EEG alpha of 21 undergraduates during upright Rod and Frame Test (RFT) performance in 6 blocks of 4 trials in a portable apparatus. Neither the stability of RFT performance nor the amount of EEG alpha was found to be affected by loud earphone noise delivered whenever alpha exceeded 80% of S's maximum alpha. Results are discussed in relation to P. K. Oltman's proposal that RFT performance may be influenced by physiological arousal.—*Author abstract.*

5740. Jewett, D. L. (U. California, Medical Center, San Francisco) **An average response technique for recording potentials relative to a distant point without EKG interference.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 414-416.—Describes a technique used to evaluate the electrical activity of an electrode implanted in the caudate nucleus in 4 adult cats. The recording sweep and the onset of the stimulus were triggered from the EKG after a variable delay so that the average was obtained in a relatively flat portion of the EKG cycle. (French summary)—*Journal summary.*

5741. Jovanović, U. J. (Universitäts-Nervenklinik, Würzburg, W. Germany) **Die subklinische Schlafaktivität im EEG.** [Subclinical sleep activity in the EEG.] *Psychiatria Clinica*, 1969, Vol. 2(6), 338-

367.—Defines "subclinical sleep activity" (SSA) in the EEG as the appearance of sleep-associated features appearing in the waking EEG without clinical concomitants of sleep, and which disappear on hyperventilation, sensory stimulation, waking-drugs, and sleep. Following the usual procedure for sleep recordings the SSA can also be divided into States A and B. State A contains the substate Aa in which the SSA is not yet recognizable; the substate Ab shows continuous and regular alpha waves without changes in frequency or amplitude; the substate Ac shows flat EEG rhythms. The subclinical sleep activity in State B can be subdivided into substate Ba with smaller and faster theta waves, and the substate Bb with medium-frequent theta waves of 4-5 cps. In the substate Bc clinical sleep appears. 82 persons with SSA were found in a total of 1059 Ss. All Ss were investigated by resting EEG, hyperventilation, sensory stimulation, and waking-drugs. 14 cases were also observed during several nights while polygraphic recordings were made during natural sleep. (3 p. ref.)—*Journal summary.*

5742. Karlin, Lawrence; Martz, Merrill J., & Mordkoff, Arnold M. (New York U.) **Motor performance and sensory-evoked potentials.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 307-313.—determined the averaged evoked potentials (EPs) to tones for 15 undergraduates in 3 tasks designed to evaluate the effects of motor response, of withholding a response, and of different response latencies. With the influence of eye movement minimized, various deflections of the sensory EPs were affected differently as follows: (a) withholding a response produced a significantly larger P₁ deflection, the amplitude of which was negatively correlated with RT; (b) stimuli, to which overt motor responses were later made, produced a negative shift in deflections N₁, P₂, and N₂, but there were no significant changes in deflections P₁, P₃ and N₃; and (c) no effects could be ascribed to specific time characteristics of the tasks (simple vs. choice RT), to the overt motor response, or to its immediately preceding EMG activity. Data are interpreted to mean that the negative shift in N₁, P₂, and N₂ is related to the development of an excitatory state associated with intention to respond to stimulus, and that increased positivity in P₃ is uniquely related to withholding a response when rapid action is required. No effects on the averaged EP could be unequivocally attributed to occurrence of overt motor response itself. (French summary) (19 ref.)—*Journal summary.*

5743. Kosilov, S. A., Vasyutina, A. I., Zyablov, V. A., & Rigina, A. A. (Research Inst. of Age-Specific Physiology & Physical Education, Moscow, USSR) **Sposoby registratsii bystrykh i medlennykh tochnostnykh dvizhenii sinkhronno s élektroéntsefalogrammoí i élektromiogrammoí.** [Methods for recording precise fast and slow movements synchronously with the electroencephalogram and electromyogram.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1504-1508.—Describes and analyzes the apparatus and techniques for the procurement of mechanograms, synchronously with associated EEGs and EMGs, of precise movements that are either fast or relatively slow, especially those connected with attempts to reproduce memorized digital movement or effort.—*I. D. London.*

5744. Kotelenko, L. M. & Matyushkin, D. P. (Leningrad State U., USSR) **Svoistva neironov slukhovoí kory letucheí myshi (reaktsii na ul'trazvuki raznoi vysoty i intensivnosti).** [Properties of neurons in the bat auditory cortex (reactions to ultrasound of various

frequencies and intensities.) *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 502-508.—Ss were 11 narcotized bats (*Myotis oxygnathus*). Cortical evoked potentials displayed the character of primary responses. The responses of cortical neurons to ultrasound had the form of single or multiple high-amplitudinal action potentials with a latent period of 5-43 msec. The majority of the neurons, reacting to ultrasound, were located at a depth of 500-800 microns. With growth of stimulus intensity of ultrasound, evoked potentials and neuronal reactions increased to a certain limit, beyond which in most cases a weakening occurred. Excitatory and inhibitory thresholds of the cortical neurons were variable. Part of the neurons reacted to only a certain (sometimes very narrow) band of ultrasonic intensities. An investigation of thresholds of neuronal reactions as a function of frequency of ultrasonic signals disclosed that frequency-threshold curves were comparatively restricted for part of the nerve cells, whereas for others these curves covered the whole or almost the whole range of applied ultrasound (10-100 kcps). However, with repeated determinations, extended frequency-threshold curves were uncovered in all the neurons under study. The extension of the frequency-threshold curves of previously narrow-ranged neurons is hypothetically connected with the lengthy action of a schedule of threshold stimulations.—*I. D. London.*

5745. Kudinov, M. P. & Myslobodskii, M. S. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Nekotorye osobennosti reaktsii mozga cheloveka na parnyi svetovoi stimul.* [Some features of human cerebral reaction to paired photic stimulus.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 293-300.—Employed 29 18-35 yr. old Ss in light sleep and when awake to study the amplitude and latent period of several components of evoked potential to a paired photic stimulus. Considerable individual differences were detected in the dynamics of restoration for the components of the mean evoked potential. In the wakeful state, exaltation occurred when the interval between stimuli was of the order of 100 msec. The 2nd period of exaltation for the different components of the mean evoked potential occurred at different times—from 200-500 msec. The dynamics of restoration for the components is a function of the part of the slow negative wave of the preceding response, in which they develop. In wakeful Ss the restoration curves for the latent periods of the components repeated the course of the restoration curves for their amplitude. The magnitude of the latent period of the alpha afterdischarge, in response to the 2nd stimulus when the intervals between stimuli are from 70-300 msec., always exceeded the initial magnitude. It is concluded that during sleep the correspondence between the amplitude of the component of the mean evoked potential and the time, preceding its maximum, is destroyed.—*I. D. London.*

5746. Kutuev, A. B. (Inst. of Experimental Medicine, Leningrad, USSR) *Avtomaticheskii analiz vyzvannykh potentsialov.* [Automatic analysis of evoked potentials.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 375-378.—Presents the design and analysis of a device for the investigation of the probability distributions of several parameters of evoked potential in response to photic stimulation (magnitude of latent period, duration of its positive or negative phase, etc.).—*I. D. London.*

5747. Kutuev, A. B. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) *Dispersionnyi analiz tonovoi i vysvannoi elektricheskoi aktivnosti pri*

uslovnoreflektornoï deyatelnosti. [Dispersion analysis of spontaneous and evoked electrical activity in conditioned reflex.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 548-550.—Presents a technical discussion of a special dispersion analysis of the EEG, in order to promote the quantitative evaluation of information contained in any of its given segments.—*I. D. London.*

5748. Larsson, Lars E. & Prevec, Tine S. (Regional Hosp., Linköping, Sweden) *Somato-sensory response to mechanical stimulation as recorded in the human EEG.* *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 162-172.—Tapping various sites of the body evoked well defined responses in the EEG from the somatosensory scalp area in 37 human Ss. These responses were similar to those evoked by peripheral nerve stimulation in the same S, but had longer latencies for characteristic peaks, and lacked the initial negative wave characteristic of the latter responses. Summated nerve action potentials evoked by peripheral nerve stimulation were single synchronous volleys of comparatively large amplitude, while those evoked by tapping had a small amplitude and tended to be polyphasic. Responses evoked by tapping were widespread, but tended to have maximal amplitudes in accordance with the known somatotopic organization. Responses to taps on the proximal parts of the extremities and on the trunk and face had large amplitudes and wide distributions. Latencies of the initial parts of the response were shorter when evoked by proximal than distal taps. Later waves did not behave so regularly; they may in individual cases have had longer latencies for proximal than for distal taps. Distribution and latency studies suggest the existence of a dual complementary inflow responsible for the evoked potential, at least when evoked from proximal parts of the extremities and trunk. (French summary) (28 ref.)—*Journal summary.*

5749. Luk'yanova, O. N. *Izmenenie spetsificheskoi afferentatsii vo vremya osushchestvleniya orientirovochnogo refleksa.* [Changes in specific afferentation during execution of the orienting reflex.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 165-176.—It was shown that, during the orienting reflex, it is possible to observe the facilitation or inhibition of "afferent information" as a function of strength of the new stimulus. Dogs were Ss. Changes in excitability of the auditory pathway were recorded during the orienting reflex, with evoked potentials and the EEGs of the auditory cortex serving as indices of excitability.—*I. D. London.*

5750. Martin, James I. (U. Arizona) *Effects of binocular fusion and binocular rivalry on cortically evoked potentials.* *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 190-201.—Employed 2 stimulus patterns to obtain pattern-characteristic responses to monocular stimulation in an experiment with 5 adult Ss. Various combinations of the stimuli in monocular and binocular presentation, together with S's perceptual judgment of dominance in conditions of rivalry, yielded 12 experimental conditions. Correlations and t-statistics were computed for the evoked potentials obtained under several combinations of experimental conditions. Results indicate that the physiological record obtained under conditions of binocular stimulation is not composed of equal contributions from each monocular source. There was no apparent definite relation between the pattern which was perceived under conditions of rivalry and the resulting wave form of the evoked potential. The utilization of

cortically evoked potentials as a physiological indicator of subjective phenomena under conditions of binocular rivalry does not appear to be substantiated. A form of electrophysiological dominance appears to exist which seems to be unrelated to either momentary or general perceptual dominance, but may be related to an interaction of the eye-of-origin with the physical characteristics of the stimulus. (French summary)—*Journal summary*.

5751. Miller, Josef M., Moody, David B., & Stebbins, William C. (U. Washington, Medical School) **Evoked potentials and auditory reaction time in monkeys.** *Science*, 1969(Feb), Vol. 163(3867), 592-594.—Trained 2 monkeys with bipolar stimulating and recording electrodes in primary auditory cortex to release a key to the onset of a pure tone. Substitution of direct cortical stimulation for the pure tone resulted in a reduction of 15 msec. in the latency of the behavioral response. This changed latency agreed with the latency of the primary evoked potential recorded from Ss. Systematic related changes in the amplitude of the central response and in the latency of the behavioral response followed changes in the intensity and frequency of the acoustic stimulus.—*Journal abstract*.

5752. Naumova, T. S. & Popova, N. S. (Inst. of the Brain, Moscow, USSR) **Analogi vyzvannykh potentsialov i ikh otnosheniye k mezhsignal'nym reaktsiyam pri formirovani oboronitel'nogo uslovnogo refleksa.** [Analog of evoked potentials and their relation to intersignal reactions in the formation of the defensive conditioned reflex.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 410-418.—Studied the dynamics of electric potentials in the system of the signal (auditory and visual) analyzer in establishment of the defensive CR, in order to carry out a "deeper analysis" of the processes taking place in intersignal reactions. Ss were 6 dogs with electrodes implanted in the territory of the cortical termini of the auditory (Field T₁), visual (Field O₁), and dermomotor (Field PrC₁) analyzers, and also in the internal and lateral geniculate bodies. CRs were elaborated to intermittent (2/sec) auditory stimulation (clicks); afterwards to photic stimulation (flashes of light). Reinforcement was single threshold electrostimulation of the forepaw, after 5 flashes or clicks. In the system of the auditory and visual analyzers (primary projection cortical zones and geniculate bodies), analogs of evoked potentials were recorded against a background of intersignal reactions (observed in the 2nd and 3rd stages of formation of the defensive CRs). To the degree that the CR was established, the amplitude and duration of these analogs displayed the same dynamics as the primary responses to CR stimulation, but the dynamics of the former outstripped that of the latter. In the reflex-stabilization stage, the analogs of evoked potentials in the system of the signal analyzer ceased to be recorded, but they became more distinct in the cortical terminus of the dermomotor analyzer. In this way, in the elaboration of the defensive CR, intersignal reactions occurred as a result of increase in the level of trace excitation in the signal constellation, developing in advance of any stage in the formation of the reflex. It is suggested that intersignal reactions constitute a distinctive, self-adjusting mechanism, "training the reflex being formed and 'gambling on' the results of future events."—I. D. London.

5753. Posthumus Meyjes, F. E. (U. Amsterdam, Netherlands) **Some characteristics of the early components of the somato-sensory evoked response to**

mechanical stimuli in man. *Psychiatria, Neurologia, Neurochirurgia*, 1969(May), Vol. 72(3), 263-268.—Studied the average somato-sensory evoked response to electrical stimulation and to mechanical stimulation with both the blunt and sharp end of a neurological pin in 19 normal 18-27 yr. old volunteers, with emphasis on the early components of the response. A significant difference in latency was disclosed which has not yet been described in the literature; the mean latency was 21.1 msec. after electrical stimulation of the index- or middle-finger, 23.1 msec. after stimulation with the blunt and 24.5 msec. after stimulation with the sharp end of the pin. These differences were valid for the beginning and for the peak of the 1st negative wave of the response in the contralateral primary sensory area. The reproducibility of the early components of the responses was good.—*Journal summary*.

5754. Rosenfeld, Joel P., Rudell, Alan P., & Fox, Stephen S. (U. Iowa) **Operant control of neural events in humans.** *Science*, 1969(Aug), Vol. 165(3895), 821-823.—Describes an experiment designed to specify brain wave components as potential information carriers as demonstrated by their ability to yield to operant control. Human Ss were trained by traditional methods of instrumental conditioning to change the amplitude of a late component of the auditory evoked potential with and without oscilloscopic feedback of their performance.—*Journal abstract*.

5755. Suvorov, N. B., Neimark, G. S., Vasilevskii, N. N., & Soroko, S. I. (Inst. of Experimental Medicine, Leningrad, USSR) **Analiz impul'snoi aktivnosti neirona i usrednenie vyzvannykh potentsialov pri pomoshchi amplitudnykh analizatorov.** [Analysis of neuronal impulse activity and averaging of evoked potentials by means of amplitude analyzers.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 730-733.—Presents the theory and design of a semiconductor transformer, permitting the utilization of certain types of amplitude analyzers for the construction of post-stimulation histograms, and the averaging of evoked potentials and EEG segments. The transformer preserves unchanged the temporal relationships of the impulse process, with amplitude of the impulses a linear function of time. Some advantages of the transformer over others: (a) high linearity of transformation of time into amplitude for any interval of time, (b) a maximal stimulatory frequency of 1000 cps, and (c) use with amplitude analyzers, having any number of channels.—I. D. London.

5756. Varga, M. E., Kuznetsova, G. D., Myslobodskii, M. S., & Slobodchikova, O. N. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O sposobe vyrobki klassicheskogo oboronitel'nogo (umyvatel'nogo) uslovnogo refleksa u krysa.** [On a method of elaborating a classical defensive (washing) conditioned reflex in rats.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 719-722.—12 white rats were Ss in this study detailing a new method of elaborating a classical electrodefensive CR to light flashes on the basis of the washing UCR, accompanied by registration of EEG changes during the elaboration. Advantages of the method: (a) it permits the study of classical defensive CRs in freely moving rats, while strictly grading the strength of stimulation; and (b) the absence in the EEG of noticeable artifacts of stimulation, in bringing about CRs and UCRs, promotes the proper analysis of electrical responses in the cortex during the elaborational process.—I. D. London.

5757. Vasil'ev, B. D., Levenko, B. A., & Il'ichev, V. D. (State U., Moscow, USSR) **Vysvannye potentsialy akusticheskikh yader i osobennosti slukha u travyanoi lyagushki.** [Evoked potentials of the acoustic nuclei and the features typifying hearing in the grass frog.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1457-1464.—40 prepared frogs (*Rana temporaria*) were used in a study to assess the possibilities of acoustic perception in amphibians via: (a) "seismic" means, i.e., a system involving the anterior extremities, opercular muscle, and operculum; (b) the dermo-vascular system; and (c) the system of the middle ear; including a determination of the major functional characteristics of the central parts of the auditory analyzer in the frog. Described are the basic parameters of the evoked potentials, recorded in response to sound (click, tone) in the region of the acoustic nuclei of the medulla oblongata (dorsal cochlear nucleus, olivary nucleus). Maxima for frequency-sensitivity of evoked potentials of the medulla oblongata were located in the range of .4-1.4 kcps. Variability of frequency curves was observed along with their dependence on signal intensity. Ablation of the columella and ear drum changed the character of the frequency curve, with amplitude of responses to tones and clicks diminishing at the same time. It is suggested that columellar transmission of sound in the frog is not the only channel for the conduction of sound. The restoration cycle, following the action of paired clicks, covered 30 msec. on the average for medullary potentials. Increase in duration of the front of the tonal signal from 0-3 msec. led to a sharp decline in the amplitude of medullary responses. With further increase in fronts, the amplitude of response changed little. A dependence on signal frequency is disclosed. (English summary) (24 ref.)—*I. D. London.*

5758. Vozova, T. M. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) **K voprosu o strukturnoi organizatsii polovogo refleksa.** [On the structural organization of the sexual reflex.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 545-547.—2 3-yr-old male dogs, with electrodes implanted in the hippocampus, amygdala, preoptic region, pyriform lobe, and caudate nucleus, were used to study the bioelectrical activity of a number of cerebral structures during sexual excitation through light massage of column glandis penis, producing erection and lordosis. It is shown that, in the presence of excitation by mechanical stimulation of the penis, changes with respect to spontaneous EEG were observed in the picture of the concurrent EEG in the amygdala, hippocampus, and preoptic region. Such stimulation, however, did not change the character of the EEG in the caudate nucleus and pyriform lobe. After 12 applications of such stimulation (duration of 30 sec. with intervals of 2 min. and more), an electrophysiologically CR connection of the functional state of the S with the experimental set-up appeared. This connection was maintained for 18 sessions without the application of the stimulation. The pyriform lobe and caudate nucleus appeared to be recruited into the functional organization maintaining this state.—*I. D. London.*

SENSORY PHYSIOLOGY

5759. Batkin, S., Groth, H., Watson, J. R., & Ansberry, M. (Kaiser Medical Center, Honolulu, Hawaii) **Effects of auditory deprivation on the development**

of auditory sensitivity in albino rats. *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 351-359.—Confined 20 albino Manor Farm rats for 8 mo. postnatally to a highly sound-attenuated environment and tested them subsequently for hearing sensitivity. Comparisons were made with 20 control littermates, reared under ordinary ambient noise conditions. Surface auditory evoked cortical potentials were summated for 45 or 75 responses at each of 7 pure tone frequencies. Threshold determinations were made between 30-75 db., SPL. Several Ss were retested after subsequent 48-hr and 3-wk ambient noise exposure. Statistical comparisons of threshold responses between deprived Ss and controls show a significant loss of sensitivity after deprivation and some regain of sensitivity after subsequent exposure to ambient noise. Relationships between environmental stimulation and neural functioning are considered. (French summary) (39 ref.)—*Journal summary.*

5760. Bekchanov, A. N. (Medical Inst., Astrakhan, USSR) **Gistologicheskoe issledovanie setchatki glaza krol'kov.** [Histological study of the retina of the rabbit eye.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 116-118.—Utilized retinal materials derived from rabbits 1 day to 6 mo. after birth, to show that the retina in the Ss consisted chiefly of rods. There were also cones and other types of photoreceptor cells, distinguished by the form of their external and internal components as well as by the termini of their centrally directed processes.—*I. D. London.*

5761. Creel, D. J., Dustman, R. E., & Beck, E. C. (Veterans Administration Hosp., Neuropsychology Lab., Kansas City, Mo.) **Visually evoked response in guinea pigs: Strains compared.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 490-493.—Compared single and summed visually evoked cortical responses (VERs) of 6 male albino and 6 male ocularly pigmented guinea pigs before and after monocular enucleation. Prior to enucleation the VER was characterized by appearance of an early negative component. This early surface negativity may be the result of a class of fast-conducting fibers that terminate in upper cortical layers. The VERs recorded following enucleation of a single eye indicate there are few ipsilateral optic fibers in the guinea pig. Strains were compared, but differences were not apparent. (18 ref.)—*Journal abstract.*

5762. Etholm, B. (U. Oslo, Inst. of Neurophysiology, Norway) **Evoked responses in the inferior colliculus, medial geniculate body and auditory cortex by single and double clicks in cats: A preliminary report.** *Acta Oto-Laryngologica*, 1969(Feb), Vol. 67(2-3), 319-325.—Evaluated the inhibitory process at various stations of the auditory system and attempted to determine whether any inhibitory mechanisms in the medial geniculate (MG) body could determine the narrow frequency capable of driving MG cells. It was demonstrated that the auditory system has a high fidelity of the signal transmission. Using double clicks, inhibitory processes were found in cats lasting up to 150 msec. and more in the medial geniculate body and the auditory cortex. In the inferior colliculus, inhibition lasted approximately 50 msec. (French & German summaries)—*Journal abstract.*

5763. Florek, Hieronym. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Frequency of spontaneous palpebral**

reaction in a visual task. *Studia Psychologica*, 1970(Vol. 12(2)), 103-111.—The frequency of spontaneous palpebral reaction has sometimes been used to judge the degree of visual fatigue. Various methods are employed for assessing this reaction. The present study was designed to test this reaction in a visual task by means of an original method. Results imply that while this reaction is higher in a visual task than is generally assumed, it tends to decline during the task and is negatively correlated to the performance itself and its quality. (Czech & Russian summaries)—*Journal abstract*.

5764. Fokin, V. F. & Fomin, B. A. (Inst. of the Brain, Moscow, USSR) *Fonovaya i vyzvannaya ritmicheskim svetovym razdrazheniem aktivnost' ganglioznykh kletok setchatki kozhki*. [Spontaneous activity and that evoked by rhythmic photic stimulation of the ganglionic cells of the cat retina.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 661-670.—In 18 nembutalized cats, recordings were made of 115 ganglionic neurons of the retina. The following were investigated: impulse activity of the ganglionic cells on exposure of the "unopened eye" to darkness, constant background illumination, and rhythmic stimulation by short light flashes. The mean discharge frequency of ganglionic cells (number of impulses/sec) in the case of darkness and of constant background illumination was linearly correlated with that evoked by flashing light. With a frequency of 1 flash/sec, $r = .78$ for dark and .95 for light adaptation. High correlation was maintained also with large frequencies of photic stimulation. With increase in the frequency of light flashes, the mean discharge frequency of the ganglionic cells increased, while the number of incoming impulses at each light flash was connected with frequency of stimulation, a function close to the exponential. The types of ganglionic cellular responses to a light flash (differentiated with respect to their impulse pattern) and their behavior due to rhythmic photic stimulation are described. The evoked activity of a group of closely located ganglionic cells exhibited in most cases the same pattern of response as that of a single ganglionic cell, drawn from this group.—*J. D. London*.

5765. Gross, C. G., Bender, D. B., & Rocha-Miranda, C. E. *Visual receptive fields of neurons in inferotemporal cortex of the monkey*. *Science*, 1969(Dec), Vol. 166(3910), 1303-1306.—In an experiment with 7 monkeys (*Macaca mulatta*), it was found that neurons in inferotemporal cortex had visual receptive fields which were very large (greater than $10 \times 10^\circ$) and almost always included the fovea. Some extended well into both halves of the visual field, while others were confined to the ipsilateral or contralateral side. These neurons were differentially sensitive to several of the following dimensions of the stimulus: size and shape, color, orientation, and direction of movement. (17 ref.)—*Journal abstract*.

5766. Kabrisky, M., Tallman, O., Day, C. M., & Radoy, C. M. (Wright-Patterson Air Force Base, O.) *A theory of pattern perception based on human physiology*. *Ergonomics*, 1970(Jan), Vol. 13(1), 129-147.—Reports an extension of a former experiment reporting how intra- and intercortical connectivity could support a combined memory and computation scheme capable of performing pattern recognition by a variation of 2-dimensional cross-correlation. This study extends the previous model enabling it to perform pattern recognition by computing the 2-dimensional Fourier

transform of input images in a manner isomorphic to computation of the Fraunhofer diffraction pattern in optical computers. It is shown that the use of the Fourier transform of an unknown pattern in a subsequent correlation scheme results in a pattern recognition system which is not easily faulted by the small local mutilations of input patterns which badly compromise straight correlation pattern recognition schemes. (French & German summaries)—*Journal abstract*.

5767. Murashko, A. G. & Tishchenko, V. N. *Nekotorye predposylki matematicheskoi modeli vibratsionnogo analizatora kozhi*. [Several assumptions underlying the mathematical model of the vibration-analyzer of the skin.] *Problemy Bioniki*, 1970, No. 3, 153-154.—Examines a method for the construction of a mathematical model of the vibration-analyzer, and proposes ways and means for conducting research thereon, and techniques for making measurements.—*J. D. London*.

5768. Norgen, Ralph E. (U. Michigan) *Diencephalic systems related to gustatory reinforcement*. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 936.

5769. Schultz, Ronald & Norberg, Marty. (Duke U.) *Effects of antennae loss on cockroach, Periplaneta americana, activity*. *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 602.—25 antennae severed nymph cockroaches exhibited significantly less open field activity than 15 sham operated Ss, supporting the contention that with sensory loss nonmammals exhibit a decrease in activity.—*M. West*.

5770. Stern, Robert M., Gaupp, Larry, & Leonard, William C. (Pennsylvania State U.) *A comparison of GSR and subjective adaptation to stressful stimuli*. *Psychophysiology*, 1970(Jul), Vol. 7(1), 3-9.—Compared subjective and physiological adaptation, as measured by magnitude of GSRs, to electric shock and auditory noise. In Exp. I, 48 undergraduates received 15 shocks of constant intensity, 1 subgroup always receiving low shocks and the other high. Ss were told that shock intensity would vary and rated the intensity of each shock immediately following its presentation. In Exp. II, the same procedure was followed with 50 different Ss, using noises instead of shocks. Shock Ss showed subjective adaptation but no GSR adaptation. Noise Ss showed GSR adaptation with an increase in subjective intensity reports. The importance of anticipation, in terms of level of arousal at the onset of the session, is discussed.—*Journal abstract*.

5771. Vyklický, L., Rudomin, P., Zajac, F. E., & Burke, R. E. (National Inst. of Neurological Diseases & Stroke, Lab. of Neurophysiology & Neural Control, Bethesda, Md.) *Primary afferent depolarization evoked by a painful stimulus*. *Science*, 1969(Jul), Vol. 165(3889), 184-186.—Pulses of intense radiant heat applied to the plantar pad of unanesthetized spinal cats produced negative dorsal root potentials, increased excitability of cutaneous A fibers, and marked activation of ipsilateral flexor motoneurons. The same effects were obtained during cold block of A fiber conduction in the appropriate peripheral nerve. It is concluded that adequate noxious activation of cutaneous C fibers depolarizes cutaneous A fibers.—*Journal abstract*.

BIOCHEMISTRY

5772. Scatterthwaite, H. Sherwood & Sokoloff, Louis.

(National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Induction of brain D(—)- β -hydroxybutyrate dehydrogenase activity by fasting.** *Science*, 1969(Jan), Vol. 163(3862), 79-81.—Presents results from an experiment with adult male Sprague-Dawley rats which demonstrate that although D(—)- β -hydroxybutyrate dehydrogenase activity is very low in normal adult rat brain, it increases during fasting in parallel with the ketosis. It is concluded that the increase may represent part of a mechanism by which the brain adapts to changing patterns of substrate supply during starvation.—*Journal abstract*.

5773. Bhagavan, H. N., Coursin, D. B., & Stewart, C. N. (St. Joseph Hosp., Research Inst., Lancaster, Pa.) **Glycemic response to shock stress in biotin deficiency.** *Life Sciences*, 1969(Oct), Vol. 8(20, Pt. 2), 1117-1124.—Weanling male Sprague-Dawley rats were maintained on a biotin-deficient diet and submitted to 2 conditions: (a) Ss in the fed state were shocked, and (b) 24-hr fasted Ss were shocked. Both received 1.5 ma, rms, scrambled for 5 min. and then immediately sacrificed and blood glucose assayed by the glucose oxidase method. Shock stress increased blood glucose levels in both biotin-deficient and controls in the fed state. The response of the deficient Ss to shock stress can be attributed to their ability to mobilize glucose reserves in addition to the utilization of the available dietary glucose. Ss in the fasted state showed that while the controls showed a hyperglycemic response to shock stress, the deficient Ss showed severe hypoglycemia. Biotin pretreatment of the deficient Ss failed to show hypoglycemia to shock stress. Blood glucose level is maintained by gluconeogenesis which is impaired in biotin deficiency and therefore the fasted animal has no glycogen reserves and the hypoglycemia was observed. The control fasted Ss which had no glycogen reserves and displayed hyperglycemia under stress must have had a stimulation of their gluconeogenesis. Although the effect of shock stress on the glycemic states in biotin-deficient Ss is primarily due to an impairment in gluconeogenesis alterations in adrenal-hypophyseal function may also occur. (18 ref.)—W. E. Wood.

5774. Cardon, P. V. & Guggenheim F. G. (National Inst. of Mental Health, Chevy Chase, Md.) **Effects of large variations in diet on free catecholamines and their metabolites in urine.** *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 263-273.—When results are expressed in relation to urinary creatinine, the most liberal diet (excessive in catecholamine and caffeine content) increased normetanephrine and 3-methoxy-4-hydroxymandelic acid excretion by about 30%. Free epinephrine and metanephrine excretion rates also increased by 40 and 10%, respectively, but the changes were not statistically significant. The more liberal diets tended to increase intra-S variance. (19 ref.)—R. V. Hamilton.

5775. Coleman, Mary S. (U. North Carolina) **Incorporation of radioactive precursors into polysomes and RNA of mammalian brain during short term behavioral experiences.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 44-45.

5776. Crow, Lowell T. (Western Washington State Coll.) **Water metabolism with prolonged ethanol consumption in the rat.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 675-677.—Maintained 18 Holtzman male albino rats on an alternate day presentation schedule in which 1 of 3 alcohol concentrations

was substituted for water. An apparently adequate fluid balance was attained for 6 and 12%, but not for 24% alcohol.—*Journal abstract*.

5777. Fomicheva, E. E. (Inst. of Experimental Medicine, Leningrad, USSR) **Osobennosti vzaimodeistviya odnostonnnykh otritsatel'nykh uslovykh refleksov s polozhitel'nyimi (po pokazatelyam kolichestva i kachestva slyunnogo sekreta).** [Features of interaction between unilateral negative conditioned reflexes and positive conditioned reflexes (according to quantitative and qualitative indices of salivary secretion).] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 698-700.—4 dogs with exteriorization of symmetrical parts of the tongue were used to study the interaction between unilateral negative CRs and positive CRs, both unilateral (elaborated with unconditioned stimulation of parts of the tongue) and general alimentary (elaborated with unconditioned stimulation of the oral cavity). The data procured on the unilateral change in chemical composition of the salivary secretion (according to the quantitative index of general salivary protein) in response to positive stimuli under the influence of negative stimuli add to the conception of the structurofunctional organization of unilateral CRs within the bounds of 1 cerebral hemisphere.—I. D. London.

5778. Jalowiec, John E. & Stricker, Edward M. (McMaster U., Hamilton, Ontario, Canada) **Sodium appetite in rats after apparent recovery from acute sodium deficiency.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 238-244.—Induced acute sodium deficiency in adult male albino Sprague-Dawley rats by subcutaneous formalin injection. Ss allowed access to drinking water for 24 hr. remained hyponatremic (due to renal retention of ingested water) but apparently recovered from hypovolemia, whereas water-deprived Ss evidenced little hyponatremia or hypovolemia. Urinary potassium/sodium ratios indicate high levels of circulating aldosterone in both groups, and all Ss drank increased amounts of saline when water and .51 M NaCl solution were made available subsequently. Moreover, Ss with previous access to water drank much more saline than did Ss that had been water deprived. Results suggest that high endogenous levels of aldosterone may elicit sodium appetite in rats despite apparent recovery from acute sodium deficiency, and that hyponatremia may potentiate this effect. (25 ref.)—*Journal abstract*.

5779. Mark, J., Heiner, L., Mandel, P., & Godin, Y. (Centre National de la Recherche Scientifique, Centre de Neurochimie, Strasbourg, France) **Norepinephrine turnover in brain and stress reactions in rats during paradoxical sleep deprivation.** *Life Sciences*, 1969(Oct), Vol. 8(19, Pt. 1), 1085-1093.—Observed an increased catabolism of exogenous norepinephrine in the brains of male Wistar rats subjected either to total sleep deprivation or to close confinement without abolition of paradoxical sleep. This suggests that the observed metabolic change was not a consequence of paradoxical sleep deprivation and it seems possible that stress reactions were occurring. This hypothesis was tested by examining adrenal gland weights and plasma corticosterone levels. (20 ref.)—*Journal abstract*.

5780. Meeks, Bruce W. (Brigham Young U.) **Positive and negative transference of specific learning via injection of ribonucleic acid.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 418.

5781. Sanseigne, Alain. (Squibb International, New

York, N.Y.) **Chemistry and pharmacology of fluphenazine decanoate.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 10-11.—Identifies problems concerning the responses of humans and various animal species to the new long-acting and potent phenothiazines (i.e., fluphenazine). These problems include development of a dose response curve and prediction of single patient response to the drug. Differences in response patterns of various animals to high dosages make correlations with human response difficult. The 2 pharmacological tests which appear promising measure the antiemetic activity of the drug in dogs and the inhibition of conditioned response in rats.—*P. McMillan*.

5782. Tsuchiya, K., Toru, M., & Kobayashi, T. (Tokyo Medical & Dental U., Japan) **Sleep deprivation: Changes of monoamines and acetylcholine in rat brain.** *Life Sciences*, 1969(Aug), Vol. 8(15, Pt. 1), 867-873.—Total sleep deprivation in adult male Wistar rats produced by maintenance on a 24-hr avoidance schedule produced slightly increased acetylcholine in the telencephalon and markedly decreased 5-hydroxytryptamine and norepinephrine in the diencephalon. After a short period of sleep following the 24-hr sleep deprivation, the decreased 5-hydroxytryptamine and norepinephrine levels rapidly equaled or surpassed the control levels. When the paradoxical sleep was deprived for 96 hr., the acetylcholine content decreased in the telencephalon and the norepinephrine level was significantly lowered in the brainstem. There was, however, no significant change in the level of 5-hydroxytryptamine after 96 hr. of paradoxical sleep deprivation. (18 ref.)—*Journal abstract*.

5783. van Praag, H. M., Korf, J., van Woudenberg, F., & Kluys, T. P. (State U., Central Isotope Lab., Groningen, Netherlands) **An attempt at indirect evaluation of the noradrenaline hypothesis.** *Psychiatry, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 181-189.—Postulated that, within the context of the noradrenaline (NA) hypothesis, DL-p-chloro-N-methylamphetamine (CMA) has an antidepressant action. Both the prediction and the assumption that, at the molecular level, the action of CMA is similar in both humans and test animals are supported. Findings also support the NA hypothesis concerning the mechanism of action of antidepressants. It is concluded that the NA hypothesis is important because it relates chemical data to phenomena of behavior and can be tested, thus lending fresh impetus to psychopharmacological research. (16 ref.)—*Journal abstract*.

Hormones

5784. Beatty, William W. & Beatty, Patricia A. (North Dakota State U.) **Hormonal determinants of sex differences in avoidance behavior and reactivity to electric shock in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 446-455.—Compared the acquisition of avoidance behavior by male and female Holtzman rats (N = 80, 22, 40, 30, and 78) in a 2-way shuttle box. The performance of both sexes was an inverted U-shaped function of UCS intensity and males performed more poorly at each of

the 4 shock levels tested. At higher UCS intensities male performance was characterized by a marked intersession response decrement, a pattern rarely seen in female performance. Control experiments demonstrated that the sex difference was not related to differences in body weight, age, or reproductive experience. Females also had lower flinch and jump thresholds in tests of sensitivity to electric shock. Gonadectomy in adulthood did not modify the avoidance behavior or sensitivity to shock of either sex, but testosterone injections in infancy, when combined with testosterone replacement in adulthood, produced females whose avoidance behavior was dramatically masculinized.—*Journal abstract*.

5785. Borodin, A. D. (Medical Inst., Donetsk, USSR) **Vliyaniye eksperimental'nogo tireotoksikoza na razvitiye kompensatornoi gipertrofi nadpocheknikov.** [Influence of experimental thyrotoxicosis on development of compensatory adrenal hypertrophy.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 27-30.—Studied 240 unilaterally adrenalectomized white rats, with and without thyrotoxicosis induced by the feeding of thyroidin, to evaluate a condition serving as an experimental model of prolonged stress placed upon the hypothalamo-hypophyseal-adrenal system. It is shown that an alteration occurs in the dynamics of (a) the corticotropin creating activity of hypothalamic extracts, and (b) hypophyseal level of the ACTH at different periods after the adrenalectomy. It is suggested that the excessive cumulation of thyroid hormones influences the hypothalamic regulation of the hypophyseal-adrenal system.—*I. D. London*.

5786. Sassin, J. F., et al. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Effects of slow wave sleep deprivation on human growth hormone release in sleep: Preliminary study.** *Life Sciences*, 1969(Dec), Vol. 8(23, Pt. 1), 1299-1307.—5 20-26 yr. old male volunteers were used to test the effect of slow wave sleep (SWS) deprivation on release of human growth hormone (HGH). Ss fasted and an indwelling venous catheter was positioned in an antecubital vein and electrodes for EEG (C₃-A₂, monopolar lead) were attached. Blood was sampled every 20-30 min. and free HGH was separated out. Deprivation involved foot shock when 2 slow waves of less than 2 Hz. and greater than 75µV. appeared. SWS deprivation resulted in diminution of HGH secretion in 3 of the 5 Ss, absence of secretion in 2 of these, and delay in secretion in all Ss. Technical difficulties in achieving complete SWS deprivation may account for failure to demonstrate more consistent inhibition of HGH release. Results show that although HGH secretion occurred in NREM sleep there was not a simple cause-effect relationship between the EEG criteria of SWS and HGH secretion.—*W. E. Wood*.

5787. Weiss, Jay M., et al. (Rockefeller U.) **Pituitary-adrenal influences on fear responding.** *Science*, 1969(Jan), Vol. 163(3863), 197-199.—Found that in a passive avoidance situation, hypophysectomized male albino rats show less fear than normal Ss, whereas adrenalectomized Ss show greater fear than normals. It is suggested that results occurred because hypophysectomized Ss lack ACTH, which increases arousal or emotionality, whereas adrenalectomized Ss lack certain adrenal steroids, which inhibit excitatory effects. Results indicate that ACTH, and certain adrenal steroids have opposite effects in regulating fear-motivated behavior. (18 ref.)—*Journal abstract*.

Drug Effects-Human

5788. Carroll, Douglas; Lewis, Stuart A., & Oswald, Ian. (U. Edinburgh, Scotland) **Effect of barbiturates on dream content.** *Nature*, 1969(Aug), Vol. 223(5208), 865-866.—Vividness of dream content as reflected in tape-recorded utterances during awakening periods was assessed using the Foulkes 8-point scale. Evaluations were made under control conditions, following administration of a placebo, and following barbiturate administration in 4 young healthy male Ss. Results led to the conclusion that "barbiturates alter the dream experience, making it more conceptual and less perceptual, more 'thought-like' and less 'dream-like.'"—B. A. Stanton.

5789. Eisdorfer, Carl; Nowlin, John, & Wilkie, Frances. (Duke U., Medical School, Center for the Study of Aging & Human Development) **Improvement of learning in the aged by modification of autonomic nervous system activity.** *Science*, 1970(Dec), Vol. 170(3964), 1327-1329.—Reports that partial blockade of beta-adrenergic end-organ response to the autonomic nervous system was effected in 13 60-78 yr. old male volunteers by administration of propranolol. 15 Ss were given a placebo. Improved performance in a learning task by the drug group was noted. Data support the hypothesis that the learning decrement found among older men is not simply a manifestation of structural change in the CNS but is, at least in part, associated with the heightened arousal of the autonomic nervous system that accompanies the learning task. (17 ref.)—*Journal abstract*.

5790. Hollister, Leo E., Moore, Frances; Kanter, Saul, & Noble, Ernest. (Veterans Administration Hosp., Palo Alto, Calif.) **Δ^1 -tetrahydrocannabinol, synhexyl and marijuana extract administered orally in man: Catecholamine excretion, plasma cortisol levels and platelet serotonin content.** *Psychopharmacologia*, 1970, Vol. 17(4), 354-360.—A transient rise in epinephrine excretion occurred following oral doses of 1- Δ -trans-tetrahydrocannabinol which is best explained by the anticipatory stress of the experiment or the rapid onset of unfamiliar symptoms. A decreased turnover of catecholamines was suggested by the decrease in vanilmandelic acid excretion following synhexyl. Plasma cortisol was unchanged except in the presence of psychological stress. Platelet serotonin was unchanged. The lack of major effects of marijuana-like drugs on stress measurements corroborates the clinical observation. The euphoriant and sedative effect of marijuana may ameliorate the stress of psychotomimetic experience.—*Journal abstract*.

5791. Kamenkovich, V. M. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Vliyaniye fenatina na porogi tsvetorazlicheniya cheloveka.** [Influence of phenatine on human color discrimination thresholds.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 716-718.—6 Ss participated in a study of the influence of 20-mg phenatine on the thresholds of color (orange-red) discrimination. (Phenatine is a product of the condensation of phenamine and nicotinic acid, belonging to the class of sympathomimetic amines and stimulants of the CNS.) Results show that the effect of phenatine on color discrimination was highly variable with respect to both magnitude and sign. In some Ss it brought on a considerable deterioration of the capacity.—I. D. London.

5792. Lesis, S. A., et al. (Royal Edinburgh Hosp.,

Scotland) **Heroin and human sleep.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 374-381.—Investigated the suggestion that drugs of addiction cause suppression of REM sleep followed by immediate withdrawal rebound. 4 normal male volunteers had a subcutaneous injection of 7.5 mg. heroin on 3 successive nights. During this period REM sleep was decreased with respect to base-line values and showed a trend back to control values over the 3 nights. On withdrawal there was a moderate but immediate percentage of REM sleep increase which, over the 1st 3 hr. of sleep, was significant. 2 Ss received 7 more injections of 7.5 mg. heroin 2 mo. later. Again REM sleep was reduced. 1 S had increased REM sleep immediately on withdrawal. Evidence of withdrawal was apparent for 2 mo. after stopping heroin. The other S showed little evidence of withdrawal effects in sleep. His proportion of REM sleep was never significantly above base-line values, indicating considerable individual differences in the effects of withdrawal of heroin. It is concluded that, far from giving an undisturbed sleep, heroin administration results in an increased frequency of shifts to Stage 1 sleep (drowsiness) or wakefulness and an increased delay to the onset of the 1st Stage 2 of the night. (French summary) (24 ref.)—*Journal summary*.

5793. Lewis, Evan G., Dustman, Robert E., & Beck, Edward C. (Veterans Administration Hosp., Salt Lake City, U.) **The effects of alcohol on visual and somato-sensory evoked responses.** *Electroencephalography & Clinical Neurophysiology*, 1970(Feb), Vol. 28(2), 202-205.—9 moderate drinkers imbibed various amounts of alcohol or a placebo, after which visual and somatosensory evoked responses were recorded. The 95% alcohol doses were .41 gm. and 1.23 gm/kg of body weight, the equivalent of 1 and 3 oz. of alcohol, respectively, for a 160-lb man. After ingestion of 3 oz. of alcohol, the amplitude of late waves of visual and somatosensory evoked responses recorded from central areas was attenuated significantly. Evoked responses recorded from the occipital area showed no such changes. With some Ss, a hemispheric asymmetry of amplitude, generally noted with recordings from central areas, disappeared after alcohol ingestion. (French summary) (16 ref.)—*Journal summary*.

Drug Effects-Animal

5794. Amit, Zalman & Baum, Morrie. (McGill U., Montreal, Quebec, Canada) **Comment on the increased resistance-to-extinction of an avoidance response induced by certain drugs.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 310.—Suggests that the effect is not dependent on the pharmacological properties of any specific drug or mode of administration but is a function of the induced drug state, which is aversive to the pharmacologically naive S and thus acts to increase fear in the avoidance situation.—M. West.

5795. Arnfred, T. & Randrup, A. **Cholinergic mechanism in brain inhibiting amphetamine induced stereotyped behaviour.** *Acta Pharmacologica et Toxicologica*, 1968(Aug), Vol. 26(4), 384-394.

5796. Beaton, J. M. & Crow, T. J. (U. Aberdeen, Scotland) **The effect of noradrenaline synthesis inhibition on motor activity and lever pressing for food and water in the rat.** *Life Sciences*, 1969(Oct), Vol. 8(19, Pt.1), 1129-1134.—In an investigation into the effects of α -methyl-paratyrosine on lever pressing for

food and water, and voluntary activity in 2 male black hooded rats, it was found that the drug could inhibit lever pressing for food at doses of 25 mg/kg upwards. However, marked tolerance appeared to this effect. Lever pressing for water and wheel running activity were much less consistently affected at all dose levels. The duration of action of the effect on food intake of an initial dose of 100 mg/kg corresponded approximately to the duration of tyrosine hydroxylase inhibition brought about by this drug.—*Journal summary.*

5797. Biederman, G. B. (U. Toronto, Ontario, Canada) **Forgetting of an operant response: Physostigmine-produced increases in escape latency in rats as a function of time of injection.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 384-388.—Found the latency of a fixed ratio (FR) 3 escape response in 218 male Wistar rats to be a U-shaped function of the interval between training and injection of the anticholinesterase drug physostigmine, for 30 min.-5 day intervals between training and injection. An increase in FR 3 escape latency was found at 28 days. FR 1 escape groups produced a latency curve of a shape similar to that of the FR 3 group. Data confirm the results of earlier experiments using a different training procedure, and a different response measure. Results are consistent with the theory that the physiological correlate of rat memory lies in synaptic change.—*Journal abstract.*

5798. Carlini, E. A. & Masur, Jandira. **Development of aggressive behavior in rats by chronic administration of cannabis sativa (marihuana).** *Life Sciences*, 1969(Jun), Vol. 8(11, Pt. 1), 607-620.—Examined the relationships between aggressive behavior, starvation, age, weight, and dosage of marihuana in pairs of 1-6 mo. old male and female Wistar rats. In addition to ip injections of crude extracts of marihuana, electric shock was used to induce fighting behavior. Results show that: (a) both methods elicited striking aggressive behavior in starved rats, although in the shock-induced method it was detected somewhat earlier; (b) aggressiveness appeared equally in 2-6 mo. old Ss, unresponsive of sex; (c) amount of fat tissue appeared to have some effect but more experimentation is urged in this area; and (d) elevation and diminution of temperature had, respectively, effects to decrease and increase aggressiveness. Previous experiments are cited to show that the aggressiveness elicited in starved rats has not been obtained by chronic administration of other drugs, e.g., caffeine, amphetamine, and amobarbital sodium.—*G. Steele.*

5799. Conner, Robert L., Stolk, Jon M., Barchas, Jack D., & Levine, Seymour. (Stanford U., Medical School) **Parachlorophenylalanine and habituation to repetitive auditory startle stimuli in rats.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1215-1219.—Studied the relationship between brain serotonin levels and habituation of a skeletal-motor startle response using parachlorophenylalanine (PCPA), a drug which inhibits the formation of serotonin. Ss were 64 Long-Evans male rats. Depletion of brain serotonin by PCPA slows down, but does not prevent, habituation. PCPA given to Ss that were habituated before starting drug treatment causes a transitory increase in startle response magnitude. Whether PCPA is administered before or after habituation, the treated Ss exhibit heightened reactivity to startle stimuli following exposure to novel stimuli. Results suggest that brain serotonin plays a role in inhibitory processes.—*Journal abstract.*

5800. Conner, Robert L., et al. (Stanford U., Medical School) **The effect of parachlorophenylalanine (PCPA) on shock-induced fighting behavior in rats.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1221-1224.—Studied shock-induced fighting behavior in 64 Long-Evans male rats treated with parachlorophenylalanine (PCPA). In the doses used, PCPA injections depleted brain serotonin to 10% of the control levels. In the 1st study, injections were started prior to initial behavioral testing. In Exp. II injections were started during a sequence of repeated behavioral testings in the shock-induced fighting situation. In neither case was there any evidence that PCPA injections had any effect on shock-induced fighting behavior in rats.—*Journal abstract.*

5801. Dewsbury, Donald A. & Davis, Harry N. (U. Florida) **Effects of reserpine on the copulatory behavior of male rats.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1331-1333.

5802. Genovese, E., Napoli, P. A., & Bolego-Zonta, N. (U. Milan, Italy) **Selfaggressiveness: A new type of behavioral change induced by pemoline.** *Life Sciences*, 1969(May), Vol. 8(9, Pt. 1), 513-515.—Examined self-aggressiveness after the administration of pemoline in isolated Swiss albino mice and Sprague-Dawley rats. Ss exhibited hypermotility 1 hr. after administration of the drug and self-aggressiveness after 6-8 hr. Sex and dosage effects were found. It is concluded that "pemoline elicits the described effect through the formation of an active metabolite."—*G. Steele.*

5803. Gilinskiĭ, M. A. & Ilyuchēnok, R. Yu. (Inst. of Physiology, Novosibirsk, USSR) **Kholinergicheskie mekhanizmy retikulyarnogo tormozheniya neironov kory golovnogo mozga koshki.** [Cholinergic mechanisms of reticular inhibition of the cortical neurons in the cat.] *Zhurnal Vyssheĭ Nervnoĭ Deyatel'nosti*, 1969, Vol. 19(4), 653-660.—For study of the reaction of cortical neurons (619 in all; Ss were 61 immobilized cats) high-frequency stimulation was applied to the contralateral hind leg and the intercollicular section of the mesencephalic reticular formation. M-cholinolytic agents were employed: amizyl, benzacine, and atropine as well as the anticholinesterase compound, galanthamine, and agents which exert, respectively, excitatory and blocking action on the central adenosensitive structures: pyridol and aminazine (chlorpromazine). Also investigated was the effect of the beta-adrenoblocker 1-(4-nitrophenyl)-2-isopropylaminoethanol. Rhythmic activity of a portion of the neurons of the 1st somatosensory cortex was inhibited on direct or sensory excitation of the ascending reticular activating system. Inhibition of the discharges was closely connected with the appearance of cortical EEG activation. Administration of cholinolytic agents into the vein and the carotid artery and their application on the cortex blocked reticular inhibition of the neurons, while simultaneously abolishing EEG activation. The data provide evidence that reticular inhibition in the cortex is brought about through a system of synapses with muscarinosensitive cholinergic transmission. Thus, the cholinergic nature of reticular inhibition of the spontaneous activity of the cortical neurons is demonstrated. The existence of a possible mechanism is postulated for the EEG reaction of desynchronization, in which an important role is assigned to neurons which undergo inhibition on direct or on sensory stimulation of the ascending activating system.—*I. D. London.*

5804. Goldberg, Stephen R., Woods, James H., &

Schuster, Charles R. (U. Michigan, Medical School) **Morphine: Conditioned increases in self-administration in rhesus monkeys.** *Science*, 1969(Dec), Vol. 166(3910), 1306-1307. —Maintained operant responding in 3 monkeys by iv presentations of morphine. Nalorphine produced reliable increases in morphine-reinforced responding. With successive daily nalorphine injections there was a decreased latency of self-administration responding for morphine, and substituted saline injections produced conditioned increases in morphine-reinforced responding. —*Journal abstract.*

5805. Goroyan, G. P. & Kalyuzhnyi, L. V. (Inst. of Medicobiological Problems, Moscow, USSR) **Vliyaniye skopolamina i aminazina na reaktsiyu sam-orazdrzheniya i izbeganiya u krolikov.** [Influence of scopolamine and aminazine on the reaction of self-stimulation and avoidance in rabbits.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 543-544. —7 Ss, with electrodes implanted in the anterior and posterior regions of the hypothalamus, were used to study the changes in the "reactions of self-stimulation and self-avoidance," procured on stimulation of the hypothalamic structures after im administration of the cholinolytic, scopolamine (.1-2 mg/kg), and the adrenolytic, aminazine (chlorpromazine; 1-2 mg/kg), 20-25 min. before experimentation. The data show that, on stimulation of the hypothalamic region, aminazine produced inhibition of the avoidance reaction, while scopolamine had practically no effect or even facilitated it somewhat. It is suggested that the avoidance reaction, connected with the functioning of the hypothalamic structures, has an adrenergic mechanism. The reaction of self-stimulation was suppressed by both aminazine and, to a much greater degree, by scopolamine. These data provide the basis for thinking that scopolamine is more connected with the cholinergic substratum of the hypothalamus. The action of aminazine on the reaction of self-stimulation is explained by alluding to both the possibility of the inclusion of adrenergic mechanisms and also the presence of cholinolytic properties in the pharmacological agent. —*I. D. London.*

5806. Haddad, R. K., et al. (New Jersey Neuropsychiatric Inst., Princeton) **Intellectual deficit associated with transplacentally induced microcephaly in the rat.** *Science*, 1969(Jan), Vol. 163(3862), 88-90. —6 Fischer rats injected with methylazoxymethanol late in pregnancy produced young with considerably reduced cerebral hemispheres. As adults these Ss (N = 12) made more errors in the Hebb-Williams maze than did controls. —*Journal abstract.*

5807. If'yuchënok, R. Yu. & Zinevich, V. S. (Inst. of Physiology, Novosibirsk, USSR) **Kholinergicheskie mekhanizmy retikulo-korkovogo vyzvannogo potentsiala.** [Cholinergic mechanisms of reticulocortical evoked potential.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 480-487. —Used the M-cholinolytic agents, atropine and amizyl (benactyzine), and the anticholinesterase agent, galanthamine, on 75 immobilized unnarcotized cats. Stimulation of the middle and medial parts of tectum mesencephali by single impulses brought about the emergence in the cortex of potentials that have short latencies and exhibit different configurations. In the frontal areas of the cortex a biphasic positive-negative reticulocortical response was recorded; in the parietal areas a monophasic negative response. This points to the presence of a monosynaptic ascending system from the mesencephalic reticular formation to the

cerebral cortex. Iv administration of amizyl and atropine depressed the amplitude of the reticulocortical responses (in most cases to the point of their complete disappearance) and increased the amplitude of the primary response to stimulation of peripheral nerves. At the same time application of these agents inhibited only the negative phase of the reticulocortical responses, while increasing the negative phase of the primary response. The antagonism between M-anticholinergic and anticholinesterase agents occurred only in relation to reticulocortical responses. This confirms the presence of a muscarinergic cortical link in the ascending reticular activating system. —*I. D. London.*

5808. Jouvet, Michel. (School of Medicine, Lyons, France) **Biogenic amines and the states of sleep.** *Science*, 1969(Jan), Vol. 163(3862), 32-41. —Reviews recent findings which lead to the hypothesis that cerebral serotonin has a role in the process of sleep. In 1 series of experiments, inhibition of the synthesis of serotonin at the level of tryptophan hydroxylase by p-chlorophenylalanine led to total insomnia which was reversible; return to normal sleep was effected by injection of 5-hydroxytryptophan, the immediate precursor of serotonin. In a 2nd series, total destruction of serotonin-containing neurons located in the raphe system also led to total insomnia. A 3-way correlation existed between the extent of destruction of the raphe, the decrease in cerebral serotonin, and the resulting insomnia. It is concluded that paradoxical sleep depends upon priming serotonergic mechanisms located in the caudal raphe system and upon triggering mechanisms located in the nuclei of the locus coeruleus. Destruction of these nuclei leads to the suppression of paradoxical sleep without alteration of slow-wave sleep. The successive intervention of serotonergic, cholinergic, and noradrenergic mechanisms in the triggering and effecting of paradoxical sleep is implied by neuropharmacological results. (68 ref.) —*Journal summary.*

5809. Kadzielawa, K. & Widy-Tyszkiewicz, E. (Academy of Medicine, Warsaw, Poland) **Electroencephalographic analysis of the central action of dihydroxyphenylalanine.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 259-265. —Analyzed the EEG effects of β -(3,4-dihydroxyphenyl)-alanine (DOPA) in 35 male cats, depending upon the level of brainstem section, and in 6 cats and 6 rabbits with chronically implanted electrodes. In contrast with cats with chronically implanted electrodes, gallamine-immobilized, and with encéphale isolé cats, in which DOPA is unable to induce profound changes in the EEG pattern and behavior, this amino acid elicits an intense desynchronization in Ss with brainstems sectioned at the postpontine, rostrompontine, and collicular levels. The desynchronization is not found in hippocampus and amygdala. In the early period of action, DOPA induces desynchronization mainly ipsilaterally to hemisection at the rostrompontine level. The observed effects of DOPA are not very dependent on its autonomic effects. In contrast with the mild pressor response in gallamine-immobilized cats and in preparations with the brainstem sectioned at higher levels, there is an intense increase in blood pressure and heart rate in encéphale isolé preparations. It is concluded that DOPA-induced desynchronization is probably inhibited in Ss with intact neuraxes by the tonic ascending influences of the synchronizing bulbar and higher spinal structures. (French summary) (24 ref.) —*Journal summary.*

5810. Kadzielawa, K. & Widy-Tyszkiewicz, E. (Academy of Medicine, Warsaw, Poland) **The influence of various pharmacological agents on the desynchronization produced by DOPA in the cerebeau isolé preparation.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 266-272.—The desynchronizing effect of μ -(3,4-dihydroxyphenyl)-alanine (DOPA) was prevented in 45 cats following inhibition of the aromatic acid decarboxylase and antagonized or partly reduced by disulfiram pretreatment. Phenox-ybenzamine, but not phentolamine, antagonizes the DOPA action, while propranolol delays the onset of desynchronization and decreases its intensity. Imipramine and chlorpromazine reverse the action of DOPA. The effect of this amino acid is not apparently modified in reserpinized Ss. In cerebeau isolé preparations, x-methyl-DOPA, in contrast to DOPA, causes a high voltage fast rhythm. Phentolamine in low doses activates the EEG in cerebeau isolé preparations. It is concluded that DOPA-induced desynchronization in cerebeau isolé preparations the S is mediated probably through dopamine and noradrenaline action and is not very dependent upon autonomic effects. (French summary) (21 ref.).—*Journal summary*.

5811. Karkishchenko, N. N. **Izmeneniye vnutrisistemnykh otnosheniy golovnogo mozga v usloviyakh farmakologicheskogo vozdeistviya.** [Changes in cerebral intrasystemic relations under pharmacological action.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 139-147.—Presents data on the profound changes that take place in the intrasystemic relations of the brain under the action of aminazine (chlorpromazine), whose neurodynamics cannot be reduced to its local influence on the reticular formation, hypothalamus, limbic structures, etc.—I. D. London.

5812. Khruleva, L. N. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Vliyaniye indopana na vysshuyu nervnyuyu deyatel'nost' sobak.** [Influence of indopan on higher nervous activity in dogs.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 389-394.—Used 5 Ss with different types of nervous systems to determine the influence of different doses of alpha-methyltryptamine hydrochloride (indopan) on higher nervous activity. It is shown that indopan is a stimulator of the CNS, possessing a triphasic action: (a) in small doses (.1-.25 mg/kg) it inhibits CRs, (b) in moderate doses (.5 mg/kg) it produces a pronounced stimulating action, (c) in large doses (1-1.5 mg/kg and higher) it inhibits CRs. The action of indopan is also a function of the typological features of the S's nervous system, and the initial functional state of the CNS. (English summary) (21 ref.).—I. D. London.

5813. Klimenko, E. M. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Provedeniye nervnykh impul'sov v voloknakh bol'shogo chrevnogo nerva, indushchikh k mozgovomu veshchestvu nadpochechnika u koshek.** [Conduction of nerve impulses in fibers of the superior splanchnic nerve leading to the adrenal medulla in cats.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 7-10.—Studied the synaptic interruption of adrenal-bound superior splanchnic nerve fibers in the semilunar ganglionic cells of the solar plexus of nembutalized Ss. Analysis of evoked bioelectrical activity in the common trunk of the superior splanchnic nerve and in the branches leading to the adrenals revealed that

the action potentials in the latter differ from those of the former by (a) the presence of certain components in their composition, (b) the duration of the potentials and the latent period for their emergence, and (c) the frequency characteristics of the impulses being conducted. The iv administered cholinolytic, hexonium (2-5 mg/kg), led to a general reduction of the amplitude of the action potentials in the adrenal-bound branches, and a complete suppression in some. Data provide evidence for the presence of a synaptic interruption in a portion of the adrenal-bound fibers in the semilunar ganglion of the solar plexus.—I. D. London.

5814. Lawrence, Carl W. & Haynes, Jack R. (Travis State School, Austin, Tex.) **Epinephrine and norepinephrine effects on social dominance behavior.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 195-198.—Investigated the effects of epinephrine and norepinephrine on social dominance behavior in 24 male C57BL/6J mice. The social dominance hierarchy was created by placing pairs of Ss in a linear maze. The only way S could get to the goal box was by pushing the opposing S out. After the dominance hierarchy was established, each S was placed in the dominance situation under each of the 2 drug conditions. Results show that all conditions were significantly different from each other, with the greatest amount of dominance behavior being shown under norepinephrine and the greatest submissive behavior under epinephrine. It is concluded that epinephrine and norepinephrine may have differential effects on social dominance behavior.—*Journal abstract*.

5815. Leonard, B. E. & Tonge, Sally R. (U. Nottingham, England) **Effects of some hallucinogenic drugs upon the metabolism of noradrenaline.** *Life Sciences*, 1969(Aug), Vol. 8(15, Pt. 1), 815-825.—Investigated the actions of phencyclidine, ditran, LSD-25, and mescaline on the catecholamines of the brains of Wistar rats. Decreased levels of noradrenaline (NA), accompanied by slightly elevated dopamine (DA) levels, were observed with all 4 drugs. Phencyclidine increased the degree of depletion of NA produced by reserpine. All 4 drugs increase the depletion of NA and DA by alpha-methyl-m-tyrosine, but had no effect upon the depletion produced by alpha-methyl-p-tyrosine. Normetanephrine levels either were unaffected or were slightly decreased, indicating that the fall in NA is not a consequence of an increased release from neurons. It is suggested that part of the mechanism of action of hallucinogenic drugs is to inhibit the release of NA from the neuron, thus allowing its catabolism by MAO. (15 ref.).—*Journal summary*.

5816. Lepore, Franco; Ducharme, Raymond, & Cardu, Bruno. (U. Montreal, Quebec, Canada) **Memory and ribonucleic acid (RNA): Transfer of an avoidance response.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 99-103.—Used 4 groups of 7 male albino Sprague-Dawley rats each to test the hypothesis that learning can be transferred by means of RNA. The experimental group was injected with RNA obtained from the brains of Ss conditioned to an avoidance response. The control group received no RNA. A 2nd control group was given RNA which came from the brains of nonconditioned Ss. The 4th group received RNA extracted from the muscles of conditioned Ss. Results did not confirm the transfer hypothesis since no RNA facilitating effect on subsequent avoidance training was observed. (18 ref.).—*Journal abstract*.

5817. Lovett, D. & Booth, D. A. (U. Sussex, Lab. of

Experimental Psychology, Brighton, England) **Four effects of exogenous insulin on food intake.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 406-419.—After a subcutaneous injection of bovine insulin into female Lister hooded rats, at 1st there was an augmentation of the satiety produced by nutrient eaten immediately before injection. Later, with large enough doses, feeding was elicited—perhaps by hastening the passage of satiety. A 3rd type of effect is behavioral disruption, reducing food and water intake when food is withheld for an hr. after injection and producing postural changes even when food is present. 4th, repeated pairing of insulin injection with intake of water of a particular flavor depresses subsequent intake of water having that flavor, whether presented alone or together with water of another flavor which has been paired with control injections. The acquired discriminated intake change involves the initial acceptability of the flavor but changes in the inhibition of acceptability during an intake bout have not been excluded. (26 ref.)—*Journal abstract.*

5818. **Matin, M. A.** (Industrial Toxicology Research Center, Lucknow, India) **Correlation between electroencephalographic (EEG) effects and acetylcholine content of brain after cholinolytic hallucinogens.** *Japanese Journal of Pharmacology*, 1969(Dec), Vol. 19(4), 515-519.—Examined the effect of atropine, hyoscyne and total alkaloids of *Datura alba* on the EEG and total acetylcholine content of the whole brain of rats. A decrease was noted in the frequency of cps in different areas of the brain with total alkaloids of *Datura alba* causing the maximum reduction of cps followed by hyoscyne and atropine. An attempt was made to correlate the EEG changes with the acetylcholine content of the brain at a given time. Total alkaloids of *Datura alba* caused a maximum reduction of the total acetylcholine content of the brain along with a reduction in the frequency of cps 30 min. after administration. Hyoscyne was less potent in reducing the acetylcholine content of brain and in reducing the cps, while atropine was least potent in both respects, 30 min. after administration of both drugs. (20 ref.)—*Journal summary.*

5819. **Mekhedova, A. Ya.** (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Farmakologicheskaya regulatsiya formirovaniya veroyatnostnogo stereotipa u sobak (effekty atsefena).** [Pharmacological regulation of formation of a probability stereotype in dogs (acephane effects).] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 366-368.—Used 3 dogs to study the facilitating properties of acephane (lucidril, centrophinoxin) on the formation of a probability stereotype. The method of salivary CRs with both constant and 1:1 probability reinforcement was utilized. Maximal conditioned reactions appeared before the administration of acephane, when the level of secretion was the same for both small (5 gm. of meat) and probability reinforcement. Adequate "averaged" reactions were formed with the use of acephane, if probability-reinforcement was accompanied earlier by the development of emotional tension. The positive regulatory influence of acephane appears to be a function of the stage of formation of adaptive reactions to probability reinforcement, observed before the use of the preparation.—*I. D. London.*

5820. **Miller, F. P. & Maickel, R. P.** (Indiana U., Lab. of Psychopharmacology) **The role of brain amines in the behavioral depression produced by a benzo-**

quinolizine. *Life Sciences*, 1969(May), Vol. 8(9, Pt. 1), 487-491.—The mechanism by which p-chlorophenylalanine (PCPA) and benzoquinolizine, Ro 4-1284, produce a state of behavioral depression was examined in adult male Sprague-Dawley rats from which continuous avoidance measurements were made, both pre- and postdrug administration. Both drugs were given ip in a volume of .1 ml/100 gm body weight. The levels of brain serotonin (5 HT) and norepinephrine (NE) were lowered at 1 day after the drug PCPA but by 8 days the NE level was normal while 5 HT was still lowered, with 5HT returning to normal at 15 days. The effect of Ro 4-1284 was usually to produce a depression of continuous avoidance responding. The avoidance rate was not affected by PCPA administration, however, PCPA pretreatment had an effect on the Ro 4-1284 action, but only at the 8-day level. Present results lend support to the importance of the relative ratios of free 5 HT and NE in producing a depressed effect. Behavioral perturbations may be produced by manipulations of either free 5 HT or NE.—*W. E. Wood.*

5821. **Mirzoyan, S. A. & Paglavyan, V. G.** (Medical Inst., Erevan, USSR) **Vliyanie iprazida na mozgovoe krovoobrashchenie i kislorodnoe napryazhenie v mozgovoĭ tkani.** [Influence of iprazid on cerebral circulation and oxygen tension in cerebral tissues.] *Ek'sperimental'nyĭ i Klinikaniĭ Bzhshkoviĭyanĭ Handes*, 1969, Vol. 9(6), 3-9.—62 cats, 15 rabbits, and 3 dogs were used to study the influence of the psychotropic agent, iprazid (an MAO), on cerebral circulation and O₂ tension in cerebral tissues. Under conditions of resistography, iprazid weakened cerebrovascular tonus—an effect which was more strongly expressed in intracarotid rather than iv administration. The administration of iprazid was accompanied by an increase in volume-velocity of blood flow in the cerebral surface and in the carotid artery. Increase in blood supply was more expressed in chronic experiments in the absence of a general anesthesia. Iprazid increased O₂ tension in cerebral tissues.—*I. D. London.*

5822. **Norris, Dale M., Ferkovich, Stephen M., Rozental, Jack M., & Baker, James E.** (U. Wisconsin) **Energy transduction: Inhibition of cockroach feeding by naphthoquinone.** *Science*, 1970(Nov), Vol. 170(3959), 754-755.—Reports that 1,4-naphthoquinones inhibit feeding of the cockroach (*Periplaneta americana*) by (a) complexing with sulfhydryl groups of receptor protein in sensory neurons, (b) oxidizing the sulfhydryl groups, and (c) being reduced.—*Journal abstract.*

5823. **Oliverio, Alberto.** (U. Sassari, Italy) **Effects of nicotine and strychnine on transfer of avoidance learning in the mouse.** *Life Sciences*, 1968(Nov), Vol. 7(22, Pt. 2), 1163-1167.—Showed transfer of avoidance learning to occur when mice previously trained to respond to a given stimulus were subjected to a session in which a new stimulus was used. The magnitude of the transfer phenomenon was dependent on the length of a training session during which Ss were given an experience of a compound CS formed by the already known and by the new stimulus together. Posttrial administration of nicotine and strychnine enhanced transfer of learning.—*Journal summary.*

5824. **Rabin, A. G. & Glantz, V. L.** (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Deĭstvie nembutala na afferentnyy peredachu v talamicheskom somatosenzornom rele.** [Action of nembutal on afferent transmission in the thalamic somatosensory relay.]

Zhurnal Vyssheĭ Nervnoi Deyatel'nosti, 1969, Vol. 19(4), 644-652.—26 immobilized cats were given increasing doses of nembutal (5-60 mg/kg). Recordings were made of the spontaneous activity and evoked potentials of the thalamic posterioventral nucleus along with the discharges of single neurons there. After the administration of 5-20 mg/kg of nembutal, barbiturate spindles were formed in the EEG, the level of spontaneous neuronal activity dropped, and group discharges, arising chiefly in the negative waves of slow EEG oscillations, appeared. Parallel to this, there occurred (a) a drop in amplitude of the postsynaptic negative phase of evoked potential, and (b) the formation of a slow positive wave and that of slow secondary cyclic oscillations, accompanied by repeated bursts of afterdischarges of the thalamic neurons. In doses higher than 30 mg/kg, evoked cyclic oscillations became less regular and the series of afterdischarges was suppressed. With increase in administered nembutal, the restoration cycle of excitability of the thalamic neurons became progressively longer.—*I. D. London*.

5825. Reid, W. D., Stefano, F. J., Kurzepa, S., & Brodie, B. B. (National Heart Inst., Lab. of Chemical Pharmacology, Bethesda, Md.) **Tricyclic antidepressants: Evidence for an intraneuronal site of action.** *Science*, 1969(Apr), Vol. 164(3878), 437-439.—In an experiment with male Sprague-Dawley rats, it was found that desipramine, a tricyclic antidepressant drug, almost completely prevents the accumulation of tritiated norepinephrine by sympathetic neurons of the heart after the injection of a tracer dose of the labeled amine. However, desipramine does not alter the accumulation of norepinephrine after the injection of a large dose of the neurohormone. Despite the failure of desipramine to block the neuronal uptake of norepinephrine, it still prevents exogenous norepinephrine from displacing the endogenous neurohormone from intraneuronal storage sites. (22 ref.)—*Journal abstract*.

5826. Robichaud, R. C. & Sledge, K. L. (Warner-Lambert Research Inst., Morris Plains, N.J.) **The effects of p-chlorophenylalanine on experimentally induced conflict in the rat.** *Life Sciences*, 1969(Sep), Vol. 8(17, Pt. 1), 965-969.—To examine the role of serotonin in the brain and in mental illness 6 male Long-Evans rats were administered p-chlorophenylalanine (p-CPA), after each S was trained to a lever for liquid reward on a variable-interval (VI) 2-min schedule. A tone stimulus was activated at 15-min intervals to signal available food paired with foot shock. p-CPA had little effect during VI 2-min periods but responses increased during tone periods. Findings may be due to a change in drive level after p-CPA or p-CPA may increase sensitivity to pain. Effects on conflict behavior with p-CPA similar to those found with other anti-anxiety agents but p-CPA was more prolonged.—*W. E. Wood*.

5827. Sanghvi, I. & Gershon, S. (New York U., Medical School, Neuropsychopharmacology Research Unit) **The evaluation of central nervous system stimulants in a new laboratory test for antidepressants.** *Life Sciences*, 1969(May), Vol. 8(9, Pt. 1), 449-457.—Investigated "the effect of pretreatment with amphetamine, cocaine, and a new compound, 1-(2-dimethylaminoethyl)-1-phenylindine hydrochloride (MJ-1986)" in mongrel dogs. D-amphetamine sulphate (1 mg/kg) and cocaine hydrochloride (1.5 mg/kg) were administered 30 min. before the yohimbine test. Results indicate that blood pressure, alertness, and excitement

increased in Ss treated with amphetamine and cocaine. MJ-1986 had only a transient CNS stimulation effect. It is concluded that "the validity and specificity of the yohimbine test for the evaluation of clinically useful antidepressant agents has been further substantiated" and that "nonspecific CNS stimulants can be differentiated from clinically effective antidepressants." (21 ref.)—*G. Steele*.

5828. Saxena, V. C., Bapat, S. K., & Dhawan, B. N. (M.L.N. Medical Coll., Allahabad, India). **An experimental evaluation of the anticonvulsant activity of some antihistaminic drugs.** *Japanese Journal of Pharmacology*, 1969(Dec), Vol. 19(4), 477-484.—Screened 21 antihistaminic agents for anticonvulsant activity in albino rats using the supramaximal electroshock seizure pattern (SMES) and metrazol seizure threshold (MST) tests. The drugs were administered orally by a stomach cannula to groups of 10 Ss each. All the drugs were inactive in the MST test but 16 drugs were active in the SMES test. Their neurotoxicity was determined and protective indices (PI) calculated. Data indicate that, in descending order, triprolidine, buclizine, meclozine, promethazine, and cyproheptadine have a higher PI than diphenylhydantoin or phenobarbitone. The structural requirements for anticonvulsant activity in antihistaminic drugs are discussed.—*Journal summary*.

5829. Sinha, J. N., Dhasmana, K. M., Dixit, K. S., & Bhargava, K. P. (K. G.'s, Medical Coll. Lucknow, India) **Antagonism of imipramine induced fatal hyperpyrexia in MAO inhibitor treated rabbits.** *Japanese Journal of Pharmacology*, 1969(Dec), Vol. 19(4), 623-625.—Investigated side effects produced by catecholamines by studying "the effect of specific α and β -adrenergic blockers on the fatal hyperpyrexia induced by MAO inhibitor-imipramine combination." Ss were 35 adult albino rabbits. Experimental Ss were pretreated with niamid and subsequently given imipramine at 1 of 2 dosage levels (2.5 or 5 mg/kg iv). Controls received either niamid or imipramine with saline. Results indicate that controls did not exhibit fatal hyperpyrexia. Experimental Ss showed hyperpyrexia, with fatal hyperpyrexia appearing in those who received niamid and the higher dosage of imipramine.—*P. McMillan*.

5830. Stevens, David A., Fechter, Laurence D., & Resnick, Oscar. (Clark U.) **The effects of p-chlorophenylalanine, a depletor of brain serotonin, on behavior: II. Retardation of passive avoidance learning.** *Life Sciences*, 1969(Apr), Vol. 8(8, Pt. 2), 379-385.—Tested male Charles River rats for passive avoidance learning following injection of p-chlorophenylalanine (p-CIPhe) in steroid suspending vehicle, of the vehicle only. In Exp. I, 42 Ss were trained for 20 trials before testing; in Exp. II, 20 Ss were trained to a criterion before testing. In both experiments, Ss given p-CIPhe learned more slowly than controls. This supported the hypothesis that p-CIPhe, a specific depletor of brain serotonin, reduces emotionality rather than increases learning ability.—*Journal summary*.

5831. Tonge, Sally R. & Leonard, B. E. (U. Nottingham, England) **The effects of some hallucinogenic drugs upon the metabolism of 5-hydroxy-tryptamine in the brain.** *Life Sciences*, 1969(Aug), Vol. 8(15, Pt. 1), 805-814.—Investigated the effects of the 4 hallucinogenic drugs (phencyclidine, ditran, LSD-25, and mescaline) on the metabolism of 5-hydroxytryptamine (5-HT) in the brains of Wistar rats. All 4 drugs caused increases in the levels of 5-HT, accompanied in the early

stages by decreases in the levels of 5-hydroxyindolyl-acetic acid, suggesting that the relationship between the 2 substances which exists in untreated animals had been altered. No effect on either MAO or aromatic amino acid decarboxylase activity was detected. The depletion of 5-HT which follows the administration of either reserpine or p-chlorophenylalanine was significantly reduced by all 4 drugs. Results support the theory that LSD owes its hallucinogenic activity to an ability to alter the capacity of the tissues to bind 5-HT. Further, the demonstration that 4 hallucinogens of widely different structure all affect the binding of 5-HT supports the implication of this action in hallucinogenesis.—*Journal summary*.

5832. Wise, C. David & Stein, Larry. (Wyeth Lab., Philadelphia, Pa.) **Facilitation of brain self-stimulation by central administration of norepinephrine.** *Science*, 1969(Jan), Vol. 163(3864), 299-301.—29 rats, with electrodes implanted in the medial forebrain bundle, stimulated their own brains at sharply reduced rates after systemic administration of disulfiram or intraventricular administration of diethyldithiocarbamate. Both drugs inhibit dopamine- β -hydroxylase, the enzyme responsible for the final step in the biosynthesis of norepinephrine. The suppressed behavior was reinstated by intraventricular injections of 1-norepinephrine, but not by injection of its biologically inactive isomer, d-norepinephrine. Intraventricular administration of dopamine and serotonin did not restore self-stimulation. The rewarding effect of medial forebrain bundle stimulation may depend on the availability of norepinephrine as a transmitter, but not on dopamine or serotonin. (15 ref.)—*Journal abstract*.

5833. Zakhariya, E. A. & Zapadnyuk, V. I. (Inst. for Advanced Medical Training, Kiev, USSR) **Vliyaniye nikotina na vozniknoveniye audiogennykh sudorog u zhivotnykh razlichnogo vozrasta.** [The influence of nicotine on the emergence of audiogenic seizures in animals of different ages.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 24-25.—Used 380 rats, 658 mice, and 40 guinea pigs in an ontogenetic study of the influence of ip administered nicotine (3.5, 10 mg/kg) on the frequency of emergence of audiogenic seizures and their severity. In rats and mice nicotine increased the readiness of the convulsive response, leading to an intensification and increase of audiogenic seizures. The degree of the convulsive response was most pronounced in young and old rats and mice. Audiogenic seizures could not be induced in guinea pigs either spontaneously or after the administration of nicotine.—*I. D. London*.

5834. Zitlin, Arthur; Beach, Frank A., Barchas, Jack D., & Dement, William C. (New York U., Medical School) **Sexual behavior of male cats after administration of parachlorophenylalanine.** *Science*, 1970(Nov), Vol. 170(3960), 868-870.—Observed the behavior of 12 male cats before and after 6 or 8 daily injections of parachlorophenylalanine. Sexual performance was either unchanged or diminished; aggressive behavior was not seen. Serotonin concentrations in the brains were uniformly lowered. (17 ref.)—*Journal abstract*.

CARDIOVASCULAR PROCESSES

5835. Blizard, David & Welty, Roberta. (Jackson Lab., Bar Harbor, Me.) **A technique for monitoring the**

heart rate of mice. *Psychophysiology*, 1970(Jul), Vol. 7(1), 143-144.

5836. De Vietti, Terry L. & Porter, Paul B. (Central Washington State Coll.) **Heart-rate response during aversive conditioning.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 651-658.—Used 36 male Wistar rats to determine the effects of (a) footshock before specific training, (b) CS duration (6 vs. 60 sec.), and (c) form of aversive conditioning (CER vs. conditioned avoidance response) on heart rate during the presentation of the CS and between presentations. All 3 tested variables were effective in modifying the heart-rate response to the CS while only CS duration altered heart rates between CS presentations.—*Journal abstract*.

5837. Engel, Bernard T. & Gottlieb, Sheldon H. (Baltimore City Hosp., Gerontology Research Center, Md.) **Differential operant conditioning of heart rate in the restrained monkey.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 217-225.—Trained each of 3 rhesus monkeys to slow and to speed its heart rate to avoid electric shock. All Ss learned. Each Ss' performance was highly reliable from session to session. Blood pressures did not significantly differ between the slowing and speeding contingencies. Heart rates and blood pressures were significantly highly positively correlated during heart-rate slowing but were uncorrelated during heart-rate speeding indicating that the physiological mechanisms of slowing and speeding were different. The animal preparation described is chronic, highly reliable, and physiologically accessible for a wide variety of measurements. It should be quite valuable in studies of operant cardiac control and in studies of physiological mechanisms associated with cardiac changes in the intact primate.—*Journal abstract*.

5838. Golovko, I. F. (All-Union Research Inst. of Physical Culture, Moscow, USSR) **Malogabaritnyi svetovoi indikator serdechnogo ritma.** [Miniature photic indicator of cardiac rhythm.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1510-1512.—Provides a technical description of construction and operation.—*I. D. London*.

5839. Ivlev, V. F. & Ivleva, V. P. (State Pedagogical Inst., Krasnoyarsk, USSR) **K metodike podscheta serdechnykh ostsillyatsii pri pletizmograficheskikh issledovaniyakh.** [On a method of taking count of cardiac oscillations in plethysmographic research.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1513.—Describes an auxiliary device for attachment to the plethysmograph, in order to procure an automatic count of the number of cardiac contractions.—*I. D. London*.

5840. Moibenko, A. A. (Bogomolets Inst. of Physiology, Kiev, USSR) **Reflektornye izmeneniya regionalnogo sosudistogo soprotivleniya pri ishemii izolirovannogo ot krovoobrashcheniya serdtsa.** [Reflex changes in regional vascular resistance in the presence of ischemia of the heart isolated from circulation.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 26-27.—Studied 16 dogs with myocardial ischemia to determine the possible role of the aortal chemoreceptors in reflex vasomotor reactions due to myocardial hypoxia. Reflex vascular constriction was noted in the extremities, small intestine, and kidney. It is shown that reflex vasoconstriction is not connected with stimulation of the aortal chemoreceptor structures. Further hypoxic excitation of the aortal chemoreceptors altered the magnitude and regional structure of the pressor reaction.—*I. D. London*.

5841. Obrist, Paul A., Webb, Roger A., Sutterer, James R., & Howard, James L. (U. North Carolina) **Cardiac deceleration and reaction time: An evaluation of two hypotheses.** *Psychophysiology*, 1970(May), Vol. 6(6), 695-706.—Evaluated 2 hypotheses concerning the basis of the association between performance on a simple RT task and the deceleration of heart rate found as the S responds. The RT task consisted of 96 trials in which the foreperiod was randomly varied between 2, 4, 8, and 16 sec. 2 groups of 31 healthy male undergraduates each were used, with the cardiac response blocked pharmacologically in 1 group, to determine if the occurrence of the cardiac response facilitated performance through an afferent feedback mechanism. 2 aspects of somatic activity, EMG bursts from chin muscles and eye movements and blinks, were also assessed to determine if the cardiac response and the associated behavioral facilitative effects were linked to a common mediating process involving cardiac deceleration and the inhibition of ongoing, task-irrelevant somatic activities. The latter hypothesis was consistently supported. Blocking the cardiac response did not significantly influence performance. However, a within-S analysis revealed a pronounced direct relationship between RT and the magnitude of the inhibition of somatic effects and the magnitude of the cardiac deceleration when the latter was not blocked pharmacologically. Data indicate that heart rate deceleration may not be significantly involved in an afferent mechanism but rather is more understandable as a peripheral manifestation of central processes. (17 ref.)—*Journal abstract*.

5842. Shapiro, David; Tursky, Bernard; Gershon, Elliot, & Stern, Melvin. (Harvard Medical School, Boston, Mass.) **Effects of feedback and reinforcement on the control of human systolic blood pressure.** *Science*, 1969(Feb), Vol. 163(3867), 588-590.—Describes an automatic procedure providing information about human systolic blood pressure at each successive heartbeat under routine laboratory conditions. 20 normal male 21-27 yr. old undergraduates were given feedback of their own systolic pressure, $\frac{1}{2}$ operantly reinforced for increasing and $\frac{1}{2}$ for decreasing their pressure. Significant differences in pressure were obtained in a single session. Apparatus and results suggest a possible approach to the treatment of essential hypertension.—*Journal abstract*.

5843. Sirotskii, V. V. (Bogomolets Inst. of Physiology, Kiev, USSR) **Vzaimootnosheniye mezhdu dykhatel'nyim, serdechnym i serdechno-sosudistym komponentami pishchevogo uslovnogo refleksa v ontogeneze u sobak raznogo tipa nervnoi sistemy.** [Interrelationship between the respiratory, cardiac and cardiovascular components of the alimentary conditioned reflex in ontogenesis in dogs with various types of nervous system.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 701-703.—6 dogs from the same litter were used in a study with 2 stages: determination of typological features and autonomic reactions from the age of 1-7 mo. and from 10-17 mo., with both states involving elaboration of a stereotype of alimentary secretory reflexes consisting of alternating positive and inhibitory acoustic stimuli. In response to the action of a positive CS in Ss with a "strong excitatory process," the growth of respiratory rate in different age periods was considerably lower than in those with a "weak type of nervous system." In the former, the action of the positive

CS was accompanied by a regular and distinct respiratory rhythm with slight inspiratory tonus of the rib cage; in the latter, great increase in the rate of respiration and disturbance of its rhythm were characteristic. In the former, the development of cardiac and cardiovascular components of the alimentary CS occurred more vigorously than in the latter. It is shown that there is no direct relation between the intensity of the autonomic components of the alimentary CR and those of the orienting reaction. The data provide a basis for concluding that "corrective influences" on respiration and the cardiovascular system in dogs begin to appear at a rather early age.—*I. D. London*.

5844. Thompson, Larry W. & Botwinick, Jack. (Duke U.) **Stimulation in different phases of the cardiac cycle and reaction time.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 57-65.—Tested the suggestion that RT may be related to variations in blood pressure which occur with each heart beat in a series of 4 studies in which possible effects of the preparatory interval (PI) were controlled. Stimuli were presented at 0, 200, 400, and 600 msec. following the R wave, and during the ascending slope of the R, T, and P waves of the cardiac cycle. No relationship was found in any of the 4 studies between RT and the phase within the cardiac cycle when the stimulus occurred.—*Journal abstract*.

5845. Thorne, Philip R., Engel, Bernard T., & Quilter, Reginald E. (Baltimore City Hosp., Gerontology Research Center, Md.) **An instrument for predicting the occurrence of the P-R interval of the normal human electrocardiogram.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 138-142.

ENVIRONMENT & STRESS

5846. Agadzhanian, N. A., Zakharova, I. N., & Kalyuzhnyi, L. V. (Inst. of Medicobiological Problems, Moscow, USSR) **Izmeneniya elektroentsefalogrammy i pishchevoi uslovnoreflektornoï deyatel'nosti posle kratkovremennoi glpoksii.** [Changes in the electroencephalogram and alimentary conditioned reflex activity after short-term hypoxia.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 369-371.—Simulated ascent to altitudes of 11,000-12,000 m. at the rate of 25 m/sec and similar descent in a barochamber for rabbits. The changes observed under conditions of short-term acute hypoxia are detailed in (a) previously elaborated alimentary motor CRs to a rhythmic photic stimulus; and (b) the accompanying EEGs, recorded from the hippocampus, mesencephalic reticular formation, and the lateral hypothalamus. Temporary acute hypoxia resulted in the disappearance of alimentary CR activity due to the development of a state of excitation, characteristic of stress, in primarily the structures of the nonspecific activating system of the subcortex.—*I. D. London*.

5847. Barofsky, I., Robinson, S. M., & Hurwitz, D. A. (Massachusetts Coll. of Pharmacy, Boston) **The effect of elevated temperature on food and water reinforced fixed ratio performance.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1243-1248.—Reports 3 experiments on the effect of elevated temperatures on food- and water-reinforced fixed-ratio (FR) performance. Ss were 11 male, experimentally naive Sprague-Dawley rats. In Exp. I the response rate reduced at a constant fixed-ratio requirement, while the change in body temperature remained relatively constant. In Exp. II

(food-reinforced) and III (water-reinforced) the FR response rate varied as an inverted U-shaped function of the FR requirement at both 25 and 35°C. Results of these experiments do not support a thermostatic theory of food-intake, since exposure to 35°C resulted in similar changes for food or water reinforced performance. As an alternative, it is proposed that thermogenic factors other than food, e.g., the work-requirement or ambient temperature, contributed to the changes in performance at 25° or 35°C. (19 ref.)—*Journal abstract.*

5848. Edelman, Robert I. (Florida Technological U., Orlando) **Validity of verbal report as a prognosticator of physiological arousal to threat.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 492-495.—Selected 40 male Ss on the basis of their avowed fear of electric shock and blood extraction with a hypodermic needle. Ss were subdivided into 4 equal groups. 1 group was fearful of both stimuli, a 2nd group avowed minimal fear to both stimuli. Each of the other groups feared 1, but not the other stimulus. Ss were then threatened with both stimuli in a counterbalanced order while heart rate was recorded. Since no threat was followed through, a credibility measure was obtained to determine if disbelief attenuated arousal. Results indicate that: (a) heart rate was differentially affected by threat and was generally consistent with avowed fear; and (b) there was some suggestion that disbelief attenuated the threat in that Ss were more likely to believe the initial than the subsequent threat and also showed greater heart rate acceleration to that initial threat.—*Journal abstract.*

5849. Jensen, Robert A. & Riccio, David. (Kent State U.) **Effects of prior experience upon retrograde amnesia produced by hypothermia.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1291-1294.—Administered to 33 adult male Holtzman Sprague-Dawley rats 1 of 3 types of experience prior to hypothermia: familiarization with the apparatus prior to training; training, extinction, and retraining; or training, hypothermia, and retraining. Each type of prior experience significantly diminished the amount of retrograde amnesia produced by hypothermia as compared with Ss which received a single training trial followed by hypothermia.—*Journal abstract.*

5850. Kruglikov, R. I. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **K voprosu o vremennoi organizatsii pamyati.** [On the temporal organization of memory.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 710-711.—141 mice were used to study (a) the comparative aspects of the retroactive and proactive action of electroshock on memory, and (b) degree of resultant retrograde amnesia as a function of the interval between elaboration of an electrodeceptive "CR of passive avoidance" and administration of electroshock, in order to elucidate the nature of memory deficit arising from subjection. Electroshock at different intervals of time after elaboration of the CR produced a gradual increase in resistance of the conditioned connection (memory trace) being formed to consolidation. At the same time electroshock before elaboration of the CR or testing of its retention did not hinder reinforcement and reproduction of the conditioned connection, i.e., did not exert much of a proactive action. Thus, disturbance of the process of transition of the memory trace from short- to long-term form was the chief effect caused by electroshock. The fact that this process was completed in approximately 2 hr. after elaboration of the CR is evidence for the coexistence of developing long- and short-term memory.—*J. D. London.*

5851. Patton, Gary W. (Indiana U., Pa.) **Combined autonomic effects of concurrently-applied stressors.** *Psychophysiology*, 1970(May), Vol. 6(6), 707-715.—Attempted to determine if 2 stressors applied simultaneously produce greater sympathetic nervous system (SNS) activity than does 1 stress acting alone. Exp. I was undertaken to ensure that each stress, when compared with a nonstress condition, independently produced increased SNS activity. To this end, 24 United States Army enlisted men (a) solved anagrams, (b) underwent seminude exposure to 50° F cold, and (c) watched a comedy movie. SNS activity during a and b was independently compared with c. Subsequently, in Exp. II, Ss' responses during a single stress (55° F cold exposure) were contrasted with those recorded during a dual stress condition (anagram solving during 55° F cold exposure). Each stress independently produced increased SNS activity, and the 2 stressors combined produced more SNS activity than did cold exposure alone. (20 ref.)—*Journal abstract.*

5852. Seligman, Martin E. & Meyer, Bruce. (U. Pennsylvania) **Chronic fear and ulcers in rats as a function of the unpredictability of safety.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 202-207.—A variable number of unpredictable electric shocks presented to 20 male Sprague-Dawley albino rats bar pressing for food produced substantial nontransient suppression across 70 sessions. With a fixed number of otherwise unpredictable shocks in each session, Ss recovered by pressing after the last shock, using its occurrence as a safety signal. When signals predicted a variable number of shocks Ss bar pressed in the absence of the CS and not in its presence. Pressing recovered with milder predictable shock and more slowly with mild unpredictable shock. Inhibition of delay was found in predictable shock groups. Fear, measured by suppression, correlated with gastrointestinal ulceration ($p = .74$). Findings confirmed a safety-signal explanation of the effects of unpredictable shock.—*Journal abstract.*

5853. Simmonds, M. A. & Iversen, L. L. (U. Cambridge, England) **Thermoregulation: Effects of environmental temperature on turnover of hypothalamic norepinephrine.** *Science*, 1969(Jan), Vol. 163(3866), 473-474.—The hypothesis that norepinephrine is a transmitter in the temperature-regulating center of the hypothalamus is based on observations of changes in the rectal temperatures of animals after injections of norepinephrine into the hypothalamus. By introducing tritiated norepinephrine as a label into the endogenous norepinephrine stores in the brain and then measuring the disappearance of tritiated norepinephrine from discrete areas, the activity of norepinephrine-containing neurons in those areas can be monitored. In an experiment with male Wistar rats, it was found that when S is exposed to heat, the turnover of endogenous norepinephrine appears to be increased selectively in the hypothalamus, whereas exposure to cold has no effect.—*Journal abstract.*

GENETICS

5854. Hartlage, Lawrence C. (Indiana U., Medical Center, Indianapolis) **Sex-linked inheritance of spatial ability.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 610.—Measured inheritance of spatial ability using

Differential Aptitude Test space scores from 100 combinations of mother-son, father-son, mother-daughter, and father-daughter pairs. Obtained correlations were in agreement with earlier findings suggesting that spatial ability may be transmitted by an X-recessive gene.

—*Author abstract.*

5855. McClure, Harold M., Belden, Kathy H., Pieper, W. A., & Jacobson, Cecil B. (Emory U., Yerkes Regional Primate Research Center) **Autosomal trisomy in a chimpanzee: Resemblance to Down's syndrome.** *Science*, 1969(Sep), Vol. 165(3897), 1010-1011.—Describes a female infant chimpanzee (Pan troglodytes) with clinical, behavioral, and cytogenetic features similar to those in Down's syndrome (Mongolism). The infant showed retarded growth rate, congenital abnormalities, retarded neurologic and postural development, epicanthus, hyperflexibility of the joints, muscle hypotonia, and trisomy of a small acrocentric chromosome.

—*Journal abstract.*

5856. Tiwari, S. C. & Bhasin, M. K. (U. Delhi, India) **Frequency of colour blindness and hand clasping in two endogamous caste groups of Garhwal.** *Human Heredity*, 1969, Vol. 19(1), 110-112.—Presents the frequency of color blindness and hand clasping of 2 endogamous caste groups of Garhwal. The incidence of color blindness among the Brahmins is 4.96% and Rajputs 3.20%. The frequency of hand clasping of R type is 53.67% among Brahmins and 50.20% in Rajputs. The intergroup differences were statistically nonsignificant.

PERSONALITY CORRELATES

5857. Bailey, William L., Shinedling, Martin M., & Payne, I. Reed. (Brigham Young U.) **Obese individuals' perception of body image.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 617-618.—To test differences in size of body image of underweight, normal weight, and overweight people, 105 undergraduates were administered a Draw-A-Person test. The torso and head of the figure drawings were each assigned a number from 0-3 according to the degree their dimensions represented obese characteristics. Obese Ss drew significantly larger figures, indicating larger body images than normal or underweight Ss.—*Journal abstract.*

5858. Colman, Arthur D. (Walter Reed Army Inst. of Research, Washington, D.C.) **Psychological state during first pregnancy.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 788-797.—Studied 6 women in group, hospital, and home settings from the beginning of their 1st pregnancy for 15 mo. Their psychological state is discussed in terms of altered field on consciousness, medical symptoms and concerns, and approaches and reactions to labor and delivery.—*Journal abstract.*

5859. Curtis, George; Fogel, Max; McEvoy, Donald, & Zarate, Carlos. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Urine and plasma corticosteroids, psychological tests, and effectiveness of psychological defenses.** *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 237-247.—The significant psychological correlates of urinary 17-hydroxycorticosteroids (17-OHCS) were more numerous and more consistent across sexes than the correlates of plasma 17-OHCS. The best psychological predictors of urinary 17-OHCS were scores on the Taylor MA scale and the Leary Hostility Scale, both positively related, and the Nowlis Social

Affection Scale (negatively related). No relationship was found between effectiveness of defenses and plasma 17-OHCS. (32 ref.)—*R. V. Hamilton.*

5860. Dunham, Frances Y. (U. North Carolina, Greensboro) **Timing and sources of information about, and attitudes toward, menstruation among college females.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 205-217.—189 undergraduates completed questionnaires about source and timing of information about menstruation, attitudes toward menstruation at menarche and at the present time, and transient feelings during the menstrual period. Sources were divided into those giving a 1st hint and those giving detailed information: mothers gave information less frequently while peers more frequently gave 1st hints and less frequently gave detailed information than has previously been reported. Few girls in this sample had no information about menstruation prior to menarche. Transient feelings during menstruation indicated mild psychological discomfort, but more permanent attitudes seemed to be a denial that menstruation was special in either a positive or negative way. (16 ref.)—*Author abstract.*

5861. Frith, C. D. (London U., Inst. of Psychiatry, England) **Personality, nicotine and the salivary response.** *Life Sciences*, 1968(Nov), Vol. 7(22, Pt. 2), 1151-1156.—Measured the salivary response of 20 normal adult volunteers to lemon juice under nicotine and placebo using B. W. Feather's improved salimeter. Nicotine significantly increased the difference between response and resting level. There was a significant negative correlation between extraversion score and resting level of secretion and a significant positive correlation between extraversion score and difference between resting level and the response to the 2nd of a pair of lemon juice stimulations. The apparatus was found satisfactory with regard to the collection and measurement of saliva, but not with regard to the delivery of the stimulus.—*Journal summary.*

5862. Roessler, Robert & Collins, Forrest. (Baylor U., Coll. of Medicine) **Personality correlates of physiological responses to motion pictures.** *Psychophysiology*, 1970(May), Vol. 6(6), 732-739.—Examined skin conductance (SC) and heart rate (HR) responses to rest, to a bland and to a stressor motion picture film in 20 paid male volunteers. Ss were divided equally into a high ego strength (Es) and a low Es group on the basis of their scores on the Barron scale of the MMPI. These groups were balanced for film presentation order and did not differ significantly on trait anxiety as measured by the MA scale. The Zuckerman multiple affect adjective check list was administered before and after both the stressor and the bland film. High Es Ss were more responsive in SC and HR under all 3 conditions and showed a greater range of SC values than did low Es Ss. Subjective states paralleled physiological states. High Es Ss reported significantly greater state anxiety than did low Es Ss. (15 ref.)—*Journal abstract.*

5863. Schuman, Elliott P., Kessel, Paul, & DeBold, Richard C. (Long Island U.) **Mytonometry: A method for estimating tenseness and anxiety by measuring muscle hardness.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 479-482.—Data from the mytonometer are different from those yielded by the EMG in that the actual state of the muscles is measured and not the electrical activity at the motor end plates. Additional exploration of the method is suggested. The method appears to be a promising means of evaluating physi-

ological and psychotherapeutic processes and outcomes.
—*Journal abstract.*

5864. Spiegel, Rose. **Las depresiones y la situación femenina.** [Depressions and the feminine situation.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969, No. 11, 47-58.—Discusses the physiological and psychological bases for depression in women. Premenstrual, postpartum, and menopausal depressions are considered with regard to relating the effects of hormonal fluctuations to states of mind. These are also related to social and cultural conditions which may contribute to depression, i.e., cultural emphasis on youth and beauty, social pressure to be married. It is believed that a principle element in a woman's existence is time. A woman's dependence on menstrual cycles and a sense of the correct time for marriage and giving birth are believed to be a source of anguish and desperation which may cause depression. It is concluded that depression in women is influenced by many factors, in sexuality as well as in maturity and interpersonal experience.—P. Hertzberg.

5865. Strausbaugh, Larry J. & Roessler, Robert. (Baylor U., Medical School, Houston, Tex.) **Ego strength, skin conductance, sleep deprivation, and performance.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 671-677.—7 high ego strength (Es) Ss demonstrated significantly higher levels of skin conductance (SC) during performance following 1 night's sleep deprivation and higher levels of performance following sleep deprivation than 7 low Es Ss. No significant Es group differences in SC levels or performance following sleep were observed.—*Journal abstract.*

5866. Waters, William F. (U. Missouri, Medical School) **Sympathetic recovery in defensive responding.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 355-360.—Recorded verbal responses, skin conductance, heart rate, and muscle potential responses of 18 male undergraduates responding to insults, compliments, and neutral statements with defensive responses (free, covert, and irrelevant), impaired defensive responses, and nondefensive responses. Results reveal that freely emitted defensive responses were followed by significantly greater rates of sympathetic recovery than those following nondefensive responses and impaired defensive responses. The expected relationship between rate of sympathetic recovery and frequency of free defensive response emission was not found. Results indicate that defensive responding leads to unusually rapid sympathetic recovery rates and that sympathetic recovery rates are in part determined by the efficacy of escape responses to aversive stimuli ("escapability").—*Journal abstract.*

NUTRITION & GASTROINTESTINAL PROCESSES

5867. Booth, D. A., Chase, Aileen, & Campbell, A. T. (U. Sussex, Brighton, England) **Relative effectiveness of protein in the late stages of appetite suppression in man.** *Physiology & Behavior*, 1970(Nov), Vol. 5(11), 1299-1302.—16 human Ss took a protein-rich or a protein-poor lunch and 2-3 hr. later a supplementary meal of average protein content. Total caloric intake for the 2 meals was lower when the main meal contained a high proportion of protein. Therefore, calorie for calorie, amino acids contribute more than carbohydrates and fats to the suppression of hunger in the postabsorptive period.—*Journal abstract.*

5868. Brown, Clinton C. (Maryland State Psychiatric Research Center, Baltimore) **The parotid puzzle: A review of the literature on human salivation and its applications to psychophysiology.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 66-85.—Presents a survey of the literature on human salivation with emphasis upon the influence of normal and psychopathologic emotional states as they affect alterations in factors relating to flow rate. Neurological and physiological features of the gland, individuality of response, results of classical and operant conditioning, and suggested areas for future research are discussed. (3 p. ref.)—*Journal abstract.*

5869. Grechishkin, L. L. & Mustafina, T. K. (Inst. of Experimental Medicine, Leningrad, USSR) **Soderzhanie gistamina i serotoninina v stenke zheludka u krys pri razvitií neirogennoi distrofii.** [Level of histamine and serotonin in the gastric wall in rats as a result of the development of neurogenic dystrophy.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970, Vol. 69(3), 31-33.—140 white rats, in which lesions of the gastric mucosa were created through simultaneous immobilization and electrical stimulation for 3 hr. served as Ss. The level of histamine and serotonin was raised as a result of the preparation of the Ss. A positive correlation existed between the level of the 2 agents and the number of ulcerous lesions. It appears that endogenic histamine and serotonin play a prominent role in the development of destructive affections of the gastric mucosa.—I. D. London.

5870. Scrimshaw, Nevin S. (Massachusetts Inst. of Technology) **Early malnutrition and central nervous system function.** *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 375-387.—"Severe malnutrition, when it occurs very early in the life of experimental animals, permanently impairs the development of the brain and subsequent learning and behavior. Sensory deprivation may have the same effect.... In developing countries, however, and perhaps in populations of the slums and ghettos of the world's cities, malnutrition and its synergism with infection may be more significant for some children than variations in family education, economic status, and cultural practices. Although genetic factors are important determinants of individual potential, they do not account for the major differences between privileged and underprivileged populations. Malnutrition is a major factor in the high morbidity and mortality of infants and pre-school children in developing countries." (30 ref.)—R. V. Hamilton.

ANIMAL PSYCHOLOGY

5871. Akhtar, M. (Slippery Rock State Coll.) **Rats rut Pakistani psychology.** *Pakistan Journal of Psychology*, 1970(Jun), Vol. 3(1-2), 17-26.—Describes the conditions leading the author to an interest in animal psychology and the subsequent development of the 1st rat colony in Pakistan. It is suggested that work in animal psychology, although currently engaged in by very few psychologists in Pakistan, marks an important advance in Pakistani psychology. A rationale for animal psychology is presented, with emphasis upon the ultimate application to problems of human behavior. The various advantages of animal study are discussed. A brief outline of the research generated by the recently established rat colony is presented.—R. Wiltz.

5872. Dethier, V. G. & Stellar, Eliot. (Princeton U.)

Animal behavior. (3rd ed.) Englewood Cliffs, N.J.: Prentice-Hall, 1970. viii, 152 p. \$6.95(cloth), \$3.25(paper).

5873. Imlay, Marc J. (Northwestern U.) **A dual behavioral interpretation of a single environmental stimulus with freshwater mussels.** *Annual Reports of the American Malacological Union*, 1969, 21-22.—Examines the observation that clams will close when the external stimulus is harmful, but will open in beneficial environments. Evidence is presented that through changes in light, vibrations, and altered aeration of water, a dual response to a single stimulus will sometimes occur in the behavior of clams, i.e., a stimulus initially producing closing can sometimes be followed by an opening response.—P. McMillan.

5874. Kefuss, J. A. & Nye, W. P. (Inst. fur Bienenkunde, Polytechnische Gesellschaft, Oberursel/Taunus, Im Rosengarten, W. Germany) **The influence of photoperiod on the flight activity of honeybees.** *Journal of Apicultural Research*, 1970, Vol. 9(3), 133-139.—Honeybees (*Apis mellifera ligustica*) of similar genetic lines, and sister queens (inseminated with the same drone line) were maintained in controlled environment rooms in glass-walled observation hives. As the photophase was lengthened, flight activity per unit time decreased. Bees develop flight patterns in response to cycles of light and dark and can be conditioned to high flight activity at times other than their normal peak flight times. Continuous light seemed to provide the best environment for testing biorhythms that are not associated with light and dark periods, since the rhythms of bee flight tend to fade with continuous light. It is concluded that possibly all honeybee castes have a flight rhythm controlled or influenced by photoperiod, which is obvious in the queen and drone flights but less evident in workers due to weather and foraging factors present.—W. E. Wood.

COMPARATIVE PSYCHOLOGY

5875. Dodwell, P. C. (Ed.) (Queen's U., Kingston, Ontario, Canada) **Perceptual learning and adaptation: Selected readings.** Baltimore, Md.: Penguin Books, 1970. 501 p. \$2.65(paper).

5876. Iskander, T. N. & Kaelbling, Rudolf. **Catecholamines, a dream sleep model, and depression.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 43-50.—To test a theoretical model which states that reduced catecholamine levels and an increase in paradoxical sleep are involved in depressive illness, 12 cats were prepared for polygraph recording with a cortical EEG and 8 Ss were injected with 80 mg/kg of laevo-alpha-methylparathyosine (AMPT) to inhibit catecholamine synthesis. Results indicate that as catecholamine levels decreased, paradoxical sleep increased. Some features of sleep and severe depression are reviewed in the light of theoretical considerations. (60 ref.)—P. R. Shibelski.

5877. Lippman, Louis G., Galosy, Richard A., & Thompson, Richard W. (Western Washington State Coll.) **Passive-avoidance learning in gerbils and rats.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 269-273.—Compared 20 male albino Sprague-Dawley rats and 30 male Mongolian gerbils on acquisition and retention of a 1-trial nonshock step-through passive-avoidance task. Results of Exp. I

indicate that the rats learned the response in 1 trial and then showed extinction-forgetting. The gerbils, which had initially shorter step-through latencies than rats, showed no learning from Trial 1 to 2, but continued to increase latencies over all days of testing. The effect of habituation to handling on the acquisition and retention of the avoidance response was investigated in Exp. II. Habituation to handling facilitated passive-avoidance acquisition in both species and yielded trends in performance which were similar to those obtained in Exp. I.—*Journal abstract*.

5878. Lorenz, Konrad. (Max-Planck Inst., Seewiesen, W. Germany) **Studies in animal and human behaviour: I.** Trans. R. Martin. Cambridge, Mass.: Harvard U. Press, 1970. xx, 403 p. \$10.

5879. Singh, Devendra. (U. Texas) **Preference for bar pressing to obtain reward over free-loading in rats and children.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 320-327.—Examines the preference behavior in a choice situation where an effortful and a relatively effortless response lead to the same reinforcer. 30 female Holtzman albino rats were trained to obtain food free or by bar pressing. Following equal amounts of training, the Ss were tested for 4 days for preference for bar pressing. Results indicate that Ss prefer to obtain food by bar pressing even when amount of work (FR-1, FR-3, and FR-11) is varied, and food can be obtained faster on the free side. An experiment with children also demonstrated a similar preference for bar pressing to obtain marbles.—*Journal abstract*.

NATURAL OBSERVATION

5880. Bock, Carl E. (Museum of Vertebrate Zoology, Berkeley, Calif.) **The ecology and behavior of the Lewis woodpecker (*Asyndesmus Lewis*).** *University of California Publications in Zoology*, 1970, Vol. 92, 91 p.—In terms of feeding ecology and behavior, the Lewis woodpecker is basically an opportunistic species. During the breeding season it feeds largely by hawking insects and thus prefers open habitat. Its feeding methods (flycatching, ground-brush foraging, gleaning) are described and compared to other species of woodpeckers. In winter it relies on stored mast (e.g., acorns). Each individual (rarely a pair) harvests, shells, and stores its own cache. This storage site is defended; interspecific competition is most important, and more frequent in winter than during the breeding season. The breeding vocalizations and displays of Lewis woodpeckers are described. Time of breeding correlates with altitude and local weather conditions and thus insect availability. (9 p. ref.)—P. L. Borchelt.

5881. Bovet-Nitti, Filomena; Oliverio, Alberto, & Bovet, Daniel. (U. Sassari, Italy) **Avoidance learning in inbred BALB/C mice raised as only children or siblings.** *Life Sciences*, 1969(Jun), Vol. 8(12, Pt. 2), 569-574.—Assessed the effect of different early environments as measured by adult avoidance learning in inbred BALB/C mice raised singly or in groups of siblings. At the age of 60 days single Ss were heavier and attained higher levels of performance in a shuttlebox avoidance task. Results show that mother-infant relationships seemed to be more important than those between siblings of the same litter. (17 ref.)—*Journal summary*.

EARLY EXPERIENCE

5882. Ardila, Ruben. (National U., Bogotá, Colombia) **Trabajos experimentales sobre los efectos de las experiencias tempranas en la conducta posterior.** [Experimental studies on the effects of early experience on subsequent behavior.] *Revista de Psicología*, 1967, Vol. 12(1-2), 75-83.—Presents a brief review of the field of early experience, including methodology, determining factors, imprinting, the notion of critical periods, and representative experiments. (19 ref.)—*L. Zusne.*

5883. Biggs, Walter C. (North Carolina State U., Raleigh) **Suckling behavior of domestic swine in farrowing-barn and penned-woods environments.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 2-3.

5884. Hershberger, Wayne. (Northern Illinois U.) **Attached-shadow orientation perceived as depth by chickens reared in an environment illuminated from below.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 407-411.—The depth perception of 10 leghorn chickens reared in cages illuminated from below was tested using photographed dents with shadow orientation the relevant cue. Ss assumed an overhead source of illumination seeing dents shaded below and above as convex and concave, respectively. There appears to be an innate perceptual parameter corresponding to an overhead source of illumination in terms of which orientation of attached shadow is interpreted as depth.—*Journal abstract.*

5885. King, Donald L. (Queensborough Community Coll., City U. New York) **Effect of early experience and litter on some emotionality variables in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 436-441.—Reports of significant litter effects on emotionality, weight, and maturational measures suggest that the significant effects of early experience that have been reported may have been due to uncontrolled litter effects. The effects of early experience and litter on open-field, emerge-from-home-cage, timidity, and avoidance-conditioning measures of the Sprague-Dawley rat (N = 80, 80, 58, and 40) were therefore determined. Significant effects of early experience and litter were not obtained. It is concluded that this result is representative of a continuing list of nonreplications in the early experience emotionality area. An explanation of some of the failures to replicate is discussed. (16 ref.)—*Journal abstract.*

5886. Lagerspetz, Kirsti & Heino, Tuula. (U. Turku, Finland) **Changes in social reactions resulting from early experience with another species.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 255-262.—28 male mice were reared by rat-mothers and siblings from the age of 1-3 days, whereas controls were reared with mouse-mothers and siblings. When adults, both groups preferred their foster-species in a social-preference test. More aggression was directed toward a mouse-partner than toward a rat-partner in both groups. The mouse-reared group was generally more aggressive than the rat-reared group. The rat-reared group showed no aggression toward rats. Being reared by rats decreased the sexual behavior toward mice. No copulation with small (prematurely oestrous) female rats occurred, but sexual interest was shown by the rat-reared Ss. Aggressive responses toward the female partner occurred significantly more often when the female did not belong to the fostering species. No differences in open-field activity were found.—*Journal abstract.*

5887. Pratt, Charles L. (U. Wisconsin) **The developmental consequences of variations in early social stimulation.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 937.

5888. Rickman, William G. (Texas Technological U.) **Early experience and imprinting to music in the guinea pig.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 423-424.

INSTINCTS

5889. Fischer, Gloria J. (Washington State U.) **Arousal and impairment: Temperature effects on following during imprinting.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 412-420.—Found that following during imprinting was negligible if white leghorn chicks (N = 135) were imprinted at a temperature warmer or the same as the one to which they had been adapted. Following was very substantial, however, if Ss were imprinted at a temperature colder than the one to which they had been adapted. This experienced cold effect subsequently held constant over a range of adaptation-to-imprinting temperatures approaching extremes of hot or cold. Also, the magnitude of the effect 1st increased, then decreased, as imprinting temperature was decreased from a constant adaptation level. The decline was shown to be related to: time, overt behavior, body temperature, and distress calling in ways suggesting probable physiological impairment from adaptation to cold, rather than any decline in the stimulative, i.e., neural arousal effects of experienced cold.—*Journal abstract.*

5890. Lee, Ching-tse. (Bowling Green State U.) **The nest-building behavior of inbred mice: Developmental and genetic studies.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 931.

5891. Shapiro, L. James. (Bowling Green State U., Center for Research on Social Behavior) **Experimental control and automation in a laboratory for imprinting research.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 421-426.—Offers a prototype for an automated imprinting laboratory. By controlling as many extraneous variables as possible and by eliminating the E from the recording of the dependent variable, it is hoped that variance due to these 2 sources will be reduced, if not eliminated. It is noted that increased variance due to laboratory conditions and E expertise may result in a lack of statistically significant results when, in fact, such results have only been masked by a large error term. With the prototype offered it may be possible to introduce some degree of standardization to the procedures and apparatus used in imprinting research.—*Journal abstract.*

MOTIVATION & EMOTION

5892. Barnett, S. A. & Smart, J. L. (U. Glasgow, Scotland) **Activity of inbred and F₁ mice in a residential maze.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 494-502.—Studied 12 male mice each of strains A2G/Tb, C57BL/Tb, and the F₁ produced by crossing them for 3 days in an artificial environment (a "plus-maze"), in which movement was recorded automatically. There was a central nest box with an opaque cover, from which 3 passageways led to food, water, and soft wood, respectively; a 4th arm was

left empty. The number of visits to the arms was always highest on the 1st day. On a given day, the number of visits was much the same for each arm, i.e., it was not influenced by the incentives. In contrast, while time spent out of the nest box was about the same from day to day, the time spent in individual arms differed greatly and was in the order food > balsa wood > water > empty arm. In terms of visits, the F₁ and C57BL/Tb Ss were more active than A2G/Tb; and the F₁ Ss varied less than either inbred strain. The lack of correspondence between visits and duration of stay is discussed in relation to the concept of neophilia.—*Journal abstract.*

5893. Gallup, Gordon G., Nash, Richard F., Potter, Randolph J., & Donegan, Nelson H. (Tulane U.) **Effect of varying conditions of fear on immobility reactions in domestic chickens (*Gallus gallus*).** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 442-445.—3 studies were run to test the fear hypothesis of immobility reactions in Production Red chickens (N = 48, 40, and 20). Exp. I, as a replication of earlier work, found significantly enhanced immobility on the part of Ss given preinduction electric shock. Exp. II showed that duration of immobility varied reliably as a function of the amount of shock. Exp. III demonstrated that a similar enhancement could be produced by brief preinduction exposure to a loud noise.—*Journal abstract.*

5894. Gilbert, R. M. & Sherman, I. P. (Alcoholism & Drug Addiction Research Foundation, Toronto, Ontario, Canada) **Palatability-induced polydipsia: Saccharin, sucrose, and water intake in rats, with and without food deprivation.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 319-325.—The 24-hr intake of saccharin and sucrose solutions was higher when 36 male, black-hooded rats were maintained at reduced body weights than when food was freely available. Intake of both kinds of solution during 3-hr tests, as a proportion of 24-hr intake, increased with concentration. Water consumption outside of tests reflected solution consumption during tests. Results suggest that the increased intake of sucrose solutions during deprivation is at least partially dependent on palatability.—*Journal abstract.*

5895. Nyström, Mats. (Lund U., Sweden) **The development of stimulus preferences in the pecking behaviour of young herring gulls (*Larus argentatus*): IV. Experience with a rearranged world of hues.** *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(2), 13 p.—Hypothesized that perceptual learning of figure and background qualities would contribute to the red preference in pecking behavior of nest reared herring gulls. Exp. I confirms this general idea in the sense that a difference was found between groups exposed to normal and rearranged hue situations. However, the effect was opposite to what was expected. Results of Exp. II show that exposure to background hues increase preference. Exp. III shows that hues with figure qualities decrease the particular preference. Therefore, it is concluded that exposure to the parents' red bill coloration or to the green background in nature cannot result in higher preference for red.—*Journal abstract.*

5896. Porcheron, Rex F. (U. Sydney, New South Wales, Australia) **Drive differences and level of extraneous stimulation.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 149-157.—Considered G. A. Cicla's (see PA, Vol. 39:1071) and J. W. Cotton's (see PA, Vol. 28:7139) studies which investigated drive differences with reduced level of extraneous stimulation. It is concluded that the findings were not necessarily

contrary to the theory of drive proposed by Estes, as had been implied in Cicla's study. Experimental evidence in support of this conclusion was obtained. The theoretical implications of increasing level of extraneous stimulation were considered for the Hull-Spence and Estes theories which allow opposite predictions under these conditions. These were tested in 2 experiments with 28 male albino rats each which produced clear support for the Estes prediction. There were certain reservations in rejecting the Hull-Spence prediction.—*Journal abstract.*

5897. Revusky, Bow T. (Northern Illinois U.) **Failure to support the hypothesis that eating is anticipatory of need.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 199-205.—Contends that J. Le Magnen's reported evidence that eating is a response to an anticipated rather than existing nutritional deficit is based upon a statistical artifact. In an attempt to obtain the anticipatory effect, a modified procedure was used: 1 meal preceded a long interval and followed a short interval, the other meal preceded a short interval and followed a long interval. Insofar as eating is anticipatory, more should be eaten at the meal which precedes the long interval than at the meal that precedes the short 1. If eating is a response to an existing deficit, then more should be eaten at the meal that precedes the short interval because this meal also follows the long intermeal interval. There was no systematic relationship between the length of the intermeal interval (either preceding or following a meal) and the amount consumed.—*Journal abstract.*

5898. Sheldon, M. H. (U. Newcastle upon Tyne, England) **Effect of electric shock on rats' activity in familiar and unfamiliar environments.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 374-377.—Found that electric shock delivered before exposure to a Y-maze reduces the activity of 48 hooded female rats whether the maze is familiar or unfamiliar. Increasing familiarity with the maze reduces activity for shocked and unshocked Ss. It is argued that this finding presents difficulties for theories according to which exploratory behavior depends on fear.—*Journal abstract.*

5899. Strongman, K. T., Coles, G. H., Remington, R. E., & Wookey, P. E. (U. Exeter, England) **The effect of shock duration and intensity on the ingestion of food of varying palatability.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 521-525.—150 23-hr deprived male albino Sprague-Dawley rats were run in a 2 × 5 × 3 balanced analysis of variance design to determine the effect of prior shock on food intake. The main factors were time spent in shock box (3, 30 sec.), intensity of shock (0, .5, 1.5, 2.5, 3.5 mA) and percentage of sucrose adulteration of food (0, 10, 25%). Results show a general enhancement of intake following 3-sec shock and a suppression following 30-sec shock. Variations in shock intensity were of no significance.—*Journal abstract.*

LEARNING

5900. Bellingham, William P. (U. New Mexico) **Stimulus compounding and generalization.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 405-406.

5901. John, E. R., Shimokochi, M., & Bartlett, F. (New York Medical Coll., New York) **Neural readout from memory during generalization.** *Science*, 1969(Jun), Vol. 164(3887), 1534-1536.—Trained 8 cats

with implanted electrodes to obtain food on presentation of 1 flicker frequency and to avoid shock on presentation of a 2nd. A 3rd flicker frequency, midway between the 1st and 2nd, was then presented. Differential generalization ensued, in which either the food response or the avoidance response was performed. Average evoked potentials from generalization trials with different outcomes were significantly different. The wave shape elicited by the stimulus for generalization closely resembled the usual response to the appropriate signal for the behavior which was displayed. This constitutes evidence for release of a neural process representing previous experience. The release of this process begins about 35 msec. after stimulation.—*Journal abstract.*

5902. Miller, Neal E. (Rockefeller U.) **Learning of visceral and glandular responses.** *Science*, 1969(Jan), Vol. 163(3866), 434-445.—Presents a series of experiments suggesting that instrumental learning of visceral responses, long held impossible, can be demonstrated. A new possible homeostatic mechanism is suggested. Studies cast doubt on "the hypothesis that there are 2 fundamentally different mechanisms of learning, involving different parts of the nervous system." Implications of these findings for understanding of psychosomatic symptoms, individual and cultural differences, and therapeutic training are discussed. (39 ref.)—*P. McMillan.*

5903. Moise, Samuel L. (U. California, Center for the Health Sciences, Los Angeles) **Short-term retention in *Macaca speciosa* following interpolated activity during delayed matching from sample.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 506-514.—Ran 3 experiments to examine the effects upon short-term memory of an interpolated motor activity under stimulus control with 1 female and 2 male stump-tail macaques. Responding to a white-light stimulus during delays of the delayed matching-from-sample task served as interpolated activity. Percentage of correct responses shows significant performance deficits due to amount of interpolated activity but not point of interpolation during delays. Latencies of incorrect responses were longer than latencies of correct responses for all experimental conditions. The absence of significant change in performance over time suggests that basic properties of short-term memory were being manipulated. (19 ref.)—*Journal abstract.*

5904. Ricciardi, A. Michael & Treichler, F. Robert. (Kent State U.) **Prior training influences on transfer to learning set by squirrel monkeys.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 314-319.—Trained 12 squirrel monkeys under 1 of 3 object-discrimination conditions: 60 successive reversals of a single problem to criterion (Group SRT), 60 object problems to criterion (Group MDT), or 60 sessions of training on a single problem (Group AC). Subsequently, all groups were tested on a 6-trial learning set (object-discrimination learning-set; ODLS). Group MDT was significantly better than Group AC. Group SRT was intermediate, but not significantly different from the other groups on proportion correct. Conditional probabilities were computed for 2-trial sequences in test, and win-stay scores were equally high for all groups. Group MDT showed lose-shift performance superior to Groups SRT and AC, and the latter did not differ from 1 another. Facilitative effects of SRT on ODLS may partially result from adaptation to the task situation.—*Journal abstract.*

5905. Richman, Charles L., et al. (Wake Forest U.) **Spontaneous alternation behavior in rats as a function of brightness cues.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 356-358.—Investigated brightness cues as a determinant of spontaneous alternation behavior in a high probability visual attention inducing maze. 24 naive male albino Sprague-Dawley rats demonstrated above chance level alternation behavior to brightness stimuli; spatial cues had no effect on alternation rates.—*Journal abstract.*

5906. Wasserman, Edward A. & Jensen, Donald D. (Indiana U.) **Olfactory stimuli and the "pseudo-extinction" effect.** *Science*, 1969(Dec), Vol. 166(3910), 1307-1309.—10 continuously rewarded rats showed a decrease in running speed on a runway recently traversed by 10 other Ss undergoing experimental extinction. This pseudoextinction effect is caused by discriminable odors emitted by extinction Ss. These odors could be confounding variables in studies using forms of aversive stimulation.—*Journal abstract.*

5907. Zentall, Thomas R. (U. California, Berkeley) **Experimentally manipulated forgetting in animals.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 941.

Conditioning

5908. Aronova, Z. A. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) **K voprosu o formirovani zastoynnykh ochagov vzbuzhdeniya pri obrazovanii oboronitel'nykh uslovykh refleksov u sobak.** [On the formation of inert foci of excitation in the development of defensive conditioned reflexes in dogs.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 540-542.—2 Ss with surgically exteriorized tongues were used to study the formation and appearance of a dominant focus of excitation as a result of the application of an intense stimulus (electric current) in the capacity of a CS. The data suggest that, as a result of the systematic application of an electrode defensive stimulus, a dominant focus of excitation is formed in the functional structures of the CR. The utilization of electric current in the capacity of a CS, leaving a long retained excitatory trace after its action, promoted the quick cumulation of latent excitation in the dominant focus and created the conditions for its transition to a high degree of "persistent stationary excitation." This was manifested, in the beginning, in the disappearance of reflexes to an intense CS (current), later to a less intense CS (bell), and in the retention of reactions (paw lifting) to weak indifferent stimuli.—*I. D. London.*

5909. Asratyan, E. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O mekhanizme i lokalizatsii uslovnogo tormozheniya.** [On the mechanism and localization of conditioned inhibition.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 195-211.—Presents an analysis of the data and various hypotheses on (a) the physiological mechanisms involved in the emergence of internal or conditioned inhibition, and (b) the localization of this inhibition within the framework of the CR arc. Pavlov's basic ideas can be retained if the "center of gravity of the events connected with the development of internal inhibition" be shifted away from the cortical cells associated with the CS to the intermediate link of the CR arc.—*I. D. London.*

5910. Carman, John B. (U. North Dakota) **Deprivation levels and conditioned suppression.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 599-602.—Increases in body weight and decreases in the preexperimental session deprivation times increased the severity of previously established conditioned suppression for a male hooded rat. The degree of operant suppression resulting from the body weight and deprivation time manipulations differentially affected response rates during successive segments of the preshock stimulus.—*Journal abstract.*

5911. Daurova, F. K. & Kolotygina, R. F. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Rol' sootnositel'noi sily komponentov bezuslovno razdraditel'nykh v funktsionirovani raznorodnykh binarnykh uslovykh reflektsov.** [Role of relative strength of unconditioned stimulus components in the functioning of heterogeneous binary conditioned reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 387-394.—Studied the significance of the relative strength of the excitatory foci of 2 components of UCR in the functioning of heterogeneous binary CRs. Ss were 2 dogs with stable heterogeneous CRs to an 1100-cps tone with reinforcing stimulus consisting of food and electric current, simultaneously presented, and the strength of the painful component of the stimulus undergoing change along with constant alimentary reinforcement. It is shown that the magnitude of the conditioned defensive-motor component is a direct function of the strength of the electrodeceptive UCS. The interrelationships between the alimentary and the defensive-motor components of the binary CR bear an antagonistic character. The interrelationships between the components of the binary CR are seen to be the result of (a) the interaction of the foci of excitation in the structures tied to the alimentary and defensive-motor UCSs, and (b) the interrelationships of the elements constituting the conditioned connections themselves. Thus, weakening of the nociceptive stimulus leads to increased conditioned salivation. Enhancement of its intensity, however, leads to a decrease in conditioned salivation to the point of the latter's complete disappearance. Thus, the conditioned alimentary component is depressed in a binary CR in case a considerable increase in excitation is induced by the nociceptive stimulus-component.—*J. D. London.*

5912. Dolbakyan, E. E. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Issledovanie porogov pervichnykh otvetov u sobak s oboronitel'nymi instrumental'nymi reflektami.** [Study of the thresholds of primary responses in dogs with defensive instrumental reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 261-269.—Used 6 dogs in an electrophysiological study of (a) the threshold dynamics of primary responses to electrodermal stimulation in the sensory and motor representatives of the right forepaw, and (b) those of the motor reaction of that forepaw during the elaboration of primary (escape) and secondary (avoidance) electrodeceptive instrumental reflexes. A significant decrease was noted in all threshold indices after elaboration of the primary reflex (raising of paw and maintenance in lifted position). On the basis of the primary reflex, a secondary reflex to a distant stimulus (clicks) was elaborated in 2 Ss. In the secondary reflex the thresholds of the primary responses were increased to initial magnitudes, but the threshold of the motor reaction remained at the same lowered level as

obtained in the primary reflex. The divergence between primary response thresholds and the threshold of motor reaction is taken as evidence for (a) the displacement of the center of activity to the efferent part of the "system of the reinforcing stimulus," and (b) the connection of the analyzer of the CS primarily with the efferent link of the reinforcing reflex.—*J. D. London.*

5913. Huff, Ronald C. (Ohio State U.) **Some effects of compound generalized stimulation along a wavelength continuum.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 929.

5914. Ioffe, M. E. & Andreev, A. E. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O mezhkonechnostnoi koordinatsii pri osushchestvlenii lokal'nykh dvigatel'nykh uslovykh reaktsii u sobak.** [On coordination between extremities in the effectuation of local motor conditioned reactions in dogs.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 557-565.—11 dogs were used to study the postural and local components of complex alimentary instrumental reflexes (eating from a food trough held in place by means of a raised foreleg attached by a lever to it). In the quiet standing state, pressure on the forelegs came to 55-60% of body weight; pressure on the hind legs, 40-45%. Pressure on the right and left was distributed rather equally. Both in the quiet state and in the course of effecting local alimentary CR reactions, pressure on the diagonally located extremities changed, as a rule in 1 direction, and on the adjacent extremities oppositely. Mathematical analysis shows that such pressure distribution is necessary to maintain balance with minimal deviations of the center of gravity, which is somewhat to the fore of the geometric center.—*J. D. London.*

5915. Jensen, Glen D., Leung, Calvin M., & Hess, David T. (State University Coll. New York, Fredonia) **"Freeloading" in the Skinner box contrasted with freeloading in the runway.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 67-73.—Allowed 3 groups of naive male Sprague-Dawley rats to make either 0, 40, or 285 rewarded bar-pressing responses and then gave Ss a choice between eating pellets from a dish (freeloading) or pressing the bar. 3 independent groups (Ss randomly assigned) made either 0, 40, or 285 rewarded runs in a 4-ft runway, and then chose between freeloading in the start box or running the maze. For all 6 groups a "total time" score was obtained which reflected the average time taken to stop freeloading and perform either 1 bar-pressing response or 1 run to the goal box. The 3 runway groups showed a marked tendency toward higher total time scores with increasing amounts of training whereas the 3 Skinner-box groups showed a trend in the opposite direction.—*Journal abstract.*

5916. Krane, Richard V. & Ison, James R. (U. Rochester) **Positive induction in differential instrumental conditioning: Effect of extended acquisition training.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 334-340.—28 male albino rats received 50 or 160 differential conditioning trials followed by 30 extinction trials to the former positive stimulus (S+) in succession (control condition) or with each S+ preceded by a trial to negative stimulus (S-) (alternated positive induction—PI—condition). After 160 trials stimulus alternation provided more resistance to extinction of S+ than provided by the control condition, whereas after 50 trials the reverse was obtained. Prior reports indicate that PI obtained in

acquisition declines with overtraining; this contrast indicates that acquisition PI and extinction PI may have different theoretical determiners. Extinction PI may result because S- following overtraining prevents the accumulation of inhibition across successive trials to the former S+. (18 ref.)—*Journal abstract.*

5917. Manocha, Satinder N., Winocur, Gordon, & Mills, John A. (U. Saskatchewan, Saskatoon, Canada) **Interaction of fear effects with habit strength.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 462-466.—4 groups of male albino rats received 0, 3, 6, or 9 days of overtraining after having reached stable performance on a continuous reinforcement bar pressing schedule. $\frac{1}{2}$ the Ss in each group had previously been designated emotionally reactive or nonreactive in terms of defecation rates in an open-field test. Following training, there were 4 test days in which bar pressing in each group was examined in the presence or absence of white noise. It was found that, in both the reactive and nonreactive groups, white noise produced a fear reaction which significantly depressed bar pressing at low levels of habit strength while having an energizing effect at higher levels. Results support J. L. Bardach's hypothesis that anxiety introduced early in practice is more disruptive than when introduced late in practice.—*Journal abstract.*

5918. Neuringer, Allen J. (Foundation for Research on the Nervous System, Boston, Mass.) **Animals respond for food in the presence of free food.** *Science*, 1969(Oct), Vol. 166(3903), 399-401.—2 male white Carneaux pigeons pecked a response disk to gain access to grain rewards while identical grain was freely available from a cup within the experimental chamber. Similarly, 2 female albino rats pressed a lever for food pellets while free pellets were present. It is concluded, therefore, that it is not necessary to deprive an animal of food before it will engage in instrumental responding for food. Such responding can serve as its own motivation and reward.—*Journal abstract.*

5919. Popova, E. I. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Uslovnoreflektornye komponenty v funktsional'noi strukture dvigatel'nogo navyka.** [Conditioned reflex components in the functional structure of the motor habit.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 574-579.—Secured, in 4 dogs, the optimal appearance and stability of an alimentary-motor reflex through backward conditioning. Under study were (a) features of its manifestation, (b) dynamics of its extinction, and (c) state of the direct (forward) conditioned connection (movement → secretion) at various stages of extinction of the backward connection. Ss who had been amply trained to approach and maintain a cup of food presented at a distance, by flexing a foreleg attached to a lever, manifested this reaction needlessly when food was made directly accessible to them. It is shown that the frequency of redundant paw flexure grows with progress of the act of eating. Explanation of the findings in terms of the "law of effect," presumably by analogy with the basic principle of the servosystem, is held to be impossible. The findings may be viewed as constituting an optimal experimental model for demonstrating the motor effect by means of backward conditioning.—*I. D. London.*

5920. Pressman, Ya. M. & Tveritskaya, I. N. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O kolichestvennoi kharakteristike sum-**

matsionnoi reaktsii. [On quantitative characteristics of the summated reaction.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 566-573.—Attempted to delineate the relationship between the summated reaction and the CR (or the relationship between associative and nonassociative factors) in the very course of elaborating the CR at various stages of its establishment. Serving as stimuli for 5 dogs were airpuffs directed at the cornea, and electrocutaneous stimulation of the hind leg, both separately applied at different times. The following recordings were made: a mechanogram of the blinking reaction and of paw movement, and an EMG of the gastrocnemius muscle of the stimulated paw. Summation is seen as expressed by the fact that, on application of only 1 of the stimuli, there arose, besides its own proper UCR, from time to time also a reaction, proper to the other stimulus. Quantitative estimates are given of summated reactions to both of the stimuli utilized (probability of appearance, statistical sequence of positive and negative outcomes, and distribution of latent periods). It is concluded that summational interaction, arising between nervous structures responsible for effecting UCRs to the stimuli utilized, is either circular of 2-way. The connection between structures is effected with some uncertainty by means of discrete signalization. The nonpaired application of the stimuli can produce an effect outwardly similar to a CR.—*I. D. London.*

5921. Pressman, Ya. M. & Tveritskaya, I. N. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Ob izmenenii skrytykh periodov bezuslovnykh reaktsii na signal'nyi i podkreplyayushchii raz-drazhiteli.** [On alteration of the latent periods of unconditioned reactions to signal and reinforcing stimuli.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 395-403.—5 dogs were Ss used to study (a) the variability of the latent periods of the wink UCRs with simple repetition, in the beginning, of the same stimulus and afterwards with paired application of the stimuli (air-puff against the cornea and electrocutaneous stimulation of paw in different sequences) in forming the CR, and (b) the changes in the latent periods of the UCRs themselves, arising in response to both signal and reinforcing stimuli. Mechanograms and EMGs of the gastrocnemius muscle of the stimulated paw were recorded along with the wink reflex of the eyelid. Simple repetition of the same UCS led to stabilization of the values of the latent period and to diminution of their scatter. The paired application of 2 UCSs, so that 1 of them constantly preceded the other by 1.5 sec., produced a change in the values of the latent periods of the UCRs. The UCR to the stimulus, following the 1st stimulus, was facilitated and the average value of its latent period was significantly shortened; while the UCR to the preceding stimulus was subjected to inhibition and the average value of its latent period was significantly lengthened. With discontinuation of pairing of the 2 UCSs, the lengthened latent period of the UCR to the 1st stimulus (with respect to order of association) was gradually shortened. The possible significance of the data for the problem of closure of the conditioned connection is discussed.—*I. D. London.*

5922. Sprott, Richard L., Clark, Frank W., & Wimer, Richard E. (Jackson Lab., Bar Harbor, Me.) **A chamber for the instrumental control of licking behavior in the laboratory mouse.** *Journal of the Experimental Analysis*

of Behavior, 1970(Nov), Vol. 14(3, Pt. 1), 341-343.—Describes the apparatus and provides detailed assembled and exploded views of the conditioning chamber.

5923. Stewart, Robert A., Miller, Alan R., Steele, Richard E., & Kiker, Vernon L. (California State Coll., Los Angeles) **Role of spatial variables in conditioned conflict.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 415-419.—Placed male Sprague-Dawley rats in conflict by pairing shock and feeding. Ss were randomly assigned to 4 groups: 8 satiated controls, 9 food deprived controls, 12 short-runway with conflict, and 12 long-runway with conflict. Stabilimeter scores indicate that runway length during training had persisting effects on activity levels. Subsequent deprivation produced differential stabilimeter activity in the absence of runway trials, which was taken as evidence for conditioned conflict elicited by drive stimuli. (16 ref.)—*Journal abstract.*

5924. Willis, Richard D. (U. Illinois) **Shock intensity, partial reinforcement, and experimental design effects in the acquisition of conditioned suppression.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 940-941.

5925. Zakher, Yu. Ya. (Inst. of Experimental Medicine, Leningrad, USSR) **O roli chisla uslovnykh razdrzhitelei pri posledovatel'nom ikh differentsirovani.** [On the role of the number of conditioned stimuli in their successive differentiation.] *Zhurnal Vysheĭ Nervnoĭ Deyatel'nosti*, 1969, Vol. 19(4), 704-706.—Ss were 2 male simians, a baboon (*Mandrillus sphinx*) and a capuchin (*Cebus capucinus*). CSs were a 64-mm diameter circle (positive), and a 90-mm diameter circle (negative differential), with the former followed by presentation of a lidded box with food and the latter by presentation of a lidded box invisibly locked. Regardless of the number of stimuli presented successively, a sharp predominance was noted of the "reflex to the absolute stimulus" (64-mm circle) over the "reflex to a relative stimulus" (e.g., 45-mm circle:64-mm circle).—*I. D. London.*

Discrimination

5926. Beale, I. L. (Dalhousie U., Halifax, Nova Scotia, Canada) **The effects of amount of training per reversal on successive reversals of a color discrimination.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 345-352.—Trained 3 groups of 3 experimentally naive homing pigeons each on a red-green discrimination in which the stimuli were alternately presented in a multiple schedule of reinforcement. The discrimination was reversed 24 times. Groups were given 1, 2, or 4 hr. of training on each discrimination. Increasing the length of training had 2 principal effects on reversal performance. It increased the rate of extinction of responding to 1 of the stimuli, and increased the rate of reacquisition of responding to the other. The latter effect involved both an increase in reacquisition of responding to a positive stimulus within reversals and an increase in recovery of responding to the previous negative stimulus between reversals. Improvements in performance of each group over the series of reversals were qualitatively similar to the 2 effects of length of training on each discrimination, and were analogous to effects obtained in other studies involving overtraining and successive reversals of simultaneous discriminations.—*Journal abstract.*

5927. Deets, Allyn C., Harlow, Harry F., & Blomquist,

Allen J. (U. Wisconsin, Primate Lab.) **Effects of intertrial interval and Trial 1 reward during acquisition of an object-discrimination learning set in monkeys.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 501-505.—Gave 10 female rhesus monkeys a series of 720 2-trial object-discrimination problems. Each problem involved presentation of 1 object on Trial 1, which was either rewarded or not rewarded, an ITI of 5, 10, or 20 sec., and presentation of the Trial 1 object along with a 2nd object on Trial 2. The ITI duration had no effect upon performance during the initial stages of training for object-discrimination learning set (ODLS), but an effect was apparent during the later stages of training, when Trial 2 performance decreased as a function of increased ITI. Better Trial 2 performance followed a nonrewarded Trial 1 response at all stages of ODLS acquisition, but the difference decreased during the later stages of training. The ITI duration and Trial 1 reward and nonreward did not interact to affect performance at any stage of ODLS acquisition. Findings are discussed in terms of D. W. Bessemer's short-term memory analysis of learning sets. (15 ref.)—*Journal abstract.*

5928. Dobson, Ricardo D. (Arizona State U.) **Stimulus control with an assortative conditional discrimination.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 410.

5929. Fleming-Holland, Andree. (Arizona State U.) **Stimulus control as a function of degree of association between discriminative stimuli and reinforcement contingencies.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 412.

5930. Kinchla, Julaine. (Princeton U., Auditory Research Lab.) **Discrimination of two auditory durations by pigeons.** *Perception & Psychophysics*, 1970(Nov), Vol. 8(5-A), 299-307.—Investigated discrimination between 2 auditory durations in experimentally naive white Carneaux male pigeons with a procedure that provided a direct analogue to the conventional "yes-no" signal detection task with humans. In Exp. I with 7 Ss, development and maintenance of the discrimination using highly confusable durations was examined. Exp. II with 16 Ss investigated sequential effects in stationary performance. The effect of altering probability of reinforcement and extinction was also examined. Ss developed and maintained a partial discrimination. As separation between the 2 durations was reduced, discriminability was systematically decreased. Reduction of the probability of reinforcement produced changes similar to those exhibited by humans when pay-off functions are altered. The only sequential effect of any size was a tendency to repeat responses. Individual differences were considerable. (18 ref.)—*Journal abstract.*

5931. Lyons, Joseph. (U. Wisconsin, Milwaukee) **Stimulus generalization as a function of discrimination learning with and without errors.** *Science*, 1969(Jan), Vol. 163(3866), 490-491.—Tested 60 pigeons in 3 equal groups for generalization to the angularity (negative stimulus) dimension. For $\frac{1}{2}$ of each group, each angle was superimposed on a light of 555-nanometer wavelength, the positive stimulus during training; for the other $\frac{1}{2}$, angles were on a black background. When tested to the angularity alone, Ss who had made errors (pecked at the negative stimulus) during discrimination training showed a typical incremental

(inverted) gradient of responding to the negative stimulus dimension. Controls and the group learning the discrimination without errors showed no differential control by the negative stimulus dimension. When each angle was superimposed on the positive stimulus during testing, a decremental gradient with maximum response strength to the negative stimulus was evidenced by the 2 groups learning with and the one learning without errors.—*Journal abstract.*

5932. Waller, T. Gary. (U. Waterloo, Ontario, Canada) **Effect of irrelevant cues on discrimination acquisition and transfer in rats.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 477-480.—To examine the effects of irrelevant cues on simultaneous discrimination learning, 40 naive male albino Holtzman rats (5 groups of 8 Ss each) were 1st trained on a brightness discrimination with texture cues either relevant, constant irrelevant, variable-between irrelevant, or variable-within irrelevant. Subsequently, Ss were transferred to a texture discrimination with brightness cues held constant. Ss trained with variable-irrelevant texture cues learned both the brightness and texture discriminations more slowly than Ss trained without the variable texture cues, and learned the texture discrimination more slowly than controls not trained on the brightness discrimination.—*Journal abstract.*

5933. Winefield, A. H. & Jeeves, M. A. (U. Adelaide, South Australia) **The effect of position training on brightness discrimination in the rat.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 301-309.—Investigated the effects of manipulating position preferences on the subsequent learning of a visual discrimination in 2 experiments with 24 naive Wistar hooded male rats each. In Exp. I the visual cues were absent during the position training; in Exp. II the visual cues were present but irrelevant to reward during the position training. In neither experiment did position training produce subsequent differences in rates of visual discrimination learning between experimental and control groups. Ss in both groups learned much more slowly in the 2nd experiment than in the 1st.—*Journal abstract.*

5934. Zentall, Thomas R. (U. Pittsburgh) **Effects of context change on forgetting in rats.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 440-448.—Tests of interference theory involving prior learning interference (PI) and later learning interference (RI) paradigms with animal Ss generally attribute observed forgetting to the loss of an association. Since no instructions are given at the time of recall, forgetting may be due to response dominance. To assess the effect of instructions on forgetting in rats, 132 male pigmented Long-Evans rats learned 2 tasks, each in a different context. During the retention test, either the Task 1 context (RI Ss) or the Task 2 context (PI Ss) was reinstated. 4 groups were run for each paradigm: large change in context, small change in context, no change in context, and a single-task control. $\frac{1}{2}$ of each group were tested after retention intervals of 1 and 40 days. The change in context effect was significant for the RI Ss but not for the PI Ss, due to a floor effect. It is concluded that specific cues during training can reduce and perhaps even eliminate forgetting. (21 ref.)—*Journal abstract.*

Avoidance & Escape

5935. Abrams, Charles. (Syracuse U.) **Excitation and inhibition: Dual effects of differential conditioning manifested in the acquisition of a fear-based re-**

sponse and some implications for proper control measures. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 404-405.

5936. Blackman, D. E. (U. Nottingham, England) **Conditioned suppression of avoidance behaviour in rats.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 547-553.—Exposed 6 male rats to schedules of free-operant shock avoidance. For 3 Ss, auditory or visual stimuli were present continuously throughout each experimental session. For the remaining 3 Ss, these stimuli were presented only 5 sec. before an avoidable shock, and were removed by any operant response to be emitted during their presence. For these latter Ss, the stimuli developed strong discriminative control over the emission of operant responses. When the avoidance behavior had stabilized, the effects were studied of a stimulus which preceded an unavoidable shock of the same intensity as that maintaining the avoidance responding. These effects were studied in the following conditions: (a) against the ongoing avoidance behavior, (b) with no avoidance stimuli present, and (c) against extinction of avoidance behavior. With Ss exposed to continuous schedule stimuli, all these conditions resulted in an acceleration of responding during the signal which preceded an unavoidable shock. Ss with the strong stimulus control of avoidance responding afforded by the discontinuous schedule stimuli never showed such an acceleration; indeed, all 3 Ss showed suppression of their operant responding in the final experimental condition. It is concluded that experience of shock avoidance per se is not sufficient to produce the acceleration effect: the discriminative control of behavior, or lack of it, is also implicated.—*Journal abstract.*

5937. Bovet, Daniel; Renzi, Paolo, & Oliverio, Alberto. (U. Sassari, Italy) **Transfer of responding between different stimuli in rats trained in two avoidance tasks.** *Life Sciences*, 1969(Jun), Vol. 8(12, Pt. 2), 575-582.—Assessed transfer of responding between stimuli in different sensory modalities in rats subjected to shuttle- and Skinner-box avoidance learning. Results show that in Ss trained in a shuttlebox no transfer of responding was evident when the Ss were shifted from a steady tone to a steady light while a clear transfer occurred when Ss were given a short experience of the new stimulus (light) in association with the old one (tone) or when stimuli of the same repetition rate were adopted (pulsed tone or pulsed light). On the contrary a direct positive transfer from a steady tone to a steady light was evident in Skinner-box avoidance responding. Thus, the occurrence of transfer in 2 different avoidance procedures based on the same aversive UCS and on similar CS depends on the task adopted.—*Journal summary.*

5938. Elder, S. Thomas; Kuehne, Thomas E., Clark, Nathan, & Larre, Earl E. (Louisiana State U., New Orleans) **Approach-avoidance conflict: I. Empirically determined speed-of-locomotion approach gradients.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 623-628.—Trained 16 naive Sprague-Dawley male rats to approach the distinctive end of a 20-ft runway for a 25% sucrose solution. Their running speed was determined over successive 6-ft segments of the maze. After 5 days of 5 training trials/day, quinine was substituted for sucrose in the case of $\frac{1}{2}$ the Ss and the remaining 8 Ss were run under conditions of extinction. Analysis of the intersegmental speeds over the 5 days of training showed the approach speed-of-locomotion gradient was composed of a linear and a quadratic component. Comparison of the quinine and extinction treated groups over

Days 6 and 7 suggested quinine was adequate to establish an approach-avoidance conflict in Ss previously trained to approach for a positive incentive, and from which recovery was fairly rapid.—*Journal abstract.*

5939. Elder, S. Thomas; Kuehne, Thomas E., & Moriarty, Daniel D. (Louisiana State U., New Orleans) **Approach-avoidance conflict: II. Role of olfactory cues.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 631-638.—Employed 24 naive hooded rats in a 2×2 factorial comparison of anosmic vs. nonanosmic and obstruction vs. nonobstruction conditions. Comparisons were made in terms of speed-of-locomotion toward a goal area. After all Ss had received a series of successive reinforced approach-training trials, several untrained Ss were placed in the goal box and subjected to foot shock. 9 min. later the shocked Ss were removed, and previously designated groups of trained Ss were given additional approach trials. A nonshocked group of untrained Ss was placed in the maze and removed after 9 min. as the nonobstruction condition. Thus anosmic and sham-operated Ss were compared before and after untrained Ss occupied the goal box. Analysis of speed-of-locomotion scores show the nonanosmic group had a significant reduction in speed-of-approach following occupancy by the shocked untrained Ss. None of the other 3 groups showed a similar change in the previously established speed-of-approach. From these and other data, it appears unshocked Ss respond differently to olfactory cues generated by the previous occupancy of shocked and nonshocked Ss.—*Journal abstract.*

5940. Feigley, David A. & Spear, Norman E. (Rutgers State U.) **Effect of age and punishment condition on long-term retention by the rat of active- and passive-avoidance learning.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 515-526.—Tested retention of avoidance learning in weanling and adult Sprague-Dawley rats ($N = 121$ and 96) after 1 or 28 days. Punishment severity was varied in both 1-way active- and passive-avoidance tasks. Active-avoidance learning rates did not differ for weanlings and adults, both learning faster the more severe the punishment. Passive avoidance was also learned faster by both as punishment severity increased, but the weanlings' acquisition rate appeared related to the size of the apparatus relative to S's body size. Retention loss between 1 and 28 days was greater for weanlings than adults for both tasks. Rate and degree of original learning, effective shock intensity, and 1 source of growth-induced generalization decrement were dismissed as indirect determinants of the greater forgetting by younger Ss. (22 ref.)—*Journal abstract.*

5941. Olliverio, Alberto. (U. Sassari, Italy) **Transfer of avoidance learning in different strains of inbred mice.** *Life Sciences*, 1968(Nov), Vol. 7(22, Pt. 2), 1157-1162.—Assessed transfer of learning in different strains of inbred mice trained in a shuttlebox. The transfer was evident when Ss previously trained to respond to a given stimulus were subjected to a session in which a new stimulus was used. The occurrence of transfer was dependent on a training session during which Ss were given an experience of a compound CS formed by a combination of the already known and the new stimulus. The importance of the genetic traits in determining the extent of the presence of the transfer was evident.—*Journal summary.*

5942. Potts, W. Joseph. (G. D. Searle & Co., Chicago, Ill.) **Avoidance learning in the rat as a function of strain differences.** *Psychological Reports*, 1970(Aug),

Vol. 27(1), 235-243.—Tested 264 Wistar, Sprague-Dawley, and Fischer rats for general activity levels and for 3 different types of avoidance learning. No strain differences were observed for general activity or for the number of trials to learn a conditioned avoidance response (CAR) in the 1-way shuttle box. The Fischer strain avoided shock more than the Wistar strain which in turn avoided shock more than the Sprague-Dawley strain during the acquisition of the CAR and non-discriminated avoidance response in the 2-way shuttle box. (20 ref.)—*Journal abstract.*

5943. Powell, Robert W. (U. South Florida) **The effect of shock intensity upon responding under a multiple-avoidance schedule.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 321-329.—Studied the effect of 2 shock intensities (1 and 2 ma) in the acquisition, maintenance, and extinction of unsignaled avoidance by 12 naive male albino rats. Single and multiple avoidance schedules were employed, with shock intensity being the principal condition that differed between schedule components. The higher shock intensity was generally more effective in producing avoidance. Higher response rates and lower shock rates were observed under high-intensity shock when performance stabilized. When the multiple schedule was introduced, the 6 Ss trained under a single shock intensity all showed poorer performance under the new shock intensity, whether it was higher or lower than the training intensity. Performance under the original shock intensity did not change substantially with the introduction of a different shock intensity in the other multiple schedule component. Performance under the new shock intensity showed gradual improvement with continued exposure to it. All of the Ss showed persistent "warm-up," receiving approximately 40% of the total session shocks in the 1st $\frac{1}{4}$ of the session. The degree of warm-up was unrelated to avoidance shock intensity. (25 ref.)—*Journal abstract.*

5944. Riess, Dave. (Galesburg State Research Hosp., Ill.) **Sidman avoidance in rats as a function of shock intensity and duration.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 481-485.—4 mature male albino rats with extensive avoidance experience were run in a Skinner box through a randomized series of 5 shock intensities beginning at .25 ma. and increasing geometrically by multiples of 2. The functional relationship for response rates resulting was positive and monotonic throughout, but the sensitivity of the response and shock rates was largely exhausted in the .25-1 ma. range, with further intensity increases up to 4 ma. producing only negligible increases in response rate. Duration was manipulated for 5 values of .05, .1, .15, .2, and .3 sec. with intensity at .5 ma. A nearly identical monotonic function emerged except that the slope was less precipitous and greater sensitivity was evident at the larger duration values. (17 ref.)—*Journal abstract.*

5945. Roberts, A. E. & Hurwitz, Harry M. (Catawba Coll.) **The effect of a pre-shock signal on a free-operant avoidance response.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 331-340.—Trained 9 experimentally naive female hooded rats in free-operant avoidance. After 25 training sessions, a 1-min signal followed by a brief shock was presented on the average of once every 4 min. During the signal, the avoidance schedule was suspended (20 sessions). Response rates during the signal were markedly reduced. Shock rates during nonsignaled periods increased. 15 additional sessions were given during

which the signal was presented without shock. Response rates during signaled periods were greater than previously observed during signaled periods, indicating that signaled shock had suppressive control over a previously acquired avoidance response rate. (17 ref.)—*Journal abstract*.

5946. Sansone, Mario & Bovet, Daniel. (Consiglio Nazionale Delle Ricerche, Rome, Italy) **Avoidance learning by guinea pigs.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 458-461.—Trained 3 groups of 8 male albino guinea pigs in shuttle-box avoidance conditioning. Superior performances were achieved with longer CS-UCS (15 sec. against 5 sec.) and ITIs (90 sec. against 30 sec.). There were no performance increments within sessions, but improvements in performance occurred between sessions. Consolidation mechanisms probably play an important part in avoidance learning by guinea pigs.—*Journal abstract*.

Reinforcement

5947. Fillon, Ross D., Fowler, Stephen C., & Notterman, J. M. (U. Pennsylvania, Medical School) **Effort expenditure during proportionally reinforced responding.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 398-405.—Performed a bar-pressing experiment in which 6 male Sprague-Dawley laboratory rats were reinforced approximately in direct proportion to the level of time integral of force ("effort") exerted/response. Over the course of training, Ss increased in efficiency, as measured by amount of food obtained/unit effort exerted. It was not demonstrated, however, that Ss learned to take advantage of the effort-proportional reinforcement contingency.—*Journal abstract*.

5948. Fillon, Ross D., Fowler, Stephen C., & Notterman, J. M. (U. Pennsylvania, Medical School) **Some effects of prefeeding and training upon rate and precision of bar-pressing response.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 328-333.—Prefed 3 groups of 7 male Wistar rats each different amounts of food. The concurrent effects upon precision of response (force discrimination) and upon rate of responding were observed. These appear to be opposing curvilinear functions of amount prefed, the consequence of which is to yield relatively uniform reinforcement rate. (22 ref.)—*Journal abstract*.

5949. Halford, G. S. & Halford, Joan M. (U. Newcastle, New South Wales, Australia) **Secondary reinforcement: Signal or substitute reward? A preliminary investigation.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 145-147.—Studied the effect of an uninformative tone on the bar-pressing behavior of 30 female hooded rats to see whether a secondary reinforcer had any role beyond that of signal of a forthcoming reward. A tone was sounded for 1 sec. immediately following each bar press by the experimental group. After a delay, 50% of bar presses were followed by a food pellet, which was preceded by a 2nd occurrence of the tone. There was a control group which received the tone only before food and another which received the tone only after response. The experimental group performed at the same level as the group which had tone before food only. It is concluded that a stimulus is not necessarily prevented from acquiring secondary reinforcement value by being uninformative with respect to the outcome of a response.—*Journal abstract*.

5950. Hineline, Phillip N. (Temple U.) **Negative reinforcement without shock reduction.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 259-268.—Reliably produced stable lever-press responding in 16 naive brown Lasley rats and maintained it by a procedure in which responses could delay shocks without affecting overall shock frequency. Responding was not maintained when the delay-of-shock involved an increase in overall shock frequency. (21 ref.)—*Journal abstract*.

5951. Mackintosh, N. J. (Dalhousie U., Halifax, Nova Scotia, Canada) **Distribution of trials and the partial reinforcement effect in the rat.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 341-348.—Spacing of trials decreased the magnitude of the PRE by increasing resistance to extinction in consistently reinforced naive male hooded rats (N = 36) and decreasing resistance to extinction in partially reinforced Ss. Exp. II with 40 Ss showed that variation in a single ITI (that separating nonreinforced from succeeding reinforced trials) was sufficient to produce this effect. The suggestion that these results were due to forgetting of the aftereffects of nonreinforcement is supported by Exp. III with 40 Ss which shows that the results depended upon the opportunity for aftereffects of preceding reinforcements to interfere with and hence cause forgetting of the aftereffects of nonreinforcement. (25 ref.)—*Journal abstract*.

5952. Prytula, Robert E. & Braud, William G. (Middle Tennessee State U.) **Sucrose-pellet incentive shifts in the double alley.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 391-397.—4 groups of male albino Cheek-Houston rats were given 45 double runway trials under the following conditions: (a) nonreward in goal box (GB) throughout, (b) nonreward in GB for 30 trials followed by an upshift in 2 97-mg sucrose pellets for 15 trials, (c) 2 97-mg sucrose pellets in GB, throughout, or (d) 2 97-mg sucrose pellets for 30 trials followed by a GB, downshift to nonreward for 15 trials. Sucrose incentive upshift produced a rapid Runway 1 start speed increment, while the downshift in sucrose had little or no effect on this measure. Runway 1 run and goal measures and all measures of Runway 2 performance seemed little affected by GB, incentive magnitude, in that all groups converged toward a common asymptote.—*Journal abstract*.

5953. Ten Eyck, Robert L. (Larue D. Carter Memorial Hosp., Indianapolis, Ind.) **Effects of rate of reinforcement-time upon concurrent operant performance.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 269-274.—Conducted 3 experiments to investigate the theoretical reduction of rate and duration of reinforcement to their product, rate of reinforcement time, under concurrent chain schedules. In Exp. I, rate of reinforcement time was varied by varying rate of reinforcement delivery, holding duration of reinforcement availability constant. In Exp. II, rate of reinforcement time was varied by holding rate of reinforcement delivery constant and varying duration of reinforcement availability. In Exp. III, rate of reinforcement time was held constant by varying both rate and duration of reinforcement simultaneously and inversely. 3 adult white Carneaux pigeons served in each experiment (total N=9). The procedure consisted of 2 states, an initial choice link and a terminal reinforcement link, which alternated regularly. For all 3 experiments, both relative rate of responding and relative

time spent in the initial link matched approximately the relative rate of reinforcement. time arranged in the terminal link. Data are interpreted as supporting the notion that rate and duration of reinforcement may be functionally equivalent and reducible to a single variable, rate of reinforcement time.—*Journal abstract.*

Reinforcement Schedule

5954. Blackman, Derek. (U. Nottingham, England) **Effects of a pre-shock stimulus on temporal control of behavior.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 313-319.—Exposed 6 naive male Wistar albino rats to a situation in which a response on Lever B was followed by reinforcement if a preceding response on Lever A had been made at least 5, 10, or 15 sec. before. The effects of signaled unavoidable shock were studied on the behavior maintained by this procedure. All Ss made fewer A-to-B sequences during the periods of preshock stimulus. When the A-to-B delay was 10 or 15 sec., the distribution of A-to-B times changed, there being more shorter intervals. However, for Ss where the A-to-B delay was 5 sec., the distribution of A-to-B times was not changed during the preshock stimulus. In all cases, there was an increased proportion of inappropriate B responses (i.e., with no preceding A response) during the preshock stimulus; this was most marked with Ss exposed to a 15-sec A-to-B delay.—*Journal abstract.*
5955. Bloomfield, T. M. & Russell, D. G. (York U., Toronto, Ontario, Canada) **Behavioural contrast and preference in a double chained schedule.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 368-373.—Pigeons peck faster during a signal for reward (S+) when that signal alternates with 1 for absence of reward (S-). This contrast effect has been shown to involve diminished preference for S+ compared with a stimulus not involved in a discrimination. It is demonstrated that the signal produced by pecks to S+ in a chained schedule is responded to in proportion to the contrast effect during S+. The result suggests that a prior interpretation of contrast, in terms of Amsel's frustration theory, is not the correct one.—*Journal abstract.*
5956. Cherek, D. R. & Pickens, Roy. (U. Minnesota) **Schedule-induced aggression as a function of fixed-ratio value.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 309-311.—Pigeons responding for food on fixed-ratio reinforcement schedules attacked live target birds when the ratio value was increased, but not when the value was decreased. Ss were 4 experimentally naive male Nun pigeons, 2 as experimental Ss and 2 as targets. The frequency of attacks peaked several days after ratio value change, and then gradually decreased to an original level.—*Journal abstract.*
5957. Edwards, Diane D., Peek, Vickie, & Wolfe, Frank. (U. Missouri, Kansas City) **Independently delivered food decelerates fixed-ratio rates.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 301-307.—Scheduled, following fixed-ratio base lines, the independent delivery of reinforcers alone or concomitant with the fixed-ratio schedule for all Ss. 5 rats served as Ss. Systematic manipulations of either the interreinforcement interval or the ratio size were also made during concomitant schedules. Response rates during the independent delivery of reinforcers did not decelerate until the Ss had been exposed for 50 or more sessions. Rate decelerated after a few sessions when the interreinforcement intervals were less than $\frac{1}{2}$ of the original value and scheduled along with the ratio dependency. When both schedules were available, reductions in the ratio size resulted in slight deceleration of response rate when compared with the level of deceleration yielded by reductions in the independent reinforcement intervals.—*Journal abstract.*
5958. Frazier, James R. (U. North Carolina, Child Development Inst.) **Effects of constant delay of reinforcement on wheel running.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 247-250.—3 groups of 4 adult female Sprague-Dawley albino rats completed run-to-lick contingencies with delay of reward intervals of 0, 3, and 10 sec. imposed between the fixed ratio 10 running requirement and delivery of a 4% sucrose solution. Following acquisition sessions, Ss received extinction sessions which continued until instrumental responding stabilized. The experimental design continued over 4 replications. There were no differential effects of delay of reward conditions on either total acquisition or extinction responding.—*Journal abstract.*
5959. Gavelek, James R. & McHose, James H. (Washington State U.) **Contrast effects in differential delay of reward conditioning.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 454-457.—50 naive male albino Holtzman rats received differential conditioning training with differential delay of reward, correlated with alley brightness. Groups were designated according to the delay, in seconds, received prior to reward in the short-plus (S+) and long-minus (S-) delay alleys, respectively: Groups 1-1, 1-10, 1-30, 10-30, and 30-30. The performance levels of differentially reinforced Ss to both S+ and S- were depressed relative to the performance levels of nondiscrimination control Ss. Results are discussed as consistent in all respects with the effects of differential reward amount and percentage conditioning.—*Journal abstract.*
5960. Rudy, Jerry W. & Homzie, M. J. (Yale U.) **Within-subjects partial reinforcement with rats: Sequence and discriminability of reinforcement events.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 465-469.—In a within-Ss partial reinforcement experiment, acquisition training was administered such that following nonrewarded trials 43 naive male Long-Evans rats received reward (a) only in the continuously reinforced runway or (b) only in the partially reinforced (PRF) alley. $\frac{1}{2}$ of the Ss in each of these conditions were presented an external stimulus which permitted these Ss to anticipate the reinforced and nonreinforced trials in the PRF alley. The extinction performance of Ss in Condition a was inferior to that of Ss in Condition b. Ss not permitted to discriminate the reinforcement events exhibited better extinction performance than Ss which could make this differentiation. Implications of these findings for within-Ss experiments and for a sequential interpretation of extinction performance are discussed.—*Journal abstract.*
5961. Smith, Judith M. (Arizona State U.) **Self-imposed blackouts during variable interval- and multiple variable interval-extinction reinforcement schedules.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 427.
5962. Zeiler, Michael D. (Emory U.) **Time limits for completing fixed ratios.** *Journal of the Experimental*

Analysis of Behavior, 1970(Nov), Vol. 14(3, Pt. 1), 275-286.—Investigated how the addition of time limits affected fixed-ratio behavior. In Exp. I, 4 white Carneaux pigeons obtained food only if they completed the ratio within a specified time after the end of the preceding ratio. In Exp. II, they obtained food only if they took longer than a specified time. Failures to meet the time criteria produced brief timeouts. The times taken depended on the requirements in both experiments. In Exp. I, progressively briefer time criteria resulted in faster ratios, and in Exp. II, longer time criteria increased the time taken in each ratio. Ss sensitivity to the temporal variable, a property of the entire period extending from the 1st opportunity to respond to the end of the ratio, indicate that performance involved a behavioral unit encompassing both the postreinforcement pause and the responses comprising the ratio. (19 ref.)—*Journal abstract*.

Punishment & Extinction

5963. Barnes, W. & Tombaugh, T. N. (Carleton U., Ottawa, Ontario, Canada) **Effects of sucrose rewards on the overtraining extinction effect.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 355-359.—Studied the effects of sucrose concentration and number of acquisition trials on performance of 48 naive albino Sprague-Dawley rats in a discrete-trial (retractable bar) situation. 3 levels of bar-press training (120, 360, and 720 trials) were factorially combined with 2 sucrose concentrations (8 and 64%). Results show that extinction performance was an increasing function of sucrose concentration and a nonmonotonic function, increasing to 360 trials and then decreasing, of the number of acquisition trials. No interaction between the variables was observed. Findings are discussed in relation to the Amsel-Spence behavior theory. (21 ref.)—*Journal abstract*.

5964. Padilla, Amado M. & Spanier, Douglas. (State University Coll. New York, Potsdam) **Role of multiple-pellet rewards in acquisition and extinction of a runway response.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 31-35.—Gave continuous reinforcement training to 4 groups of 10 naive male hooded rats in a straight runway. All Ss received 100 pellet rewards, but groups differed in number of locomotor responses, goalbox placements, and number of pellets received on each trial. Following acquisition, Ss in each of the main groups were given massed or distributed extinction training. Results show that Ss required to make a greater number of locomotor responses had faster terminal acquisition speeds and were more resistant to extinction. Results are discussed in terms of the A. Amsel, J. J. Hug, and C. T. Surridge multiple-pellet reward hypothesis. —*Journal abstract*.

SOCIAL & SEXUAL BEHAVIOR

5965. Anderson, Raymond K. (U. Wisconsin) **Mating and interspecific behavior of greater prairie chicken.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 953-954.

5966. Harper, Lawrence V. (U. California, Davis) **Role of contact and sound in eliciting filial responses and development of social attachments in domestic guinea pigs.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 427-

435.—Investigated the effects of delayed exposure, auditory, and tactual cues on filial responsiveness, and attachment behavior in 69 guinea pigs using pups which had been isolated at birth. Exposure to a furry moving calling model over Postpartum Days 1-3 was sufficient for the object's reinforcing maze-running behavior on Days 8-9. Sound increased the frequency of model contact; surface texture extended the duration of contact. Delaying initial exposure to models until Day 4, or to mother until Day 9, did not diminish social responsiveness, but early rearing with mother inhibited responsiveness to models. Model-exposed Ss responded to the model despite 7 days' subsequent experience with mother. A relationship between a species' ecology and the social significance of conspecific stimulus dimensions is suggested. (21 ref.)—*Journal abstract*.

5967. Le Bocuf, Burney J. & Peterson, Richard S. (University of California, Santa Cruz) **Social status and mating activity in elephant seals.** *Science*, 1969(Jan), Vol. 163(3862), 91-93.—Observed that individually marked male elephant seals, *Mirounga angustirostris*, participated in a social hierarchy resembling the peck order of domestic chickens. Individuals achieved status by fighting and maintained it by stereotyped threat displays. The higher the status of a male, the more readily he approached and copulated with females. 4% of the males inseminated 85% of the females.—*Journal abstract*.

5968. Pfaff, Donald. (Rockefeller U.) **Nature of sex hormone effects on rat sex behavior: Specificity of effects and individual patterns of response.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 349-358.—Estradiol injections reproduced part of the testosterone effect on masculine sex behavior in both 11 castrated male and 11 ovariectomized female Sprague-Dawley rats. Testosterone injections alone were not effective in stimulating feminine sex behavior, but testosterone + progesterone reproduced part of the estradiol effect on feminine behavior in female rats. The male or female Ss showing the most vigorous masculine behavior under 1 effective hormone condition also tended to respond most vigorously under other hormone conditions. Those Ss showing the most feminine behavior under 1 hormone condition also tended to do so under other hormone conditions. However, there was no significant relationship between an individual S's levels of masculine and feminine behavior either among the males or among the female rats. (29 ref.)—*Journal abstract*.

5969. Sachs, Benjamin D. & Barfield, Ronald J. (U. Connecticut) **Temporal patterning of sexual behavior in the male rat.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 359-364.—Described the copulatory behavior of 14 male Sprague-Dawley rats in terms of mount bouts, clusters of closely spaced attempts at mounting females, separated by periods free of mounting attempts. Measures based on mount bouts make possible meaningful temporal analyses of copulatory tests in which penile insertions (intromissions) do not occur during every mount bout. These measures were used to analyze the role of intromissions in governing the temporal patterning of the male's copulatory attempts. Prevention of intromission did not change the intervals between mount bouts significantly. Termination of mount bouts does not depend on intromission, and mounts without intromission strongly influence the timing of copulatory attempts. The tem-

poral organization of mount bouts suggests that they might be basic units in the male's sexual behavior.—*Journal abstract.*

5970. Wechkin, Stanley. (State University Coll. New York, Brockport) **Social relationships and social facilitation of object manipulation in Macaca mulatta.** *Journal of Comparative & Physiological Psychology*, 1970(Dec), Vol. 73(3), 456-460.—Investigated the role of O-demonstrator relationships in social facilitation of object manipulation among 18 adult and 12 juvenile rhesus macaques, using the duplicate cage method. It was found that such social facilitation occurred when the O was familiar with the demonstrator and was not affected by differences in dominance status, sex, or age relationships. Findings are in accord with theories of imitation which emphasize prior interanimal relationships, and, particularly, J. P. Scott's theory of allelomimetic behavior.—*Journal abstract.*

SENSORY PROCESSES

5971. Clopton, Ben M. (U. Washington) **Behavioral and neural aspects of increment detection by monkeys for the intensity of wide-band Gaussian noise.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 540.

5972. Fay, Richard R. (Princeton U., Auditory Research Lab.) **Auditory frequency discrimination in the goldfish (*Carassius auratus*).** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 175-180.—Determined auditory frequency-difference thresholds for 4 goldfish at 50, 100, 200, 400, 600, 800, and 1000 Hz. by a classically conditioned respiratory suppression technique. The difference thresholds increased monotonically from 3.5 Hz. at 50 Hz. to 47 Hz. at 1000 Hz. Although man is about 1 order of magnitude more sensitive in discriminating frequency, the slopes of the frequency-threshold functions for man and fish are identical up to 400 Hz. Above 400 Hz., discrimination ability declines for the goldfish relative to man, because of a frequency-doubling effect in the goldfish's auditory nerve fibers. The mechanisms for frequency analysis are similar in man and fish, at least for frequencies below 1000 Hz.—*Journal abstract.*

5973. Hein, Alan; Gower, Ellen C., & Diamond, Rhea M. (Massachusetts Inst. of Technology) **Exposure requirements for developing the triggered component of the visual-placing response.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 188-192.—Certain visually controlled movements develop only when a kitten (N = 15, 9, and 14) is exposed in light. Visually triggered extension of the forelimbs is not shown when the dark-reared S is 1st tested. Stimulation by light, even if restricted to periods of total immobilization, or with diffusers in front of the eyes, or under stroboscopic illumination, is sufficient for acquisition of the extension response. Visually guided behaviors do not develop under these exposure conditions. Motor-visual feedback, while essential for development of visually guided behaviors, is not required for acquisition of visually triggered extension.—*Journal abstract.*

5974. Hein, Alan; Held, Richard, & Gower, Ellen C. (Massachusetts Inst. of Technology) **Development and segmentation of visually controlled movement by selective exposure during rearing.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2),

181-187.—Attempts to clarify the role of movement-produced changes in visual stimulation for the acquisition of visually controlled behaviors. Exp. I shows that exposure during passive transport, which provides an asystematic relation between self-produced movements and visual stimulation, delays the acquisition of visual-motor coordination when a kitten is subsequently free to locomote in light. Exp. II demonstrates that control of movement by 1 eye develops if that eye is exposed during locomotion. This eye does not transfer to the contralateral eye which is exposed only during passive transport. In Exp. III, view of the forelimbs is restricted to 1 eye. Visually guided reaching develops under the control of that eye but does not transfer to the eye which has not viewed the limbs. Results of Exp. II and III provide evidence that the system for visual guidance of movement consists of components which can be acquired independently. (18 ref.)—*Journal abstract.*

5975. Johnson, D. L. & Wenner, A. M. (U.S. Air Force Academy, Colo.) **Recruitment efficiency in honeybees: Studies on the role of olfaction.** *Journal of Apicultural Research*, 1970, Vol. 9(1), 13-18.—Measurements were made on the activities of worker honeybees (*Apis mellifera*) which attended waggle dances by marked foragers in an observation hive, and on the success of unmarked recruits in finding a food source in the field. Potential recruits attended waggle dances for about 7 straight runs and then most of these bees left the hive within 1 min. When unscented sucrose was provided at the food site, few unmarked bees reached that source. When scent was added to the food, recruitment efficiency was improved. Numbers of unmarked foragers reaching the source varied directly with the amount of scent provided. Recruitment efficiency was also greatly influenced by alteration of the natural odor in the vicinity of a food source, whereas the numbers of unmarked foragers reaching the control site remained unchanged. These data are not consistent with the classic dance language hypothesis of honeybee communication, but do indicate that recruited foragers use olfaction in locating a food source. The greater the odor concentration at the food source the less difficult it is to locate a site by means of olfaction.—*W. E. Wood.*

5976. Smith, Lars. (U. Oslo, Norway) **Eye dominance in a monkey.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 657-658.—Developed a technique of examining eye dominance in rhesus monkey. 1 S was tested in binocular viewing conditions which were conflicting due to the method of previous training. Left-eye dominance was demonstrated in this S, who also preferred to use its left hand when working a lever.—*Journal abstract.*

DEVELOPMENTAL PSYCHOLOGY

5977. Baird, Raymond R. (U. Washington) **A developmental study of linguistic performance with sentences containing nested and embedded clauses.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 894.

5978. Boyle, D. G. (U. Leeds, England) **A student's guide to Piaget.** Oxford, England: Pergamon Press, 1969. ix, 156 p. \$4.75(cloth), \$2.25(paper).

5979. Brislin, Richard W. & Leibowitz, H. W. (Pennsylvania State U.) **The effect of separation between test and comparison objects on size**

constancy at various age-levels. *Journal of American Psychology*, 1970(Sep), Vol. 83(3), 372-376.—Ss viewed white disks (3, 6, 12, and 24 in. in diameter) at a distance of 25, 50, 100, and 200 ft., respectively. The visual angle subtended by each test object was constant at .57°. 18 5-12 yr. old children and 6 undergraduates formed 4 age groups of 6 Ss each with an additional 18 children and 6 undergraduates comprising 4 control groups. Separation slightly reduced the tendency toward size constancy at the longer distances. Data support the assumption that size constancy and the Ponzo illusion share common mechanisms, since the developmental size-distance function is independent of whether the comparison is successive, as in most size-constancy experiments, or simultaneous, as in the Ponzo illusion.—*Journal abstract*.

5980. Chess, Stella & Thomas, Alexander. (New York U., Medical Center) **Annual progress in child psychiatry and child development: 1970**. New York, N.Y.: Brunner/Mazel, 1970. xii, 585 p. \$15.

5981. Cratty, Bryant J. (Ed.) (U. California, Los Angeles) **Perceptual and motor development in infants and children**. New York, N.Y.: Macmillan, 1970. xii, 306 p. \$4.95(paper).

5982. Ferrel, Antonio J. (San Jose State Coll.) **Prenatal environment**. Springfield, Ill.: Charles C Thomas, 1969. xv, 215 p. \$10.50.

5983. Furner, Anne H. & Diespecker, D. D. (U. Newcastle, New South Wales, Australia) **A note on vibrotactile learning**. *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 167-168.—14 children learned a 6-element code through 2 vibrators placed on the arms. There were no significant differences between age groups (6-9 yr. and 9-12 yr.), but there was a significant learning effect over 10 trials. There were no significant differences between 10 male and 10 female adults who learned a 26-element code, but there was a significant increase in learning for the adults over 10 trials. 5 new body loci were used.—*Journal abstract*.

5984. Gelfand, Donna M. (Ed.) (U. Utah) **Social learning in childhood: Readings in theory and application**. Belmont, Calif.: Brooks/Cole, 1969. xi, 415 p.—Presents research-based information about the development and modification of children's behavior. Topics covered include inherited behavioral predispositions, behavior modification in the young infant and toddler, treatment of problem behavior in preschool children, social learning in early and middle childhood, environmental determinants of intellectual development, and treatment of severe behavior disturbances in adolescence.

5985. James, Patricia B. (Ohio State U.) **Children's interpretations of multichannel communications conveying verbal and nonverbal meanings**. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 914-915.

5986. Kacis, Dale W. (U. Illinois) **A multiple discriminant analysis approach to the development of form constancy**. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 929-930.

5987. Konic, Dorothy S. (Kent State U.) **A developmental study of acoustic and semantic encoding in long-term and short-term recognition memory**. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 415.

5988. Laverde Rubio, Eduardo; Castro de Wolff, Marina; Mojica, Leonor, & Sabogal, Fanny. (National U., Bogotá, Colombia) **Una institución privada de pro-**

tección infantil en Bogotá. [A private childhood protection institution in Bogotá.] *Revista de Psicología*, 1967, Vol. 12(1-2), 69-74.—Descriptive statistics concerning background, intelligence, and personality adjustment are given for 62 of the approximately 170 4-18 yr. old children who are inmates in an institution for orphans and children from broken homes. About 74% of the children have emotional problems, and an additional 18% are mentally deficient.—*L. Zusne*.

5989. Lieberman, Lewis R. (Charles L. Mix Memorial Fund, Americus, Ga.) **Life satisfaction in the young and the old**. *Psychological Reports*, 1970(Aug), Vol. 27(1), 75-79.—Administered the Life Satisfaction Index A (LSIA) to a group of 101 elderly persons (M age = 77.6) and a group of 78 undergraduates (M age = 20.1). The mean LSIA score of approximately 12 for both groups indicates no difference in degree of life satisfaction. An analysis of the responses of both groups to each of the 20 items of the LSIA, however, shows significant differences in the sources of satisfaction for each group. The old seemed more satisfied with their past, while the young seemed more apprehensive about the present and more optimistic about the future. The following hypothesis is offered: Life satisfaction, rather than being merely a reflection of a person's current level of goal achievement, is more like a set or orientation to one's environment which is acquired fairly early and remains moderately stable throughout life.—*Journal abstract*.

5990. Neimark, Edith D. & Slotnick, Nan S. (Douglass Coll., Rutgers State U.) **Development of the understanding of logical connectives**. *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 451-460.—Administered a 16-item test of logical connectives to 455 3rd-9th graders and to 58 undergraduates to assess their understanding of class inclusion and exclusion, class intersection and class union. 1/2 of the groups received a test in which set elements were pictures; for the other 1/2, elements were words. Although there was a significant grade main effect for all 3 types of questions: (a) inclusion and exclusion are understood by a majority of even the youngest Ss, (b) intersect is understood by a majority of all but the youngest Ss, and (c) union is not understood by the majority of Ss except at the college level. Data are discussed in light of related evidence, and an information processing account is proposed to account for the findings.—*Journal abstract*.

5991. Smothergill, Daniel W., Martin, Richard, & Pick, Herbert L. (Syracuse U.) **Perceptual-motor performance under rotation of the central field**. *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 64-70.—Reports 3 experiments on performance of simple eye-hand tasks under rotation of the central field of view. Rotation was achieved by use of a closed-circuit TV system. Exp. I, with 280 right-handed 7-9 yr. old children and college adults, found a developmental change in performance under large rotations (e.g., 180°) as well as evidence of a discontinuous breakdown angle. Exp. II, with 70 high school students, successfully replicated these results. Exp. III investigated the breakdown-angle hypothesis in 30 undergraduates with a more sensitive design. Support was found for the hypothesis, but the region in which breakdown occurred varied somewhat among Ss.—*Journal abstract*.

INFANCY

5992. Bell, Richard Q. (National Inst. of Mental

Health, Bethesda, Md.) **Sleep cycles and skin potential in newborns studied with a simplified observation and recording system.** *Psychophysiology*, 1970(May), Vol. 6(6), 778-786. Devised a simple visual observation system, supplemented by measurement of skin potential, for developmental studies of sleep cycles in settings where multiple electrode placement is not practicable. Findings replicate essential features of quiet and active sleep cycles which were previously reported to exist against the background of decreasing level of physiological arousal, as sleep proceeds. 12 newborns showed approximately $\frac{1}{2}$ of their interfeeding sleeping time in the REM stage of sleep. Skin potential rapidly declined from the waking level, continued to decrease in level throughout sleep, increased in variability during REM sleep, and increased in level at the second waking period.—*Journal abstract.*

5993. Hutt, Corinne & Hutt, S. J. (U. Oxford, England) **The neonatal evoked heart rate response and the law of initial value.** *Psychophysiology*, 1970(May), Vol. 6(6), 661-668.—Presented 2-sec long square wave tones at frequencies of 125 and 1000 Hz and 75-db sound pressure to 6 newborn infants. Mean heart rates were computed for the 10 sec. prior to and the 10 sec. following stimulus onset, i.e., the prestimulus and stimulus heart rate values, respectively. The law of initial value (LIV) was shown to operate strongly only in the case of the 125 Hz stimulus. Even for this stimulus, LIV depended upon the state of the S, showing an appropriate negative correlation between prestimulus and stimulus values in regular sleep and quiet wakefulness but a slightly positive correlation in irregular sleep. In randomly selected control periods, the 1st 5 sec. served as prestimulus values and the 2nd 5 sec. as stimulus values. Regression coefficients for these control periods did not differ significantly from those during which the stimulus was actually present. In view of the special conditions required for its demonstration, the generality of Wilder's "law" is seriously questioned. (17 ref.)—*Journal abstract.*

5994. Korner, Anneliese F. (Stanford U., Medical School, Palo Alto, Calif.) **Visual alertness in neonates: Individual differences and their correlates.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 499-509. Recorded frequencies and durations of spontaneous visual alertness and measured visual pursuit in 32 2- to 3-day-old healthy neonates. Rank correlations of .60, .65, and .74 between the 3 visual measures suggest that Ss who alerted frequently tended also to be the Ss who alerted longest and who were most capable of visual pursuit. Results show intraindividual stability in the visual behaviors and high variance between Ss in their capacity for visual alertness. Ss' sex, parity, birthweight, estimated conceptual age, and postnatal age were not significantly related to the capacity for visual alertness, nor were the moderate levels of obstetric sedation used in this sample. The 3 visual measures, while tapping a shared capacity, had different correlates. Frequencies and durations of visual alertness were significantly related to a number of variables which had in common, moderate degrees of underlying activation and arousal. These factors did not contribute to visual pursuit. Sensitivity to auditory stimuli was significantly correlated with the capacity for visual pursuit but was unrelated to other visual measures. (18 ref.)—*Journal abstract.*

5995. Melson, William H. (U. North Carolina)

Attentional responses of five-month infants to discrepant auditory stimuli. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 382.

5996. Miranda, Simón B. (Case Western Reserve U.) **Visual abilities and pattern preferences of premature infants and full-term neonates.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 189-205.—Used the visual-preference method to present 14 pairs of flat visual stimuli to 27 premature infants of less than 38 wk. conceptional age and to 27 full-term neonates. Average age at time of presentation for premature Ss was 22.5 days; for normal Ss, 3.5 days. There was good inter-O agreement on the visual-fixation responses for both samples. Close similarity between groups was found in the mean length of fixation to a given target in 13 of the 14 stimulus pairs. Premature infants attended selectively to stimuli in 7 of the 14 target pairs, and neonates in 6. The responses of the 2 samples to a pair of stimuli varying in number and size of details was associated with age from conception. The premature sample gave additional differential fixation responses consistent with such an association. Both groups discriminated lines subtending a visual angle of 66 min. Results indicate that infants averaging 1 mo. less in conceptional age than full-term newborns can see and respond differentially to patterned visual stimuli, and that certain responses may be indicative of level of neurological maturation. (27 ref.)—*Journal abstract.*

5997. Nisbett, Richard E. & Gurwitz, Sharon B. (Yale U.) **Weight, sex, and the eating behavior of human newborns.** *Journal of Comparative & Physiological Psychology*, 1970(Oct), Vol. 73(2), 245-253. In Exp. I with 42 healthy single-birth infants, the formula given was sweetened, and heavy Ss were found to increase their intake more than lighter Ss. In Exp. II with 34 Ss, sucking the formula was made difficult, and heavy Ss were found to be less willing to exert effort to obtain food than lighter Ss. Females were more responsive to the sweet taste and less willing to work for their formula than were males. Results parallel weight and sex differences found in human adults and in other organisms, and suggest that there are individual differences in eating behavior among humans which are biologically determined. (40 ref.)—*Journal abstract.*

5998. Shaw, Jon A., Wheeler, Peggy, & Morgan, Donald W. (130th Station Hosp., Heidelberg, W. Germany) **Mother-infant relationship and weight gain in the first month of life.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 428-444.—Explored the multiple determinants of infant weight gain in the 1st mo. of life, with particular emphasis directed toward psychosocial and biological variables. It was found that infant weight gain during the neonatal period was relatively independent of psychosocial variables, but was related to biological variables of race, sex, the amount of formula, and the ingestion of solids. Maternal anxiety was not predictably related to infant weight gain. Birth weight was inversely related to maternal anxiety during pregnancy, so that the greater the level of anxiety, the smaller the baby at birth. (45 ref.)—*Journal summary.*

5999. Stratton, Peter M. (U. Leeds, England) **The use of heart rate for the study of habituation in the neonate.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 44-56. Describes a procedure for choosing heart rate (HR) response measures, involving minimal assumptions about the experimental situation. Applied to the habit-

uation of neonates to medium intensity auditory stimuli, this procedure indicated an increase in HR as the most useful response characteristic. Habituation of the acceleratory response was found to take the form of a logarithmic function of trial number. Assumptions underlying the usual methods of correction for initial values are examined and most of them are shown to have been violated in the present data. Further, application of various corrections failed to improve the consistency of measures of habituation. Multiple regression analysis of 14 measures of the acceleratory response show that the increase in rate during the 1st 6 sec. following stimulus onset was the most consistent indicator of habituation. Addition of further measures did not contribute significantly to the relationship (20 ref.)—*Journal abstract*.

6000. Thomas, Hoben. (Pennsylvania State U.) **Psychological assessment instruments for use with human infants.** *Merrill-Palmer Quarterly*, 1970(Apr), Vol. 16(2), 179-223.—Presents a lengthy and intensive review of the research and description of 9 instruments which attempt to quantify human infant behavior: Cattell Infant Intelligence Scale, Gesell Developmental Schedules, Griffith's Mental Development Scale, Bayley's scales, Northwestern Intelligence Tests, Graham's Behavior Tests for Newborns, Prechtl's Neurological Examination, and Flint's Infant Security Scale. Brief mention is given to various instruments, old and new, by Bühler, Kuhlmann, Linfert, Doll, Sheridan, and Caldwell and Drachman. (165 ref.)—*R. V. Hamilton*.

6001. Vítová, Z. & Hrbek, A. (Charles U., Research Inst. for Child Development, Prague, Czechoslovakia) **Ontogeny of cerebral responses to flickering light in human infants during wakefulness and sleep.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 391-398.—Studied the ontogeny of responsiveness to repetitive visual stimulation in 135 healthy infants from birth to 2 yr. old. The effect of flickering light on the EEG was minimal at birth, but improved conspicuously during waking from 2-5 mo. of age. In the early 1/2 of this period, the responsiveness to higher flash rates increased abruptly; at the end, significantly longer runs of driven rhythm were observed during stimulation. The amplitude of driven waves became higher and the interference of photic driving with the waves of the resting EEG began to decline. The sudden increase in number of exogenous fibers and dendritic branching in the cortex, with the subsequent increase in quantity of synaptic connections, in this period, might be associated with the prominent improvement of photic driving during mo. 2-5. In sleep, responsiveness in the visual system became better from 6 mo.-1 yr. The high intensity of photic stimulation is considered the most important factor underlying the relatively marked responsiveness to flicker in the 1st 2 yr. of life. (French summary) (29 ref.)—*Journal summary*.

6002. Weiland, I. Hyman & Sperber, Zanwil. (San Fernando Valley Child Guidance Clinic, Van Nuys, Calif.) **Patterns of mother-infant contact: The significance of lateral preference.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 157-165.—Earlier reports by L. Salk that exposure of an infant to the sound of an adult heartbeat is accompanied by less infant crying and reports by Salk and Weiland that mothers tend to hold infants to the left of their chest irrespective of the mother's handedness suggests that the sound of an adult heartbeat is important in anxiety relief for infants and adults. Several experiments to test hypotheses

growing out of the earlier studies are reported and the implications of these studies for the development of early object cathexis are discussed. (16 ref.)—*Journal summary*.

CHILDHOOD

6003. Armentrout, David P. (Inst. for American Universities, Aix-en-Provence, France) **A theoretical note on autonomous behavior as a conditioned consequence.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 275-276.—A topological concept of autonomous behavior is shown to be a compatible holistic consequence of conditioning. The argument is generalized to fit typical childhood development.—*Author abstract*.

6004. Bannatyne, Alex D. (U. Illinois, Inst. for Research on Exceptional Children) **A comparison of visuo-spatial and visuo-motor memory for designs and their relationship to other sensori-motor and psycholinguistic variables.** *Journal of Learning Disabilities*, 1969(Sep), Vol. 2(9), 451-466.—Explores the relationships between visuospatial and visuomotor memory for designs and other sensorimotor and psycholinguistic variables as measured by the Illinois Test of Psycholinguistic Abilities. 50 3rd grade children were given a multiple choice answer (nonmotor) memory for designs test, the scoring categories being correct original, mirror image, simplified design, rotated design, fragmented design, out of proportion design, complicated design, and symmetrical design. These matched a similar classification of the Graham-Kendall Memory for Designs Test (MFD) answers. Results tentatively indicate that the variables on the 2 tests could not be equated, some indicating slow visuospatial development while others suggested neurological dysfunction. Both these syndromes were associated with left-handedness. Rotated drawings (MFD) were associated with right-handedness, and were more frequently drawn by girls. (33 ref.)—*Journal abstract*.

6005. Brown, R. I. & Semple, Lorna. (U. Calgary, Vocational Rehabilitation Research Inst., Alberta, Canada) **Effects of unfamiliarity on the overt verbalization and perceptual motor behaviour of nursery school children.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 291-298.—Subjected a group of 30 3-5 yr. old nursery schoolchildren from poor socioeconomic conditions to familiar and unfamiliar social and physical conditions. Under unfamiliar conditions, even with opportunity to learn the tasks beforehand, Ss showed decreased motor-perceptual and verbal behavior, as well as freezing behavior similar to fear reactions in other animals together with global gazing. Some practical suggestions are made with regard to handling this behavior in clinical situations together with indications for further research.—*Journal abstract*.

6006. Dureman, Ingmar & Pålshammar, Ake. (U. Uppsala, Sweden) **Differences in tracking skill and psychophysiological activation dynamics in children high or low in persistence in schoolwork.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 95-102.—Compared 7 9-10 yr. old children rated by their teachers as high in persistence (HP) and 7 rated as low in persistence (LP) in a simulated car-driving situation with a risk-taking game component. Increased reward was paid for every consecutive 2 min. that they managed to drive without

making more than 5 off the road errors within each of 4 10-min periods. More than 5 errors meant loss of accumulated reward, and the situation thus was meant to evoke a kind of temporal approach-avoidance conflict. Heart rate, skin conductance, and respiratory rate were recorded throughout the session. LP Ss made significantly more off the road errors than the HP Ss during the 4 driving periods. They also had significantly lower skin conductance levels and lower respiratory rates during the work periods, as well as a suggested difference in the pattern of change in skin conductance.—*Journal abstract.*

6007. Eckert, Helen M. (U. California, Berkeley) **Visual-motor tasks at 3 and 4 years of age.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 560.—For 6 boys and 8 girls tested at 3 yr. and again at 4 yr., there were more significant intercorrelations in visual-motor test items for boys which were suggestive of clustering for some tasks. Results suggest data for each sex should be analyzed separately.—*Author abstract.*

6008. Edge, David. (Ed.) (Edinburgh U., Science Studies Unit, Scotland) **The formative years: How children become members of their society.** New York, N.Y.: Schocken, 1970. 72 p. \$4.50(cloth), \$1.75(paper).

6009. Edwards, Joseph S. & Edwards, Diane D. (U. Kansas, Medical Center) **Rate of behavior development: Direct and continuous measurement.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 633-634.—Describes a new method using direct and continuous records of specific behavior rates which provides precisely quantified descriptions of behavior development. Dynamic developmental changes are reflected in the acceleration, maintenance, and deceleration of the behavior rates.—*Journal abstract.*

6010. Fehr, F. S. (U. Illinois, Children's Research Center) **A simple method for assessing body movement and potential artifacts in the physiological recordings of young children.** *Psychophysiology*, 1970(May), Vol. 6(6), 787-789.—Describes a method which involves the attachment of open-ended electrodes to the cloth cover of the chair in which the S reclines. 12 normal full-term male infants served as Ss. Techniques are discussed for limiting possible extraneous noise, and basic findings under adverse laboratory conditions are presented.—*Journal abstract.*

6011. Fowler, William. (Ontario Inst. for Studies in Education, Toronto, Canada) **Problems of deprivation and developmental learning.** *Merrill-Palmer Quarterly*, 1970(Apr), Vol. 16(2), 141-161.—Presents a review which suggests that the important foci of investigation in the dimension of developmental learning of cognitive processes are (a) the comparative importance of early vs. later stimulation, (b) the existence of critical periods for and sequential stages of cognitive development, (c) the cumulative role of stimulation in the developing of abilities and a related concern, e.g., the patterning of abilities in content, form, and level according to the cumulative differentiation of stimulation. Suggested lines for inquiry and investigation are: (a) cumulative and ecological aspects of developmental research, (b) development of logic (empirical measures), (c) identification and interaction of stimulation specifics of developmental deprivation, (d) significance of longitudinal approach to the study of developmental learning, (e) stages and sequences, (f) intervention studies of comprehensive and cumulative effect of systematic and controlled stimu-

lation on developmental learning, (g) cognitive health and developmental learning clinics, and (h) priorities of subject area and cognitive modes in developmental learning. (102 ref.)—*R. V. Hamilton.*

6012. Helper, Malcolm M. (Ohio State U.) **Comparison of pictorial and verbal semantic scales as used by children.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 149-156.—Studied the ability of pictorial rating scales to assess the major semantic dimensions of evaluation and potency. Children at 4 grade levels (4th and 6th grades, kindergarten, and nursery school 4 yr. olds) rated 21 concepts on 8 pictorial scales and on 4 verbal marker scales. Very clear-cut evaluation and potency factors, each defined by both types of scales, emerged from factor analysis (with blind rotation) of the scale intercorrelations in the 2 oldest groups. Only the pictorial scales yielded a clear-cut potency factor in the kindergartners. Neither type of scale yielded interpretable factors in the nursery school group. It is concluded that a pictorial scale format has some advantage in getting semantic ratings from children in the earliest school grades.—*Journal summary.*

6013. Kagan, Jerome. (Harvard U.) **Attention and psychological change in the young child.** *Science*, 1970(Nov), Vol. 170(3960), 826-832.—Suggests that alterations in behavior and cognitive structure involve a variety of processes beyond the principles of conditioning and that the changes in cognitive structure that occur when a child encounters discrepant events "should provide insights into the nature of psychological growth." It is noted that quantification of the process of attention in the child is still undeveloped, as the variables in question reflect different aspects of the attention process. (31 ref.)—*P. McMillan.*

6014. Kaplan, Burt E. (U. Wisconsin) **Psychophysiological and cognitive development in children: The relationship of skin conductance and heart rate to word associations and task requirements.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 18-26.—Recorded heart rate and skin resistance from 96 5-7 yr. old male and female children during the following conditions: low arousal (rest), high arousal (auditory and visual stimulation), and administration of a Word Association Test (WAT) and the Peabody Picture Vocabulary Test (PPVT). Ss who gave a mature response pattern on the WAT tended to have lower conductance levels than immature responders. Heart rate decreased during environmental intake (high arousal), increased during environmental rejection (WAT), and was unchanged during a combined intake and rejection situation (PPVT). Skin conductance data were consistent with recent theories concerning the development of mature cognitive behaviors in children and the psychophysiological correlates of complex and simple behaviors. (22 ref.)—*Journal abstract.*

6015. Khandrikov, V. & Markelov, V. (Moscow State U., USSR) **Vliyaniye motivov srovnaniya na osnovnye kachestvennye osobennosti dvigatel'noi deyatel'nosti srednikh shkol'nikov v zavisimosti ot sily nervnoi sistemy.** [Influence of competitive motives on the basic qualitative features of motor activity of middle schoolchildren as a function of strength of nervous system.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 159-166.—22 12-13 yr. old Ss participated in a study to determine (a) whether there are typological differences in the influence of competitive motives on the basic motor parameters (strength, rapidity, endurance,

and coordination of movements), and (b) whether the deficiencies, associated with the weak type of nervous system, can be overcome by special training. Competitive motives have different influences on motor parameters, depending on strength of nervous system. Those with a weak type of nervous system performed in competition at a lower level than during training; those with strong type of nervous system, at a higher level.—*I. D. London.*

6016. Kneutgen, Johannes. (100 Kaldauer Str., Siegburg, W. Germany) **Eine Musikform und ihre biologische Funktion: Über die Wirkungsweise der Wiegenlieder.** [The biological function of a category of music: On the effect of lullabies.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 245-265.—Over a time span of 3 mo. an Argentinian lullaby was played nearly every day in sessions lasting from 30 min. to 2 hr. for 4 Ss. Breathing rhythm and EKG were recorded during this time. The lullaby had the effect of markedly decreasing heart beats. The breathing rhythm became synchronized with the rhythm of the music. No such effects were found in a control group exposed to jazz music. The enhancing effect of lullabies in successful nursing care is pointed out. (English & French summaries) (17 ref.)—*W. J. Koppitz.*

6017. Lessing, Elise E., Zagorin, Susan W., & Nelson, Dorothy. (Inst. for Juvenile Research, Chicago, Ill.) **WISC subtest and IQ score correlates of father absence.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 181-195.—Ss were 311 boys and 122 girls who had been given the WISC as part of their diagnostic evaluation at a child guidance clinic. A history of prolonged father absence (found in 138 Ss) was associated with a lower Performance IQ and lower scores on Block Design and Object Assembly, regardless of sex or social class, and with lower scores on Arithmetic for boys only. Working-class, father-absent Ss also earned lower mean Verbal and Full Scale IQ scores. Middle-class, father-absent Ss earned a higher mean Verbal IQ than father-absent Ss. Of the 2 subgroups of Ss with a history of father absence, only those with no father figure in the home at the time of testing (but not those with a stepfather) differed from father-present Ss in regard to WISC scores. (25 ref.)—*Author abstract.*

6018. Marcus, Joseph; Thomas, Alexander, & Chess, Stella. (Hebrew U., Hadassah Medical School, Jerusalem, Israel) **Behavioral individuality in kibbutz children.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 43-54.—Reviews the literature on kibbutz children to demonstrate that the role that the child's individuality plays in the child-environment interactional system has been neglected and there has been a tendency toward stereotyping kibbutz children. Using direct observation and behavioral interviews focused on the individuality of temperamental characteristics, 3 girls and 3 boys between 3 and 4 yr. old were studied over 2 yr. Results substantiate the clinical impression that the individual temperamental pattern of each child constitutes a most important factor in his development. The importance of individuality in theory of child development and in child caretaking is pointed out. (26 ref.)—*Journal abstract.*

6019. Nalven, Frederic B. (Manhattan School for Seriously Disturbed Children, New York, N.Y.) **Manifest fears and worries of ghetto vs middle-class suburban children.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 285-286.—Compared the manifest fears and worries of 101 ghetto 5th and 6th graders with those of

150 of their suburban counterparts. The major difference was the greater number of specific animal fears (including many rats and roaches) reported by the ghetto Ss. Suggestions for developing relevant curriculum materials are made.—*Journal abstract.*

6020. Nathan, Susan W. & Hass, Wilbur A. (Children's Hosp., Pittsburgh, Pa.) **Age-development in the linear representation of words and objects.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 197-204.—130 4-10 yr. old children were asked to select line drawings to represent common objects, and then to select from the same line drawings ones which represented words corresponding to those objects. The following hypotheses, based on H. Werner and B. Kaplan's approach to symbol formation, were confirmed: (a) as age increases there is greater consensus among children as to which of several line drawings represents a given word or object, and (b) as age increases children are more likely to choose the same line drawing to represent both an object and the word corresponding to that object.—*Author abstract.*

6021. Politzer, Robert L. & Weiss, Louis. (Stanford U.) **Developmental aspects of auditory discrimination, echo response, and recall.** *Modern Language Journal*, 1969(Feb), Vol. 53(2), 75-85.—Reviewed an experiment designed to ascertain if auditory discrimination, pronunciation, and recall of vocabulary varied as a function of age. Ss were 1st, 3rd, 5th, 7th, and 9th graders from the same socioeconomic stratum. Ss in the auditory discrimination test differentiated between sets of French vowel phonemes, French vowel sounds, and English vowel sounds. In the pronunciation test, each S was shown a picture representing the word to be pronounced and a model of the pronunciation. In the recall test, S was shown the same picture as above and recalled the name of each item. Data indicate that in each area tested, the level of performance tends to increase with maturation. (17 ref.)—*C. O'Donnell.*

6022. Pollitt, Ernesto & Ricciuti, Henry. (Yale U., Medical School) **Biological and social correlates of stature among children in the slums of Lima, Peru.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 735-747.—A study of 48 children, 6-53 mo. old, with contrasting stature from the slums of Lima, Peru showed that the short Ss were more likely to have shorter mothers, who had had more pregnancies, less years of schooling, and a greater number of marriages. Results suggest that although differences in stature might reflect differences in nutritional background, they are also likely to reflect differences in other important biosocial factors. (29 ref.)—*Journal abstract.*

6023. Sukhanova, N. V. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Osobennosti formirovani vegetativnogo komponenta rechevoi reaktsii cheloveka.** [Features of the formation of the autonomic component of the speech reaction in man.] *Zhurnal Vyshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 313-318.—Studied (a) the features typifying the autonomic component of the speech reaction at various stages of ontogenesis, and (b) the autonomic component as a function of the developmental level of speech-motor coordination. 4 groups of Ss: 23 1.5-2 yr. olds, 23 4-5 yr. olds, 23 6-7 yr. olds, served as Ss, 15 adults as controls. Autonomic changes in speech activity were indexed by the reaction of the cardiovascular system: pulse-rate, arterial pressure, EKG. Data suggest that (a) speech is accompanied by the expenditure of energy and by

enhanced activity of the systems for securing gas exchange (respiration and circulation), (b) autonomic reactions can be directly included in the articulatory act itself, (c) autonomic reactions are modified under the action of emotions which almost always accompany human speech.—*I. D. London.*

6024. Watson, Peter. (Trent U., Peterborough, Ontario, Canada) **Individual differences in children's reactions to frustrative nonreward.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 216-234.—Investigated individual differences in children's reactions to frustrative nonreward in a series of 3 exploratory studies. In Exp. I, 22 kindergarten Ss were given a series of double-lever trials in which responses to the 1st lever were reinforced on a 50% schedule while 2nd lever responses were given 100% reinforcement. In Exp. II, Ss were 15 males and 15 females from each of kindergarten, and Grades 2, 4, and 6. Ss were given 8 choice trials with predetermined success or failure outcomes. In Exp. III, 30 male and 30 female Grade 2 Ss were presented the same task as in Exp. II except that 1/2 of the Ss were told the problem would be very difficult and the other 1/2 that it would be very easy. Most Ss between the ages of 5 and 13 yr. tended to show increments in motivation and increased avoidance tendencies after nonreward. Children differed in the latency of these reactions: some Ss demonstrated immediate or short-latency reactions, while in others the reaction was delayed or of long latency. The immediate reaction was relatively more common in younger children and in those with low expectancy of success, while older children and those with high expectancy of success tended more frequently to demonstrate the delayed reaction to nonreward.—*Journal abstract.*

Learning

6025. Ames, Louise B. (Gesell Inst. of Child Development, New Haven, Conn.) **A low intelligence quotient often not recognized as the chief cause of many learning difficulties.** *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(2), 735-739.—Suggests that too often low IQ is not recognized as the problem for inadequate school performance, and proposes that whenever a child is having serious trouble in school, his IQ be checked before a more elaborate search for the cause is undertaken. Illustrative cases are presented to demonstrate other inadequacies which often accompany low IQ, i.e., immaturity and visual problems, and various solutions to the problem of an improvement program.—*M. Maney.*

6026. Di James, Dennis D. (U. Southern California) **The effect of three classes of reinforcement on verbal operant conditioning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 641.

6027. Doan, Helen M. (York U., Ontario, Canada) **Effects of correction and non-correction training procedures on "easy" and "hard" discrimination learning in children.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 459-466.—Examined the effects of correction and noncorrection training procedures on 40 4- and 5-yr-old children's 2-choice simultaneous visual discrimination learning, when either easy or hard tasks were presented. Results indicate that performance on the more difficult problem was facilitated by the use of a correction procedure. There was very little difference,

however, between the group trained with the correction procedure and that trained with the noncorrection procedure on the easy task.—*Journal abstract.*

6028. Fuld, Paula A. (Fordham U., Div. of Foundations, Psychology & Services) **Syntactical mediation of paired-associate learning as a function of age.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 248-256.—Investigated mediational deficiency and productional deficiency in learning pairs of picture names using groups of bright, upper socioeconomic status Ss with mean ages of 56-94 mo. Productional deficiency was circumvented in the experimental Ss by reading a sentence about each pair to them during the 1st trial. The control Ss instead heard the names of the stimuli repeated together. A self-paced anticipation interval was used with a 3-sec presentation of the pairs and no ITI. A steep age gradient was obtained for the control group means, but most of the experimental Ss made virtually no errors. Results support the hypotheses: (a) young children's ability to learn paired associates increase as a function of age, (b) when syntactical links are provided, the paired-associate learning of both younger and older children is facilitated. (17 ref.)—*Journal abstract.*

6029. Goulet, L. R. & Sterna, Harvey L. (U. Illinois) **Verbal-discrimination learning and transfer with verbal and pictorial materials.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 257-263.—Groups of 4th grade children (N = 48) learned a 6-pair discrimination list involving either word or picture materials, followed by discrimination-reversal transfer lists consisting of either picture-equivalent or word-equivalent pairs. The words lists were easier than picture lists in acquisition. On List 2, positive transfer was found on the initial practice trials, with an inhibitory (negative transfer) effect apparent on later trials. The transfer data were in direct accord with predictions generated from the frequency theory of verbal-discrimination learning and support the extension of the theory to discrimination tasks involving nonverbal materials. Transfer functions were highly similar whether the class of materials was the same (Word-Word or Picture-Picture) or was changed (Word-Picture or Picture-Word) on Lists 1 and 2.—*Journal abstract.*

6030. Henderson, Kent. (Ontario Inst. for Studies in Education, Toronto, Canada) **Reaction to success and failure in complex learning: A postfeedback effect.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 206-215.—Gave 60 female 7-10 yr. olds 2 concept identification (CI) problems in which feedback was actually scheduled for 12 presolution and 6 criterion trials in each problem. 5 sec. after each CI trial, S made a 2nd response (R₂) in which she either pulled a lever or pushed a panel under high or low effort. The next CI trial began after a 20-sec interval. R₂ response and movement time was longer following incorrect than correct feedback contrary to expectations generalized from frustration theory. Lever vs. panel and high vs. low effort influenced overall time but no interactions with feedback occurred. The postfeedback effect could be attributed to cognitive or motivational processes that elicit greater response interference following incorrect than correct feedback.—*Journal abstract.*

6031. Hoglund, Janet & Locke, John L. (U. Illinois) **Note on servo theory in children's phonetic learning.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 417-418.—2 groups of 10 matched 4-yr-olds were given the

task of learning a novel phonetic response with or without a previous period of exposure to the stimulus. The 2 groups were very similar in the level and distribution of their learning, suggesting some mild, tentative support for a servo model of phonetic learning.—*Journal abstract.*

6032. Miller, J. F. (U. Wisconsin) **Immediate recall of sentences in pre-school children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 934-935.

6033. Morin, Robert E., Hoving, Kenneth L., & Konick, Dorothy S. (Kent State U.) **Short-term memory in children: Keeping track of variables with few or many states.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 181-188.—Attempted to determine if ability to remember the most recent state of a variable (e.g., that dog was the last animal seen) depends on whether the variable has few or many states. 24 male and 24 female 4-yr-old Ss were used to test the hypothesis in young children. Ss were presented 24 line drawings of 6 familiar objects within 4 variables (e.g., toys: wagon, boat, bike, drum, sled, train). After presentation of 4 items, Ss were asked for the most recent state of 1 variable. Each trial contained an item from each of the 4 variables. Items were presented visually to $\frac{1}{2}$ of the Ss and orally to the others. Recall errors were of a single type: when Ss responded incorrectly they always named an alternate state of the same variable.—*Journal abstract.*

6034. Nolan, J. Dennis & Pendarvis, Leah V. (Ohio State U.) **Effects of variable-irrelevant dimensions on the discrimination reversal learning of nursery school children.** *Journal of Experimental Psychology*, 1970(Dec), Vol. 86(3), 428-433.—48 nursery school children learned color, form, or size discriminations, followed by discrimination reversals. There were either 1 or 2 variable-irrelevant dimensions present in both original learning and reversal. In the original discrimination, size problems were learned more readily than form problems, and form more readily than color problems. The form and color original problems were somewhat more difficult with 2 irrelevant dimensions than with 1 irrelevant dimension. Size problems were learned quickly under both conditions. The form and color reversals were facilitated under 2 irrelevant dimension conditions, but not under 1 irrelevant dimension conditions. The size reversals were accomplished very rapidly under both conditions. Results are discussed in terms of their implications for different models of discrimination learning. (16 ref.)—*Journal abstract.*

6035. Paletz, Merrill D. (Adler Zone Center, Champaign, Ill.) **Prior reinforcement history as an explanation for the effects of sex of subject and experimenter in social reinforcement paradigms.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 227-238.—In this study of the cross-sex effect, it was predicted that children are more satiated for reinforcement from same-sexed adults than for that from opposite-sexed adults, and that social reinforcement from opposite-sexed adults would be the more effective in an experimental situation. It was also predicted that the E who had been neutral in the pretraining would be more effective in the reinforcement condition than the one who had been highly reinforcing. 7-9 yr. old Ss were exposed to a male adult and a female adult E during 2 pretraining games. 1 adult was highly reinforcing, the other neutral. Following the pretraining, 1 of these adults served as the E in a training task of marble dropping.

Only a minor prediction was supported and this support was weak. (30 ref.)—*Author abstract.*

6036. Rice, James A. (U. Houston) **Right-left discrimination: Systematic reversal in bright children.** *Journal of Learning Disabilities*, 1968(Nov), Vol. 1(11), 654-659.—Attempts to clarify the issue of systematic reversal in right-left discrimination particularly as it has relevance for school-related tasks and for visual-motor and visual-memory-motor abilities. A 24-item right-left discrimination test, the Auditory-Vocal Automatic and the Auditory-Vocal Sequencing subtests of the Illinois Test of Psycholinguistic Abilities, the Benton Visual Retention Test, and the Wide Range Achievement Test were administered to 200 kindergarten-3rd grade bright children. Results of chi-squares between reversal (R) and nonreversal (NR) subgroups computed for incidence in grade, sex, and handedness show that: (a) incidence of the R tendency drops markedly from kindergarten to 3rd grade; (b) neither sex nor handedness appear related to the occurrence of the R tendency; and (c) age, particularly at the kindergarten level, appears to be a factor, with R children being younger. It is concluded that since little difference of either statistical or operational significance is apparent between R and NR groups, it is probable that age is a significant factor related to differences in academic achievement, and therefore, the question of a cumulative effect is invalid.—*M. Maney.*

6037. Rosenbaum, Michael. (U. Illinois) **A methodological investigation of social reinforcement studies: The effects of fixed-interval and fixed-ratio schedules on time and rate measures.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 938-939.

6038. Schwenn, Elizabeth A. & Davidson, Robert E. (U. Cincinnati) **Syntactical mediation and transfer.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 440-444.—95th and 6th grade Ss learned 2 paired-associate lists of 15 noun pairs each. The lists conformed either to an A-B, C-D or an A-B, A-C transfer paradigm. 6 alternating study and test trials were given on the 1st list. On the 2nd list, 4 study and test trials were given and independent groups of Ss were given different verbal contexts which linked the members of each pair on the 2nd list (simple declarative sentence, conjunction phrase, or no context). The dependent variable of interest was the number of correct responses on the 1st 2 trials of the 2nd list. Results show that sentences facilitated 2nd list learning over both the conjunction and the no context condition and that conjunctions did not differ from the no context condition. Overall comparison of paradigms indicate significant negative transfer in the A-C condition. While there was a tendency toward less negative transfer in the sentence condition than in the conjunction and no context conditions, the interaction only approached statistical significance.—*Journal abstract.*

6039. Williams, Joanna P. (U. Pennsylvania, Graduate School of Education) **Training kindergarten children to discriminate letter-like forms.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 501-514.—Tested 64 kindergartners on their ability to discriminate 6 Gibson graphemes after 1 of 3 types of training: (a) discrimination training in which transformations of the standards were the comparison stimuli; (b) discrimination training in which the comparison stimuli were very different from the standards; and (c) reproduction training, in which the standards were

traced and copied, and no comparison stimuli were presented. The 1st group was significantly superior to the other 2 groups, which did not differ. Performance also varied as a function of the type of transformation. Implications for the development of effective reading readiness materials and for the appropriate timing of this type of training are discussed.—*Journal abstract.*

Concepts & Language

6040. Corman, Harvey H. & Escalona, Sibylle K. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Stages of sensorimotor development: A replication study.** *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 351-361.—Presents a replication (247 Ss in the cross-sectional samples, and 45 Ss in the longitudinal studies; age range, 9-26.5 mo.) of Piaget's observations on cognitive development and the "construction of a set of scales, designed to measure early cognitive development in terms of sensorimotor stages": prehension, which reflects developmental changes from the lowest level of Stage II, primary circular reactions, to secondary circular reactions when eye-hand coordination and other schemas that combine different modalities are available; object permanence, concerning the establishment of the object concept, external, relatively permanent, and existing independent of the self; and spatial relationships, the capacity to adapt to and comprehend the objective properties of physical space. The scales "lend themselves to purposes different from the purposes of tests of general intelligence": for research and, in a practical sense, to the "design of preventive and compensatory programs for young children."—*R. V. Hamilton.*

6041. de Lemos, Marion M. (Australian Council for Educational Research, Melbourne, Victoria) **The development of conservation in aboriginal children.** *International Journal of Psychology*, 1969, Vol. 4(4), 255-269.—145 8-15 yr. old Ss, from 2 aboriginal settlements in Australia, took tests based upon Piaget's studies of conservation of quantity, weight, volume, length, area, and number. Results generally offer support for Piaget's stages, though conservation (especially of area) tends to develop much later in aboriginal Ss than in European Ss and in some cases does not develop. A further discrepancy involves failure to find an invariant order of development among aboriginals for conservation of quantity and weight. Educational, language, and genetic factors offer possibilities that may account for differences between European and aboriginal Ss. (38 ref.)—*S. E. Gavin.*

6042. Fredrick, Wayne C. (U. Wisconsin) **Reliability of measures from 500 written words.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 126.—Gives data on the reliability of the K. W. Hunt measures of sentence maturity when 500-word samples are used. The themes of 135 8th graders were collected weekly for 6 wk. and samples of at least 1000 words were extracted and scored on 16 of the measures used by Hunt. It was found that "samples much larger than 500 words are needed to give a reliable indication of the kinds of subordinate structures used, but for scores such as clause length, ... [the shortest grammatical units into which sentences can be segmented without producing sentence fragments], and sentence length, the reliability of the 500-word sample may ... be sufficient."—*M. West.*

6043. Harlen, W. (Bristol U., Inst. of Education, England) **The development of scientific concepts in young children.** *Educational Research*, 1968(Nov), Vol.

11(1), 4-13.—Reviews the research concerning the effects of maturation and experience on the development and acceleration of concept formation. Piaget's analysis of the development of scientific concepts in young children is discussed, and 3 main types of research are considered: the observation of concept formation after (a) unguided experiences, (b) guided experiences over an extended period of time, and (c) short-term training in specific activities. Generally, training effects lasted at least for a short time, and it is concluded that "... certain experience does aid concept formation, but only within limits ... determined by the type of experience and the child's point of development when exposed to it." (27 ref.)—*R. Wiltz.*

6044. Heron, Alastair & Simonsson, Märta. (U. Zambia, Lusaka) **Weight conservation in Zambian children: A non-verbal approach.** *International Journal of Psychology*, 1969, Vol. 4(4), 281-292.—African and European schoolchildren attending Zambian schools served as Ss in a nonverbal approach for determining weight conservation ability. Ss first received practice with scale weights. Next they experienced obviously equal and obviously unequal balls of plasticine. Finally they took the Piagetian test itself. Results show that 40-50% of urban African Zambian primary schoolchildren fail to demonstrate conservation of weight by age 15. At early ages, however, the proportion of conservers among Zambian children is comparable with that found elsewhere. Data from the control group of Ss of European extraction and upbringing are like those reported from Switzerland and the United States in studies using the classical Geneva method. Factors related to later elementary school years appear to account for deficits in proportions of conservers from age 10 onwards. Studies of young adult nonconservers may cast light on the basis for deficit. In general, the nonverbal method for testing conservation works satisfactorily. (16 ref.)—*S. E. Gavin.*

6045. Ilan, Leila C. & Tan, Allen L. (U. Philippines, Manila) **Attribution of punishment among Filipino children.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 4-7.—In a test of Piaget's proposed 2 stages of morality, a group of 3rd and 6th graders were presented with 3 stories each involving some misbehavior and were asked to write down what they thought should be done to the offenders. In 1 story, the misbehavior was accidental; in another story, it was intentional; while in the 3rd story, motives were present but no consequence ensued. Analysis of variance performed on the data resulted in a negligible Grade \times Conditions-of-Misbehavior interaction which was contrary to Piaget's theory of moral development. The analysis revealed that females, as well as younger children, tend to be more punitive while all children regardless of age, seem to consider intentions more than consequences in attributing punishments.—*Journal abstract.*

6046. Keislar, Evan R. & Stern, Carolyn. (U. California, Los Angeles) **Differentiated instruction in problem solving for children of different mental ability levels.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 445-450.—During an 8-day instructional program, 82 high-IQ 2nd and 3rd graders assigned to 3 levels (4th, 5th, and 6th grade), were taught to solve problems based on discovering the rule for matching, using either a simple gambler's strategy or a more complex hypothesis testing approach. On each of the 3 criteria (posttest, transfer, and retention), Ss in the

high-ma group who were taught the complex strategy were superior to those taught the simple strategy: the reverse was true with the low-ma group. The disordinal interaction was significant ($p < .05$) for both posttest and transfer.—*Journal abstract.*

6047. Kendall, Martha B. & Sibley, Ralph F. (U. New Hampshire) **Social class differences in time orientation: Artifact?** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 187-191.—Replicated L. L. LeShan's (see PA, Vol. 27:3494) study which reported class differences in the time spans of children's stories. In this replication, 20 lower-class and 18-middle-class 6th graders told stories about a picture. LeShan's finding that middle-class stories covered a longer time span was supported. Middle-class Ss, however, also told longer stories and used more past tense verbs than lower-class Ss. Analysis of the results indicated that time span may have been an artifact of story length.—*Journal summary.*

6048. Kershner, John R. (U. California, Los Angeles) **Children's spatial representation of directional movement and figure orientations along horizontal and vertical dimensions.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 641-642.—Tested 160 1st grade children for their ability to conserve multiple spatial relations. An analysis of task-related errors supported J. Piaget's distinction between perceptual and representational space as well as the importance of eye-hand movement and the relative position of objects in the perceptual field. Ss with a preference for their right hand and left eye showed more success in reproducing spatial relations than Ss with right-hand and right-eye preference. Results support a visual-imagery mode of representation but not the importance of verbal knowledge or activity. The significance of mixed lateral dominance to spatial orientation was seen to be consistent with neurophysiological evidence.—*Journal abstract.*

6049. Kingsley, Phillip. R. (U. Michigan) **Developmental changes in children's use of language: Relationships with certain aspects of cognitive development.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 931.

6050. Kingston, Albert J. & Weaver, Wendell W. (U. Georgia) **Feasibility of cloze techniques for teaching and evaluating culturally disadvantaged beginning readers.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 205-214.—182 1st graders in rural, white schools in North Carolina and Georgia were taught to complete deletions in the natural language. These completed deletions were then used to study oral and written language performance by the Ss. It was found that 1st graders performed the tasks presented and that the measures offered promise for use in evaluating the relationship of the child's oral language performance to his performance with reading tasks. The 6 cloze tasks were better predictors of end-of-course standard reading test scores than were the readiness and basal reader instruments.—*Journal summary.*

6051. Klindová, L'uboslava. (Research Inst. of Pedagogy, Bratislava, Czechoslovakia) **O niektorých osobitostach triedenia predmetov u detí od 3 do 7 rokov.** [Some problems in the classification of child development.] *Jednotná Škola*, 1969(Jan), Vol. 21(1), 46-60.—Reviews special features of classification by 3-7 yr. old children. 2 variations in the process of classification of objects by the picture method are discussed: forming categories from individual pictures, and forming

exclusion categories by removing objects that do not belong. Evaluation is made according to the number of correct classification operations and according to verbal expression given by the children for their operations. Survey results show that the development rate in children is not the same in all age groups, i.e., increase and slowing down often alternate and there is often a period of stagnation especially in the case of 7 yr. olds. It is concluded that, from the quantitative viewpoint, the standard of classification ranges from random grouping without a definite classification criterion, to a comparatively high level criteria of a different hierarchy. (Russian summary)—*English summary.*

6052. Lloyd, Barbara B. & Light, Richard A. (U. Sussex, England) **Cognitive stages of dream concept development in English children.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 271-272.—A questionnaire designed to diagnose stages in dream concept development was administered to 40 3-9 yr. old English Ss. Guttman scalogram analysis showed that the 6 stages approximated the invariant, unidimensional scale described by Kohlberg. A Spearman rank-order coefficient showed a high positive relationship between age and stage. Results support a stage hypothesis and offer further evidence of the role of maturation in dream concept development.—*Author abstract.*

6053. Peisach, Estelle & Wein, Norman. (New York U., School of Education) **Relationship of conservation explanations to item difficulty.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 167-180.—The relevance of explanations as a measure of a child's understanding of the principle of conservation has been critically questioned. The relationship between the type of explanation and difficulty level of the conservation task was studied on the assumption that changes in the distribution of explanations, as a function of item difficulty, would demonstrate the pertinence of the explanation as a measure of conservation. The frequency of various explanations of 180 children classified by grade (kindergarten, 1st and 2nd), sex, socioeconomic status level, and a conservation score independent of explanation, were examined in relation to the difficulty level of 7 conservation items. Changes in response obtained relative to the difficulty level of the items suggest that inability to express cogent reasons for conservation is reflective of a lower level of conservation conceptualization.—*Author abstract.*

6054. Roodin, Marlene L. & Gruen, Gerald E. (Purdue U.) **The role of memory in making transitive judgments.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 264-275.—Attempted to determine the effect of a memory aid on children's transitive judgments. $\frac{1}{2}$ of the 24 middle-class Ss at 5, 6, and 7-yr-old were allowed to use a memory aid for initial comparisons ($A > B$ and $B > C$) while the other $\frac{1}{2}$ were not. Ss responses were evaluated according to 2 criteria: (a) correct (transitive) judgment alone (i.e., $A > C$), and (b) correct judgment plus verbal explanation of the transitive judgment. Ss given the memory aid made significantly more transitive judgments and correct verbal explanations of transitivity at every age level. Transitivity increased monotonically as a function of age. Virtually all Ss who could verbally explain transitivity also made correct, transitive judgments, although the converse was not true.—*Journal abstract.*

6055. Rothenberg, Barbara B. & Courtney, Rosalea G. (Education Testing Service, Princeton, N.J.) **A devel-**

opmental study of nonconservation choices in young children. *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 362-373.—The factor of proximity, in addition to length, density, and manipulation, in young children's nonconservation choices was included in this study which showed that young Ss (2.5-3.3 yr. old) tended to select primarily on the basis of closeness while the older Ss (5.3-6.2 yr. old) tended to choose on the basis of length; lower socioeconomic Ss tended to choose on the basis of closeness and sometimes manipulation, while the middle socioeconomic Ss tended to choose on the basis of length; and that significant sex differences did not emerge.—*R. V. Hamilton.*

6056. Schell, Donna J. (U. Michigan) **Development of unidimensional concept behavior in children: Verbal and nonverbal control.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 902.

6057. Schwager, Melvin S. (U. Illinois) **The experimental acquisition of the concept of conservation of number in young children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 648.

6058. Seggie, J. L. (U. Newcastle, New South Wales, Australia) **The utilization by children and adults of binary propositional thinking in concept learning.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 235-247.—An analysis of conjunctive concepts based on 2 binary stimulus dimensions reveals that the relationship between the individual relevant stimuli and classification is 1 of implication. In the case of irrelevant dimensions a tautologous relationship exists. J. Piaget's contention was tested that adult Ss can utilize such relationships in problem solving, while children have difficulty in this area. 2 groups of 14 12-13 yr. olds and 2 groups of 14 undergraduates learned a conjunctive concept. Prior to concept learning $\frac{1}{2}$ of the Ss were given the opportunity to establish the logical relationships which existed between the individual dimensions and the classification. These Ss learned the concept with significantly fewer errors than the remaining Ss. The adults were relatively more efficient in the utilization of the logical relationships than the children. During the preconcept learning period interesting differences appeared in the search strategy of adult and child Ss, differences not encompassed by Piagetian theory.—*Journal abstract.*

6059. Stones, E. (U. Birmingham, School of Education, England) **Verbal labelling and concept formation in primary school children.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 245-252.—Gave 30 primary school children aged 7, 9, and 11 yr. old, the standard Vigotsky sorting task and labeled specially constructed extension tests utilizing 3-dimensional everyday objects and 3-dimensional drawings of objects. 30 other children of the same ages were given identical tasks except that the nonsense syllables were omitted from the base of the experimental blocks. The English Picture Vocabulary Test was also administered on a group basis as a test of language ability. Most of the Ss using the labeled blocks, but hardly any Ss using unlabeled blocks, succeeded in the extension tests. The extent to which these results bear on the problem of the relationship between concept formation and the use of language is discussed. (19 ref.)—*Journal abstract.*

6060. Vanyushkina, L. N. (Moscow State U., USSR) **Vyrazitel'nye komponenty naglyadno-deistvennogo myshleniya u detei rannego vozrasta.** [Expressive components of visually active thinking in children of

early age.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 139-142.—Ss were 13 15-29 mo. old children. Right-handed tasks were accompanied by first imitative and then anticipatory movements of the fingers of the left hand, which reflects the processes of visually active thinking. The findings are summarized.—*I. D. London.*

6061. Weiss, A. A. (Hebrew U., Jerusalem, Israel) **Bender-Gestalt performance and concept formulation.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 76-81.—Developed a 16-item multiple-choice-type series of graphic stimuli to test the presence or absence of certain concepts implied in the developmental improvement of the execution of the Bender-Gestalt (B-G) test in small children. 26 kindergarten children and 26 1st graders were individually administered the B-G and Concept tests. No sex differences were found but significant differences were obtained on both instruments between the 2 age groups. While the presence of the concepts concerned is significantly related to the level of execution in kindergarten Ss, the correlation was nonsignificant in 1st graders. Bender's developmental table and raw data show that improvement beyond age 7 is not dependent on concepts except those of numbers and the diagonal, and the ability to integrate 2 principles.—*Journal abstract.*

Abilities

6062. Arreola, Raoul A. **An investigation of the development of six structure-of-intellect factors.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 639.

6063. Carvalhaes Bonilha, Lúcia. (Pontificia Universidade Católica, São Paulo, Brazil) **Definição de palavras como um instrumento de apreciação da inteligência infantil.** [Word definition as a tool in the appraisal of child intelligence.] *Revista de Psicologia Normale Patológica*, 1968(Jul), Vol. 14(3-4), 123-134.—On the basis of work with 7-yr-old Brazilian children, a 30-word list to be defined was elaborated empirically. Response to a word merited 2, 1, or 0 points, and objective norms of correction were established. Ss were 300 elementary Brazilian students of middle socioeconomic level, divided by age into 10 groups with 6-mo intervals, balanced in sex, and with Ss in each group at the same scholastic level. Statistical analysis of results show (a) sensibility of the technique to age significant to the .01 level, (b) a high reliability coefficient, and (c) verification that the technique differentiates same age Ss. (French summary)—*English summary.*

6064. Dusek, Jerome B. (U. Illinois) **An investigation of experimenter bias in the performance of children at a simple motor task under conditions of social reinforcement and nonreinforcement.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 927-928.

6065. Fischbein, E., Pampu, Ileana, & Minzat, I. (Inst. of Psychology, Bucharest, Romania) **Effects of age and instruction on combinatory ability in children.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 261-270.—Investigated the effect of direct instruction on the ability to handle permutations and arrangements, as an example of a problem at the level of formal operations. 60 Bucharest schoolchildren, 20 each aged 10, 12, and 14 yr. tested individually, 1st estimated the number of possible permutations with 3, 4, and 5 objects.

Results show that these subjective estimates improved with age, with a threshold (or marked improvement) at age 12, though there was serious underestimating at all ages. A step-by-step teaching strategy using generative "tree diagrams" was then used. Even the 10 yr. olds learned the use of the tree diagrams and the appropriate procedures for permutations and arrangements. (16 ref.)—*Journal abstract.*

6066. Golden, Nancy E. & Steiner, Sharon R. (School District 54, Schaumburg, Ill.) **Auditory and visual functions in good and poor readers.** *Journal of Learning Disabilities*, 1969(Sep), Vol. 2(9), 476-481.—Investigates the relationship between specific auditory and visual functions and reading performance. 10 pairs of 2nd graders matched as good and poor readers on the basis of MA, IQ, and CA were tested with several subtests from the revised Illinois Test of Psycholinguistic Abilities and the Monroe Visualization Test. Findings suggest that poor readers were lacking primarily in auditory functions rather than visual. (15 ref.)—*Journal abstract.*

6067. Keogh, Barbara K. (U. California, Los Angeles) **The copying ability of young children.** *Educational Research*, 1968(Nov), Vol. 11(1), 43-47.—Administered the Bender Gestalt and Draw-A-Person tests to groups of 8-14 English schoolchildren to provide norms for evaluating performance on these tests when group administered. The 343 5-9 yr. old children were of varied socioeconomic and geographic background and were drawn from 6 state schools in the English Midlands. Generally results are consistent with previously published American norms for individually administered tests, although present scores on the Bender Gestalt are consistently, but insignificantly poorer for all age groups. It is suggested that the finding may be the result of the group administration procedure. Other findings included (a) a significant difference between 8-yr-old boys and girls on the Bender Gestalt, (b) consistently poorer scores by 1 school in the poorest socioeconomic area on the Bender Gestalt, (c) significant correlations between the 2 tests at each age, and (d) demonstration of certain types of errors on the Bender Gestalt which seemed to be typical of various age groups.—*R. Wiltz.*

6068. Martin, Felix. (U. Georgia) **Questioning skills among advantaged and disadvantaged children in first grade.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 617-618.—The evaluation of questioning skills among 1st grade children (100 advantaged and 100 disadvantaged) on the question-asking activity of the Torrance Tests of Creative Thinking utilized an 11-category system of classification for analysis. A comparison of the categories indicate that the disadvantaged Ss seem to be at a lower developmental level of question-asking skills than their advantaged counterparts.—*Journal abstract.*

6069. Very, Philip S. & Iacono, Carmine H. (Rhode Island Col.) **Differential factor structure of seventh grade students.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 239-251.—203 7th graders (107 males, 96 females) from a New England junior high school were tested on the Developmental Battery of Intellective Abilities. The study was designed to investigate the factorial structures of the age differentiation hypothesis. This hypothesis was supported by the following results as predicted: numerical facility and perceptual speed were a single factor at this age level; a purely verbal factor was not found as in college students

but rather a verbal reasoning factor. No inductive reasoning factor was present in the females; general reasoning was not found as expected, and symbolic reasoning in males, estimative ability in males, and arithmetic reasoning in both groups were found as predicted. In general male factors were more differentiated and clearer than those of females; 7 factors were found in males and 5 factors were found in females, which further supports the sex differences predicted. (19 ref.)—*Author abstract.*

6070. Willerman, Lee; Naylor, Alfred F., & Myrianthopoulos, Ntinios C. (U. Michigan) **Intellectual development of children from interracial matings.** *Science*, 1970(Dec), Vol. 170(3964), 1329-1331.—Reports that interracial offspring of 61 white mothers obtained significantly higher IQ scores at 4 yr. of age than interracial offspring of 27 Negro mothers, suggesting that environmental factors play an important role in the lower intellectual performance of Negro children.—*Journal abstract.*

Perception

6071. Abravanel, Eugene. (George Washington U.) **Choice for shape vs. textural matching by young children.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 527-533.—Choice for shape vs. textural matching of stimulus materials by means of active touch was studied intra- and intermodally in 130 preschool children. A significant trend toward matching by shape was present as early as ages 4 and 5 under both intra- and intermodal conditions. This finding is contrary to those of other investigations of preference for shape vs. texture matching and discrimination learning in children. This discrepancy is resolvable in terms of recent evidence on the nature of perceptual activity and exploration by young children which highlights the interaction between stimulus materials and mode of exploration for determining what is perceived. (15 ref.)—*Journal abstract.*

6072. Cohen, S. Alan. (Yeshiva U.) **Studied in visual perception and reading in disadvantaged children.** *Journal of Learning Disabilities*, 1969(Oct), Vol. 2(10), 498-507.—Summarizes findings from a 1st grade study, a secondary school study, clinical studies, and a letter reversals study concerned with perceptual dysfunctions in urban low socioeconomic status children. Results suggest that tests of visual perception are tapping behaviors used to construct IQ tests; therefore, while visual perception training might raise IQ scores, changes in more practical areas do not automatically follow. It is concluded that it is not necessary to teach visual-perceptual-motor behaviors in order to teach disadvantaged underachievers to read, but more attention should be given to spatial orientation of letters both in isolation and in sequences. Critiques by G. N. Getman, C. D. Benton, G. B. Schiffman, and B. Bateman follow the article.—*M. Maney.*

6073. D'Agata, G., Boiardi, A., & Lanzi, G. **La percezione di figure nascoste in soggetti d'età scolare.** [Perception of hidden figures in school age subjects.] *Neuropsichiatria*, 1968(Jan), Vol. 24(1), 51-64.—A positive correlation was found between general intelligence and performance on figure-background discrimination; ($r = +.75$) using a new hidden-figures test developed by the authors.—*L. L'Abate.*

6074. Fatouros, M. & Glick, J. (U. Thessaloniki, Greece) **The influence of identity of objects on**

whiteness constancy. *Ergonomics*, 1970(Jan), Vol. 13(1), 89-91.—Reports an experiment with 32 7- and 11-yr-old boys in 4 groups, investigating whether judgment concerning the relative whiteness of objects is influenced by their degree of similarity, or by their shape. Results indicate that (a) comparisons were better between identical objects, and (b) types of differences between nonidentical objects were not important. (French & German summaries)—*Journal abstract*.

6075. Koetting, James F. (U. Houston, Coll. of Optometry) **Word recognition as a function of locus in the four lateral visual fields: The Iota phenomenon.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1970(Jan), Vol. 47(1), 56-66.—Evaluated performance in each of the 4 lateral visual fields using 3-letter English words. A search was made for observable superiority of word recognition in any 1 of the fields or in their various combinations. Apparatus included a modified stereoscopic viewing device and tachistoscopic mechanism for presenting targets in positions laterally displaced from the point of fixation at a typical reading distance. Ss were 46 5th grade children. A superiority of performance was found in the right binocular field as compared to the left, and in the total field of the left eye as compared to that of the right. Superiority of performance found in the nasal field of the left eye is apparently responsible for these differences. Results support the position that the numerical superiority of nerve fibers servicing a given retinal locus and its associated visual field is not the responsible factor for superior performance in recognizing words, and that a learned postexposural processing of information influenced by the nature of the stimulus-target is involved in what is perceived. A dominance of the left cerebral hemisphere for word recognition and reading is also suggested. (15 ref.)—*Journal abstract*.

6076. McFarland, Richard A. (California State Coll., Fullerton) **Reinforcement in figure-ground perception.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 403-407.—2 parts (faces) of a reversible figure were differentially reinforced by giving S money whenever he was shown 1 of the faces and taking money from him whenever he was shown the other face. Ss were 24 8-12 yr. old children. After reinforcement trials, Ss located the face previously associated with reward reliably more rapidly than the other face. Results indicate that changes in figure perception may be influenced by past histories of reward and punishment associated with the figures.—*Journal abstract*.

Personality

6077. Chiva, A. M., Fontaine, M. A., & Santucci, H. (15 quai Anatole France, Paris, France) **Les mécanismes de contrôle chez l'enfant au test de Rorschach et dans des activités psychomotrices.** [The child's mechanisms of control in the Rorschach and in psychomotor activities.] *Enfance*, 1970(Jan), No. 1, 47-54.—2 groups of 20 and 18 Ss each (median ages = 9.2 and 12½ yr., respectively) were each divided into 2 categories on the basis of their reaction to stress. Group 1 were those who internalized and Group 2 were those who "exteriorized." In the younger age group exteriorizers predominated but in the older group, the proportions of internalizers and exteriorizers were about equal. All Ss were given 3 psychomotor tests and the Rorschach. A general tentative conclusion is that the

behavior and test data are in agreement and that the degree of validity is such that a more extensive study will be undertaken.—S. S. Marzolf.

6078. Eisenman, Russell & Brownstein, Gary M. (Temple U.) **Restriction of emotional release and creativity.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 647-650.—Studied environmental effects on creativity in children, by placing 55 4th graders in 1 of 3 treatment groups: frustration and emotional release, frustration and no emotional release, or control. Changes in fluency and originality were investigated, as well as correlations among these measures and with IQ. Significant results suggest that the frustration may have energized Ss, leading to greater fluency and originality. However, these conclusions are tentative, especially because of little correlation among the measures, in contrast to the finding of R. Eisenman for adults, but similar to the finding of K. G. O'Bryan and R. S. MacArthur who also tested young children and found no originality or fluency factors.—*Journal abstract*.

6079. Eppes, John W. (Emory U.) **The effect of varying the race of the experimenter on the level of aspiration of externally controlled inner city school children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 912.

6080. Kemmler, Lilly; Windheuser, Heinz J., & Morgenstern, Frieder. (U. Münster, Psychological Inst., W. Germany) **Gruppenanwendung von "Plaget"-Geschichten zum moralischen Urteil bei acht- bis neunjährigen Jungen im Vergleich mit einigen anderen Variablen.** [Group application of Piaget-type stories for the moral judgment in eight- and nine-year-old boys in comparison with some other variables.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(2), 113-124.—Based on Piaget's theory of development of moral judgment in children, a multiple-choice questionnaire was constructed including 12 stories based on Piaget's thinking regarding a number of dimensions, e.g., distributive vs. retributive justice, or attitude towards punishment. The sample consisted of 146 4th grade boys in Germany. Rank-order correlation showed significance (.01) for the total score of the questionnaire as well as for the punishment stories. Correlations with intelligence, school achievement, and perceived responsibility for success and failure were moderate. Significant relations also exist with occupational status of father, i.e., there were higher scores for boys of white-collar workers. No relation to religious confession exists. (English summary) (23 ref.)—R. F. Wagner.

6081. Kreidler, Hans & Kreidler, Shulamith. (Tel Aviv U., Israel) **Dependence of laughter on cognitive strategies.** *Merrill-Palmer Quarterly*, 1970(Apr), Vol. 16(2), 163-177.—Since the absurd is a most potent stimulus for laughter but does not always evoke laughter, it was assumed that facilitatory conditions must be operative in addition to the stimulus. The hypothesis that cognitive strategies play a determining role as facilitatory conditions for laughter was tested by asking 92 5½-yr-old Ss of European and Oriental origin to express their opinion about 15 pictures depicting absurd situations. The results show that laughter and smiling appeared at a significant frequency only when the following cognitive strategies were adopted: identification of the absurd with criticism, or wonder, or mockery. The only inhibiting cognitive strategy was a mere description of details. Nonfacilitatory cognitive

strategies were: irrelevant criticism, a mere statement of theme not noting or identifying the absurd, and those which consisted of active attempts at resolving the absurd on the level of reality, or fantasy, or through denial. (49 ref.)—*R. V. Hamilton.*

6082. Lickona, Thomas. (State U. New York, Albany) **Piaget misunderstood: A critique of the criticisms of his theory of moral development.** *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 337-350.—Attempted to "demonstrate that Piaget's ideas about the development of moral judgment have been widely misunderstood and thus, for the most part, inadequately tested. A meaningful overall evaluation of his theory must await the accumulation of research which is based on a clear understanding of his concepts as he presents them. There is at present, little reason for rejecting Piaget's original and persuasive conceptualization of the developmental changes which occur in children's comprehension of morality." (25 ref.)—*R. V. Hamilton.*

6083. Mackenzie, Carolyn S. (U. Maryland) **Motor inhibition and capacity for delay of gratification in two classes of Negro boys.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 665.

6084. Milgram, Norman A.; Shore, Milton F., Riedel, Wolfgang W., & Malasky, Charlotte. (Temple U., Coll. of Education) **Level of aspiration and locus of control in disadvantaged children.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 343-350.—Compared culturally disadvantaged and advantaged 6-yr-old Ss on level of aspiration and locus of control. No differences between disadvantaged Negro and white Ss were found on either measure, but disadvantaged Ss in general were characterized by higher and less accurate levels of aspiration on specific performance tasks and by less internal locus of control.—*Journal abstract.*

Social Behavior

6085. Breyer, Norman L. & May, Jack G. (U. Connecticut) **Effect of sex and race of the observer and model on imitation learning.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 639-646.—Investigated the effects of sex and race of O and model characteristics, verbal, motor and total numbers of imitative responses, within a $2 \times 2 \times 2 \times 2 \times 3 \times 4$ repeated measures design which also assessed the effects of idiosyncratic model effects within each model characteristic. Ss were 96 Negro and white, male and female 60-72 mo. old children. Data collectors were 24 18-26 yr. old adults, representing each race-sex combination. Analysis of the verbal imitation data indicate that Negro females imitated more than Negro males while white males imitated more than white females. Analysis of the motor and total imitation resulted in similar significant effects. In both cases, a significant race of S effect and an interaction effect between race of S, sex of model (M) and exposure trials are reported. An analysis of the motor imitation data yielded a significant race of S by team of model effect and a 4-way interaction between sex of S, sex and race of M, and exposure trials. (17 ref.)—*Journal abstract.*

6086. Bugental, Daphne E., Kaswan, Jaques W., & Love, Leonore R. (U. California, Los Angeles) **Perception of contradictory meanings conveyed by verbal and nonverbal channels.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 647-655.—Acted, videotaped messages containing conflicting

inputs (friendly or unfriendly) in verbal (content), vocal (tone), and visual (facial expression, etc.) channels were shown to 80 5-12 yr. old children and their parents (N = 80). Joking messages (criticisms said with a smile) were interpreted more negatively by children than adults; this age difference was most pronounced for female joking. There was also a general difference in the ratings of conflicting messages from men and women: women were rated as more negative (unfriendly). A linear model was found to be inadequate in accounting for the integration of conflicting messages; a strong interaction was found between verbal and vocal channels (a positive input in 1 channel was discounted if the other channel was negative). (16 ref.)—*Journal abstract.*

6087. Kuhn, Deanna Z. (U. California, Berkeley) **Patterns of imitative behavior in children from 3 to 8: A study of imitation from a cognitive-developmental perspective.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 900-901.

6088. Northway, Mary L. (U. Toronto, Inst. of Child Study, Ontario, Canada) **The stability of young children's social relations.** *Educational Research*, 1968(Nov), Vol. 11(1), 54-57.—Reports the results of a long-term study in which 3-choice, 3-criteria sociometric tests were administered twice a yr. to all children enrolled in the Institute of Child Study at a Canadian university. 3 analyses of the sociometric status of children were made: (a) scores from 8 tests for 10 Ss from kindergarten to Grade 3 reveal high correlations between scores at various points on the grade level continuum; (b) over 2000 scores for all Ss between junior nursery and Grade 5 who had taken 2 or more tests indicate that scores between any 2 immediate testing points are highly significantly correlated, and that the level of significance is inversely related to distance between testing points and directly related to age at testing; and (c) analysis of scores from 3 different groups of Ss who attended school with those in their group revealed that although combined scores reflected the general trend, the groups differed considerably from each other in the degree of sociometric stability. It was also found that the degree of stability follows different patterns for girls and boys, with the former being more stable in early years, and the latter being more stable in later years. It is suggested that physiological predisposition, relationships with adults, and early experience in the peer group all play a role in determining social potential.—*R. Wiltz.*

6089. Witt, Peter A. & Gramza, Anthony F. (U. Illinois, Children's Research Center) **Position effects in play equipment preferences of nursery school children.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 431-434.—Studied the position preferences of 4 groups of nursery school Ss (N = 35) in a laboratory playroom. A large and small trestle were interchanged between center and corner positions in a series of play sessions. The frequency with which Ss used trestles in each position was recorded. A significant difference between sessions for 3 groups indicate that the trestle in the center position received more use than the 1 in the corner. Also, the large trestle placed in the center was used more than the small trestle when it was in the center position. The interaction of position and trestle size is noted along with the importance of studying other specifiable parameters affecting a child's use of play equipment.—*Journal abstract.*

6090. Wurm, Carolyn A. (U. Maryland) **An ex-**

ploration of temptation behavior in preschool children: Its measurement and modification. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 403-404.

Parent-Child & Family Relations

6091. Hore, Terry. (Monash U., Clayton, Victoria, Australia) **Social class differences in some aspects of the nonverbal communication between mother and preschool child.** *Australian Journal of Psychology*, 1970(Apr), Vol. 22(1), 21-27.—Although it has been a common finding that social class differences exist in the use of language, it is not known whether nonverbal communication is also used differentially by different socioeconomic status groups. Videotaped recordings were made of the interactions between 2 divergent SES groups of 15 mothers and their preschool children in 2 situations. Data were analyzed with respect to 3 nonverbal variables. It was found that low SES mothers used more physical contact during a practical task; no difference existed between the SES groups on physical closeness during the tasks; the high SES mother-child pairs exchanged more mutual glances. (24 ref.)—*Journal abstract*.

6092. Osofsky, Joy D. (Syracuse U.) **Situational variability of parental behavior in controlled tasks.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 382-383.

6093. Schecter, David. **El complejo de Edipo: Consideraciones sobre el desarrollo del ego y la interacción parental.** [The oedipal complex: Considerations on ego growth and parental interaction.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969, No. 11, 25-46.—Examines the appearance and resolution of the oedipal phase of human development from 2 viewpoints: (a) the cognitive-affective development of the child as it advances from a symbiotic social unit of 2 persons toward the interpersonal world, which is essentially oedipal or triangular; and (b) the familial and parental response to this development when oedipal conflicts appear. The solution of oedipal conflicts are considered, exposing the transactional nature of the reciprocal forces upon which depend healthy or pathological resolutions of the oedipal phase. (34 ref.)—*P. Hertzberg*.

6094. Tracy, Michael L. (U. Michigan) **The effect of feedback and information on child rearing styles.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 649.

6095. Troll, Lillian E., Neugarten, Bernice L., & Kraines, Ruth J. (Merrill-Palmer Inst., Detroit, Mich.) **Similarities in values and other personality characteristics in college students and their parents.** *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 323-336.—Resemblances were greater in values than in other domains for 100 white college students and the 2 parents of each, with somewhat greater similarities between parent-parent than between parent-child. "There was no evidence of greater resemblance in one than in another of the 4 parent-child dyads: mother-son, mother-daughter, father-son, father-daughter. The resemblances did not seem related to any 1 of 8 characteristics of family structure or family emotional climate, although the findings suggested that general cohesiveness and integration of the family may be of some influence." (31 ref.)—*Journal summary*.

ADOLESCENCE

6096. Belfort, Anne D. (Purdue U.) **Teenager's knowledge and attitudes concerning child-rearing practices related to N variables.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 894-895.

6097. Holmes, M., Nicol, C., & Stubbs, R. (U. London, Inst. of Education, England) **Sex attitudes of young people.** *Educational Research*, 1968(Nov), Vol. 11(1), 38-42.—Surveyed 152 teenagers attending a venereal disease (VD) clinic in London and compared their background to that of cross sections of healthy young people reported in another study. Major findings were that the experimental group, relative to the control group: (a) came from similar normal home backgrounds; (b) disliked school, did poorly in it, and left school early; (c) had similar sex education background; (d) were more sexually experienced; and (e) similarly would have desired more sex education at school. It is concluded that adequacy of sex education in school is not a major factor in preventing the control group from contacting VD, and VD education should be given before age 15 to be useful.—*R. Wiltz*.

6098. Loberg, David E. (U. Nevada) **Adolescent attitudes toward authority.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 826.

6099. Orleans, Edward L. (Illinois Inst. of Technology) **Family interaction personality development and vocational choice in adolescent males.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 919-920.

6100. Propper, Martin M., Klaune, Virginia, & Murray, John B. (St. John's U., Jamaica, N.Y.) **Alienation syndrome among male adolescents in prestige Catholic and public high schools.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 311-315.—Found dimensions of A. Davids' alienation syndrome—egocentricity, distrust, pessimism, anxiety, and resentment—among 40 Catholic parochial high school (CHS) males were comparable to those reported for 80 predominantly Jewish public high school (PHS) males. These dimensions were assessed by projective and direct techniques. CHS showed no significant differences from PHS on all 3 measures but significantly more variability on the direct test. These startling commonalities among adolescent populations differing in social class and religious affiliation present strong evidence that CHSs are not immune to the winds of change sweeping our universities and PHSs. Future research should determine whether these dimensions of alienation represent a normative trend, a transitory phenomena or a deviant aspect of psychological development among modern adolescents. (17 ref.)—*Journal abstract*.

ADULTHOOD & OLD AGE

6101. Harwood, Elsie & Naylor, G. F. (U. Queensland, St. Lucia, Australia) **Rates of information-transfer in elderly subjects.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 127-136.—Assessed the maximum rate of information acceptance (MIA) of approximately 185 60-90 yr. old Ss for 3 perceptual tasks of graded difficulty. Results are compared with those of a control group of 42 young adults. MIA was found to be lower in elderly than in young Ss, and to decline consistently through the 7th, 8th, and 9th decades. The rate of decline was greater with perceptual material of an unfamiliar

nature, and where the information has to be accepted from more than 1 source simultaneously. Although the average performance of elderly Ss was consistently lower than that of younger Ss, the range of scores was such that, except in the most difficult situations, some elderly Ss achieved results well ahead of the younger average. MIA calculated in this manner was closely correlated with the WAIS scaled score totals, and with the subtest totals, especially those in the performance section. The effectiveness of much, if not all, cognitive function may be limited by rate of information acceptance. (14 ref.)—*Journal abstract.*

6102. Kahn, Edwin; Fisher, Charles, & Lieberman, Lois. (Mt. Sinai School of Medicine, New York, N.Y.) **Sleep characteristics of the human aged female.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 274-278.—Studied the sleep of 10 normal 66-87 yr. old women for 4 or 5 nights. The amount of REM sleep was not statistically different from the amount previously reported for the elderly male. The elderly male had significantly more 1st NREM periods shorter than 45 min. than the elderly female. This may reflect slight brain changes in the male not yet evident for the female. As previously reported for the male, REM sleep was quite markedly reduced in the oldest female S of this sample. (23 ref.)—*Journal summary.*

6103. Levine, Nira R. (U. Virginia) **Validation of the Quick Test for an elderly population.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 646.

6104. Sheppard, Harold L. (Ed.) **Toward an industrial gerontology: An introduction to a new field of applied research and service.** Cambridge, Mass.: Schenkman, 1970. viii, 165 p. \$7.95.—A collection of papers by various authors based on proceedings of a 1968 seminar of the National Council on the Aging, covering the problems of employment faced by the aging. Topics covered include various aspects of industrial gerontology, training of older workers, achievement motivation, age discrimination, and applied research and attitudinal change.

6105. Spitzer, Esther P. (Alfred Adler Inst., New York, N.Y.) **Disengagement: Self-preservation or self-defense? Voices: The Art & Science of Psychotherapy**, 1969-1970(Win), Vol. 5(4), 28-32.—Disengagement as a way of life is "tantamount to slow spiritual suicide." Social rejection of the elderly is seen as causing a vicious cycle in that, feeling rejected, these aging, in turn, reject society. It is believed that wasting their talent, wisdom, and experience marks one of the tragedies of our society. Day care centers for elderly persons are considered to have helped in preventing movement towards spiritual suicide among other things. The need is to learn that an old person can still manifest some degree of capability.—S. R. Greenwald.

SOCIAL PSYCHOLOGY

6106. Gaylin, Willard. (Columbia Psychoanalytic Clinic, New York, N.Y.) **In the service of their country: War resisters in prison.** New York, N.Y.: Viking, 1970. vi, 344 p. \$6.95.

6107. Irving, Jeffrey J. (U. Kansas) **Subject's expectancy and need for social approval in the Rosenthal experimenter effect paradigm.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 898-899.

6108. McGrath, Joseph E. (Ed.) (U. Illinois) **Social and psychological factors in stress.** New York, N.Y.: Holt, Rinehart, & Winston, 1970. xi, 352 p.

6109. Petrovskii, A. V. **O nekotorykh problemakh sotsial'no-psikhologicheskikh issledovaniy.** [On some problems of socio-psychological investigations.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 3-12.—While there was considerable interest in social psychology in the 1st 10-15 yr. of Soviet psychology, it soon ceased to exist as a branch of psychology, to be revived only in the early 1960s. It has undergone accelerated development since then. Soviet social psychology comprises the areas of mass communication, attitudes, small group processes, special group processes (family, work groups), and social-psychological aspects of personality. The concept of conformity is analyzed to show that research topics in Western psychology cannot be taken uncritically and applied to Soviet realities. The opposite of conformity, for instance, is not nonconformity but collectivism. The difference arises out of different models of personality accepted by Western and Soviet psychologists. The main task of Soviet social psychology is to give teachers reliable methods of psychological analysis of personality and of children's groups. (English summary)—L. Zusne.

6110. Shinn, Allen M. (U. North Carolina, Chapel Hill) **The application of psychophysical scaling techniques to measurement of political variables.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 811.

CULTURE & SOCIAL PROCESSES

6111. Berry, John W. (Queen's U., Kingston, Ontario, Canada) **Ecology and socialization as factors in figural assimilation and the resolution of binocular rivalry.** *International Journal of Psychology*, 1969, Vol. 4(4), 271-280.—2 distinct relationships could facilitate handling of data in the area of culture and personality. A direct relationship, based upon unique sensory ecology of various cultural groups, parallels laboratory studies relating frequency of prior exposure and perceptual response. An indirect relationship obtains in perceptual responses mediated by social, personality, and developmental factors. Temne, Scot, and Eskimo Ss yielded data supporting the proposed distinct relationships. In 1 investigation, Ss drew what they saw after tachistoscopic presentations of 9 stimuli. In a 2nd investigation, Ss reported what they saw when materials from their own and different cultures were presented stereoscopically, under conditions productive of binocular rivalry. Further investigations could decide whether all perceptual problems can be handled by means of the relationships described. (27 ref.)—S. E. Gavin.

6112. Bochner, Stephen. (U. New South Wales, Sydney, Australia) **The Honolulu Workshop-Conference on psychological problems in changing societies.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 158-162.—Presents the background and format of, and research proposals presented at a 1968 conference aimed at stimulating genuine cross-cultural research in the behavioral sciences with special emphasis on social change and changing value systems. Plans for the future are also discussed, including a project to set up a local network of social scientists interested in cross-cultural research to channel information and coordinate regional and multinational research projects.—M. Maney.

6113. Ezekiel, Raphael S. (U. Michigan) **Setting and**

the emergence of competence during adult socialization: Working at home vs. working "Out there." *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 389-396.—Q-sorts, retrieval of tape-recorded, lengthy, job-centered, semistructured interviews with Ghana-based Peace Corps secondary school teachers enabled outside judges, unfamiliar with the author's hypothesis, to determine the following item sets to be most saliently descriptive of group members: (a) committed to carrying out his job as Peace Corps teacher to best of his ability; (b) is, all-in-all, a good, competent teacher; (c) satisfied with his teaching performance; (d) experiences of success or effectiveness have predominated over ones of failure or ineffectiveness; (e) generally self-confident; and (f) a genuinely dependable and responsible person. Discussed also are overseas freedoms and constraints: freedoms resting in the nature of the job, and constraint in the structure in the volunteer's setting.—*R. V. Hamilton.*

6114. Farris, George F. (Massachusetts Inst. of Technology) Toward a non-experimental method for causal analyses of social phenomena. *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 259-276.—Describes a method for detecting causal relationships among social phenomena in the natural setting. Based primarily upon obtaining an association between 2 factors, 1 measured earlier in time than the other, and controlling the influences of outside factors, it considers causality to be a matter of degree and allows for symmetrical causal relationships. A study of organizational behavior demonstrates the applicability of the method. After contrasting the method to path analysis and panel-study analysis, it is suggested that behavioral scientists think in terms of 3 levels of research on complex cycles of social behavior: 1-point-in-time correlations to determine general associations among factors, methods like the one proposed here to determine general causal relationships, and, when possible, experiments to determine more precisely the causal relationships among factors of particular interest. (34 ref.)—*Journal abstract.*

6115. Gilula, Marshall F. & Daniels, David N. (Stanford U., Medical School) Violence and man's struggle to adapt. *Science*, 1969(Apr), Vol. 164(3878), 396-405.—Analyzes violence from the view of adaptation theory. Adaptation is examined in light of 3 theories of aggression: (a) biological-instinctual, (b) frustration, and (c) social learning. Violence is viewed as a form of coping behavior employed despite its "maladaptive and destructive results." Examples of violence on the American scene include the recent wave of assassinations, violence in the mass media, resistance to gun control legislation, and mental illness and homicide. (57 ref.)—*P. McMillan.*

6116. Guthrie, Robert V. (Ed.) (San Diego Mesa Coll.) *Encounter: Issues of human concern*. Menlo Park, Calif.: Cummings, 1970. 306 p. \$3.95(paper). Discusses critical issues foremost in student consciousness, while showing the intimate ties between the dynamism of the present and the vitality of the expanding fields of psychology. Topics covered by various authors include personality, behavior, and attitude, the question of normality, displaced reactions, youth and protest, addictive reactions in drugs, and the role of psychology.

6117. Meeker, Barbara F. (U. Washington) Experimental study of cooperation and competition in West Africa. *International Journal of Psychology*, 1970,

Vol. 5(1), 11-19.—Prisoner's Dilemma and a Maximizing Difference game (in which a noncooperative choice may result in an outcome that provides S with a higher score than his opponent, but which nonetheless lowers his absolute score) were applied to adult tribal Africans of varying degrees of Westernization. Westernized Ss showed less cooperation than traditional Ss in the Prisoner's Dilemma but not in the Maximizing Difference game. Traditional and Westernized Ss manifested greater similarity to their partners in the Maximizing Difference game than in the Prisoner's Dilemma game. Results lead to appraising individualism-conformity as a very important dimension, to concluding that several dimensions are involved simultaneously, and to contending that results depend on the structure of the situation in which interaction occurs. (French abstract)—*S. E. Gavin.*

6118. Serpell, Robert. (U. Zambia, Lusaka) The influence of language, education and culture on attentional preference between colour and form. *International Journal of Psychology*, 1969, Vol. 4(3), 183-194.—Preference for form over color occurs with increasing age. Results with respect to education appear scantily documented and self-contradictory. Deaf children tend to show greater preference for color over form. Studies with small (though not with large) samples yield sex differences, with boys responding significantly more to form than to color. Boys described as lively reveal more color responses than quiet ones; adult schizophrenics show a high degree of color preference relative to other groups. In the reported research, Zambian Ss (N = 48 6.7-15.6 yr. olds) showed greater attentional preference for color, relative to Western-educated Ss (N = 16 3-8.5 yr. olds) even when codability was equivalent. Western-type education, with its emphasis upon abstract, geometrical form, may produce perceptual experience that differentiates the groups. (French abstract) (37 ref.)—*S. E. Gavin.*

6119. Slater, Philip E. (Brandeis U.) The pursuit of loneliness: American culture at the breaking point. Boston, Mass.: Beacon Press, 1970. xiii, 154 p. \$7.50.

6120. Wilkenfeld, Jonathan. (Indiana U.) Some further findings regarding the domestic and foreign conflict behavior of nations. *Journal of Peace Research*, 1969, No. 2, 147-156.—Deals with deficiencies regarding the method by which indicators were compiled and raw scores were used in a previous study by J. Wilkenfeld (see PA, Vol. 42 9670) which hypothesized that "within certain groups of nations, classified according to type of nation, there is a tendency for domestic and foreign conflict behavior to co-occur, or for the occurrence of one to be followed in time by the occurrence of the other." A partial replication incorporating changes in analysis is reported. Results which confirmed the hypothesized relationships when type of nation, types of conflict, and specific time lags were controlled, paralleled those found in the original study. The small size of the correlation coefficients, however, indicate that much of the variance in foreign conflict on the basis of domestic conflict and vice versa has not yet been explained.—*M. Maney.*

Ethnology

6121. Pierce, Chester M. (Harvard U.) Violence and counterviolence: The need for a children's domestic exchange. *American Journal of Orthopsychiatry*,

1969(Jul), Vol. 39(4), 553-568.—Reexamines the definition of black violence and analyzes the many forms of white violence. The suicide analogy is used to understand the current stage of black counterviolence, and a remedy is proposed that conforms to the "living law" habits of the American people. (16 ref.)—*Journal abstract*.

6122. Poussaint, Alvin F. & Atkinson, Carolyn O. (Tufts U., Medical School) **Negro youth and psychological motivation.** *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 241-251.—Explores internal and external factors of motivation relevant to Negro youth, and their relationships to behavior. It is argued that society fosters a negative self-image among Negroes, impedes self-assertion and aggressiveness, and fails to develop educational aspirations in the schools. It is suggested that "major structural changes" are needed in American society to remedy this situation. (17 ref.)—*S. Appelle*.

Social Structure & Social Role

6123. Fromm, Erich & Maccoby, Michael. **Conceptos y métodos de la psicología social psicoanalítica.** [Concepts and methods of psychoanalytic social psychology.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969, No. 11, 3-24.—Discusses the problem of character as 1 of the important variants in the transition from agricultural to industrial production. The character structure of the Mexican farmer and his capacity for change is emphasized. Certain questions, pertinent for all agriculturally based societies, are considered: (a) the character of the farmer in relation to psychological and social forces, (b) the possibilities of change in this character with the aim of adapting to an industrial economy, and (c) conditions which facilitate or hinder such a change. Traditional character traits of farmers, i.e., individualism, conservatism, orderliness, parsimony, and brusqueness are analyzed. It is suggested that sociopsychological analytic categories can be applied to social investigation by using an interpretive questionnaire to obtain data which can be statistically structured.—*P. Hertzberg*.

6124. Maida, Peter R. (Pennsylvania State U.) **The relationship of risk-taking and future orientations of persons in a rural Pennsylvania low-income area.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 837.

6125. Schwendiman, Gary; Larsen, Knud S., & Dunn, Freeman. (Marshall U.) **Social position, social desirability and self-esteem.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 117-118.—Welfare clients occupy a position of low desirability, whereas college students, by reason of familial ties or prospective future contribution, occupy a position of high desirability. Significant differences were obtained between these 2 groups (N = 48 and 51, respectively) on self-esteem. Length of time on welfare was a significant factor in welfare clients' self-esteem.—*Journal abstract*.

6126. Shapiro, Joan. (St. Luke's Hosp. Center, Div. of Community Psychiatry, New York, N.Y.) **Dominant leaders among slum hotel residents.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 644-650.—Examined the problem of indigenous leadership among poor minority groups. Observations were presented about 3 40-55 yr. old Negroes who were all on welfare and who emerged as dominant leaders among

slum hotel inhabitants in New York City. A recurrent pattern existing in these slum hotels is a matriarchal quasi-family pattern. These 3 matriarchal leaders fulfilled several basic needs: (a) direct oral gratification, (b) control of disruptive behavior, and (c) assurance of group support of the individual. The functions of the dominant leader are somewhat similar to those performed by mental health workers in bridging the vast gap between the single, poor, and sick person and the services to which he is entitled.—*A. M. Berg*.

6127. Tannenbaum, Abraham J. (Teachers Coll., Columbia U.) **Some non-intellectual concomitants of social deprivation.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 9-30.—Reviews social and psychological considerations of social deprivation emphasizing the necessity of viewing these 2 phenomena as facilitating and reinforcing each other. Popular myths regarding the nature, causes, and cures of social deprivation are pointed out, as is the fact that neither social nor behavior therapy is presently adequate to explain the determinants of poverty. Likewise, neither psychology nor sociotherapy, as currently practiced, seems successful in ameliorating it. It is suggested that the main effects of environmental and personal factors in producing the deprivation syndrome are considerably weaker than is often supposed. An interaction hypothesis involving both external and internal factors is proposed. (31 ref.)—*Journal abstract*.

Religion

6128. Beech, Lawrence A. (York U.) **The California Psychological Inventory as a measurement of permissiveness-restrictiveness and love-hostility.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 381-382.—Administered the CPI and an objective self-report inventory to 66 Protestant ministers. Styles of authority reflected on the subscales for love-hostility and permissiveness-restrictiveness indicate greater hostility but a close congruence on the permissive-restrictive dimension when compared with self-reported styles of authority in pastoral counseling by Ss.—*Journal abstract*.

Cross Cultural Comparison

6129. Beloff, Hella & Paton, Xenia. (U. Edinburg, Scotland) **Bronfenbrenner's moral dilemmas in Britain: Children, their peers and their parents.** *International Journal of Psychology*, 1970, Vol. 5(1), 27-32.—30 conflict situations involving relative influence of peers and parents upon socialization make up the Moral Dilemmas Test. Comparing American with Soviet children, Soviet efforts to ally peer-power with adult goals of character training appear successful, reflected in the Soviets' higher general level of moral responses. 274 British 12 yr. olds, from subsamples distributed geographically, socioeconomically, and in educational philosophy, constituted the present sample. While British children scored close to American norms, autonomy and individuality appeared more marked among the British. Ss from boarding and conventional schools scored higher than those from socially equivalent day and progressive schools. Unanswered limitations involve generalizability to real life and developmental differentials that may confuse comparisons. Results yield promise for the Moral Dilemmas Test and technique. (French abstract)—*S. E. Gavin*.

6130. Berrien, F. Kenneth. (Rutgers State U.) **Familiarity, mirror imaging and social desirability in stereotypes: Japanese vs. Americans.** *International Journal of Psychology*, 1969, Vol. 4(3), 207-215.—240 males and 240 females constituting Japanese and Hawaiian samples were compared with 225 males and 118 females from the United States on judgments of national groups based upon items from the EPPS. Even with social desirability partialled out, Japanese see Americans as more contrasting with themselves than appears for American Ss who compare themselves with Japanese. The Hawaiian sample falls in between the other samples. Data suggest that the strain-toward-consistency theories, derived largely from Western cultures, may not be applicable to Oriental respondents. "Further analyses of cognitive mechanisms in various cultures may lead to important revisions in these theories and may also have a bearing on international bargaining styles." (French abstract) (15 ref.)—S. E. Gavin.

6131. Berrien, F. Kenneth. (Rutgers State U.) **Super-ego for cross-cultural research.** *International Journal of Psychology*, 1970, Vol. 5(1), 33-39.—Ideal cross-cultural research satisfies a number of conditions. It engages collaborative efforts of investigators from different countries, each of whom is encouraged and supported by institutions in their respective countries. It addresses researchable problems of common concern as well as key social problems. It begins with the joint definition of problems and adoption of comparable methods. The "pool" of data is owned jointly by collaborators free to report their interpretations to their constituents but obligated to strive for interpretations acceptable to a world community of scholars. Cross-cultural studies are important for cross-checking hypotheses. Only by testing samples representative of humanity worldwide, can fundamental principles of psychology be achieved. (French abstract)—S. E. Gavin.

6132. Brislin, Richard W. (Pennsylvania State U.) **Back-translation for cross-cultural research.** *Dissemination Abstracts International*, 1970(Aug), Vol. 31(2-B), 895.

6133. Chartier, George M. & Sundberg, Norman D. (U. Oregon) **Commonality of word listing, predictability, originality and chunking: An analysis of American and Indian ninth graders.** *International Journal of Psychology*, 1969, Vol. 4(3), 195-205.—Indian Ss of varied socioeconomic status from 3 communities in northern India manifested significantly greater variability in word-naming commonality than appeared among American Ss. This finding runs counter to the conception of American individuality as opposed to Indian group orientation. American Ss mentioned significantly more children than adults in a word-naming task, while the reverse held for Indian Ss. This finding supports the interpretation of greater peer orientation among Americans than among Indians. Girls in American but not Indian groups gave more identical words than did boys. No relationships appeared between commonality, predictability, and originality. Further study could cast light upon which aspects of language or environment or both produce the marked similarities between cultural groups. (French abstract) (26 ref.)—S. E. Gavin.

6134. Cüceloglu, D. M. (U. Illinois) **Perception of facial expressions in three different cultures.** *Ergonomics*, 1970(Jan), Vol. 13(1), 93-100.—60 abstract facial expressions created by the use of 4 eyebrow, 3 eye, and 5

mouth types were rated on 40 emotion-name scales. These scales were constructed for each of 3 national groups (20 American, 20 Japanese, and 20 Turkish male undergraduates), within their respective languages. By factor analysis 3 cross-cultural bipolar dimensions which accounted for 72.4% of the total variance were found and labeled pleasantness, irritation, and nonreceptivity. Analysis of the components of the faces representing the 2 poles of each dimension revealed considerable similarity between the language groups, but also some differences. (French & German summaries)—*Journal abstract*.

6135. Gordon, Leonard V. & Kikuchi, Akio. (State U. New York, School of Education, Albany) **Response sets of Japanese and American students.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 143-148.—The School Environment Preference Schedule, a 24-item scale employing a 5-choice Likert response format and designed to measure the bureaucratic personality at the school level, was administered in the original and in translation to counterpart student samples in the United States and Japan. The extremeness response set was equal in strength and contribution to scale variance in both cultures. However, the Japanese were decidedly more prone to use the neutral or "undecided" category. Implications of response set differences for cross-cultural opinion and attitude research are discussed.—*Author abstract*.

6136. Hess, Robert D. & Minturn, Leigh. (Stanford U.) **Authority, rules and aggression: A cross-national study of the socialization of children into compliance systems.** *International Journal of Psychology*, 1969, Vol. 4(4), 307-316.—Danish, Greek, Italian, Indian, Japanese, and American 4th, 6th, and 8th graders of 2 socioeconomic levels (determined by paternal occupation and place of residence) participated in a study focusing on development of behavior related to authority figures and to rules and laws designed to govern the behavior of members of social systems. The study emphasized authority figures with whom children have face-to-face contact. "Compliance" referred to complex response patterns developed in dealing with regulations and authority figures, while allowing for some degree of self-direction. 3 instruments, including a questionnaire, a response (by ratings) to a series of pictures projected on a screen, and a peer nomination form (designed to distinguish between aggression toward peers and aggression or noncompliance toward teachers), were employed. A sample of Ss from each country experienced interviews designed to elicit responses relevant to concepts on which the study was based. Data for each of the participating nations contributed to a report submitted to the United States Office of Education. (31 ref.)—S. E. Gavin.

6137. Okonji, Michael O. (Makerere University Coll., Kampala, Uganda) **The differential effects of rural and urban upbringing on the development of cognitive styles.** *International Journal of Psychology*, 1969, Vol. 4(4), 293-305.—208 adult and adolescent volunteers from Ibusa and the University of Nigeria individually took the Children's Embedded Figures Test, Rod and Frame Test, and Embedded Figures Test. Results show undergraduates reared in urban literate homes to be significantly more field-independent than their counterparts reared in rural illiterate homes. Performance on the Embedded Figures Test, while in the expected direction, does not yield differences between groups that

approach statistical significance. University of Nigeria rural males are significantly more field-dependent than are New York females. Urban males show greater field-independence than the New York females on the Rod and Frame Test. Results support the view that cultural factors are most important in developing visual perceptual field-independence. Further studies could determine whether American studies on personality correlates in perceptual field-independence can be generalized across cultures. (27 ref.)—S. E. Gavin.

6138. Pepitone, Albert, et al. (U. Pennsylvania) **Justice in choice behavior: A cross-cultural analysis.** *International Journal of Psychology*, 1970, Vol. 5(1), 1-10.—Choice behavior in games such as the Prisoner's Dilemma reveals Americans as maximizing gains when self-estimate was high, while Italians maximized gains when self-estimate was low. The present study manipulated ethical values through dispensing initial just or unjust reward, followed by a game in which monetary rewards depended upon which of 4 joint choices occurred in a standard "payoff" matrix. American Ss initially rewarded on the basis of stated merit tended to retain that position in the game. They appeared to believe the stated differences in ability and to act accordingly. In contrast, Italian Ss showed a tendency to equalize payoff for both Ss under such circumstances. Both Americans and Italians tended to reduce inequity in the game when 1 member was arbitrarily rewarded initially. Data are open to varied interpretations. (French abstract)—S. E. Gavin.

6139. San Diego, Ellinor A., Foley, Jeanne M., & Walker, Ronald E. (Devereux School, Goleta, Calif.) **WAIS scores for highly educated young adults from the Philippines and the United States.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 511-515.—Administered the WAIS to 30 bilingual Philippine and 30 American male and female Ss. The average Ss tested had more than 17 yr. of education. 14 2×2 analyses of variance for national origin and sex were performed on the 11 subtest scores and 3 IQ measures. The American group scored higher than the Philippine group on all variables except Digit Symbol and significantly higher on 9 of these. However, both groups scored significantly higher on Verbal than on Performance IQ. The main effect for sex was significant for only 1 variable. Findings are discussed in relation to the literature on cross-cultural studies of adult intelligence.—*Journal abstract.*

6140. Sistrunk, Frank & Clement, David E. (U. South Florida) **Cross-cultural comparisons of the conforming behavior of college students.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 273-274.—Compared the conforming behavior of college students in Brazil and the United States. A mixed-effects factorial analysis of variance design was employed with between-Ss variables of S nationality, S sex, and influence nationality, and with task difficulty operating as a within-Ss variable. The results demonstrated greater conformity with greater task difficulty, and greater conformity by the Brazilians than by the Americans. Examination of interactive effects showed further that there was a reversal in the tendency of Brazilian males and females to respond to influence, with the males conforming more to American sources and the females conforming more to the sources of their own nationality.—*Author abstract.*

6141. Smart, Mollie S. & Smart, Russell C. (U. Rhode Island) **Self-esteem and social-personal orientation**

of Indian 12- and 18-year-olds. *Psychological Reports*, 1970(Aug), Vol. 27(1), 107-115.—Obtained measures of self-ideal congruence and of social-personal orientation in Delhi from groups of 50 Indian males and females of about age 12 and 18, predominantly of socioeconomic Class I. Data were compared with longitudinal American data obtained by R. Carlson. Among the preadolescents, the average self-ideal congruence score for the Indian girls was highest, followed by Indian boys, American girls and boys. Only the differences involving the Indian girls were statistically significant. At age 18 the average female congruence score was insignificantly above the average male score. In social-personal orientation, over $\frac{1}{2}$ of the Indian preadolescent and adolescent girls were socially oriented. About $\frac{1}{4}$ of the Indian preadolescent boys were socially oriented; almost $\frac{1}{2}$ of the older boys were. In contrast, the American girls had changed from $\frac{1}{4}$ socially oriented to over $\frac{1}{2}$; the American boys had changed from almost $\frac{1}{2}$ to approximately $\frac{1}{4}$.—*Journal abstract.*

6142. Taylor, D. M., Dagot, E. P., & Gardner, R. C. (Philippine Normal Coll. Language Study Center, Manila) **The use of the semantic differential in cross-cultural research.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 43-51.—2 groups of English-Tagalog bilinguals rated each of 8 ethnic group labels on the same 48 semantic differential scales. 102 responded in English while a 2nd group of 111 Ss was administered an identical form of the scales prepared in Tagalog by means of a back-translation procedure. Results indicate that there was moderate agreement between the factor structures of the ratings on both forms of the scales. In terms of responses on individual scales it seemed clear that the Ss who responded in their native language (Tagalog) were more willing to express themselves evaluatively than those Ss who made their ratings on the English form. (16 ref.)—*Journal abstract.*

6143. Thiagarajan, K. M. & Deep, Samuel D. (Management Inst. for Training & Research in Asia, Madurai, India) **A study of supervisor-subordinate influence and satisfaction in four cultures.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 173-180.—A total of 446 middle managers in 4 countries—Belgium, Italy, England, and the United States—were administered Exercise Supervise in their own languages within the context of management development programs. In Exercise Supervise the managers role-played 3 styles of supervision and 3 styles of subordinate behavior. Findings tended to be consistent in all 4 countries in that the authoritarian supervisor was more influential and less satisfying than the democratic supervisor, and that the involved subordinate was more influential than the passive subordinate. Much less consistent were results on supervisors' satisfaction with various subordinate styles, and the relationship between influence on a counterpart (supervisor or subordinate) and satisfaction with that counterpart. (15 ref.)—*Author abstract.*

6144. Wohl, Julian; Horowitz, Irwin A., Tapingkae, Amnuay, & Pardthaisong, Thieng. (U. Toledo) **Some personality characteristics of Thai and American university students.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 45-46.—Utilized the Test of Social Insight (TSI) for a cross-cultural comparison of American and Thai university students. Data indicate that Thai Ss (N = 280) scored significantly higher on the withdrawal, passivity, competitiveness, and aggressivity subscales of the TSI than American Ss (N = 239). American ex-

hibited significantly greater cooperative tendencies than Thai Ss. Interpretative problems due to translation techniques, use of multiple t tests, and the structure of the TSI are discussed.—*Journal abstract.*

Family

6145. Forbes, Gordon B. (Millikin U.) **Fraternity or sorority membership and birth order: Sex differences and problems of reliability.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 277-278.—Reports 2 studies of the relationship between birth order and fraternity or sorority memberships. In Exp. I, no relationship was found for males, but more only-born and 1st-born females were found to join sororities. In Exp. II, no relationship was found for females but more 1st-born and last-born males were found to join fraternities. These results are not consistent with other findings. They suggest that the nature of the relationship is influenced by sex differences and the relationship may change across S populations.—*Author abstract.*

6146. Harder, Jean M. (Columbia U.) **Self-actualization, mood, and personality adjustment in married women.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 897-898.

6147. Jacobson, Gary & Ryder, Robert G. (Harvard Medical School, Boston, Mass.) **Parental loss and some characteristics of the early marriage relationship.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 779-787.—Studied people who had experienced the final disruption of a previous fundamental relationship through the death of a parent in the 1st few yr. of their marriage. Ss were 90 couples with a history of parental loss prior to marriage and 30 couples with no history of parental loss. Results contribute to the understanding not only of pathological issues in marriage, i.e., the inability to maintain trust or resolve anger, but also of nonpathological issues, i.e., interpersonal closeness.—*Journal abstract.*

6148. Rappaport, Alan F., Payne, David, & Steinmann, Anne. (U. Connecticut) **Marriage as a factor in the dyadic perception of the female sex role.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 283-284.—Evaluated the concepts of man's ideal woman and woman's ideal woman for 45 married and 45 dating couples drawn from a university community. Responses on the Inventory of Female Values indicate that married couples did not have more male-female consensus that did the dating couples for either concept. For both married and dating couples the discrepancy focused on the issue of what a man looks for in a woman.—*Journal abstract.*

6149. Treichel, Bruce & Nance, Dale. (U. Wisconsin, Milwaukee) **Attitudes by young adults toward child rearing and presumed attitudes of their own parents.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 191-194.—57 undergraduates performed a Q-sort of 50 items of possible concern in child rearing and a 2nd sorting based on presumed attitudes of their own parents. Significant differences were obtained between Ss' self-sorts and sorts for their parents; certain nonsignificant sex differences are also noted.—*Journal abstract.*

6150. Zussman, Shirley. (Columbia U.) **A study of certain social, psychological, and cultural factors influencing husbands' participation in their wives' labor.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 387-388.

Social Change & Social Programs

6151. Cox, Fred M., Erlich, John L., Rothman, Jack, & Tropman, John E. (Eds.) (U. Michigan) **Strategies of community organization: A book of readings.** Itasca, Ill.: F. E. Peacock, 1970. xiii, 393 p.

6152. Pospiszyl, Kazimierz. **Psychologiczna i społeczna geneza agresywnego zachowania się współczesnej młodzieży.** [Psychological and social genesis of aggressive behavior of contemporary youth.] *Studia Socjologiczne*, 1970, Vol. 2(37), 215-230.—Examines the premise that the generation gap is the result of differences between the aims of society and the needs of youth. A review of American and European psychological literature supports the basic thesis but does not provide definite suggestions as to its prevention. It is suggested that in Poland the conflict between generations is reduced by the early infusion of Marxist idealism in the life of the child making the goals of society and needs of youth highly similar. (42 ref.)—*H. Kaczkowski.*

6153. Prugh, Dane G. (U. Colorado Medical Center) **Youth's challenge and our response: Are we a sick society?** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 548-552.—Postulates that society if "seriously conflicted, currently torn, and temporarily faltering in its coping capacities" and that the core problem is "the imbalance between our rapid technological advances and our relative lack of progress in interpersonal relations." It is felt that the youth are "reasserting the dignity of individual human beings and the importance of human values" by demanding different priorities. It is concluded that new mechanisms for communication and shared responsibility are needed.—*G. Steele.*

SEXUAL BEHAVIOR

6154. Bartell, Gilbert D. (Northern Illinois U.) **Group sex among the mid-Americans.** *Journal of Sex Research*, 1970(May), Vol. 6(2), 113-130.—As a participant O the author interviewed a selected sample of mid-western and southwestern white, suburban couples, and singles engaged in group sexual activities. The methods of acquiring partners for sexual exchange and the sociocultural characteristics of the informants are discussed. A brief sociopsychological analysis of the research discusses the general sexual excitement and an increased sexual interest in the mate or partner as the positive aspects of swinging; and inability to live up to one's own psychosexual myth and self-illusions, personal jealousy, and discovery as some of the negative aspects. It is felt that the individuals interviewed are not benefiting themselves because the ideals that led them into group sex have not been fully realized and reflect mechanical interaction rather than intimate human relationships.—*E. B. Jaffa.*

6155. Denfeld, Duane & Gordon, Michael. (U. Connecticut) **The sociology of mate swapping: Or the family that swings together clings together.** *Journal of Sex Research*, 1970(May), Vol. 6(2), 85-100.—Discusses mate swapping or swinging as an institutionalized form of extramarital sexual behavior in American society. The advantages of mate swapping are considered as a solution to the problems of marital sexual monotony. A definition of swinging, characteristics of the swingers, extent of swinging, and locating potential partners are discussed. The sociological model which is supported by empirical research views swinging as a

strategy to revitalize marriage. The model considers the rules of swinging within the context of the family. (28 ref.)—*E. B. Jaffa*.

6156. O'Neill, George C. & O'Neill, Nena. (New School for Social Research) **Patterns in group sexual activity.** *Journal of Sex Research*, 1970(May), Vol. 6(2), 101-112.—Provides definitions of "group sex," "partner exchange," and "swinging." Data based on depth interviews were obtained from a sample of 50 middle-class business and professional people. Major topics discussed are the themes and patterns of group sexual activity, selection and changing of partners, varieties of sexual interaction, contraception, disease, and the use of drugs and alcohol. Discussed also are 4 phases which reflect fluctuating attitudes towards participation in group sexual activities. No follow-up interviews are reported, however, speculation and questions for future research are presented.—*E. B. Jaffa*.

6157. Smith, James R. & Smith, Lynn G. (U. California, Berkeley) **Co-marital sex and the sexual freedom movement.** *Journal of Sex Research*, 1970(May), Vol. 6(2), 131-142.—The informants were members in a sexual freedom movement in the San Francisco Bay area and/or attended some kind of sexually liberal activity. The phrase "co-marital sexual relations" is proposed to refer "to married couples who are either involved together in establishing sexual relationships beyond the marital dyad or to couples in which there is both knowledge of and consent to such relationships regardless of whether the sexual activity includes both partners or is independent." Sociological characteristics of this subculture are discussed. Several of the myths regarding sexual behavior are considered: attendance at sex parties guarantees participation; participation is a priori evidence of a perverse, neurotic, and/or pathological disposition; and the necessity of sexual monogamy as a component in the marriage relationship.—*E. B. Jaffa*.

Birth Control & Abortion

6158. Harkavy, Oscar & Maier, John. (Ford Foundation, New York, N.Y.) **Research in reproductive biology and contraceptive technology: Present status and needs for the future.** *Family Planning Perspectives*, 1970(Jun), Vol. 2(3), 3-18.—Reviews current information on contraception in light of the need for expanding "the base of fundamental knowledge to support continually improving contraceptive technology." Effectiveness and health related side effects for intrauterine devices, oral contraceptives, and other hormonal contraceptives are summarized. Additional new procedures and devices are listed and briefly described, including male chemosterilants, postcoital pill, and luteolytic compounds, etc. Basic research needs, funding patterns, and centers of research and training in reproductive biology are summarized. The need for increasing present levels of funding to provide effective fertility regulation programs throughout the world is emphasized.—*P. McMillan*.

6159. Hawkins, Charles H. (Central Washington State Coll.) **The erotic significance of contraceptive methods.** *Journal of Sex Research*, 1970(May), Vol. 6(2), 143-157.—Studied erotic liberty, i.e., "the absence of obstacles or complications to sexual interaction entailed in a contraceptive method." Information was gathered from the scientific literature and interviews of young

married persons. Contraceptive barriers are classified and ordered by their relative balance between the erotic role and the contraceptive role. Timing practices are classified and ordered by the length of the infertile period. Both barriers and timing practices are ranked in terms of contraceptive and erotic liberty. Major hypotheses supported are the greater the erotic liberty of a contraceptive method, the more satisfied the user will be, the more frequently the couple will make love, the higher their consensus will be; and number of children is inversely related to erotic liberty. Interviews, scientific literature, and the dimension of erotic liberty support the conclusion that an implicit erotic significance in all contraceptive methods exists. (30 ref.)—*E. B. Jaffa*.

6160. Lamm, Richard D., Downing, Sam, & Heller, Abraham. (Democratic member of the Colorado House of Representatives, Denver) **The legislative process in changing therapeutic abortion laws: The Colorado experience.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 684-690.—Examines the successful progress of a liberalized law through the legislature of Colorado. Colorado was the 1st of a growing number of states to pass abortion law reform. It was found that generally community opinion has changed. "In the case of abortion, as with birth control, the prevailing attitude is toward liberalization of existing laws and mores."—*A. M. Berg*.

6161. Tietze, Christopher & Lewit, Sarah. **Abortion.** *Scientific American*, 1969(Jan), Vol. 220(1), 21-27.—Reports information from countries where abortion is legal as a basis for evaluating the "pros and cons of the practice." Results of an opinion survey in the United States comparing responses to the same questions concerning attitudes toward abortion in 1967 and in 1965 show an increase in liberal attitudes. Data are also presented comparing abortion and birthrates for such countries as Hungary, Czechoslovakia, and Japan. It is concluded that the United States, especially the state legislatures, should draw on experiences from other countries for developing solutions to the problem.—*P. McMillan*.

ATTITUDES & OPINIONS

6162. Anderson, D. S. & Western, J. S. (Australian National U., Canberra, Australian Capital Territory) **Attitudes of students entering professional faculties.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 291-299.—Tested 2817 students entering courses in engineering, law, medicine, and teaching in 4 Australian universities with a specially devised attitude inventory. Scores were obtained for: intellectual interests, academic activities, political-economic liberalism, social liberalism, pragmatism, dogmatism, and cynicism. 7 analyses of variance, using the scale scores as dependent variables, revealed significant effects due to faculty, university, and interaction. Faculty differences which were the most numerous, and occurred with every scale, were considered in the context of a study of professional socialization.—*Journal abstract*.

6163. Berry, J. W. (Queen's U., Kingston, Ontario, Canada) **The stereotypes of Australian states.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 227-233.—Administered a state stereotype questionnaire to 266 1st-yr psychology students in all 6 states. There was sufficient uniformity and interstate agreement in the ascription of adjectives to warrant the use of the term

stereotype. Good agreement was noted between content of state and national stereotypes and previously published views. Differences in the uniformity of stereotyping and being stereotyped were shown to be significantly related to a state's weight or combined rank on area and population within Australia.—*Journal abstract.*

6164. **Beswick, D. G. & Hills, M. D.** (Australian National U., Canberra, Australian Capital Territory) **An Australian Ethnocentrism Scale.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 211-225.—Devised an ethnocentrism scale by selecting 32 items according to their power of discrimination between criterion groups of Ss and their internal consistency in a pilot study of 192 Ss. The original pool of items was set up to comply with various facets of ethnocentrism as defined by D. J. Levinson and illustrated in the California E Scale and the British Ethnocentrism Scale. Validity was demonstrated in the main study of 273 Ss by highly significant differences between criterion groups selected according to age, socioeconomic status, student-nonstudent, levels of education, income, religion, and other criteria in accord with the theory and previous findings in Britain and the United States. Partitioning of the main sample revealed the predominance of education as a determinant.—*Journal abstract.*

6165. **Colman, Andrew M. & Lambley, Peter.** (Leicester U., England) **Authoritarianism and race attitudes in South Africa.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 161-164.—Investigated the relationship between authoritarianism and race attitudes in white South African society using a forced-choice F scale, a unidimensional and highly discriminating attitude inventory, and a social distance questionnaire. Ss were 60 white students, and the resulting correlations between authoritarianism and the prejudice measures were found to range from .23 to .33. These results were interpreted as suggesting that in a highly prejudiced society, prejudiced attitudes serve a utilitarian rather than an ego-defensive function for many of its members, and that they are therefore probably more amenable to change.—*Author abstract.*

6166. **Delhees, Karl H., Cattel, Raymond B., & Sweney, Arthur B.** (U. Illinois) **The structure of parents' intrafamilial attitudes and sentiments measured by objective tests and a vector model.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 231-252.—133 parents (50 male, 83 female) were tested on the 24 attitudes of the adult, parental version of the new Family Motivation Test (FAMT). 4 matrices of data (1 of mothers and 1 of fathers on both integrated and unintegrated measures) resulted in the following oblique factors: pugnacity-aggression, assertion, protectiveness, sex-sensuality, fear, gregariousness, and sentiment factors related to spouse and child. A vector model of interpersonal relations is outlined. (51 ref.)—*Author abstract.*

6167. **Hall, Ralph F.** (U. Sydney, New South Wales, Australia) **An application of unfolding theory to the measurement of attitudes.** *Educational & Psychological Measurement*, 1970(Fal), Vol. 30(3), 621-637.—Measured the attitudes toward church of 1st-yr psychology students individually using the paired-comparison method. Instructors were to agree (prefer personally) or to judge (compare stimuli). Order of presentation of pairs was varied. Goodness of fit was tested for both judgment and preference data according to the comparative judgment and choice axiom models. Both models fit the judgment

data; neither fit the preference data after Trial 1. Using the unfolding technique, preference data were more satisfactorily explained in 2 dimensions than in 1. The dimensions were tentatively named favorableness-unfavorableness and liberalism-dogmatism.—*N. M. Chansky.*

6168. **Koulack, David.** (U. Manitoba, Winnipeg, Canada) **A test of social judgment theory using an interval scale.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 275-276.—Social judgment theory suggests that Ss holding extreme positions on a social issue would have smaller latitudes of acceptance, larger latitudes of rejection, and smaller latitudes of noncommitment than Ss holding moderate positions. Earlier studies reported conflicting results for the latitude of noncommitment. The present study (N = 1482 undergraduates) utilized an interval scale to examine the relative latitude sizes. The results were consistent with social judgment theory and it was suggested that some of the inconsistencies found in earlier studies might be a function of initial scale construction.—*Author abstract.*

6169. **Lambley, Peter & Gilbert, Lester H.** (U. Cape Town, South Africa) **Forced-choice and counterbalanced versions of the F Scale: Prediction of prejudiced attitudes.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 547-550.—Investigated the predictive power of counterbalanced and forced-choice formats of the California F Scale in an experiment using 106 undergraduates. In earlier studies, the predictive criterion was generally reflected in correlations of either format with S's responses on the original F Scale. Here, the criterion measures were scores on prejudice scales. Results support the view offered by L. H. Strickland and W. P. Janicki, i.e., that the counterbalanced format measures an acquiescent style. Findings indicate, however, that the forced-choice format is a better predictor when senior student samples are used.—*Journal abstract.*

6170. **Leidy, T. R., Erlick, A. C., Karasick, B., & Smart, B.** **High school students look at the 1968 Presidential election.** *Purdue Opinion Panel Poll Report*, 1968(Nov), Vol. 28(1), 1-20.—To determine high school student's opinions on major issues of the 1968 Presidential election, questionnaires were administered to over 13,000 students. Results based on a stratified sample of 2000 questionnaires reveal that (a) the proportion of students following the election "very closely" (11%), "somewhat closely" (53%), and "hardly at all" (35%) is approximately the same as in 1964; (b) students, particularly those closely following the election, think that the public should have more say in the selection of candidates; (c) 64% believe that the voting age should be lowered, as compared with 32% in 1964; and (d) 39% preferred Nixon as President, while 29% preferred Humphrey and 22% preferred Wallace. It was also found that students who perform well on a "Current Events Quiz" section of the questionnaire, as compared to those who perform poorly, are more likely to (a) believe that the Vietnam war will end in a truce, (b) believe that the public should have more say in the selection of candidates, (c) follow political conventions and speeches, and (d) believe that election results should only be reported after the polls close. An appendix provides a complete analysis of responses to each item in the questionnaire.—*R. Wiltz.*

6171. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Re-examination of Middleton's data: Sex differences in death attitudes.** *Psychological*

Reports, 1970(Aug), Vol. 27(1), 136.—Reports the results of a statistical analysis of W. C. Middleton's data on attitudes of college students toward death. His data was drawn from questionnaire responses of 488 females and 337 males 15-27 yr. old and reported no sex differences in attitudes. Chi square analysis revealed that men were more likely to think about, but had less negative affective reaction to, death and dying.—*M. West*.

6172. Lubalin, James S. (U. Michigan) **The effects of counterattitudinal improvisation on attitudes: An exploration of mediating processes.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 827.

6173. McConochie, William A. (Illinois Inst. of Technology) **Comparison of traditional attitude measuring techniques with a new technique.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 901.

6174. Meyer, Henry J., Likwak, Eugene, & Warren, Donald. (U. Michigan, School of Social Work) **Occupational and class differences in social values: A comparison of teachers and social workers.** *Sociology of Education*, 1968(Sum), Vol. 41(3), 263-281.—It is suggested that the teachers and social workers differed in their relation to their clientele with the teacher having more authority over children than the social workers over their adult clients. Teachers customarily worked in a more monocratic bureaucratic organization than the social workers. The teacher's task was to transmit more or less standard and accepted forms of knowledge and values, whereas social workers were attempting to change personality and values where change was not clearly legitimated. To demonstrate that such differences may lead to differences in values, it is shown that there was an overall difference in values between the 2 professions: (a) where schools were experimentally altered to social work type structures, the teachers were more likely to have social work values, and (b) when ordinary schools were divided into 2 groups—1 of which resembled social work goals and structures (i.e., elementary vs. secondary)—the teachers were more likely to hold social work values. There was a contextual school building effect so that minority members adopted values of majority members in the building.—*Journal abstract*.

6175. Rudin, Lawrence A. & Harless, Marion D. (Midwestern U.) **Graffiti and building use: The 1968 election.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 517-518.—Tested the view that graffiti are (a) related to current social topics, and (b) specific to college building use. Contrary to previous findings, graffiti collected from a small southwestern college at national election time, 1968, did not show a preponderance of items related to important social issues, the election or Vietnam. The graffiti likewise were not specific to building use.—*Journal abstract*.

6176. Schwendiman, Gary; Larsen, Knud S., & Cope, Stephen C. (Marshall U.) **Authoritarian traits as predictors of candidate preference in 1968 United States Presidential election.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 629-630.—Investigated the relation of candidate preference during the 1968 Presidential election to scores on 4 measures of authoritarianism. A survey was administered to a random sample of 141 male and 141 female undergraduates. Significant differences between Wallace supporters and supporters of other candidates on 3 of the 4 measures indicate that general authoritarianism, in addition to right-wing authoritarianism, is predictive of candidate preference. Sex

differences were reported on only 1 of the 4 assessments, and age correlated inversely with all measures.—*Journal abstract*.

6177. Ward, Charles D. (U. Maryland) **Length of attitude statements as an indicator of attitude.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 398.—Obtained measurements of attitude toward Negroes from 316 undergraduates. Each S wrote the most anti- and pro-Negro attitude statements he could imagine. It was found that pro-Negro Ss wrote longer pro- than anti-Negro attitude statements; they also wrote longer pro-Negro attitude statements than did anti-Negro Ss. Results indicate that communication length may be useful as an indirect indicator of attitude.—*Author abstract*.

Formation & Change

6178. Brehm, Jack W. & Jones, Russell A. (Duke U.) **The effect on dissonance of surprise consequences.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 420-431.—Suggested and tested the hypothesis that the magnitude of dissonance aroused by a commitment will be reduced or increased by subsequent, unexpected, positive and negative consequences, respectively. Under the guise of consumer research, 77 female undergraduate Ss chose between 2 attractive long playing records. Some of the Ss were forewarned that by selecting the right record they could also win 2 free movie tickets, while other Ss were not forewarned. After the choice, $\frac{1}{2}$ of the forewarned and $\frac{1}{2}$ of the unforewarned Ss learned that they had won 2 free movie tickets by their selection of a record, while the other $\frac{1}{2}$ learned that they had not won the 2 free tickets by their selection. A control condition without mention of tickets established the amount of dissonance reduction from the choice per se. A measure of change in attractiveness of the records from before and after the choice indicate that the magnitude of dissonance was affected by winning or not winning the tickets only when Ss were forewarned. It is concluded that surprise consequences probably do not affect the magnitude of preexistent dissonance and that "felt responsibility" for consequences may be an appropriate concept for understanding the relevant evidence.—*Journal abstract*.

6179. Charley, Beverly H. (U. Nevada) **The effectiveness of Negro teachers for changing developing racial attitudes in young children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 824.

6180. Dawson, John L. (U. Hong Kong, China) **Attitude change and conflict among Australian aborigines.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 101-116.—Studied the effects of urbanization on aboriginal attitude change and unresolved attitudinal conflict using 3 aboriginal samples selected for varying degrees of exposure to modern influences. These were a semitraditional Arunta sample, a semimodern Wallaga Lake sample, and a modern Sydney sample. The study was carried out in terms of traditional vs. Western (T-W) attitude consistency theory. An aboriginal version of the T-W scale was developed to test the main hypotheses which were generally confirmed. It is concluded that the extremely permissive aboriginal socialization process and lack of political stratification has tended to limit the degree of acceptance of modern attitudes and values and may also tend to influence levels of achievement motivation.—*Journal abstract*.

6181. Dittes, James E. (Yale U.) **On the need for control in persuasive scientific communications.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 672.—Responds to an evaluation by E. Levonian (see PA, Vol. 45:Issue 4) to studies by H. F. Gollob and J. E. Dittes (see PA, Vol. 39:15095) on the need for control data in personality-persuasibility studies. It is suggested that the criticism was (a) based on measures different from those employed by Gollob and Dittes, and (b) used an opinion issue where stray communications were likely to occur during the test period.—P. McMillan.

6182. Gollob, Harry F. (U. Denver) **More comment on need for control in studies of persuasibility.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 678.—Suggests that E. Levonian (see PA, Vol. 45:Issue 4) has not defended his initial position that H. F. Gollob and J. E. Dittes (see PA, Vol. 39:15095) should have used a control group of Ss who were exposed to opinion measures but not exposed to the communication. It is argued that a vague feeling that a given variable might provide a "basis" for generating an unspecified alternative hypothesis is not sufficient reason to insist that the variable be controlled.—Author abstract.

6183. Larsen, Knud S., Schwendiman, Gary, & Stimpson, David V. (Brigham Young U.) **Change in attitude toward Negroes resulting from exposure to congruent and non-congruent attitudinal objects.** *Journal of Peace Research*, 1969, No. 2, 157-161.—Tested the efficacy of cognitive dissonance theory in predicting attitude change, and made a conceptual differentiation between stereotypes and attitudes. 185 undergraduates filled out Negro stereotypes and chauvinistic nationalism scales and, depending on their scores, were assigned to groups exposed to negative or positive interview with a Negro confederate. Results support the cognitive dissonance theory, but fail to support the conceptual distinction between stereotypes and attitudes.—Author abstract.

6184. Levonian, Edward. (U. California, Los Angeles) **Comment on "Reply to Levonian."** *Psychological Reports*, 1970(Oct), Vol. 27(2), 589-590.—Discusses I. Silverman's objections to evidence cited by E. Levonian (see PA, Vol. 45:Issue 4) to support his argument on the need for control data in studies of self-esteem and persuasibility. It is suggested that the 1st and 4th objections are based on erroneous claims, while the 2nd and 3rd are based on spurious arguments.—Journal abstract.

6185. Levonian, Edward. (U. California, Los Angeles) **Comment of Dittes' note.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 673-674.—E. Levonian (see PA, Vol. 45:Issue 4) criticized some previous studies in self-esteem and persuasibility for failing to use control data to test hypotheses alternative to the research hypothesis. The criticized studies included that of H. F. Gollob and J. E. Dittes (see PA, Vol. 39:15095). J. E. Dittes (see PA, Vol. 45:Issue 4) objects to this inclusion, apparently on the grounds that the Gollob and Dittes study, being "relatively more sophisticated," virtually precludes an alternative interpretation. An alternative interpretation is offered. Bases for additional alternative hypotheses which seem reasonable are suggested.—Journal abstract.

6186. Levonian, Edward. (U. California, Los Angeles) **Need for control data in studies of self-esteem and persuasibility.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 527-544.—Describes 9 studies involving self-

esteem and persuasibility following exposure to a mass communication, none of which made proper use of control data. This failure leaves unresolved the validity of interpretations which are reasonably alternative to that which supports the research hypothesis. 4 of the studies are discussed in detail to exemplify the range of interpretations which may be considered alternative to those which support research hypothesis. The need for control data in this research area is discussed in the more general context of the purpose of control data.—Journal abstract.

6187. Linder, Darwyn E. & Worchel, Stephen. (Duke U.) **Opinion change as a result of effortfully drawing a counterattitudinal conclusion.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 432-448.—Tested the hypothesis, derived from dissonance theory, that the more effort Ss exerted to attain the conclusion to a syllogistic argument the more they would come to agree with that conclusion. 3 experimentally manipulated levels of effort were created by varying the number of preliminary syllogisms 93 undergraduates had to solve in addition to finding the conclusion to the final set of premises, the assertion that cigarette smoking causes lung cancer. 2 levels of commitment to the belief that cigarette smoking does not cause lung cancer were defined by dividing Ss into those who smoked and those who did not. Attitude change scores indicate that the amount of effort expended was directly related to the amount of attitude change for smokers, but that nonsmokers in the 3 effort conditions did not differ in the amount of attitude change evinced. Data are interpreted as the result of dissonance reducing effort justification, but several alternative explanations are discussed. (22 ref.)—Journal abstract.

6188. Silverman, Irwin. (U. Florida) **Reply to Levonian.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 545-546.—Considers that E. Levonian's (see PA, Vol. 45:Issue 4) analysis of deficiencies in control procedures in self-esteem—persuasibility studies is relevant to several but not to the majority of the studies he reviews.—Journal abstract.

Influence & Behavior

6189. Levin, Jack & Black, Harvey. (Northeastern U.) **Personal appearance as a reflection of social attitudes: Stereotype or reality?** *Psychological Reports*, 1970(Aug), Vol. 27(1), 338.—Administered Kerlinger's 26-item Social Attitudes scale to 91 male and 102 female undergraduates. Responses were trichotomized into right-wing, moderate, and left-wing categories. Each S was independently rated on a 7-point semantic differential type scale of personal appearance for "hip" to "straight." Right-wing Ss were found straighter in appearance than moderates; moderates were rated as straighter than left wingers; and females were judged straighter than their male counterparts. Findings "suggest that both personal appearance and social attitudes can be regarded as dimensions of a fundamental orientation to social change."—M. West.

GROUP & INTERPERSONAL PROCESSES

6190. Bramson, Robert M. (U. California, Berkeley) **Changes in social sensitivity in group training.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 823.

6191. De Koning, Thomas L. (U. Michigan) **Interviewer and respondent interaction in the household survey interview.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 824.
6192. Doob, Anthony N. (U. Toronto, Ontario, Canada) **Catharsis and aggression: The effect of hurting one's enemy.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 291-296.—82 undergraduates were either annoyed by a confederate of the E or left alone. S then tested the confederate on a learning task. Instructions were varied so that for $\frac{1}{2}$ of the Ss, the confederate lost some or all of the money he was to receive as payment for participating in the experiment; for the other $\frac{1}{2}$ of the Ss, there was no mention of money. All Ss were then given an opportunity to give electric shocks to the confederate. Ss in the annoy conditions gave shorter shocks when the confederate had lost money. The confederate's losing money had no effect on the duration of the shocks the Ss delivered when the S had not been annoyed. (15 ref.)—*Journal abstract*.
6193. Dustin, David S. & Polihronakis, Charles T. (State University Coll. New York, Plattsburgh) **Team bias in a card contest.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 558.—Previous studies have indicated that in the laboratory, "team competition members tend to evaluate their own team product more favorably than that of the competing team." To test whether similar bias exists in a real competition, 44 undergraduates, who had just finished the 1st match of a card contest, predicted the score if they played the same team again. All winning teams and 3 of the 4 losing teams predicted their own success.—P. McMillan.
6194. Golembiewski, Robert T. & Blumberg, Arthur. (Eds.) (U. Georgia) **Sensitivity training and the laboratory approach: Readings about concepts and applications.** Itasca, Ill.: F. E. Peacock, 1970. xiii, 515 p.—Contains a collection of readings by various authors illustrating basic T-group dynamics and analyzing the processes of group development, providing theoretical frameworks to aid understanding.
6195. Gormly, John B. (U. Illinois) **Interpersonal stress and the coping styles.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 928.
6196. Hill, Arden B. & Hill, Hope H. (United States International U., San Diego, Calif.) **Practicing congruence and focusing on awareness of incongruence.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 825.
6197. Lawson, David H. (George Washington U.) **An investigation of the inter-relationship of personality, relevance and conformity to self-assessment in small group functioning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 915-916.
6198. Libby, William L. (Ohio State U.) **Eye contact and direction of looking as stable individual differences.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 303-312.—Identified 4 ocular responses by an interviewee to specific questions: (a) maintaining eye contact, (b) breaking eye contact before completion of question, (c) direction of look-aways at or after end of question—up vs. down, and (d) direction of look-away—right vs. left. In 52 male and 52 female undergraduates, each response proved markedly reliable in terms of inter-O agreement, intra-S stability, and temporal stability. Directional responses were more frequent—Ss tending to look up rather than down, left rather than right. Ss with more social experience and women tended more to maintain eye contact. Implications of directional responses for personality assessment in face-to-face communication are suggested. (15 ref.)—*Journal abstract*.
6199. Mehrabian, Albert. (U. California, Los Angeles) **Some determinants of affiliation and conformity.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 19-29.—Tested 5 sets of hypotheses relating to affiliative and conformity behaviors. All measures obtained from undergraduate Ss (Exp. I, N = 95; Exp. II, N = 90) were based on verbal questionnaires, and multiple regression analyses were used to test the hypotheses. In Exp. I with moderately familiar targets whose status or attitudes only were known, affiliative behavior correlated with a personality measure of affiliative tendency, and conformity behavior correlated with sensitivity to rejection. Attitude discrepancy, and to a lesser extent status discrepancy, implied less reinforcing quality of an unfamiliar target, and therefore less desire to affiliate with or conform to him. Increasing attitude discrepancy with a target was a greater deterrent of affiliation for those who were more sensitive to rejection. Due to the positive connotations of higher status, among targets of equally discrepant status, those who were of higher status elicited more affiliation and conformity than those who were lower in status. Dependency and affiliative tendency both correlated with the increase in desire to affiliate when fearful. There were no such correlations when anticipating more positive experiences. In Exp. II among familiar targets, the positively reinforcing ones were liked more and the negatively reinforcing ones were liked less. Positively reinforcing Ss elicited more affiliation and conformity, but conformity was also a function of status.—*Journal abstract*.
6200. Pate, James L. & Broughton, Elizabeth. (Georgia State U.) **Game-playing behavior as a function of incentive.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 36.—Assessed the correspondence between behavior and predictions from game theory in 2-person 0-sum strategy games as a function of incentive in 3 groups of 5 Ss each. Incentives were a valueless counter, imaginary money, and real money. Performance showed no systematic change across trials and did not differ for the 3 groups.—M. West.
6201. Pincus, Fred L. (U. California, Los Angeles) **Risky and conservative group shifts: Conformity, leadership or responsibility diffusion?** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 828.
6202. Posavac, Emil J. (U. Illinois) **A multivariate study of some determinants of interpersonal attraction.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 828.
6203. Pyke, Sandra W. & Neely, Cathie A. (York U., Toronto, Ontario, Canada) **Evaluation of a group communication training program.** *Journal of Communication*, 1970(Sep), Vol. 20(3), 291-304.—Compared skill and sensitivity training as used to improve effectiveness of performance in small groups. No significant differences were found in the amount of improvement gained from the different training approaches. 40 freshmen students rated themselves as having significantly improved their group effectiveness, while a no training control group showed no change. Group leaders also rated S's performance as significantly improved after training. (17 ref.)—P. Federman.
6204. Shiflett, Samuel C. (U. Illinois) **Prediction of**

group productivity as a function of member ability, task-solving strategy and task difficulty. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 830.

6205. Stapert, John C. (U. Illinois) **Multiple methods in the longitudinal study of small groups under stress.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 904.

6206. Stassen, Maurice & Marturano, Edna M. (Dept. Psicologia da FFCL, Ribeirão Preto, Brazil) **A influência da limitação e da ponderação das escolhas e das rejeições sobre o status sociométrico.** [The influence of the limitation and the weighting of the choices and the rejections on the sociometric status.] *Revista de Psicologia Normal e Patológica*, 1968(Jul), Vol. 14(3-4), 135-146.—Tested the hypothesis that the limitation and the weighting of the choices and rejections emitted in a sociometric test put a significant influence on the sociometric status of the members of a group. Freidman's 2-way analysis of variance applied to results obtained from 6 7th grade classes did not confirm the hypothesis, however, it appeared that the statistical test may have been weak. The status obtained from 40% of Ss varied according to the use of 1 notation manner or another. Regarding the problem of which notation manner is best, it is suggested that the one which gives the larger number of neutral status is best. MacNemar's test of significant differences was used to compare 4 notation manners in this aspect. It is concluded that notation manners based on a uniform quotation of choices and rejections are in best accordance with this requirement. (French summary)—*English summary*.

6207. Strümpfer, D. J. (U. Port Elizabeth, South Africa) **Fear and affiliation during a disaster.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 263-268.—Questionnaire data, collected from 161 adults after a flood, showed significant positive interrelationships between fear, affiliative tendencies (both actual and preference), and severity of threat. 1st-born Ss reported higher fear than later-born Ss; affiliation did not show this association, possibly as a result of chance age differences between 1st and later born. Indications were found that older Ss show higher affiliation than younger Ss. Women reported more fear and more affiliation than men.—*Journal summary*.

6208. Thomanek, Erich K. (U. Illinois) **Some aspects of reciprocity.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 905.

6209. Tomeković, Tomislav. (U. Belgrade, Yugoslavia) **An evaluation of some theories related to human choice.** *Studia Psychologica*, 1970, Vol. 12(2), 89-98.—Discusses the causes of liking a person and choosing him as a friend or coworker. Past research has shown few conclusive results, but does indicate that similar personality plays some role in the choice of a person for future contacts. An individual's behavior at his job, his performance, participation in the group's life, accepted values, and interests mediate interpersonal interaction. Theories of interpersonal relationships by various authors are discussed. (Czech & Russian summaries) (56 ref.)—*Journal abstract*.

6210. Wahi, Nand K. (U. Michigan) **The effects of group size and group composition on performance involving problem solving ability.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 830-831.

6211. Walker, Martha & Holbert, William. (U. Tennessee) **Perceived acceptance and helpfulness in a marathon group.** *Psychological Reports*, 1970(Aug),

Vol. 27(1), 83-90.—Used 2 means of exploring what happened in 1 group marathon (N = 15). Several statements can be made about the results: (a) change occurred during the 24-hr marathon in group structure as well as relationships within that structure; (b) change was most evident in the mean population of the group—those persons seen as above or below chance at the onset—not the "extremes"—the leader or the unchosen; (c) acceptance in a group, as measured by a target sociogram, was not achieved by psychological helpfulness, as measured by the postmarathon evaluation questionnaire; (d) aggression-confrontation was not perceived as being as important a parameter as empathic identification or acceptance-warmth; (e) the statement: "I was least helpful..." elicited a high response from the participants on the aggression-confrontation dimension and the "write-in" dimension; and (f) profiles of helpfulness given, helpfulness received, least helpfulness given, and least helpfulness received differ markedly on the 5 dimensions of psychological helpfulness perceived by the group.—*Journal abstract*.

6212. Wilke, H. & Lanzetta, John T. (Dartmouth Coll.) **The obligation to help: The effects of amount of prior help on subsequent helping behavior.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 488-493.—Studied the effect of prior help, over a wide range of values, on subsequent helping behavior. Ss were 44 undergraduate males randomly assigned to the 0, 20, 40, 60, 80, and 100% prior help conditions. The amount of reciprocated help was shown to be a monotonic increasing function of the amount of prior help. Results are consistent with social exchange theories. Possible limitations of the experimental situation used are discussed.—*Journal abstract*.

Influence & Communication

6213. Ajzen, Icek. (U. Illinois) **Prediction and change of behavior in the Prisoner's Dilemma.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 923.

6214. Ajzen, Icek & Fishbein, Martin. (U. Illinois) **The prediction of behavior from attitudinal and normative variables.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 466-487.—Tested M. Fishbein's extension of D. E. Dulany's theory of propositional control in the context of the Prisoner's Dilemma (PD) game. The theory holds that a person's behavior (B) is a function of his behavior intention (BI) which is determined by his attitude toward the act (A-act) and by his beliefs about the expectations of the other player, i.e., social normative beliefs (NBs). 2 PD games differing in Cooperation Index (CI) were each played in a cooperative, a competitive, and an individualistic motivational orientation. 16 groups, 8 male and 8 female, were assigned to each of the 3 motivational conditions. CI and motivational orientations affected questionnaire measures of the theoretical constructs and game behavior as expected. Their influence on B was mediated by BI through A-act and NBs. BI correlated highly with B and was in turn accurately predicted from A-act and NBs in a multiple-regression equation. The relative importance of A-act and NBs in predicting BI and B varied as expected with the motivational orientation: in the cooperative condition norms were relatively more important; under competition more relative weight was placed on A-act. (24 ref.)—*Journal abstract*.

6215. **Chammah, Albert M.** (U. Michigan) **Sex differences, strategy and communication in a mixed-motive game.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 925-926.

6216. **Christensen, Larry.** (Texas A & M U.) **Person perception accuracy as a function of ethnic group and familiarity.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 510.—32 white and 15 black judges made predictions of self-ratings under maximum and minimum information conditions for 4 targets, 1 black and 1 white of each sex. Analysis of the computed accuracy scores indicate that targets differ in the ease with which they are perceived, increased familiarity increases accuracy, and accuracy of perception is a function of the race of both the judge and the target.—*Author abstract.*

6217. **de Morales, Florence.** **Aspectos de las discusiones en grupo.** [Aspects of group discussions.] *Revista de Psicología*, 1968, Vol. 13(1-2), 115-122.—Proposes a general scheme on the nature, function, and problems of a discussion situation. Group discussion is defined and its objectives are outlined. Specific functions of discussion are elaborated: (a) the transmission of information, (b) the study of the problem and preparation of decisions, (c) reaching a decision, (d) pedagogical function, (e) psychosociological function, (f) therapeutic function, and (g) investigative function. 3 necessary activities of a group discussion which include the production, facilitation, and regulation of the discussion are elaborated. The distribution of activities is also outlined, noting the different types of possible gathering: conversational, cooperative, gatherings centering around a problem, and gatherings centering around the group.—*P. Hertzberg.*

6218. **Fulton, R. Barry.** (U.S. Information Agency, Karachi, Pakistan) **The measurement of speaker credibility.** *Journal of Communication*, 1970(Sep), Vol. 20(3), 270-279.—5 dimensions of personality—agreeableness, conscientiousness, culture, extroversion, and emotional stability—were varied and measured in investigating speaker credibility. A measure of attraction was correlated against S's response ($N = 246$ undergraduates) to 2 speakers representing opposite poles of a dimension. The resulting correlation of .65 is taken to represent the dimension of credibility. A subsequent study measuring credibility of 1968 Presidential candidates was used for validation purposes.—*P. Federman.*

6219. **Johnson, David W. & Dustin, Richard.** (U. Minnesota) **The initiation of cooperation through role reversal.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 193-203.—Examined the effectiveness of a cooperatively oriented negotiator who is highly skilled in role reversal in inducing cooperation in an adversary. The experiment consisted of 2 stages, the induction of the negotiating positions and the negotiations between the S and a confederate of the Es. In the negotiations, confederates used role reversal to initiate cooperation, while Ss were given either an individualistic or a competitive orientation and negotiated without role reversal. With the expectation that their positions were incompatible, Ss negotiated in 2 situations, 1 where the positions were incompatible and 1 where the positions were actually compatible. More agreements were reached in a shorter period of time in the individualistic than in the competitive conditions. (15 ref.)—*Journal summary.*

6220. **Meininger, J. V.** **Das Verhalten:** [Behavior.]

Psychiatria, Neurologia, Neurochirurgia, 1969(Sep), Vol. 72(5), 429-437.—Behavior of a human being is the expression and the self-realization of a free subject, by means of a complicated system of physical and chemical reactions. Understanding of human behavior is only possible in a process of verbal communication, in which the movements, attitudes, gestures, words, and actions of a person are interpreted and given a meaning. (German summary)—*English summary.*

6221. **O'Brien, Gordon E.** (Flinders U., School of Social Sciences, Bedford Park, Australia) **Group structure and the measurement of potential leader influence.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 277-289.—Critically reviews F. E. Fiedler's contingency model of leadership and presents a more general method of measuring potential influence available to a leader which involves the use of a matrix representing group structure. The use of this index is illustrated in a study dealing with the effect of group structure on productivity. It is concluded that this method has advantages over previous methods in that: (a) a large number of group relationships may be used, (b) it takes into account the totality of relationships in a group, and (c) it measures potential influence with precision even in large complex groups. (29 ref.)—*M. Maney.*

6222. **Pine, Lawrence D. & Stone, LeRoy A.** (U. North Dakota) **Scaling of subjective credibility: A prothetic continuum.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 295-305.—To determine the scalability of a subjective credibility dimension pertaining to psychometric test-item statements and also whether such a judgmental dimension could be classified as being metathetic or prothetic, 39 undergraduate judges made magnitude estimations of the subjective credibility of items on the Opinions about Mental Illness Scale with respect to a standard item statement (modulus value = 50). Ss were randomly divided into 2 groups with respect to the magnitude-estimation task, 1 group presented with a reversed order of stimuli. Each S also made category scale judgments of the stimuli on a 5-point credibility category scale. The judgmental credibility continuum possessed high intrascale and interscale reliability. With such high reliability, item statements can be legitimately scaled with respect to a subjective credibility judgmental dimension. The judgmental continuum was considered to be prothetic based on 2 criteria, a concave downward relationship between the category and magnitude-estimation scales and a positive relationship between judgmental variability and subjective magnitude. (20 ref.)—*Journal abstract.*

6223. **Probasco, Preston D.** (U. Wisconsin) **Social feedback factors in vocal shadowing.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 828-829.

6224. **Schneider, Benjamin.** (Yale U.) **Relationships between various criteria of leadership in small groups.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 253-261.—Each of 240 male undergraduates were assigned to 1 of 48 5-man groups. Results obtained with 3 methods of measuring 3 functional roles in initially leaderless small groups were factor analyzed. 3 resultant dimensions were defined by the measures of peer, self, and O judgments and not by the functional roles being judged. A 4th measure, gross amount of verbal interaction was shown to be most highly related to O, next to peer, and least to self-ratings. A measure of general

satisfaction was shown to be only marginally related to functional role-taking. Results are discussed in terms of role differentiation and on implications of generalizing results obtained through 1 measurement procedure to those obtained with other procedures. (18 ref.)—*Journal summary*.

6225. Singh, Uday P. (Bhagalpur U., Bihar, India) **Sex and age differences in persuasibility.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 269-270.—Investigated differences in susceptibility to persuasive communications due to sex and age. 30 female and 30 male 20-23 yr. old Ss participated. All were Hindus, spoke the Hindi language, and were enrolled in the postgraduate classes. Females were more persuasive than males of the same age group. A consistent decline in persuasibility score with increasing age was also observed for the 2 groups. However, the amount of decrease in the case of males was not as high as that in females.—*Author abstract*.

6226. Tesser, Abraham. (U. Georgia) **Some effects of stimulus typicality in an impression formation task.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 159-164.—Hypothesized that the greater the number of people who could be described with a particular trait the less "information" in that trait and, hence, the less weight it would be given in an impression formation list. 187 adjectives previously scaled for likeability were scaled for information. 8 impression formation lists were formed by systematically varying 2 blocks of selected adjectives/list with respect to order, likeability, and information. 96 undergraduates served as Ss. Males conformed to the information hypothesis on change in impression and on over-all impression especially with respect to the information content of the positive adjectives ($p < .05$). Females did not conform to the hypothesis. A significant ($p < .001$) recency effect was obtained.—*Journal abstract*.

6227. Wicklund, Robert A., Slattum, Valerie, & Solomon, Ellen. (U. Texas) **Effects of implied pressure toward commitment on ratings of choice alternatives.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 449-457.—If an individual has the option of choosing 1 of several alternatives or none at all and is asked to examine and rate the alternatives predecisionally in the presence of a bystander, how are his ratings affected if he knows that the bystander has a vested interest in his choosing an alternative? The following predictions were derived from a theory of psychological reactance: (a) lower predecision ratings of the alternatives will result to the extent that a bystander ostensibly desires that the S commit himself to an alternative, and (b) the effect of the bystander with a vested interest will be greatest given that the S has examined relatively few choice alternatives. Both predictions were confirmed in an experiment with 20 female undergraduates.—*Journal abstract*.

Social Perception & Motivation

6228. Altmann, H. A. & Shymko, D. (U. Calgary, Alberta, Canada) **A study of interpersonal judging accuracy as related to life style.** *Western Psychologist*, 1970(May), Vol. 1(3), 113-116.—Tested 31 graduate students enrolled in a counseling program, using the Barron Complexity scale and the Cline Interpersonal Perception Film Tests. Results indicate (a) no significant difference in interpersonal accuracy scores as a result of

a training experience, (b) no significant difference between interpersonal accuracy scores of counselor trainees and educational administration students, and (c) no significant effect of life style on interpersonal accuracy scores.—*Journal summary*.

6229. Conklin, R. C. & Ogston, D. G. (U. Calgary, Alberta, Canada) **The effect of varying the mode of information on interpersonal judging accuracy.** *Western Psychologist*, 1970(May), Vol. 1(3), 100-105.—Presented the V. B. Cline films to 72 graduate students in 5 groups who (a) were shown the films with sound, (b) were shown the films without sound, (c) heard only the sound track, (d) were presented with minimal information (stereotype), or (e) were not given any relevant information. All groups responded to the tests which follow the Cline films. Results indicate that groups exposed to sound and groups exposed to sight of the films scored higher than the other groups on attentional tests. The initial hypothesis that groups given varying amounts of personal information would do equally well on intuitive tests was only partially supported.—*Journal summary*.

6230. Gardner, R. C., Taylor, D. M., & Santos, Emma. (Philippine Normal Coll., Manila) **Ethnic stereotypes: The role of contact.** *Philippine Journal of Psychology*, 1969(Jun), Vol. 2(1), 11-24.—Proposes an interpretation which considers ethnic stereotypes as inferences about groups made from information obtained. Contact is viewed simply as one way of obtaining information and its role in stereotype change is seen as depending upon the nature of the contact. It is hypothesized that consensus in the stereotype will develop when many members of the stereotyping group share common information about the stereotyped group; heterogeneity of experiences will result in a lack of consensus. This interpretation was supported with data obtained from 2 groups of American teachers. 38 Ss who lived in the Philippines for 9 wk. (contact group), and 30 Ss who did not (no contact group).—*Journal abstract*.

6231. Himmelfarb, Samuel. (U. Massachusetts) **Effects of cue validity differences in weighting information.** *Journal of Mathematical Psychology*, 1970(Oct), Vol. 7(3), 531-539.—Ran 2 experiments to determine how cues varying in validity are combined in categorizing a person. Ss learned the validities of single facial cues and then responded to compounds of the cues. There were 24 undergraduate Ss in Exp. I, and 45 in Exp. II. 3 special cases of a generalized weighted averaging model for combinatorial behavior were examined: a simple averaging model, a cue weighting model, and a complete discounting model. The best fit was provided by the cue weighting model, but the discrepancies from the model indicate that it was not giving sufficient weight to the most valid cue. No evidence for a summation process was obtained in cases of nonconflicting cue compounds.—*Journal abstract*.

6232. Kelley, Harold H. & Stahelski, Anthony J. (U. California, Los Angeles) **The inference of intentions from moves in the Prisoner's Dilemma game.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 401-419.—After learning the Prisoner's Dilemma game 98 undergraduates who had indicated that their own goal would be cooperative vs. competitive ($N = 49$ in each case) were presented with short sequences of interaction between Players A and B. For each 1, they judged its information value as to A's intention for the relationship, what intention it indicated, etc. These judgments

provided the evidence for testing a series of hypotheses suggested by attribution theory. Support was obtained for the hypothesis that consistent behavior by A yields more information and consensus than does inconsistent behavior. Partial support was found for the hypotheses that (a) consistent disagreement with B yields greater information than consistent agreement, and (b) inconsistency that constitutes an "initiative" or shift away from B yields greater information than inconsistency that constitutes an "imitative" shift toward B. Both were found to be true when A's final action in the sequence was competitive but not when it was cooperative. The hypothesis that competitive behavior, being regarded as less socially desirable and more uncommon, will yield more information than cooperative behavior was not supported. Results are reported on judgments of "acting on principle" and inferences as to A's expectations about B's later moves. Evidence on individual differences in attribution is consistent with the proposition that attributions are made according to the S's experience with internal and external causes of his own behavior.—*Journal abstract.*

6233. Lamberth, John & Craig, Lance. (Purdue U.) **Differential magnitude of reward and magnitude shifts using attitudinal stimuli.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 281-285.—Based on the assumption that if attitudinal stimuli in a discrimination task are reinforcers, they should bring about other behavioral consequences analogous to more traditional reinforcers, magnitude of reward and shifts in reward magnitude were examined. Personal evaluations were used as large magnitude and neutral statements as small magnitude. Ss were 19 female and 17 male undergraduates. $\frac{1}{2}$ of the Ss in the large and small magnitude groups were shifted to the opposite reward contingency in Phase II of the experiment. As hypothesized, the large magnitude group was performing at a higher rate than the small magnitude group prior to the shift ($p < .01$). When the magnitudes were shifted, the performance of the Ss was reversed ($p < .02$). Results support the reinforcement model of attraction. (16 ref.)—*Journal abstract.*

6234. Lee, Jeanie C. (U. Michigan) **The temporal aspect of context effects in judgment.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 827-828.

6235. Naatz, Tilo. (Free U., Inst. of Psychology, Berlin, W. Germany) **Untersuchung zur Lebensraumrepräsentanz der Grösse-Valenz-Verknüpfung: Ein bedingungsanalytischer Beitrag zum Problem der sozialen Wahrnehmung.** [Investigation concerning environmental representation of size-valence linkage: An analytical contribution to the problem of social perception.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 277-295.—Presents a cognitive theory of accentuation not based on processes controlled by specific needs and valences. Preexperimental conditions may determine an associative link between valence and size. Experimental confirmation for the theory was found by testing 2 groups who gave size judgments of objects listed previously as liked or disliked. (English & French summaries) (25 ref.)—*W. J. Koppitz.*

6236. Parducci, Allen. (U. California, Los Angeles) **The relativism of absolute judgments.** *Scientific American*, 1968(Dec), Vol. 219(6), 84-90.—Presents the view that a "universal balance for judgments" must be

rejected. Experiments are presented showing that the rating of misdeeds, by several hundred undergraduates, on a 5-point scale from "not particularly bad" to "extremely evil" were significantly influenced by the context of other statements in which the misdeeds were embedded. The frequency and range principles of making judgments are described and compared. It is noted that the judgment of Ss in a variety of different situations, including various sets of physical stimuli, represent a compromise between the 2 principles. Efforts to apply these principles to everyday decisions and behavior is discussed.—*P. McMillan.*

6237. Rinella, Salvatore; Ferguson, Leonard W., & Sager, Eric B. (Ohio U.) **Personality-impression formation as a function of visual cues and set.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 427-430.—In 2-person simulated employment interviews, 119 blindfolded interviewers perceived interviewees generally the same as did 256 seeing interviewers. In accord with S. E. Asch's hypothesis on the centrality of the cold-warm construct, the effect of the advance set warm is to enhance the frequency with which interviewers select warm-related words as descriptive of interviewees; the effect of the advance set cold is to lower that frequency.—*Journal abstract.*

6238. Sappenfield, Bert R. (U. Montana) **Perceived similarity to self as related to the stereotypically perceived "ideal personality."** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 297-302.—20 male and 18 female undergraduates Q-sorted 60 photographs according to perceived similarity to self and, later, according to perceived resemblance to the ideal personality. In a later quarter, 19 males and 19 females performed the Q-sorts in reverse order. For individual Ss, between-variable r 's had median values of .65-.71, and all but 5 of 76 r 's were significantly positive ($p < .01$). Within-group consensus supported the hypothesized existence of a stereotype of the ideal personality. Across-group r 's between median values of the 2 variables, and between median values on each of these variables and perceived attractiveness (across studies), varied from .77-.85, thus supporting the hypothesis that perceived similarity to self may involve identifying the self with the stereotypical ideal personality. (15 ref.)—*Journal abstract.*

6239. Saral, Tulsu B. (U. Illinois) **A study of the effect of role information on interpretation of facial expressions.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 829-830.

6240. Simon, William E. **Self-concept and the validity of the Allport-Vernon-Lindzey Study of Values.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 263-266.—Investigated the relationship between Ss' perception of their personal values and their values as measured by the Allport-Vernon-Lindzey Study of Values. 79 undergraduate Ss unknowingly completed the Study of Values and later were presented with descriptions of 9 individuals whom they were to rate with respect to similarity to self. The descriptions of 8 of these individuals were the same for all Ss. The 9th individual (individual D) was, on the basis of Ss' scores on the Study of Values, described as having a value system either very similar—high perceived similarity (PS) condition—or very dissimilar to their own. The individual D was rated as significantly more similar to self in the high PS condition.—*Journal abstract.*

6241. Stimpson, David V. & Pedersen, Darhl M.

(Brigham Young U.) **Effects of a survival training experience upon evaluation of self and others for underachieving high school students.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 337-338.—8 underachieving male high school students were involved in a 3-wk survival training experience designed to raise self-esteem and evaluation of parents and friends. A semantic differential administered in a pre- and posttest design indicated a significant increase in self-esteem and evaluation of parents.—*Journal abstract.*

6242. **Sylvester, John D.** (Inner London Education Authority, England) **Mental rigidity and the method of role-reversal.** *Studia Psychologica*, 1970, Vol. 12(2), 151-156.

COMMUNICATION

6243. **Bois, J. Samuel.** (Viewpoints Inst., Los Angeles, Calif.) **Communication as creative experience.** Los Angeles, Calif.: Viewpoints Inst., 1968. v, 42 p.

6244. **Breger, Ilana.** (New York Student Consultation Center, N.Y.) **Perception of sign language of the deaf.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 426.—30 symbols from the sign-language of the deaf were "signed" to 35 naive sighted-hearing male Ss who correctly identified 26 of them beyond chance expectations. Misidentifications tended to occur in terms of signs with associated, similar, or opposed meanings. The perception of sign language is highly accurate for individuals for whom it has no personally relevant function.—*Author abstract.*

6245. **Crane, Lorea D., Dieker, Richard J., & Brown, Charles T.** (Western Michigan U.) **The physiological response to the communication modes: Reading, listening, writing, speaking, and evaluating.** *Journal of Communication*, 1970(Sep), Vol. 20(3), 231-240.—30 male and 33 female college students were used in a 3 × 5 factorial design experiment. 3 classes of stimuli were used—personal, pleasant, and aversive words. The 5 treatment conditions were reading, listening, writing, speaking, and evaluating. The stimuli (except listening) were presented tachistoscopically and psychological measurements were taken by a Fels dermohmeter and a Gilford cardiachometer. Listening and writing had significantly more arousal than reading; listening and writing were not significantly different from each other. Speaking was significantly greater than listening, and writing and evaluating were significantly greater than speaking. Personal words produced more arousal than pleasant or aversive words. Heart-rate measures did not indicate differences among the 5 modes of communication or the 3 categories of stimulus words.—*P. Federman.*

6246. **Cuadra, Carlos A. (Ed.)** **Annual review of information science and technology: II. 1967.** New York, N.Y.: Interscience, 1967. viii, 484 p.

6247. **Cuadra, Carlos A. (Ed.)** **Annual review of information science and technology: I. 1966.** New York, N.Y.: Interscience, 1966. ix, 389 p.

6248. **Datsyuka, B. D.** **Voprosy teorii i praktiki massovykh sredstv propagandy.** [Problems in the theory and practice of propaganda via mass communications.] Moscow, USSR: Mysl', 1969. 566 p.—Presents a collection of 18 articles, a few of which are empirically based. The collection constitutes Issue 2 in this series.—*I. D. London.*

6249. **Dedmon, Donald N.** (Marshall U.) **A compar-**

ison of university and business communication practices. *Journal of Communication*, 1970(Sep), Vol. 20(3), 315-322.—Neither universities nor industry is impressively successful in their communication efforts. In both, informal communications in informal situations is most significant. Rumors occupy an important, although undesirable, role in industry. Industry tends to emphasize written communications and industrial managers are concerned with the receivers of messages. Content communication, written and oral, is more varied in the university. Neither group pays much attention to communication networks.—*P. Federman.*

6250. **Gumpert, Gary.** (Queens Coll., City U. New York) **The rise of mini-comm.** *Journal of Communication*, 1970(Sep), Vol. 20(3), 280-290.—Mass communication, the relationship between large, heterogeneous, and anonymous audiences, does not describe the recent trend toward communication via the mass media to specific audiences tied together by a common bond. The bond could be geographic proximity or intellectual mutuality. The concept of mini-comm describes this newer development and is a supplement to the mass-comm concept. (18 ref.)—*P. Federman.*

6251. **Krein, I. M.** **Ob urovnyakh i tipakh informatsionnogo kontakta.** [On levels and types of informational contact.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 67-70.—Provides definitions of informational contact and level thereof. Different types of informational contact are examined for a given level.—*I. D. London.*

6252. **Krein, I. M. & Pavlovich, N. V.** **Informatsionnyi kontakt v usloviyakh raznykh kodov pri obshchnosti ponyatii.** [Informational contact when different codes accompany the use of a commonality of concepts.] *Kibernetika i Vychislitel'naya Tekhnika*, 1970, No. 4, 71-73.—Analyzes informational contact with the use of various codes, at whose basis lie common concepts. It is shown that commonality of concepts is insufficient for the establishment of informational contact at a given level. Some language mediator is necessary which, for transmission, could facilitate the evaluation of the correctness of the process and, for reception, could diminish uncertainty.—*I. D. London.*

6253. **Krippendorff, Klaus.** (U. Pennsylvania, Annenberg School of Communications) **On generating data in communication research.** *Journal of Communication*, 1970(Sep), Vol. 20(3), 241-269.—Discusses 3 kinds of communication data: (a) aggregational data accumulated in psychological inquiries, small group experiments, and survey research; (b) network data observable patterns of interest to relational biology and sociology; and (c) communication data proper. Conceptual degenerations in communication research, as a consequence of inadequate data and the importance of analyzing data appropriately, are discussed. (36 ref.)—*P. Federman.*

6254. **McNeil, Keith A.** (Southern Illinois U.) **A validity study of the semantic differential technique.** *College Student Survey*, 1970(Fal), Vol. 4(2), 55-59.—Attempted the validation of the semantic differential technique in the early spring of 1968 with 30 Ss with reference to the characteristics of protest movements by means of 5-point bi-polar scales. A few days after the assassination of Martin Luther King, which was accompanied by widespread burning and looting, 16 of the original 30 Ss rerated the scales. The means of both ratings supported 8 of the 18 research hypotheses at the

.05 level. The 8 movements were characterized as being more strong, usual, large, heavy, fast, new, active, and near than the characteristics describing the opposite pole. The initial data of the 30 Ss were factor analyzed and general evaluation, general activity, and newness emerged. The 2nd collection of data was analyzed and the only significant change was in general evaluation. It is concluded that the semantic differential technique has been partially validated as a measure of connotative meaning.—A. J. Ter Keurst.

Language

6255. Catford, J. C. (U. Michigan) **Learning a language in the field: Problems of linguistic relativity.** *Modern Language Journal*, 1969(May), Vol. 53(5), 310-317.—Assessed the opportunities and disadvantages of learning a foreign language through direct exposure. Basic accepted hypotheses concerning language learning were outlined. It is indicated that although 2nd language learning may show comparable characteristics to a child learning another tongue, the adult is relatively 5 times more efficient in assimilating the 2nd language than is the child. Foreign language learning is considered to be "intellectually internalizing." It is concluded that a foreign language student in the field should be highly motivated and, therefore, likely to engage his intellect, powers of observation, empathy, and his personality.—C. O'Donnell.

6256. Foulke, Emerson. **Methods of controlling the word rate of recorded speech.** *Journal of Communication*, 1970(Sep), Vol. 20(3), 305-314.—Presents 6 methods for increasing speech rate: (a) pacing an oral reader at a rate faster than his normal reading rate, (b) reproducing a tape or record at a speed that is faster than the speed used during the recording, (c) reproducing consecutive samples of recorded tape by an electro-mechanical device, (d) consecutive sampling by a computer, (e) manipulating the word rate of synthesized speech by instructions in the program followed by a speech synthesizer, and (f) increasing word rate by a method of frequency division without temporal alternation and frequency restoration with temporal alternation. (27 ref.)—P. Federman.

6257. Hall, John F. & Mays, Lawrence. (Pennsylvania State U.) **The interrelationships among a number of association measures.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 436-438.—The 5-letter words used by J. D. Taylor and G. A. Kimble were rated by 100 undergraduates for number of associations, familiarity, and pronounceableness; and J. A. Glaze's measure was derived from their responses to the 1st measure. The correlations among these measures of association were quite high (.90-.98), and the relationships between them and the Taylor-Kimble measure of association latency were also substantial (.73-.78).—*Journal abstract*.

6258. Locke, John L. (U. Illinois, Children's Research Center) **Phonetic analysis of pronounceability.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 583-587.—Analyzed phonetic transcriptions of 239 trigram pronunciations to determine the amount and type of speech information they contained, and possibly, to gain insight into the parameters of pronounceability. Ss were 7 phonetically naive undergraduates. When pronounced, trigrams yielded from 2-6 phonemes in 8 different syllable structures and were either monosyllabic or disyllabic. Neither the statistical frequency of phoneme

contexts in spoken English nor the motoric ease of phoneme articulation was observed to explain adequately the ease or difficulty of pronouncing trigrams. A more likely explanation, the presence or absence of grapheme-phoneme correspondence, did not appear to account for all variations in rated pronounceability. (15 ref.)—*Journal abstract*.

6259. McGuigan, F. J. (Hollins Coll.) **Covert oral behavior as a function of quality of handwriting.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 377-388.—Conducted 2 experiments in which female undergraduates, 119 and 90, respectively, wrote words or engaged in comparable nonlinguistic (control) tasks. It was found that both covert oral behavior and breathing rate, but not covert nonoral behavior, were significantly greater during the linguistic task. Amplitude of covert oral behavior varied inversely with the quality of handwriting. It is concluded that covert oral behavior is beneficial in the performance of language tasks.—*Journal abstract*.

6260. Mewhort, D. J. (Queen's U., Kingston, Ontario, Canada) **Guessing and the order-of-approximation effect.** *American Journal of Psychology*, 1970(Sep), Vol. 83(3), 439-442.—Investigated the efficiency with which Ss can fill a missing letter from pseudowords of 0- to 4th-order approximation to English. 32 undergraduates served as Ss. The estimate was used to evaluate how much of the order-of-approximation effect can be attributed to guessing. It is concluded that guessing has negligible effects.—*Journal abstract*.

Psycholinguistics

6261. Howe, Herbert E. (Pennsylvania State U.) **A psychological study of the roles of linguistic cues in the decoding of English sentences.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 898.

AESTHETICS

6262. Deregowski, Jan B. (U. Aberdeen, Scotland) **Note on the possible determinant of "split representation" as an artistic style.** *International Journal of Psychology*, 1970, Vol. 5(1), 21-26.—Art products of children from diverse cultural backgrounds and of adults from cultures that lack highly developed traditions of pictorial art suggest preference for chain-type drawings. It seems safe to conclude that "the observed preference, unless deliberately destroyed by imposition of the established cultural values, persists into adulthood and may result in creation of a corresponding mode of representation." Some societies, such as Northwestern Indian tribes, have developed chain-type drawing to a considerable artistic level. The drawings are not regarded as means of communication about the depicted objects, yet they incorporate a system of cues that improves their communication value. This interpretation has the advantage of being equally applicable to black South Africans, American schoolchildren, and Zambians. (19 ref.) (French abstract)—S. E. Gavin.

6263. Dillon, George L. (U. California, Berkeley) **The art how to know men: A study of rationalist psychology and neo-classical dramatic theory.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 727.

6264. Ferguson, Leonard W. (Ohio U.) **Exhibits at the Provincetown Art Association.** *Perceptual & Motor*

Skills, 1970(Aug), Vol. 31(1), 285-286.—Presents a note indicating the availability of (a) a Provincetown art register, (b) a record of exhibits, and (c) a title register which, in different orders, list all works catalogued for exhibit at The Provincetown Art Association from 1915-1968. More than 14,000 exhibits and the work of more than 2060 artists are listed. It is suggested that the information would be useful for research in the field of art.—*Journal abstract*.

6265. Steig, Michael. (Simon Fraser U., Burnaby, British Columbia, Canada) **Defining the grotesque: An attempt at synthesis.** *Journal of Aesthetics & Art Criticism*, 1970(Win), Vol. 29(2), 253-260.—"The grotesque involves the managing of the uncanny by the comic. More specifically: (a) When the infantile material is primarily threatening, comic techniques, including caricature, diminish the threat through degradation or ridicule; but at the same time, they may also enhance anxiety through their aggressive implications and through the strangeness they lend to the threatening figure. (b) In what is usually called the comic-grotesque, the comic in its various forms lessens the threat of identification with infantile drives by means of ridicule; at the same time, it lulls inhibitions and makes possible on a preconscious level the same identification that it appears to the conscience or superego to prevent. In short, both extreme types of the grotesque (and there are many instances in between) return us to childhood—the one attempts a liberation from fear, while the other attempts a liberation from inhibition; but in both a state of unresolved tension is the most common result, because of the intrapsychic conflicts involved." (23 ref.)—P. R. Farnsworth.

SMOKING & DRUG & ALCOHOL USE

6266. Amo, Michael F. & Bittner, John R. (Purdue U.) **College student attitudes toward marijuana.** *College Student Survey*, 1970(Fal), Vol. 4(2), 52-54.—Reports the attitudes of representative students at a midwestern university toward the smoking of marijuana. 180 Ss checked their opinions on a 5-point rating scale, ranging from strongly agree to strongly disagree in response to 10 sentences that indicated a negative and to 5 a positive orientation toward the use of the drug. The data as a whole indicated a neutral opinion. If the data are interpreted to mean that the Ss did not perceive the questions as being relevant to their own attitudes and checked a "forced" neutral position, combining the positive responses as favoring the use of the drug and the negative ones as opposing its use could be more informative. By this procedure 42% were anti- and 22% pro-marijuana smoking.—A. J. Ter Keurst.

6267. Bowen, Max E. (U. Illinois) **Responses to smoking in the presence of anxiety-eliciting cues.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 895.

6268. Brenner, Joseph H., Coles, Robert, & Meagher, Dermot. (Massachusetts Inst. of Technology) **Drugs and youth: Medical, psychiatric and legal facts.** New York, N.Y.: Liveright, 1970. xiv, 258 p. \$5.95.

6269. Gregory, Francis C. (U. Southern California) **Corrective measures used by faculties as a deterrent to drug abuse among students of selected high schools in California.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 582.

6270. Mitchell, Kenneth R., Kirkby, Robert J., &

Mitchell, Daphne M. (U. New South Wales, Sydney, Australia) **Note on sex differences in student drug usage.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 116.—Administered a questionnaire concerning 51 drugs grouped as decrement-producing (barbituates, bromides, tranquilizers) or increment-producing (amphetamines, hallucinogens, narcotics) to 34 male and 37 female Australian undergraduates. Response comparison showed significantly higher female use of decrement-producing, but not for increment-producing drugs. Females began using decrement-producing drugs at an earlier age and had used them for a longer period. All females as compared to 40% males reported "stress" as the primary reason for using such drugs. "Doctor" was reported as the source for such drugs by both groups; females also reported "mother" as an important source.—M. West.

6271. Mizner, George L., Barter, James T., & Werme, Paul H. (U. Colorado, Medical School) **Patterns of drug use among college students: A preliminary report.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 15-24.—Reports results from 26,000 university students' replies to a questionnaire concerning: (a) the frequency of drug use, (b) mood states at time of use, (c) age at 1st use and reasons drug use was continued or discontinued, (d) attitudes toward drug use, (e) plans for future use, and (f) attitudes toward drug legislation. The questionnaire focused primarily on use of amphetamines, marijuana, and LSD. The most commonly used drug was marijuana which had been used by 26% of the students. Amphetamines had been used by 14% and LSD by 5%. Patterns of drug use were contrasted with a variety of demographic variables and with different college and university characteristics.—P. R. Shibelski.

6272. Schultes, Richard E. (Harvard U., Botanical Museum) **Hallucinogens of plant origin.** *Science*, 1969(Jan), Vol. 163(3864), 245-254.—Presents an ethnobotanical summary of plants containing psychoactive substances and discusses their significance for primitive cultures. It is noted that of the estimated 400,000-800,000 plant species, only approximately 60 have been used as hallucinogens, and of these only 20 are considered important. Hallucinogens occur throughout the plant kingdom but show an unexplained concentration in the New World. Included in the discussion are *Amanita muscaria* (a variety of mushroom), *Cannabis sativa*, *khanna*, several South American snuffs, *peyote*, *ololiuqui* (a morning glory), *Salvia divinorum* (a variety of mint), *Datura*, and *Henbane*. (40 ref.)—P. McMillan.

6273. Walsh, John. **Narcotics and drug abuse: A presidential prescription.** *Science*, 1969(Jul), Vol. 165(3891), 377-378.—Discusses President Nixon's message to Congress proposing a 10-point drug program which includes "a rewriting of existing narcotics and dangerous-drug legislation." The proposal calls for (a) measures to suppress international and domestic trafficking in drugs; (b) a model state drug law; (c) improved education programs by the departments of Justice and Health, Education, and Welfare; and (d) training and assistance for local law enforcement personnel. The program is discussed in light of its legislative possibilities and its acceptance by the scientific and professional community.—P. McMillan.

PERSONALITY

6274. Ebersole, Peter. (California State Coll.,

Fullerton) **Effects of nadir experiences.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 207-209.—Experimental studies of positive growth have generally neglected the possibility that painful (nadir) experiences can have beneficial effects. Between 36% and 44% of 36 undergraduates reported basically positive effects resulting from their nadir experiences. Also, 39% of the Ss stated that nadir effects were more important than peak (most wonderful, happy experiences) effects. Data provide support for A. H. Maslow's contention that suffering can have beneficial effects and suggest that more attention should be given to nadir effects, both in investigations of positive growth and in diagnostic studies related to peaks and nadirs.—*Journal abstract.*

6275. Levy, Leon H. (Indiana U.) **Conceptions of personality: Theories and research.** New York, N.Y.: Random House, 1970. ix, 492 p. \$10.95.

6276. Mahrer, Alvin R. (Ed.) (Miami U.) **New approaches to personality classification.** New York, N.Y.: Columbia U. Press, 1970. 425 p. \$12.50.—Presents structural, functional, and comprehensive approaches to personality classification and psychodiagnosis by a number of scholars attempting to develop new systems. The approaches vary from significant modifications of the current classification of mental orders to new departures growing out of the behavior modification theories and schools of existential psychology and psychiatry.

6277. Munns, Meredith. (U.S. Naval Air Development Center, Aerospace Medical Research Dept., Johnsville, Warminster, Pa.) **The nature of personality theory.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 11-16.—Outlined the historical antecedents and present status of personality theories, together with future trends. The impact of various factors, including scientific methodology and the growing existential movement, are discussed. That the very nature of personality seems to preclude or make intractable its study is the central theme.—*Journal abstract.*

6278. Murphy, Gardner. (George Washington U.) **Experiments in overcoming self-deception.** *Psychophysiology*, 1970(May), Vol. 6(6), 790-799.—Examines 3 mechanisms for self-deception and scanning internal information: (a) satisfactions in relation to particular figures, (b) directional factors, and (c) perceptual avoidance. It is felt that self-deception is based on the limiting of input and the concept of scanning. Since the "habits of scanning are learned," it is postulated that with adequate feedback training a person "might learn to detect his own defensive rigidities; indeed, in time he might become aware of every act of self-deception." Feedback and relaxation methods are discussed. (21 ref.)—*G. Steele.*

6279. Rehm, Lynn P. (U. Wisconsin) **The effects of validation on the relationships between personal constructs.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 400-401.

6280. Valente, L. & Merciai, S. **Profilo psicologico di alcuni studenti contestatari.** [Psychological profile of some student activists.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Mar), Vol. 30(2), 115-166.—8 student activists in leading positions showed: (a) an average to above average intelligence on the WAIS, (b) variable levels of contact with reality and conformism, (c) insufficient potential to establish interpersonal relations (Rorschach), (d) manifest aggressivity, (e) a regressive perception of the mother figure, (f) author-

itative and anxiety-provoking perception of the father figure, and (g) possibly clinical and subclinical signs of pathology.—*L. L'Abate.*

PERSONALITY TRAITS & PROCESSES

6281. Brenneis, Brooks. (Yale U., Medical School) **Male and female ego modalities in manifest dream content.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 434-442.—Compared aspects of the setting, activity, and characters in the manifest dreams of 111 young adult females and 72 young adult males in order to demonstrate differential patterns in structuring the manifest dream and to correlate these patterns with theoretical ideas about characteristic differences between male and female ego organization. A chi-square test of the results indicates a number of significant differences which indicate a greater tendency for men to structure their manifest dreams in terms of extension and separateness and for women to structure their manifest dreams in terms of intimacy. Results are discussed in terms of their fit with E. Erikson's concepts of male and female ego formation and D. Gutmann's notion of an allocentric male milieu and autocentric female milieu. (26 ref.)—*Journal abstract.*

6282. Burhenne, Dianne & Mirels, Herbert L. (Ohio State U.) **Self-disclosure in self-descriptive essays.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 409-413.—Employed a self-description essay procedure to ascertain the degree to which self-disclosing behavior would be predicted by scores on the Jourard Self-Disclosure Questionnaire and by scores on the Marlowe-Crowne Social Desirability Scale (SDS). Data from 56 college women revealed no relationship whatever between Questionnaire scores and judges' ratings of self-disclosure; a significant negative relationship was obtained between SDS scores and the self-disclosure ratings. Judges' liking for the respondent and respondent verbal-fluency were found to be substantially associated with the ratings of self-disclosure. Implications of the present results for the concept and assessment of self-disclosure are discussed. (17 ref.)—*Journal abstract.*

6283. du Preez, Peter & Ward, D. G. (U. Cape Town, South Africa) **Personal constructs of modern and traditional Xhosa.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 149-160.—Based on data gathered from 40 working adults and 40 youths, several differences were found between modern and traditional Xhosa. Members of the modern group showed greater homogeneity in construing themselves, used more permeable constructs which covered wider ranges of events, and had the self and ideal self more closely related than in the traditional group. The greater diversity of self-constructs in the traditional group is taken to imply that it is falling apart, and that there is low agreement about how members ought to see themselves, a conclusion which is confirmed by the low self-ideal self correlations in this group. (15 ref.)—*Journal summary.*

6284. Feather, N. T. (Flinders U., Bedford Park, Australia) **Preference for information in relation to consistency, novelty, intolerance of ambiguity, and dogmatism.** *Australian Journal of Psychology*, 1969(Dec), Vol. 21(3), 235-249.—77 male and 81 female undergraduates 1st wrote pro and con arguments for American intervention in South Vietnam and then rated

the direction and degree of their interest in reading 4 sets of information concerned with this issue: familiar arguments—pro and con intervention, and novel arguments—pro and con intervention. Subsequently they completed an attitude scale concerned with American intervention, S. Budner's test of intolerance of ambiguity, and Form E of Rokeach's Dogmatism Scale. Results show that: (a) Ss displayed positive interest in information, preferred consistent to inconsistent information, and preferred novel to familiar information; and (b) high intolerant and high dogmatic Ss showed a more pronounced preference for consistent information and a less pronounced preference for novel information than did low intolerant and low dogmatic Ss. (26 ref.)—*Journal abstract.*

6285. **Freundlich, David.** Narcissism and exhibitionism in the performance of classical music. *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 1-12.—When narcissism and fantasies of omnipotence are appropriately transformed and incorporated into the exhibitionism of the performance, the result is an egosyntonic sublimation or character trait rather than a neurotic defense. These infantile impulses reach productive adult expression and contribute to healthy motivation, ambition, and satisfaction. When the childish needs for exhibitionism are strongly curtailed or conflicted during psychosocial growth, the adult performer may not be able to utilize them and instead may experience anxiety or its consequences when narcissistic demands are made or infantile fantasies in this area are stimulated. This contributes to inhibitions which performers experience as unreliable memory, technical lapses, inappropriate expression, overcontrol, or as a global fear of the stage.—*Journal summary.*

6286. **Greenwald, Herbert J. & Clausen, John D.** (Massachusetts State Coll., Bridgewater) Test of relationship between yeasaying and social desirability. *Psychological Reports*, 1970(Aug), Vol. 27(1), 139-141.—Possible overlap in previous measures testing the independence of yeasaying and social desirability responding prompted a test with separate measures. Both measures were answered on an agree-disagree format by 60 undergraduates. No relationship was found; the present measure of yeasaying—number of agreements to 20 "nondiscriminating" items—did not correlate with either the positively or negatively keyed items of the Crowne-Marlowe Social Desirability scale.—*Journal abstract.*

6287. **Hjelle, Larry A. & Aboud, John.** (Villanova U.) Some personality differences between seminarians and nonseminarians. *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 279-280.—Investigated personality characteristics related to religious ego-involvement by utilization of the known criterion groups method. Specifically, a group of 33 Catholic seminarians were compared with a group of 57 Catholic nonseminarians on several EPPS variables. The results strongly confirmed the expectation that individuals who express an intense behavioral commitment to conventional religion can be characterized in terms of a set of highly uniform personality variables.—*Author abstract.*

6288. **Hogan, H. Wayne.** (Tulane U.) A symbolic measure of authoritarianism: An exploratory study. *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 215-219.—73 undergraduates were used to test the hypothesis that the personality dimension of authoritarianism can be measured by means of symbols designed

to differentiate between persons tolerant and intolerant of ambiguity just as well as it is currently measured by the verbal California F Scale. The hypothesis is affirmed, using gamma as the test of significance, at the .0069 level. Briefly discussed are the study's methodological implications. (25 ref.)—*Author abstract.*

6289. **Lazare, Aaron; Klerman, Gerald L., & Armor, David J.** (Harvard U.) Oral, obsessive and hysterical personality patterns. *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 275-290.—The 3 personality patterns were defined by a total of 20 traits obtained from a review of the clinical literature. Each of the 20 traits was measured by 7 self-rated items which reflected behavior related to the trait to be measured. Of the final 140 items in the self-rating form, only 28 items had item-to-trait correlation of less than .50. The trait scores for the 100 female patients were factor analyzed yielding 3 factors with latent roots greater than 1. The 3 unrotated factors accounted for 43% of the total variance.—*R. V. Hamilton.*

6290. **Lewinsohn, Peter M., Flippo, Joseph R., & Bergquist, William H.** (U. Oregon) Leveling-sharpening: Its relation to repression-sensitization and memory. *Psychological Reports*, 1970(Aug), Vol. 27(1), 211-214.—Studied the relationships between leveling-sharpening and (a) repression-sensitization, and (b) short- and long-term memory. 2 separate measures of repression-sensitization, the Byrne Repression-sensitization-scale and the Rorschach Index of Repressive Style, were used on 500 undergraduates, and 48 Ss were selected from the total as having very high or very low scores. Repression-sensitization and leveling-sharpening were not related, nor was the hypothesized relationship between leveling-sharpening and memory obtained.—*Journal abstract.*

6291. **Margolis, Clorinda G.** (Thomas Jefferson U., Philadelphia, Pa.) Coping and defensive responses in four role-playing situations. *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 427.—Attempted to operationalize the Kroeber-Haam model (see N. Haan, PA, Vol. 38:4234) of ego functioning and to explore the relationship of ego strength to coping responses. 40 undergraduates identified as high or low ego strength role played each of 4 stress situations. High ego strength Ss showed significantly more coping responses. Justified punishment and unjustified praise raised more defensive responses than unjustified punishment and justified praise. Chi-squares found no significant relationship between level of ego strength and the mechanisms used.—*M. West.*

6292. **Marino, Dominic R., Fitzgibbons, David J., & Mirabile, Charles S.** (Inst. of Living, Hartford, Conn.) Attention deployment in field dependence and autokinetic movement. *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 155-158.—Investigates autokinetic response tendency based upon a conceptualization of the autokinetic phenomenon as being rooted in attention deployment. The hypothesis that field-dependence-independence and the autokinetic phenomenon require a similar type of attention deployment was tested in a multiple regression design with 47 18-25 yr. old female Ss. Results suggest that the autokinetic response requires the ability to attend selectively to relevant aspects of the external environment while ignoring the spatial context in which they are embedded. Attention to internal stimuli was found to be unrelated to the autokinetic response tendency.—*Journal abstract.*

6293. Mehryar, A. H. (Pahlavi U., Shiraz, Iran) **Authoritarianism, rigidity, and Eysenck's E and N dimensions in an authoritarian culture.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 326.—Administered the Eysenck Personality Inventory and the 29-item California F Scale and a 22-item Rigidity scale by Rokeach to 108 undergraduate Iranian Ss. Product-moment correlations support neither Eysenck's hypothesis linking extroversion and authoritarianism, nor the implicit association between authoritarianism and neuroticism.—*M. West.*

6294. Meisels, Murray & Canter, Francis M. (Eastern Michigan U.) **Personal space and personality characteristics: A non-confirmation.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 287-290.—Hypothesized that greater spatial distances would be used under the stress of talking about a difficult topic and by introverted and deviant Ss. In Study I, 52 female undergraduates completed an introversion-extroversion scale and $1\frac{1}{2}$ were assigned an easy or difficult topic to discuss with another student (an accomplice). In Study II, 96 female undergraduates completed 4 measures of deviancy and interacted with a student (accomplice) under nonstress and then under stress conditions. Difficult conversation topics did not lead to greater distances and, in contrast with previous research, introversion and deviancy did not correlate significantly with individual distance.—*Journal abstract.*

6295. Meyer, Wulf U. (Ruhr U., Psychologische Inst., Bochum/Querenburg, W. Germany) **Anspruchsniveau und erlebte Selbstverantwortlichkeit für Erfolg und Misserfolg.** [Aspiration level and self-responsibility for success and failure.] *Psychologische Beiträge*, 1969, Vol. 11(3), 328-348.—Investigates relationships between aspiration level and perceived responsibility for success and failure assessed by means of a questionnaire developed by Crandall, et al. The following results are presented: (a) the absolute difference between aspiration level and attainment level decreases with increasing self-responsibility scores for success and failure, (b) more atypical shifts of aspiration level are found among Ss with lower scores on the self-responsibility scale, and (c) Ss with low scores tend to set more rigid goals than Ss with high scores in self-responsibility. (Frency summary) (40 ref.)—*English summary.*

6296. Miller, Daniel R. (Brunel U., Middlesex, England) **Optimal psychological adjustment: A relativistic interpretation.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 290-295.—As a basis for interpreting the impressive findings by E. Siegelman, J. Block, J. Block, and A. von der Lippe (see PA, Vol. 45:Issue 3) relating optimal psychological adjustment in adults to observations made of their families when the Ss were children, it is postulated that mental health be defined relative to sex, generation, epoch, and culture. An analysis of items included in the criterion of optimal adjustment suggests that it is most pertinent to families whose breadwinners have managerial or professional jobs in bureaucratic organizations, and that it might be misleading if applied to top executives, employees of entrepreneurial organizations, or members of the working class.—*Journal abstract.*

6297. Ogston, Don; Altman, Harold A., & Lane, Ada M. (U. Calgary, Alberta, Canada) **Meaning: A study of personality.** *Western Psychologist*, 1970(May), Vol. 1(3), 106-110.—Tested D. R. Peterson's (see PA, Vol. 39:10211) hypothesis that adjustment is good, neuroti-

cism is bad, and extroversion means strong and active. A 15 scale, 7-point semantic differential rated the concepts extroversion, adjustment, and myself for 400 undergraduates. Personality scores were used to group the Ss and self-ratings compared. Extroversion was generally found to be related to activity and evaluation, and adjustment to potency. Neurotic-extroverts rated themselves the highest on all 3 semantic dimensions. Adjusted-introverts rated themselves the lowest. It is suggested that results may reflect a particular cultural bias and self-perception effect.—*Journal summary.*

6298. Paffard, M. K. (U. Keele, England) **Creative activities and "peak" experiences.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 283-290.—400 6th-form and undergraduate respondents to a questionnaire wrote about any experiences they had had which they felt were similar to ones quoted from an autobiography in the questionnaire which described experiences in childhood of ecstatic joy in nature, turning sometimes to awe and fear. 55% responded to this question. No attempt is made to classify or describe the variety of experiences reported by the respondents: only some differences between the 2 groups of respondents, those describing experiences of some kind and those not doing so, are presented. A significant correlation between Ss describing such experiences and Ss expressing active interest in creative writing, painting, music, and reading poetry is emphasized. The respondents admitting to such creative artistic interests are further compared with those not doing so. (15 ref.)—*Journal abstract.*

6299. Peabody, Dean. (Swarthmore Coll.) **Evaluative and descriptive aspects in personality perception: A reappraisal.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 639-646.—The widespread emphasis on evaluation in personality perception was questioned by D. Peabody, who showed the importance of separating evaluative and descriptive aspects of trait judgments. The available evidence—including the from S. Rosenberg and K. Olshan (see PA, Vol. 45:Issue 4) and A. Felipe (see PA, Vol. 45:Issue 4)—is reexamined and suggests the following conclusions: (a) in the covariation of many traits, evaluative and descriptive relations are of comparable importance; (b) in separate trait judgments, descriptive effects are the more important when descriptive relations are strong; and (c) in the combining of several traits, it is the descriptive effects that are enhanced.—*Journal abstract.*

6300. Reynolds, Christopher M. (U. Michigan) **Personality traits of approving and disapproving responders to controversial theatre material.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 853.

6301. Seiden, Henry M. (New School for Social Research) **Time perspective and styles of consciousness: An exploratory study.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 386.

6302. Thomas, Murphy M. (George Peabody Coll. for Teachers) **Personality integration and cognitive processes.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 402-403.

6303. Vaught, Glen M. (State University Coll. New York, Oswego) **Sex differences in Category Width (Factor I) correlates.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 632.—Supported N. Kogan and M. A. Wallach's view that Factor 1 scores of the Category Width Scale (CWS) taps different dimensions

in the 2 sexes. 40 male and 30 female undergraduates were administered the CWS, Barron's Ego-Strength Scale, and the MA scale. Factor I of the CWS correlated $-.35$ ($p < .05$) with the MA scale for females, while the correlation for men was $-.07$. Broad categorizer's tended to be more confident in their approach to judgmental situations and not less confident as Kogan and Wallach had indicated.—*Author abstract.*

6304. Volksdorf, Norman R. (Texas Technological U.) **The relationship of ego-strength to ordinal position and sex.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 403.

6305. Wall, Joan B. (Arizona State U.) **Relationships of locus of control to self-actualization.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 282.—Predicted that Ss scoring higher on internal control would also be higher on a self-actualization measure. Both the Personal Orientation Inventory (POI) and the Rotter Internal-External Control scale (I-E) were administered to 113 undergraduates. Pearson product-moment correlations between the I-E (scored in the internal direction) and the POI yielded 3 significant correlations: self-regard ($r = .26$, $p < .01$), self-actualizing value ($r = .21$, $p < .01$), and nature of man as constructive ($r = .25$, $p < .05$). "Values of this size on only 3 of 12 scales suggest that the POI and I-E scales are measuring conceptually different variables."—*M. West.*

6306. Zecca, G. M. & Muzio, N. R. **Determinanti principali dei sentimenti d'inferiorità in un gruppo di giovane adulte.** [Main determinants of feelings of inferiority in a group of young adult women.] *Neuropsichiatria*, 1968(Jan), Vol. 24(1), 1-7.—Inferiority feelings found in young adult women were traced back to previous developmental stages and related to socioeconomic levels, personality, and occupational choice.—*L. L'Abate.*

6307. Zecca, G. M. & Muzio, N. R. **Rapporti fra sentimenti di inferiorità e malaggiustamento scolastico nella scuola elementare.** [Relationships between feelings of inferiority and school maladjustment in grade school.] *Neuropsichiatria*, 1968(Jan), Vol. 24(1), 9-14.—Feelings of inferiority are related to underachievement, special class placement, and negative self-concept and evaluation.—*L. L'Abate.*

Behavior Correlates

6308. Daniel, Jozef & Školdácková, Jela. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Correlations among various forms of secondary load and personality.** *Studia Psychologica*, 1970, Vol. 12(3), 244-245.

6309. Dengerink, Harold A. (Kent State U.) **Affective responsiveness, aggression and physiological arousal.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 391.

6310. Dixon, Theodore R. (Texas Christian U.) **Experimenter approval, social desirability, and statements of self-reference.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 400-405.—Using 40 undergraduate Ss high or low on a social desirability scale, a verbal conditioning attempt was made to alter the relative frequency of self-referent statements that were either positive or negative. Before reinforcement, high and low social desirability Ss responded very similarly, and used more positive than negative self-references. High social desirability Ss

responded to reinforcement by increasing equally the frequency of both positive and negative self-referent statements. Low social desirability Ss did not condition, but continued to make more positive than negative self-references. Although high and low social desirability Ss both have the need to impress others favorably, the high social desirability person is apparently more dependent on the overt, evaluative behavior of others, and for this reason he can be manipulated more easily than low social desirability Ss.—*Journal abstract.*

6311. Eisenman, Russell & Boss, Evelyn. (Temple U.) **Complexity-simplicity and persuasibility.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 651-656.—To test the generality of a previous finding concerning the way Ss who preferred simplicity reacted to threatening information, 88 high school students were studied. $1/2$ the Ss were given a positive discussion about paintings and $1/2$ were given a negative discussion. Categorization by complexity vs. simplicity preferences for polygons show that Ss who preferred simplicity significantly differed in their ratings of the paintings, depending upon whether they were in the positive or negative orientation group. Demographic correlates of age, sex, birth order, and family size are considered.—*Journal abstract.*

6312. Fremont, Theodore; Means, Gladys H., & Means, Robert S. (Oklahoma State U.) **Anxiety as a function of task performance feedback and extraversion-introversion.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 455-458.—Administered the MPI to 200 undergraduates in a midwestern university. Those who scored in the top 15% and the bottom 15% of the population tested were identified as extroverts and introverts, respectively. These 2 groups, 1 composed of 30 extroverts and the other of 30 introverts, were administered the Digit Symbol test. Upon completion of the task, each S received 1 of 3 predetermined and randomly assigned types of feedback concerning his performance. Treatment I Ss were told that results of the Digit Symbol task indicated that they had performed better than most college students. Treatment II Ss were told that their task performance was lower than that of most college students. Treatment III Ss were given no information concerning their performances. A 2×3 multiple analysis of variance design was employed to analyze Ss' performances on the Multiple Affect Adjective Check List, a standardized measure of anxiety, which was administered immediately after the feedback session. Significant differences were found on the treatment (feedback information) and the extrovert-introvert dimensions. A significant interactive effect was also observed.—*Journal abstract.*

6313. Frost, Barry P. (U. Calgary, Alberta, Canada) **A note on extraversion and aggression.** *Western Psychologist*, 1970(May), Vol. 1(3), 111-112.—Reanalyzed findings from a recent study by B. P. Frost to examine the relationship, if any, between the aggression variables and extraversion. Data for the Extroversion scale of the Junior Eysenck Personality Inventory and the Aggression scales of the Frost Self Description Questionnaire were submitted to a Principal Components analysis. Results show that introverts internalize aggression. Data, however, did not provide evidence that the contrary is true (i.e., that extroverts externalize aggression).—*P. McMillan.*

6314. Gilson, Charlotte R. (Yale U.) **Individual differences in risk taking.** *Office of Naval Research Technical Report*, 1968(Jun), No. 13, 71 p.

6315. Graf, Richard G. & Hearne, Louise. (San Diego State Coll.) **Behavior in a mixed motive game as a function of induced self-esteem.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 511-517.—Induced high, neutral, and low self-esteem in 64 undergraduates who then took part in a mixed motive game. It was hypothesized that induced low self-esteem would result in highly competitive behavior. This prediction was confirmed for the 1st trial block of 10 trials but no difference in competitive behavior among the 3 groups was observed during the 2nd-5th trial blocks. Results are discussed in terms of the success of the induction of level of self-esteem, the perceived strategy of the other player, and the way in which the perceived strategy might interact with chronic and induced levels of self-esteem.—*Journal abstract.*
6316. Grove, Michael S. & Eisenman, Russell. (Temple U.) **Personality correlates of complexity-simplicity.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 387-391.—Tested inferences derived from previous research in personality and creativity. 61 undergraduates were given a variety of personality measures and a group of 28 Ss were exposed to an authoritarian speech to see whether the speech would increase their liking of hostile humor. Although the authoritarian speech did not influence humor preferences, the personality correlates of complexity-simplicity preferences were consistent with previous research. Number of points on the polygons correlated .90 with subjective ratings of complexity by males and .92 with subjective ratings of complexity by females. Whether or not symmetry may be equated with simplicity and asymmetry with complexity are discussed.—*Journal abstract.*
6317. Kazelskis, Richard. (U. Southern Mississippi) **Field independence and the free-recall of nonsense syllables.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 351-354.—Classified 40 graduate Ss as either field independent or field dependent and then randomly assigned to 1 of 4 free-recall learning situations which were varied in terms of mode of item presentation and item meaningfulness. A $2 \times 2 \times 2$ factorial experiment was performed. The hypothesized Field Independence \times Meaningfulness and Field Independence \times Mode of Presentation interactions were not significant, but significant main effects were found for field independence ($p < .05$), meaningfulness ($p < .01$), and mode of presentation ($p < .05$). It is concluded that lists of nonsense syllables high in intralist similarity form embedding contexts analogous to the contexts presented in the Embedded Figures Test.—*Journal abstract.*
6318. Knott, Paul D. & Drost, Bruce A. (U. Denver) **Sex-role identification, interpersonal aggression, and anger.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 154.—Selected 20 each of males and females adequately adjusted to their sex roles and inadequately identified with their sex roles. Ss were each shocked by a confederate and then allowed to counter-shock. Only adequately adjusted males showed significantly more aggression than the other 3 groups in contrast to findings by D. B. Leventhal, K. M. Shemberg, and S. K. Schoelandt. It is suggested that "the relationships between sex-role identification and the expression of aggression in sanctioned or non-sanctioned conditions will remain ambiguous" until more is known about "the relationships among anger, anxiety about anger, and the actual expression of aggression."—*M. West.*
6319. Knox, Wilma J. & Grippaldi, Ricardo. (Veterans Administration, Biloxi, Miss.) **High levels of state or trait anxiety and performance on selected verbal WAIS subtests.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 375-379.—Administered the State-Trait Anxiety Inventory and WAIS subtests, Arithmetic (A), Similarities (S), and Digit Span (DS) to male Ss entering a Veterans Administration domiciliary. 2 analyses of variance were carried out among WAIS weighted scores on the 3 subtests for 3 groups (with 18 Ss each) of different state or trait anxiety levels (high, medium, and low). Analyses show significant interactions between WAIS scaled scores and anxiety: $p < .05$ for state anxiety and $p < .001$ for trait anxiety. The high-anxiety group in each instance showed the classical expectation of a lower A and DS in comparison to S; performance on DS was highest for each medium anxiety group. Curvilinear relationships and interaction effects in anxiety are discussed.—*Journal abstract.*
6320. Krauss, Herbert H. & Blanchard, Edward B. (U. Georgia) **Locus of control in ethical risk taking.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 142.—Administered Rotter's Internal-External Control Scale to 56 male and 36 female undergraduates and selected only Ss with extreme external or internal locus of control scores. The 45 selected Ss received Rettig's Behavior Prediction Scale, a test to predict the probability with which an unethical decision will be made under varied circumstances and which yields 4 component scores: sensitivity to expectation of gain, reinforcement value of gain, expectation of censure, and reinforcement value of censure. Analysis of variance revealed nonsignificant interactions between sex, locus of control, and ethical risk component. Other variables are suggested which may produce the risky shift in ethical risk-taking behavior.—*M. West.*
6321. Landis, Daniel & Slivka, Robert M. (Educational Testing Service, Princeton, N.J.) **Some determinants of multidimensional points of view: Two studies.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 659-670.—Reports 2 studies bearing on the relationship of multidimensional points-of-view to cognitive perceptual style and complex decision-making performance. In Study I, 31 Ss scaled 2 sets of stimuli. Factor loadings from a points-of-view analysis were correlated with scores from 8 cognitive perceptual style measures. Sufficient significant correlations were found to warrant a more extensive study. In Study II, 120 Ss scaled 12 problem maps after solving the problems. Each S was also administered the measures used in Study I. The scaling data were subjected to a points-of-view analysis and related to the solution and style data by a stepwise multiple regression procedure. Results indicate that: (a) multidimensional points of view are related to style data; (b) points of view are also related to complex decision-making performance; and (c) some of the previously reported style groups break down into subgroups. (24 ref.)—*Journal abstract.*
6322. Lefcourt, Herbert M. & Siegel, Jerome M. (U. Waterloo, Ontario, Canada) **Reaction time performance as a function of field dependence and autonomy in test administration.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 475-481.—Observed the effects of self- vs. E administration of RT tasks upon field-independent and field-dependent Ss with both regular and irregular procedures. It was

predicted that the more autonomous, self-directed condition would be favored by field-independent Ss, whereas E-controlled conditions would be preferred by field-dependent Ss. Results provide some support for these hypotheses in the male sample ($N=30$). Female Ss ($N=30$) produced a different pattern of results, suggesting that field dependence may have different implications in relation to sex. (17 ref.)—*Journal abstract.*

6323. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **The need to achieve and the fear of death.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 516.—Tested the hypothesis that a need to achieve is positively correlated with a fear of death. Need to achieve was measured by stories written about 4 pictures and fear of death by the completion of 2 scales by J. I. Boyar and D. Lester. Ss were 199 female undergraduates. Results failed to show a significant correlation between the 2 variables.—*P. McMillan.*

6324. **Maccoby, Michael.** **Las actitudes emocionales en relación con las elecciones políticas.** [Emotional attitudes in relation to political elections.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969, No. 11, 59-68.—Discusses the development of a questionnaire to judge emotional attitudes which underlie political preferences in the United States. 3 basic character dimensions were considered capable of being objectively qualified through interpretative questions: (a) love for life, as opposed to that which is dead or mechanical; (b) realism and sense of relation, as opposed to narcissism; and (c) independence, as opposed to extreme dependence. A love continuum (Fromm) which rated love of life to negation of life was the basis of a test of 15 questions given to 160 California voters from different socioeconomic levels in the 1968 presidential elections. Significant correlations were found between peace candidates and Ss who were young, educated, and who scored a strong love for life. It was shown that an S's amount of love for life was related to his political philosophy.—*P. Hertzberg.*

6325. **MacDonald, A. P.** (West Virginia U., Rehabilitation Research & Training Center) **Internal-external locus of control and the practice of birth control.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 206.—Included the Rotter Internal-External Control scales in questionnaires administered to 508 undergraduates to test the hypothesis that Ss with external orientations might be less likely to control their pregnancies. Data from 212 females were analyzed separately for those married and unmarried. In unmarried Ss, as predicted, 62% of the internal controls (Is) and 37% of the external controls (Es) reported using some form of birth control. Though in the predicted direction, data from married Ss failed to reach significance; birth control practices were reported by 87% of the Is and 63% of the Es.—*M. West.*

6326. **Montgomery, Doil D. & Bone, Ronald N.** (West Virginia U.) **Dream recall and cognitive style.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 386.—Investigated the suggestion of previous research that field independent Ss have higher dream recall than field dependents. S's scores were correlated on the Identical Figures Task, as a measure of field independence, with estimates (7-point scale) of their current dream recall. Results yield nonsignificant correlations for both 65 males ($r = .09$) and 64 females ($r = .02$), thus failing to support previous research.—*Author abstract.*

6327. **Nidorf, Louis J. & Argabrite, Allan H.** (San Fernando Valley State Coll.) **Cognitive complexity and the tendency to make extreme judgments.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 478.—Measured cognitive complexity by requesting 166 undergraduates to describe 1 person they liked and 1 they did not like. The measure of cognitive complexity was defined by the number of interpersonal constructs used by Ss; Ss also judged a number of concepts using a 12-scale semantic differential. Measures of extreme responsiveness and cognitive complexity were chi-square analyzed. It was found that cognitively complex Ss tend to make extreme judgments.—*M. West.*

6328. **Pivnicki, D.** (Allan Memorial Inst. of Psychiatry, Montreal, Quebec, Canada) **Aggression reconsidered.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 235-241.—Reconsiders aggression as a zoological, psychological, ethical, philosophical, religious, and political problem. Acts may be referred to as aggressive when they seem incompatible with outlooks and beliefs. It is suggested that by suppressing aggressive acts the energies man needs to survive may be harmed or even destroyed. (29 ref.)—*D. Prager.*

6329. **Smith, Ronald E. & Jeffery, Robert W.** (U. Washington) **Social evaluative anxiety and the reinforcement: Properties of agreeing and disagreeing attitude statements.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 276-280.—Administered an 80-trial visual discrimination learning task to 38 female undergraduates designated as high and low in social-evaluative anxiety. Agreeing and disagreeing attitudinal statements were made contingent upon correct and incorrect responses, respectively. It was proposed that the secondary reinforcement properties of attitude statements, acquired through discriminative reward training in situations involving approval and disapproval, would be greater for high socially anxious Ss than for nonanxious Ss. Consistent with predictions, the high-anxiety group showed significantly greater learning effects on the discrimination task than did the nonanxious group. Results also suggest that awareness of the attitudinal reinforcement contingency is not necessarily required in order for learning to occur.—*Journal abstract.*

6330. **Stark, Stanley & Kugel, Yerachmiel.** (Michigan State U.) **Toward an anthropology of dogmatism: Maladjustment, modernization, and Martin Luther King.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 291-309.—Presents research and prima facie reasons for suspecting inverse correlation between the Rokeach Dogmatism scale and the Inkeles Overall Modernity scale, and suggests (a) that the more "democratic," "openminded," "pluralistic," and "tolerant" a society, the more maladjusted to it will be "traditional man"; and (b) that an example of such a man is Martin Luther King. (41 ref.)—*Journal abstract.*

6331. **Thurner, Franz.** (24 Calsowstr., Göttingen, W. Germany) **Angstlichkeit: Eine Persönlichkeitsvariable und ihre Auswirkungen.** [Anxiety: A personality variable and its effects.] *Psychologische Rundschau*, 1970(Jul), Vol. 21(3), 187-213.—The theoretical discussion penetrates into the effects of anxiety upon perception and memory, and, in turn, upon judgments and behavior. Selected experimental results support the theoretical structure. Menacing, affect-loaded events are retained much longer by anxious persons, perhaps

even selectively perceived with the stream of events. The cumulative effect of these processes results in a self-image which is too negative. (54 ref.)—*W. J. Koppitz.*

INTELLIGENCE

6332. **Bajema, Carl J.** (U. Chicago, Population Research & Training Center) **A note on the interrelations among intellectual ability, educational attainment, and occupational achievement: A follow-up study of a male Kalamazoo public school population.** *Sociology of Education*, 1968(Sum), Vol. 41(3), 317-319.—Presents a follow-up study of C. J. Bajema (see PA, Vol. 41:4466) Kalamazoo Fertility Study of 437 civilian noninstitutionalized males, who were born in 1916 or 1917 and who were alive at age 45. Terman Group Intelligence Test scores were used to measure the intellectual ability of the Ss. Data indicate that while intelligence is associated with occupational achievement, its effects apparently operate wholly within the educational system.—*Journal abstract.*

6333. **Dubois, Thomas E. & Cohen, Walter.** (U. New Hampshire) **Relationship between measures of psychological differentiation and intellectual ability.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 411-416.—Obtained significant correlations ranging from -.21 to -.56 between field-independence measures and diverse measures of intellectual achievement many of which ostensibly have little or no relationship to embedding contexts, spatial-perceptual skills, or non-verbal organization. 143 female undergraduates served as Ss. The adequacy of H. A. Witkin's notion that significant relationships between measures of field-independence and intelligence can be explained on the basis of a common requirement for overcoming embedded contexts is questioned. An alternative interpretation is proposed and other lines of evidence consistent with this viewpoint are presented. (28 ref.)—*Journal abstract.*

6334. **Irvine, Sidney H.** (Educational Testing Service, Princeton, N.J.) **Figural tests of reasoning in Africa: Studies in the use of Raven's Progressive Matrices across cultures.** *International Journal of Psychology*, 1969, Vol. 4(3), 217-228.—Experiments involving Ss from various educational groups in Africa and Great Britain, using Raven's Progressive Matrices, compared item difficulty and described strategies employed. Factorial analysis shows that environmental variables, whether verbally loaded or not, are not associated for central African Ss. Cross-cultural analysis reveals that item difficulties change from culture to culture, and that test scores approach Western patterns as the groups adopt Western value systems. Appearance of differing individual strategies in problem solving renders it unwise to assume that the same total score provides evidence of identical samples of psychological behavior. Research with African Ss shows "that sources of variance exist that call for some revision of... assumptions about the reduction of cultural bias in figural test items." (French abstract) (38 ref.)—*S. E. Gavin.*

6335. **Mehryar, A. H. & Shapurian, R.** (Pahlavi U., Shiraz, Iran) **The application of a high-grade intelligence scale (AH5) in Iran.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 307-313.—Gave a Persian form of Heim's AH5, a high-grade group intelligence scale, to a representative sample of Iranian secondary school pupils (575 boys, 433 girls, aged 17-18 yr.). Iranian Ss as a group were found to score substantially lower than their British counterparts. Girls

were inferior to boys on both verbal and nonverbal scales of the test and there were significant differences between the 3 fields of specialization.—*Journal abstract.*

6336. **Nicholson, Charles L.** (North Carolina Central U.) **Analysis of functions of the Slosson Intelligence Test.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 627-631.—Performed a functional analysis of the Slosson Intelligence Test (SIT) using the schema designed by J. M. Sattler for analyzing the Stanford-Binet. The 2 instruments were then compared. Analysis indicates that, despite the high correlations reported between the 2 instruments, they evaluate the various mental functions in different proportions, except at the adult level. There were significant correlations among the rank order of the categories evaluated at various age levels of the SIT.—*Journal abstract.*

6337. **Wober, Mallory.** (U. Bristol, England) **Meaning and stability of Raven's Matrices test among Africans.** *International Journal of Psychology*, 1969, Vol. 4(3), 229-235.—86 Nigerian adult male Ss took the Raven's Progressive Matrices and an adapted Embedded Figures Test and 6 mo. later took the Matrices test again. Retest scores showed a significant rise and a significantly higher correlation with the Embedded Figures Test than appeared at the 1st testing. Improved scores appeared particularly among lower initial scorers. Discussion of related research suggests the importance of the social situation under which testing occurs, the communication method, and the possibility that Ss learn to perceive, decode, and process information more efficiently in 1 medium than in another. The complexity of the situation suggests that future research be designed to yield unequivocal results. (French abstract) (20 ref.)—*S. E. Gavin.*

CREATIVITY

6338. **Helson, Ravenna.** (U. California, Inst. of Personality Assessment & Research, Berkeley) **Sex-specific patterns in creative literary fantasy.** *Journal of Personality*, 1970(Sep), Vol. 38(3), 344-363.—A panel of judges rated the creative excellence of 72 works of fantasy written for 8-12 yr. old children since 1930. Formal dimensions, needs, themes, and stylistic characteristics of the books were described by rater-analysts. Overall, books by men and women differed very little, though creative books as a group had distinctive features, and creative books by men and by women showed "sex-appropriate" characteristics. On the basis of cluster analyses, 3 types of creative fantasy by male authors were identified: heroic, tender, and comic. 2 types by women authors were identified, one emphasizing independence and the other contact with the irrational and tender emotion. The less creative books did not fit these types. The patterns are interpreted in terms of relationships between the ego and unconscious, and interactions with the maternal matrix, archetypes, and society. (19 ref.)—*Journal summary.*

6339. **Hood, Ralph W. & Ginsburg, G. P.** (South Dakota State U.) **Connotative similarity of Remote Associates Test items as a function of their cultural availability.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 127-130.—Investigated the connotative similarity of Remote Associates Test (RAT) items as a function of their cultural availability using 32 undergraduates as Ss. It was demonstrated that RAT items whose correct answers are readily available in the culture as associative responses to the stimulus terms comprising their respec-

tive RAT items are more connotatively dissimilar than RAT items whose correct responses are not so readily available. The implication that the RAT is a heterogeneous instrument requiring a variety of cognitive processes is discussed. (15 ref.)—*Journal abstract.*

6340. Khatena, Joe. (Marshall U.) **Training college adults to think creatively with words.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 279-281.—Randomly assigned 101 college Ss to 4 treatment groups of equal number and exposed them to 5 creative thinking strategies. Practice increased the probability of the occurrence of original responses as measured by 2 scales or originality: onomatopoeia and images, and sounds and images.—*Journal abstract.*

6341. Raia, James R. & Osipow, Samuel H. (Ohio State U.) **Creative thinking ability and susceptibility to persuasion.** *Journal of Social Psychology*, 1970(Dec), Vol. 82(2), 181-186.—Tested the hypothesis that people high in creative thinking ability are more difficult to persuade than low creative thinkers. 29 8th graders were tested on a variety of creative thinking instruments and subjected to a persuasive appeal. Results indicate that highly creative Ss were more highly susceptible to persuasion than less creative Ss. Additional data suggested a relationship between nondogmatism and creativity which could account for the findings.—*Journal summary.*

6342. Schaefer, Charles E. (Fordham U., Creativity Center) **Development of an originality scale for the Franck Drawing Completion Test.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 402.—Developed an originality scale for the 1st 12 items of the Franck Drawing Completion Test (FDCT). The scale was applied to the FDCT protocols of 800 adolescents grouped relative to a 3-way classification system involving creative achievement, field of interest, and sex. In all criterion-group comparisons, creatives scored significantly higher than controls, indicating that the Originality scale is an effective measure for identifying creative adolescents.—*Author abstract.*

6343. Schmidt, Harald E. (National Inst. for Personnel Research, Johannesburg, South Africa) **Spatial creativity in second year architecture students.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 561-562.—Administered 3 creativity tests to a predominantly male group of 41 2nd-yr architecture students. The tests were Consequences Test, a test of verbal creativity and critical thinking; Preconscious Activity Scale, a measure of the personality aspects of creativity; and the newly designed Common Elements, which is intended to test creativity in the spatial field. Positive rs among the measures were obtained; r between the Consequences Test and the newly designed Common Elements Test was significant ($p < .01$), suggesting common components. However, the measures of creativity do not correlate significantly with academic success.—*Journal abstract.*

PERSONALITY MEASUREMENT

6344. Aberman, Hugh M. & Chansky, Norman. (Shippensburg State Coll.) **Factor analysis of two personality tests with differing conceptual frameworks.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 475-480.—Administered the 16 PF, a nomothetic personality test, and the Runner Studies of Attitudes, an ideographic personality test, in counterbalanced order to 122 graduate students. Intercorrelations among the

subtests were computed and then factor analyzed. 6 factors extracted were named anxiety, counter-dependence, extroversiveness, control, experimental attitude, and emotional independence. Though conceived in different psychometric frameworks, the 2 tests share common psychometric components.—*Journal abstract.*

6345. Abma, Barbara M. (Ohio State U.) **Changes in construction of parent and child figures following enactment: Playing a role.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 909.

6346. Brozovich, Richard. (Oakland Schools, Pontiac, Mich.) **Fakability of scores on the Group Personality Projective Test.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 143-148.—The Group Personality Projective Test (GPPT) was administered under 3 conditions: routine administration, faked emotionally disturbed, and faked well adjusted. Ss were 38 graduate students in education who were not sophisticated in the area of group personality tests. Results indicate that this sample was able to fake both poor and good personality patterns on the GPPT. Most scores on the GPPT under the faking conditions changed in directions that agreed with predictions based on the underlying theory of the test. A subanalysis of the data revealed that total score on the GPPT may be unduly influenced by a small proportion of responses.—*Author abstract.*

6347. Cook, Patrick E. & Josephs, Paula O. (Florida State U.) **The Community Adaptation Schedule and the California Psychological Inventory: A validation study with college students.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 366-373.—Studied the construct validity of the Community Adaptation Schedule (CAS) and the CPI in an experiment with 57 undergraduates. Scores on the 2 instruments were correlated and a factor analysis performed. Results give further evidence for the construct validity of the CAS and indicate that the community-adapted person is personally well adjusted as measured by the CPI.—*Journal abstract.*

6348. Ginsburg, G. P. & Hood, Ralph W. (U. Nevada) **Water Jar and Remote Associates Test performances: An associative clustering interpretation.** *Journal of Experimental Research in Personality*, 1970(Oct), Vol. 4(4), 286-290.—Predicted that undergraduates ($N = 16$) who perform well on those 10 Remote Associates Test (RAT) items whose answers are readily available as verbal associates to their item stimuli would do relatively poorly on the Water Jar Test. The prediction was supported: the relevant partial correlation between solution time on the critical Water Jar problem and errors on the high-availability RAT items was $-.55$ ($p < .05$), accounting for 31% of the variance. Results are consistent with the contention that Ss who perform well on the high-availability RAT items are likely to have a comparative disadvantage on problems whose solution is facilitated by recognition of patterns and clear switches in strategy. This is discussed within a conceptual framework of overlap among associative clusters.—*Journal abstract.*

6349. Greenwald, Herbert J. & O'Connell, Stephen M. (Massachusetts State Coll., Bridgewater) **Comparison of dichotomous and Likert formats.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 481-482.—In an experiment with 45 graduate students, it was found that responses to true-false and Likert forms of the Marlowe-Crowne Social Desirability scale correlated significantly. It is suggested that the higher precision of the Likert format

can be used to reduce the number of items of lengthy dichotomous inventories.—*Journal abstract.*

6350. Greenwald, Herbert J. & Satow, Yoichi. (Massachusetts State Coll., Bridgewater) **A short social desirability scale.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 131-135.—Ss' desire to look good, a form of social desirability responding, can powerfully affect their responses. When time is limited, it would be helpful to have a brief measure of this artifact. Such a measure was formed from the Marlowe-Crowne Social Desirability scale and other social desirability items by ranking Likert item-total correlations and then pairing each positively keyed item with a negatively keyed item of corresponding rank. The Likert and dichotomous formats were administered 1½ hr. apart to 103 Ss. Inventories of 2-38 items resulted, together with a possibility of producing more than 1 scale of equivalent internal consistency.—*Journal abstract.*

6351. Greenwald, Herbert J. & Selle, Elaine D. (Massachusetts State Coll., Bridgewater) **Responses to intact and intermixed personality inventories.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 365-366.—Examined whether social desirability responding may heighten when personality inventories are intact by administering intact and intermixed personality measures of respect for others and self-confidence with a measure of social desirability. 161 rural high school students served as Ss. Intact inventories correlated higher with social desirability than intermixed inventories. However, the effect was mild and could possibly be attributed to an inventory response set.—*Journal abstract.*

6352. Hettich, Paul I. & Walker, Ronald E. (Loyola U., Chicago, Ill.) **Effects of experimenter absence and subject briefing on social desirability scale scores.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 372-375.—Investigated the effects of 2 methodological variables, briefing-debriefing and E presence-absence on Ss' test-taking performance. 200 college males were randomly assigned to 1 of the 4 conditions and administered the Marlowe-Crowne Social Desirability Scale (SDS). Those Ss tested under the E-absent condition obtained a significantly lower SDS score than those in the E-present condition ($p < .01$). The main effect of S briefing-debriefing and the interaction were not significant. Results are discussed in terms of their relevance for both clinical testing and research methodology. (19 ref.)—*Journal abstract.*

6353. Kroger, Rolf O. & Turnbull, William. (U. Toronto, Ontario, Canada) **Effects of role demands and test-cue properties on personality test performance: Replication and extension.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 381-387.—Replicated earlier findings by R. O. Kroger (see PA, Vol. 41:10466), to test the hypothesis that the situation affects test performance by generating a set of role demands. 2 randomly constituted groups ($N = 22$ each) of community-college students described themselves on the SVIB, MA scale, and Welsh Figure Preference Test after being exposed to implicit social cues intended to induce differential role taking. Highly reliable, role-specific response differences were obtained on the 3 tests which increased when controls for accuracy of role perception and for test-cue properties were introduced. The previous results were successfully replicated over different Ss, different Es, and an additional test under conditions of improved control over extraneous variables. Findings are interpreted as

supporting the hypothesis and as extending its generality.—*Journal abstract.*

6354. Marke, Sven & Gottfries, Ingrid. (Lund U., Sweden) **Measurement of sex role perception and its relation to psychological masculinity-femininity.** *Psychological Research Bulletin, Lund U.*, 1970, Vol. 10(5), 33 p.—Describes the construction of scales for measuring sex role conception for boys and girls and for husband and wife in a family. A factor analysis of the subscales results in 4 factors which are in some degree similar to masculinity-femininity factors earlier described. The empirical correlation between measures of the sex role factors and measures of the masculinity-femininity factors are in the expected direction, but rather low. There seems to be a sex difference in the correlation structure: In men a conservative sex role perception seems to be related to high masculinity in interests (rejection of feminine interests and activities). In females a radical sex role perception seems to be related to a tendency to describe oneself as tough, aggressive, and dominant.—*Journal abstract.*

6355. Miklich, Donald R. **Item ambiguity in the Authoritarianism scales.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 414.—Tested the relative ambiguity of items in the Authoritarianism scales—the California F Scale and Rokeach's Dogmatism (D) scale. Undergraduate judges rated the ambiguity of each item and compared them to ratings of 16 other scales (3 known to be uncontaminated by response sets and 13 of unknown contamination). Results indicate the F and D scale items to be much more frequently judged ambiguous.—P. McMillan.

6356. Millimet, C. Raymond. (U. Nebraska, Omaha) **Manifest Anxiety-Defensiveness scale: First factor of the MMPI revisited.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 603-616.—A 63-item form for men and 59-item form for women of the Manifest Anxiety-Defensiveness (MAD) scale resulted from 3 separate item analyses performed on a 243-item composite scale obtained by pooling 10 scales purported to reflect anxiety and defense. A factor analysis of these 11 scales yielded 2 clearly identifiable factors, with the MAD scale defining the 1st factor. The MAD scale was shown to possess very high reliability and several studies considering normal and psychiatric samples indicated satisfactory validity. Substantive and stylistic interpretations of the MAD scale are discussed in terms of the 1st factor of the MMPI. It is concluded that the MAD scale best reflects a bipolar dimension of anxiety and defense. (45 ref.)—*Journal abstract.*

6357. Roubertoux, Pierre. (Centre National de la Recherche Scientifique, Paris, France) **Personality variables and interest in art.** *Journal of Personality & Social Psychology*, 1970(Dec), Vol. 16(4), 665-668.—Administered the Guilford-Zimmerman Personality Questionnaire and the Cattell Institute for Personality and Ability Testing Anxiety Scale in order to explore the personality of 3 contrasting groups of 27 high school students each: people interested in the theater but no other artistic pursuits; people interested solely in the visual art; and people interested in no form of art. Differences between the 3 groups were obtained on a number of 16 scales. It appears that there is a central set of variables which direct a person towards art in general. The set is accompanied by a greater number of personality variables determining interest in 1 form of art rather than another.—*Journal abstract.*

6358. Rudinger, Georg & Feger, Hubert. (U. Bonn,

Psychological Inst., W. Germany) **Die Beurteilung formaler Verhaltensmerkmale durch Rating-Skalen: Eine Generalisierbarkeitsstudie.** [The judgment of formal behavior characteristics based on rating scales: A study of generalizability.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(2), 96-112.—Ratings of formal aspects of behavior, e.g., activity, mood, and adjustment, were analyzed on the basis of a 9-point rating scale developed by Thomae. Probands were a sample of 222 60-77 yr. old Ss who were tested in 3 consecutive yr. Results were highly reliable (average coefficient of generalizability = .91). The analysis of data takes into account interindividual differences and can show longitudinal changes based on the scales. (English summary)—*R. F. Wagner.*

6359. **Schoenfeld, Lawrence S.** (U. Texas, Medical School, San Antonio) **Construction of a personality inventory through Thurstone scaling of daydreams.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 678.—Used an empirical technique to construct a personality inventory. Daydreams were chosen as the medium in which certain personality variables were reflected, and the Thurstone scaling method of equal-appearing intervals served as the technique for scaling the daydreams and constructing the inventory. This scaling resulted in the formulation of a daydream inventory which has 9 scales. Reliability and validity of the daydream inventory are assessed.—*Author abstract.*

6360. **Wohl, Julian & Palmer, Albert B.** (U. Toledo) **Correlations between Adjective Check List and Edwards Personal Preference Schedule measures of Murray's needs.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 525-526.—Presents data for 3 university student groups ($N=76, 46, 77$) showing relationships between the Adjective Check List and the EPPS scored for 15 of the needs described in an earlier study by H. A. Murray. A considerable number of significant correlations of low absolute value were found. In general, the 2 measures seem empirically to have very little common meaning.—*Journal abstract.*

6361. **Wulff, David M.** (U. Michigan) **Varieties of temporal orientation and their measurement.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 907-908.

Inventories

6362. **Chodorkoff, Bernard & Cooke, Gerald.** (Sinai Hosp., Detroit, Mich.) **Development of an inventory to measure psychosexual development.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 186.—Reports the development of the Psychosexual Stages Inventory, "a self-report, objectively scored, inventory... capable of assessing and designating in a hierarchical fashion the psychosexual stages which most influence an individual's character, behavior, values, and attitudes." Reliability coefficients on test-retest over a 3-wk period with 32 Ss were oral = .74, anal = .62, phallic = .81, genital = .86.—*M. West.*

6363. **Kramer, Ernest & Aronovitch, Charles D.** (U. South Florida) **Voice expression and rated extroversion.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 426-427.—18 undergraduates listened to neutral and emotional passages recorded by 22 speakers who had taken the Eysenck Personality Inventory (EPI). The estimates of extroversion arrived at by the 18 listener-judges did not

correlate significantly with the EPI measure of extroversion. Despite this lack of criterion validity, some voices were clearly and reliably rated as more introverted or extroverted than others. The judges' own degree of extroversion was not a significant factor in the judgments.—*Journal abstract.*

6364. **Manosevitz, Martin.** (U. Texas) **Item analyses of the MMPI Mf scale using homosexual and heterosexual males.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 395-399.—Performed item analyses of individual MMPI Mf items with total Mf score and an external criterion of homosexuality/heterosexuality. In Group 1 there were 49 heterosexuals and 49 homosexuals, and in Group 2 there were 40 heterosexuals and 40 homosexuals. The analysis of individual items with total score showed that 31 items were significantly associated in both groups. The analysis of individual items with the external criterion shows that in both groups 13 items were significantly correlated with sexual orientation. In Group 1 the correlation between total Mf score and sexual orientation was .72 and in Group 2 it was .30.—*Journal abstract.*

6365. **Salas, R. G. & Jones, P. R.** **A balanced version of the Leary Interpersonal Checklist.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 181-185.—Reports the production of an apparently improved Leary Interpersonal Checklist (ICL), constructed to correct the original item order which as suggested by the constructors of the checklist results in an uneven distribution of items representing the various ICL octants. Based on data from 1000 20-yr-old national service trainees, a table of tentative norms claimed to be more generally representative of the Australian male population than those presently available is presented.—*Journal abstract.*

6366. **Sciortino, Rio.** (Stevens Inst. of Technology) **Personality Characteristics Inventory: I. Factor structure for a combined sample of male and female college students.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 619-622.—Performed a principle components analysis on the self-ratings obtained from the Personality Characteristics Inventory ($N=941$ undergraduates). The obtained principal components were then rotated according to the varimax procedure. The varimax factors obtained were independence, purposefulness, imagination, knowledge, self-regard, diversion, wonder, self-honesty, logicity, innovativeness, and self-awareness.—*Journal abstract.*

6367. **Vélez de Pava, Margot.** (National U., Bogotá, Colombia) **Inventory multifásico de la personalidad (MMPI): Construcción de una escala T en 500 estudiantes de universidad.** [Multiphasic Personality Inventory (MMPI): Construction of a T scale for 500 university students.] *Revista de Psicología*, 1967, Vol. 12(1-2), 41-54.—500 male and female freshmen were given the MMPI and T score profiles were constructed. There were large differences between the American and Colombian profiles. The Colombian T scores were much higher, especially on the Pa and Sc scales. To avoid misinterpretation in the direction of pathology, it is recommended that MMPI results obtained with Colombian Ss be compared with the results obtained in the present study rather than the American norms.—*L. Zusne.*

Projective Techniques

6368. **Bowyer, Laura R.** (U. Glasgow, Scotland) **The**

Lowenfeld World technique: Studies in personality. Oxford, England: Pergamon Press, 1970. xiv, 223 p. \$6.50(cloth), \$4(paper).

6369. **Carvalhoes Bonilha, Lúcia.** (Pontifica Universidade Católica de São Paulo, Brazil) **Resultados de um grupo universitário de São Paulo no teste das Pirâmides Coloridas.** [Results of a college's group (São Paulo-Brazil) in the Color Pyramid Test.] *Revista de Psicologia Normal e Patológica*, 1968(Jul), Vol. 14(3-4), 147-163.—Presents results from 32 male and 38 female 20-30 yr. olds in relation to: (a) choice of color and syndromes and elements of the process formula; (b) pyramid forms; and (c) elements of construction including direction, mode, changes, and time. Results are compared with adult groups studied in France, Germany, Italy, and another Brazilian group. (French summary)—*English summary.*

6370. **Davreux, Léon.** (Centre Consultatif pour les Études, Louvain, France) **Quelques réflexions sur le test de Rosenzweig.** [Some reflections on the Rosenzweig Test.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 448-454.—Examines positive and negative aspects of the Rosenzweig Picture Frustration (PF) Test, noting that favorable points include thought order and general methodology, while unfavorable points include technical and practical considerations, especially obsolescence. The PF forms for adults is criticized in the following areas: (a) relation between stimulation and reality, (b) index of group conformity, (c) representation of various response categories, (d) the intensity of frustration induced by different situations, (e) types of dyads, (f) patterns of responses, and (g) norms.—*P. Hertzberg.*

6371. **Depuydt-Berte, R.** **Propos sur le T.A.T.** [Observations on the T.A.T.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 413-424.—Attempts to clarify misunderstandings and ambiguities about the TAT with references to research by H. A. Murray and V. Shentoub. The question of to what degree psychoanalytic interpretation may depend on material gathered in a thematic apperception test is considered. The importance of form and content analysis of the TAT is discussed as well as quantitative analysis with respect to number codification and psychograms. Comparisons are made with the Rorschach. It is suggested that the TAT should not be used for routine psychoanalytic cases, but for those which require profound study. (16 ref.)—*P. Hertzberg.*

6372. **Eisenman, Russell & Foulks, Edward F.** (Temple U.) **Usefulness of Mussen's TAT scoring system: I. Differences among Guatemalan Indians, Ladinos, and Mengalas on a modified TAT. II. Attitudes toward the physically disabled as related to nurturance and deference.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 179-185.—2 studies demonstrate use of P. H. Mussen's (see PA, Vol. 28:2443) TAT scoring system. In Study I a modified TAT, designed to fit the culture of Guatemala, was administered to 57 Guatemalans, including 34 Indians, 17 Ladinos, and 6 Mengalas. It was hypothesized that, comparing Indians and Ladinos, Ladinos would have higher need achievement and higher need autonomy, while Indians would have higher need affiliation. Press lack and press physical danger were predicted to be frequent themes, consistent with the difficulties in living experienced by all 3 groups. Also, based on a recent conceptualization, minimal differences were expected on other scoring

categories utilized. Data are consistent with hypotheses. In Study II, 20 undergraduates scoring high on need Nurturance 2 and 20 other undergraduates scoring high on Need Deference 2 verbalized their feelings about the physically disabled. Both groups were significantly likely to verbalize positive attitudes, but the Need Deference 2 Ss were also significantly likely to verbalize "stereotyped favorable" attitudes, which are interpreted as being less than fully positive.—*Journal abstract.*

6373. **Fetler-Sapin, Marie F.** (Centre Consultatif pour les Études, Louvain, France) **Une épreuve d'expression graphique: Le test de Wartegg.** [A test of graphic expression: The Wartegg Test.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 437-447.—Examines the theoretical aims of E. Wartegg concerning the utility of his test. Wartegg is regarded as a representative of the total personality, defined by 2 poles: integration and disintegration. The influence of Gestalt psychology on his theories is discussed along with his structural definition of character. Although the Wartegg Test is considered to be a useful instrument for psychoanalytic study of the personality, difficulty is seen in determining the level of personality investigated because Wartegg does not base his theories on an established system or theory. The test is considered to evoke the self-image of the S through conscious associations with reality. Comparisons with the Szondi Test are made.—*P. Hertzberg.*

6374. **Masling, Joseph & Harris, Sandra.** (State U. New York, Buffalo) **On alternative interpretations of experimental findings: A reply to Wolf.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 330-331.—Compared M. G. Wolf's (see PA, Vol. 45:Issue 4) interpretation to the authors' interpretation of the data, which makes fewer assumptions and discards fewer data than Wolf's and is able to integrate the results of several different types of experiments.—*Journal abstract.*

6375. **Monod, Mireille.** **"Le test du Village": Interprétation de la création projective a propos du test et du retest.** ["The Village Test": Interpretation of creative projection through test and retest.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 381-412.—Administered the Village Test to 3 boys, aged 8, 10, and 11, of above average intelligence in order to examine the value of the interpretation of creative projection (those reactions evoked by a stimulus object which has been proposed by a psychologist). Ss were retested after intervals of 26, 15, and 13 mo., respectively. Ss were also psychologically evaluated by the WISC, the Rorschach, a thematic test, and drew pictures on a given theme and on a free theme. The lengthy time intervals between Village tests enabled evaluations to be made of transference processes intervening in the test situations. It is proposed that the test-retest situation shows that objectivity of an S's response to the same stimulus is subject to transference factors which may be psychoanalytically interpreted. Test illustrations are included.—*P. Hertzberg.*

6376. **Murstein, Bernard I.** (Connecticut Coll.) **Points de vue récents concernant l'ambiguïté dans le T.A.T.** [Recent points of view concerning ambiguity in the T.A.T.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 425-436.—Reviews studies of the TAT which show that the most ambiguous drawings are the least useful in personality evaluation. It is theorized that because the majority of human

experience is based on interpersonal interactions, the most effective pictures involve 2 or more persons and are concerned with what is happening between them. Functions of age and sex in TAT pictures are also discussed, noting the importance of projection. It is suggested that projection may be encouraged by questions on why a person has arrived in a picture and how the picture story ends.—P. Hertzberg.

6377. Raynolds, Peter A. (U. California, Los Angeles) **The projective-differential: A general-purpose inkblot technique for studying denotable "objects."** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 521.

6378. Swartz, John D., Witzke, Donald B., & Megargee, Edwin I. (U. Texas) **Normative item statistics for the group form of the Holtzman Inkblot Technique.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 319-329.—To assist investigators who wish to use the group form of the Holtzman Inkblot Technique (HIT) in innovative ways, normative item statistics were obtained from 350 adults for all 90 HIT inkblots (Forms A and B) on the 20 variables that are hand-scored on the standard group version of the technique.—*Journal abstract*.

6379. Wolf, Martin G. (Personnel Research & Development Corp., Cleveland, O.) **An alternative interpretation of Masling and Harris' study on the sexual aspects of TAT administration.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 328-329.—J. Masling and S. Harris (see PA, Vol. 43:9855) interpreted their findings on the relative frequency of usage of TAT Cards 4 and 10 as being indicative of voyeuristic personal-sexual needs on the part of male graduate student Es intruding into a serious clinical situation. Their findings are felt to violate the principle of parsimony and to cast unwarranted aspersions on the students who served as Es. Data are reinterpreted as showing that the male students were simply applying sound clinical principles in an attempt to do as well as possible on the task given them.—*Journal abstract*.

Rorschach Test

6380. Cassiers, Léon & Cassiers, Axelle. **Comment codifier l'interprétation symbolique du Rorschach?** [How to codify the symbolic interpretation of the Rorschach.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 366-380.—Discusses problems and considerations involved in codifying the Rorschach for statistical analysis. The codification process is deemed feasible according to 3 hypotheses: (a) certain levels of the Rorschach may be considered to have a stable symbolic value; (b) every Rorschach response has a meaning, i.e., it symbolically expresses something of the subconscious transference S-examiner relationship and the subconscious affective structure of the S; and (c) in a given culture, a certain number of symbols are stable or common to everyone. An example is given to show that symbolic interpretation has more than a diagnostic and prognostic value. Also, (a) the type of reality to which a symbol belongs, (b) an agreeable, disagreeable, or neutral type of symbol, and (c) the level of symbolic elaboration are revealed.—P. Hertzberg.

6381. Morali-Daninos, A. & Cerf, F. **Les aspects dimensionnels de la personnalité dans le**

Rorschach. [Dimensional aspects of personality in the Rorschach.] *Revue de Psychologie et des Sciences de l'Education*, 1969, Vol. 4(4), 333-365.—Examines primary, secondary, and tertiary dimensions which elaborate structural and diagnostic elements in the Rorschach. A synthetic psychogram is proposed in which a quantification of personality variables is established, 15 personality dimensions are suggested. These include the classic Rorschach dimensions, 4 proposed dimensions (aspirations—global vision, conscious attention and realizations, emotions and their development, and compensations and defenses), and 5 complementary dimensions (life forces, vital principles, corporeal-visceral schema, human contact, and construction of the abstraction technique). The application of the technique is illustrated by excerpts of case studies which show the versatility of the synthetic psychogram in outlining personality dimensions.—P. Hertzberg.

6382. Pethő, Bertalan. (U. Budapest, Hungary) **Zur wissenschaftlichen Grundlegung des Rorschach Tests: I. Forschungstendenzen des Rorschach-Tests auf Grund ihrer Relationssysteme.** [On the scientific foundation of the Rorschach test: I. Tendencies to investigate the Rorschach test according to theoretical orientation.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 296-315.—As a 1st step in building a scientific framework for the Rorschach test, the theoretical position of different "schools" of interpretation is explored. 5 of these are discussed: interpretation based on association theory, search for syndromes, content interpretation, and comparative and experimental investigations. (English & French summaries) (54 ref.)—W. J. Koppitz.

6383. Sal y Rosas, Federico. **Ubicación de las áreas respuesta en el espacio de las láminas de Rorschach.** [Positions of areas of response on the Rorschach sheets.] *Revista de Psiquiatria y Psicología Médica*, 1969(Apr), Vol. 9(2), 85-96.—Examines the frequency of exterior or interior, lateral or median, upper or lower positions of response to the Rorschach test of 1696 normal Ss of Peru. Ss were divided into groups according to age, sex, cultural level, and geographic region of habitat (mountain or coast). It is concluded that: (a) exterior areas were more frequent than interior ones, lateral more than median, and upper more than lower; (b) each of these differences had the same ratio on the basis of all cases and each of the individual groups; and (c) a comparison of numbers and graphs in 11 human groups showed significant differences. For example, the most frequent positions (exterior, lateral, upper) reached a higher percentage in those groups which could be qualified as intellectually, culturally, and socially inferior (e.g., illiterate peasants) whereas the infrequent positions (interior, median, and lower) were higher in selected groups (e.g., medical students); (d) the tendency to select a particular area of response on Rorschach sheets is related to psychological qualities; and (e) the criteria of spacial position should be included in the classification of responses to the Rorschach test.—S. Maze.

6384. Saraceni, D. **Dinamica della proiettività in situazione ipnagogico-simile.** [Dynamics of projection in a hypnagogic-like situation.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Mar), Vol. 30(2), 97-113.—Performances of 16 undergraduates on the Rorschach under hypnagogic conditions showed an increase in M and FM responses.—L. L'Abate.

CLINICAL PSYCHOLOGY

6385. ———. **Dzhon Rouling Rls. Zhurnal Nevropatologii i Psikiatrii**, 1970, Vol. 70(3), 475.—Recounts the life and work of D. R. Ris (1890-1969), who contributed to the organization of international collaborative efforts in psychiatry.—*I. D. London.*

6386. ———. **Mental health book review index: An annual bibliography of books and book reviews in the behavioral sciences: Cumulative author-title index: Volumes 1-12, 1956-1967.** New York, N.Y.: New York U., Council on Research in Bibliography, 1969, iv, 178 p. \$15.—"Out-growth of an effort to develop a broadly based method of identification, selection, and synthesis for the monographic literature in the behavioral sciences," with a concentration in the psychological sciences. 3 functions are suggested: (a) as an index to the listings of 3885 books and 22,000 review citations, (b) as a checklist for significant books in the behavioral sciences and a key to multiple reviews, and (c) as an instrument of research into the creation and evaluation of this literature. In the cumulated alphabetical listing, cross-references from the names of second authors or editors have been added.—*L. Goldberger.*

6387. **Akesson, H. O. & Olanders, S.** (U. Gothenburg, St. Jörgen Hosp., Sweden) **Frequency of negative sex chromatin among women in mental hospitals. Human Heredity**, 1969, Vol. 19(1), 43-47.—Screening the 3558 female inmates of 9 Swedish mental hospitals for sex chromatin revealed only 1 S with an XO complement. This rate, .03%, does not differ from the predicted normal rate. (28 ref.)—*Journal summary.*

6388. **Alema, Giovanni, et al. (Eds.)** (Hosp. of S. Camillo de'ellis, Div. of Neurology "Lancisi", Rome, Italy) **Brain and mind problems: A jubilee volume in honour of Prof. Mario Gozzano.** Rome, Italy: "Il Pensiero Scientifico," 1968, xxxiv, 1453 p.

6389. **Benezra, E. Elliot.** (U. Illinois, Medical School) **Psychiatry in modern Turkey: Old ties and new trends clashing and blending. Psychiatric Quarterly Supplement**, 1968, Vol. 42(1), 101-115.—Describes the historical background and the multiple cultural heritage of present-day Turkey. The clashing and blending of ancient Near Eastern folk and Islamic practices with the newly introduced Western psychiatric methods are emphasized. Details of the main government, university, and private psychiatric facilities are reported. It is also noted that among the predominant Kraepelinian psychiatrists in Turkey, there is the slowly developing influence of dynamic interpersonally-oriented psychiatrists trained in the United States.—*Journal summary.*

6390. **Bolman, William M.** (Westside Community Health Center, San Francisco, Calif.) **Systems theory, psychiatry, and school phobia. American Journal of Psychiatry**, 1970(Jul), Vol. 127(1), 25-32.—Applies aspects of systems theory, i.e., subsystems, feedback, and goal-directedness, to the clinical condition of school phobia, and discusses implications for diagnosis, therapy, and training. Clinically, a systems approach to a child showing school phobia is described as consisting of: (a) estimating the relative contribution of the different system levels including the child and the sublevels of neurological and psychological structure, the family and its patterns of parental roles and communication, the school, and the community; (b) deciding

which levels provide the most likely points of leverage for change; (c) approaching these points of leverage so as to evoke cooperation for primary levels, minimize non-cooperation from other levels, and keep communications open; and (d) collecting multilevel data to develop therapeutic approaches which fit the problem's complexity. It is suggested that although the clinical applications of a systems approach in psychiatry are still remote, it is a highly useful approach for theory and practice in both individual and population aspects. (47 ref.)—*P. R. Shibelski.*

6391. **Buyanov, M. I.** (Central Inst. for Advanced Medical Training, Moscow, USSR) **Voprosy deprivatsii v detskoj psikiatrii.** [Problems of deprivation in child psychiatry.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 453-462.—Surveys the non-Soviet literature of the last decade on the various problems posed by affective and social deprivation in child psychiatry. (109 ref.)—*I. D. London.*

6392. **Clark, Gerald R., Telfer, Mary A., Baker, David, & Rosen, Marvin.** (Elwyn Inst., Pa.) **Sex chromosomes, crime, and psychosis. American Journal of Psychiatry**, 1970(May), Vol. 126(11), 1659-1663.—Attempted to disprove (or further substantiate) the belief that men with XYY chromosomes are more prone to violence. A comparative study was conducted using men with XYY chromosomes and men with the Klinefelter syndrome (XXY). Using males from hospitals for the criminally insane and from institutions for defective delinquents, mental patients and mentally retarded, a small group of XYY males and those with Klinefelter's syndrome were analyzed and compared. The average height of the XYY male is 76 in., and body configuration appears normal for the height. It is concluded that there seems to be no link between the XYY males and violent criminal behavior. There appears to be little difference between the XYY male and the Klinefelter male. The XYY male's antisocial nature and tendency to violent crime is possibly attributable to his "fearsome height." Sex chromosome abnormality may influence psychosocial adjustment but other factors also may do so, hence psychopathology and criminal behavior is not an inevitable deviance. (18 ref.)—*P. R. Shibelski.*

6393. **Costello, Charles G. (Ed.)** (U. Calgary, Alberta, Canada) **Symptoms of Psychopathology: A handbook.** New York, N.Y.: John Wiley, 1970, 679 p.

6394. **Doehring, Donald G. & Rabinovitch, M. Sam.** (McGill U., Montreal, Quebec, Canada) **Auditory abilities of children with learning problems. Journal of Learning Disabilities**, 1969(Sep), Vol. 2(9), 467-475.—Compared auditory abilities of 20 6-13 yr. old children with learning disabilities with those of 35 normal-learning children. Ss with learning problems were within normal limits in thresholds for pure tones and speech, and in speech discrimination in both quiet and noise. On a series of auditory oddity tasks, the groups did not differ significantly in loudness discrimination or on the 1st of 2 pitch discrimination tests, but the normal-learning group obtained significantly better scores on a 2nd pitch discrimination test and on tests involving the discrimination of simultaneous tones, successive tones, and speech sounds. Certain differences in the conditions of testing for the 2 groups complicated the interpretation of these results. Pitfalls of testing procedures in this area are noted. It is concluded that more research is needed before the term "auditory perceptual deficit" can be meaningfully applied to

children with learning problems. (17 ref.)—*Journal abstract.*

6395. Dohrenwend, Bruce P. & Crandell, Dewitt L. (Columbia U., Coll. of Physicians & Surgeons) **Psychiatric symptoms in community, clinic, and mental hospital groups.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1611-1621.—Queries whether or not symptomatology of substantial portions of the general population resemble that seen in the psychiatric patient. Responses to a questionnaire about 46 symptoms show that quantitative resemblance exists. Further care in classification of the seriousness of each "symptom" was taken as was care in selection of the Ss. 248 community leaders, adult heads of families, outpatients, and psychiatric patients were chosen from within the Washington Heights section of New York City. In order to acquire a fair estimate of the seriousness of each symptom, local psychiatrists and interns rated each item/symptom. Data obtained was consistent with portions of the 2 previous studies, showing a small portion of the general population having the various symptoms judged serious by the psychiatrists and interns.—P. R. Shibelski.

6396. Editorial Committee & Contributing Librarians. **Mental health book review index: An annual bibliography of books and book reviews in the behavioral sciences.** *Council on Research in Bibliography*, 1969, Vol. 14(19), 92 p.—Lists 300 books with references to multiple reviews, at least 1 being from a journal in psychology, psychiatry, or psychoanalysis. This volume extends the entire bibliography to 4491 books with a total of 28,000 references to reviews currently drawn from 210 pertinent journals in the English language. Included is an editorial on "Intensive bibliography" and the growth pattern of the literature in the behavioral sciences" which suggests basing "intensive bibliography" on an advanced level of concentration of knowledge often found in literature reviews and other "secondary" publications and illustrates how a bibliography of book reviews in the behavioral sciences, by applying the principle of selective representation, can itself become an intensifying device.—L. Goldberger.

6397. Editorial Committee & Contributing Librarians. **Mental health book review index: An annual bibliography of books and book reviews in the behavioral sciences.** *Council on Research in Bibliography*, 1970, Vol. 15(20), 87 p.—Lists 300 books with references to multiple reviews, with at least 1 being from a journal in psychology, psychiatry, or psychoanalysis. This volume extends the entire bibliography to 4793 books with more than 30,000 references to reviews currently drawn from 250 pertinent journals. Included also is a pilot bibliography of 124 lectures in 65 lectureships, and an editorial on "Lectureships in the behavioral sciences: An introduction to sociobibliography."—M. Maney.

6398. Foulkes, S. H. & Prince, G. Stewart. (Eds.) (Bethlem Royal Hosp., London, England) **Psychiatry in a changing society.** London, England: Tavistock, 1969. xviii, 211 p. \$8.—Presents papers delivered at a 1965 meeting of the Royal Medico-Psychological Association in London. Authors represent the disciplines of anthropology, education, sociology, psychology, ethology, and psychiatry. Papers debate the issue of the extent to which psychiatry can keep pace with the current rapid and radical changes in society.

6399. Freyre, Alfred V. & Flichman, J.C. **Spasmophilia caused by magnesium deficit.** *Psychosomatics*,

1970(Sep), Vol. 11(5), 500-501.—Discusses the effects and causes of magnesium deficit in humans, and postulates that it is "not an isolated and exceptional observation, but is found in everyday practice, when it is systematically sought." Cases of spasmophilia, "identified with the most frequent neuromuscular form of primary magnesium deficit" are discussed, and the symptoms described as "quite varied, associated with central, peripheral, autonomic and trophic manifestations, all of which are nonspecific." Aids in the diagnosis of magnesium deficit (i.e., plasma and red cell level changes, the EEG, and the EMG) are noted. Magnesium deficit in epilepsy, in psychic and physis stress, and in delirium tremens is also discussed. It is concluded that magnesium deficit is often falsely labeled when its symptoms are similar to those of other illnesses. An illustrative case history is presented.—P. McMillan.

6400. Frith, Uta. (Medical Research Council, Developmental Psychology Unit, London, England) **Studies in pattern detection in normal and autistic children: I. Immediate recall of auditory sequences.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 3(76, Pt.1), 413-420.—20 normal, 20 autistic, and 10 subnormal children reproduced from memory binary sequences of the type "spoon horse spoon horse spoon." Autistic Ss achieved good recall in the less redundant sequences, but were relatively impaired in recalling highly redundant sequences. However, this applied only to 10 autistic children with a low memory capacity, while 10 Ss with a high memory capacity achieved the same level of recall as 10 normal Ss. Detailed analysis of errors indicates differences between autistic Ss and the control groups. Even in otherwise incorrectly recalled patterns, normal and subnormal children preserved the dominant role of the presented pattern. This was not found in autistic children, who instead showed a marked response bias. Thus, while the control groups, regardless of development level, showed evidence of feature extraction, autistic children, regardless of development level, showed evidence of input independent pattern imposition.—*Journal abstract.*

6401. Fryers, T., Freeman, H. L., & Mountney, G. H. (U. Manchester, England) **A census of psychiatric patients in an urban community.** *Social Psychiatry*, 1970(Oct), Vol. 5(4), 187-195.—Describes the background and purpose of the Salford Psychiatric Case Register. Initial results are presented of the census in which Salford adults and children, receiving care from hospital or local psychiatric services on January 1, 1968, were enumerated. Distribution by age, sex, type of care, length of stay of hospital inpatients, and contact of patients with medical and social work psychiatric personnel is presented. Comparison is made with data from case registers in other areas. (French & German abstracts) (28 ref.)—*Journal abstract.*

6402. Ivanov, F. I. **O predmete i zadachakh meditsinskih psikhologii.** [On the subject matter and goals of medical psychology.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 462-463.—Presents a negative appraisal of the article on the teaching of medical psychology by V. V. Shostakovich (see PA, Vol. 44:12681).—I. D. London.

6403. Jaffe, Ruth. (Shalvata Hosp., Hod Hasharon, Israel) **Psychiatric classification and theories.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 145-157.—Describes the main features of the models of regression and adaptation with a view to their

possible use for classification. The former is evaluated as dualistic, intrapsychic, and psychopathological, with regression itself as the main pathological process, resulting from disintegration of the higher psychic systems. The adaptive model is evaluated as behavioristic, organismic-holistic, stressing the pathophysiological basis of mental life. It is concluded that as yet a new integrated and consistent classification system is unavailable and that an interdisciplinary recording system has to be created before satisfactory classification will be possible. (19 ref.)—*Journal abstract.*

6404. Kertesz, Robert. (Inst. Privado de Psicologia Medica, Argentina) **Anxiety and depression in medical practice.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 403-405.—Reviews 8 yr. of experience in liaison psychiatry and teaching at a hospital and university polyclinic in Buenos Aires. A schema is presented as a useful approach for nonpsychiatric practitioners, showing psychopharmacological drug effects as either somatic, somatopsychic, or psychosomatic. It is suggested that such physicians are better able to communicate in the area of psychotropic drugs than in the area of psychodynamics because of their prior familiarity with biological approaches to illness and health.—*P. McMillan.*

6405. Levita, Eric & Riklan, Manuel. (St. Barnabas Hosp., New York, N.Y.) **Integrative functions in parkinsonism.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 379-385.—Assessed the effects of neurological involvement upon integrative performance through visual-motor, perceptual, and cognitive test performance of parkinsonian and cardiac patients. A battery of tests was administered 1-3 days following admission to the hospital. No significant differences were obtained between the test results of 32 parkinsonian and 13 cardiac Ss. For parkinsonian Ss no significant variations in higher integrative functions could be attributed to differences in sex, age, extent of voluntary movement impairment, and laterality or severity of neurological involvement. Degree of autonomic nervous system impairment was related to psychological performance only in 1 test (Odd Words Test). It is suggested that perceptual-cognitive performance of groups of parkinsonian Ss does not necessarily qualify as organic in the usual psychological sense.—*Journal abstract.*

6406. Mittler, Peter. (Ed.) **The psychological assessment of mental and physical handicaps.** London, England: Methuen, 1970. xx, 857 p.\$25.—Presents a survey of the field of testing and diagnosis of handicapped children and adults. Chapters by various contributors cover intellectual and personality assessment, psychophysiological techniques, evaluation of psychiatric, subnormal, and geriatric patients, the assessment of children with various handicaps, the design of remedial programs, the construction of individual intelligence tests, and an account of recent experiments with automated testing systems.

6407. Owens, Richard T. (U. Nebraska) **A study of the performance of minimally brain-damaged and emotionally disturbed boys on six selected psychological tests.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 383.

6408. Park, George E. (Dyslexia Memorial Inst., Chicago, Ill.) **Ophthalmological aspects of learning disabilities.** *Journal of Learning Disabilities*, 1969(Apr), Vol. 2(4), 189-198.—Synthesizes the visual processes with the concept of homeostasis as applied to other

physiological functions and balances and relates their influences in reading. The significance of a multidiscipline program for diagnosing and treating learning disabilities is emphasized. It is shown that visual functions have a wide range of physiological fluctuations and balances, influenced by stimuli on the sensorimotor system of the whole visual process. Analysis of the peripheral ocular mechanism shows no significant difference between dyslexic and normal readers except in a few cases where ocular functions may be significant in reading failures. It is concluded that when an abnormal but correctable disturbance in cerebation occurs, a functional rather than organic involvement of any definite area is suggested, thus emphasizing the importance of the wide interplay of the various parts of the brain.—*M. Maney.*

6409. Parsons, Oscar A. & Klein, Helen P. (U. Oklahoma, Medical School, Oklahoma City) **Concept identification and practice in brain-damaged and process-reactive schizophrenic groups.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 317-323.—A nonverbal concept identification task involving easy and difficult subtests was given to groups of process and reactive schizophrenic, brain-damaged, and control patients. The same test was administered twice. Brain-damaged and process schizophrenic groups had poorer overall performance than the other 2 groups but did not differ from each other significantly. However, patterns of improvement on the easy and difficult subtests were different for the schizophrenic vs. brain-damaged groups. Implications for "organic" vs. "functional" explanations of process schizophrenia were discussed.—*Journal abstract.*

6410. Ploticher, A. I. **K voprosu o meditsinskoj psikhologii.** [On medical psychology.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 463-464.—Presents an amplification of the article on the teaching of medical psychology by V. V. Shostakovich (see PA, Vol. 44:12681)—*I. D. London.*

6411. Rokhlin, L. L. **Znachenie kategorii "vneshnee" i "vnutrennee" v psikhiiatril.** [Significance of the categories "outer" and "inner" in psychiatry.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 321-328.—Considered the possible relationships between the categories of the outer and the inner in normal psychology, and analyzed the methodological significance of these categories for the study of the clinical picture, etiology, and pathogenesis of mental diseases.—*I. D. London.*

6412. Sheinkopf, Sylvia. (Boston U., School of Education) **Connotative judgments by normals, aphasics, and brain-damaged non-aphasics on a pictorial adaptation of the semantic differential.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 434-435.

6413. Stein, Myron. (Center for Preventive Psychiatry, White Plains, N.Y.) **The function of ambiguity in child crises.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 462-476.—Phenomena of vagueness have been traced in communications with children normally and in crisis, and with adults in crisis. A clinical example of the ambiguous handling of a child in a physical crisis situation is described. Defensive mechanisms inherent in handling crises in an ambiguous fashion are discussed, and the phenomenon of pseudostupidity as related to ambiguity is mentioned. The need to be fooled and to fool oneself and others under stress

involves denial and the turning of passive into active. Thus, a state of uncertain helplessness can be foisted on others. Understanding this issue, and using other measures of handling anxiety, i.e., active communication with trusted persons, can be more effective ways of handling crisis situations and are a powerful tool when helping families in crisis. (16 ref.)—*Journal summary*.

6414. Strickler, Edwin. **Family interaction factors in psychogenic learning disturbance.** *Journal of Learning Disabilities*, 1969(Mar), Vol. 2(3), 146-154.—Explores the "role of family interaction factors in the production and treatment of psychogenic learning disturbance." It is proposed that when disturbed family relationships exist, parental authority often appears dictatorial-punitive, permissive-indulgent, or ambiguous-inconsistent. These patterns are reflected in the school learning behavior of the child and are facilitated by a displacement of attitudes and behaviors toward parental authority onto the teacher authority, producing a psychogenic learning disability. The clinical case record of a 13-yr-old boy is presented to illustrate the validity of this proposal, and to demonstrate the efficacy of family-centered therapy procedures as the appropriate modality for diagnosis and treatment of psychogenic learning disability. (15 ref.)—*M. Maney*.

6415. Vande Creek, Leon & Bath, John. (Tri-State Coll.) **A preliminary view of trends in age, education, and intelligence of problem youth.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 219-225.—Previous research has shown that problem youth, as a group, have a slightly lower intelligence level than the population average and are educationally retarded. Data were collected on 332 neglected, dependent, and delinquent youth admitted to a state juvenile home in 1957, 1962, and 1967. Results indicate that average age, intelligence level, and grade placement had increased significantly over the 10-yr span. The need for further research into the effect of these variables upon etiology of juvenile problems is stressed. (17 ref.)—*Journal summary*.

6416. Walsh, John J. (Oneida County Court House, Utica, N.Y.) **Law and psychiatry.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 22-39.—Asserts that it would be desirable to modify legal procedures to facilitate psychiatric communication. The law suspects that psychiatry is not generally sympathetic to the legal process, perhaps because psychiatrists do not understand the problems the law must solve if it is to accomplish its purpose.—*D. Prager*.

6417. Winnik, H. Z. (Talbieh Psychiatric Hosp., Jerusalem, Israel) **Second thoughts about "psychic trauma."** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 82-95.—Reviews the usage of the term "psychic trauma," and discusses the nature of traumatic situations. The distinction between stress and trauma is presented as being vague, the main difference being that trauma is equated with psychic subjective criteria, and stress with external quantifiable criteria. (20 ref.)—*G. Steele*.

6418. Wooley, Orland W. (U. Illinois) **Long term food regulation in the obese and non-obese.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 922.

PERSONNEL

6419. Beard, Bruce H. & Pishkin, Vladimir. (U. Texas, Southwestern Medical School, Dallas) **Self-concept**

changes in training medical and nursing students. *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 616-623.—Employed the dominance and love dimensions of the Leary Interpersonal Checklist to investigate changes in concepts of self and ideal self that occurred in 72 medical and nursing students and 11 psychiatric nursing assistants during their final year of formal academic education. Major findings are that: (a) there was a significant tendency by all Ss to perceive self as less dominant than ideal self, (b) public health nursing Ss narrowed the gap between self and ideal self, and (c) medical Ss developed greater incongruity between the 2 ratings on dominance measures.—*Journal summary*.

6420. Brengelmann, Johannes C. **La formación del psicólogo clínico: Una propuesta concreta.** [Training of the clinical psychologist: A concrete proposal.] *Revista de Psicología*, 1968, Vol. 13(1-2), 5-15.—Proposes a program for the training of clinical psychologists, reviewing the practices and theories of an international selection of universities. Suggestions are made regarding the qualifications of candidates, training objectives, formal principles of training, a training plan, exams, and financing. References are made to the curriculum plans at Maudsley Hospital in London and at England's Birmingham University.—*P. Hertzberg*.

6421. Brunstetter, Richard W. (U. California, Medical Center, San Francisco) **Community child psychiatry: Description of a training program and comments.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 445-461.—Describes an orientation course, conducted over a 5-yr period, in community child psychiatry which utilized "already existing experiences as a foundation, introduced others specifically related to community mental health, added an experience in a Project Headstart Center and an assignment as an agency consultant, and provided a seminar where community experiences could be discussed and related to pertinent readings." The major components of the course are summarized.—*G. Steele*.

6422. Dressler, David M. & Bloom, Sholom. (Yale U.) **Sensitivity training with administrators.** *Gerontologist*, 1970(Sum), Vol. 10(2), 161-162.—A 1-day sensitivity training institute was held for project directors of a state department of aging with the expectation that participants would increase their interpersonal awareness and gain a better understanding of emotional experiences in the elderly. The methods included a series of written exercises, a T group, a nonverbal exercise, and an intergroup exercise. Individuals found the experience to be informative, personally rewarding, and professionally useful. The response of participants suggests that similar institutes might be valuable for the elderly themselves in order to alleviate feelings of interpersonal isolation and loneliness.—*Journal abstract*.

6423. Goldsmith, Stephen R. (U. California, Neuropsychiatric Inst., Los Angeles) **Institutional transference and the psychiatric resident.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 256-259.—Residents develop a transference to their institutions, the nature of which is influenced by their degree of success in effectively coping with the institutional environment. Those residents who are unable to develop feelings of mastery in this area may be expected to have more difficulty in separating from the institution. (15 ref.)—*Journal summary*.

6424. Goodman, Lillian R. (Boston U., School of Education) **A model of objectives for a program of**

continuing education for psychiatric nurses in community mental health work in Massachusetts. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 774.

6425. Grotjahn, Martin. (416 N. Bedford Dr., Beverly Hills, Calif.) **The analytic group experience in the training of therapists.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 108-109.—The analytic group experience is considered a vital part of the training psychoanalysts and psychiatrists should receive. In addition to the transference relationship which can develop in a 1:1 situation, the group experience is said to provide a climate where transference relationships can occur between members and toward the group itself "as a mother." By consistently having group transference phenomenon interpreted, members can free themselves from the "repetition of the family neurosis."—S. R. Greenwald.

6426. Hale, Thomas. (Albany Medical Center Hosp., N.Y.) **Cliches of nursing education.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 40-56.—Presents and refutes 20 cliches current in nurse educationist circles.

6427. Kearney, G. E. & Tucker, J. D. **Psychology in the Australian Citizen Military Forces.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 163-170.—Describes the development of the Australian Citizen Military Forces Units of psychologists and their relationship with the Army. The recruitment, selection, and training of unit members is discussed, stressing the practical aspects of the training which is designed to supplement university psychology courses. A list of research reports so far published is included.—M. Maney.

6428. Kempler, Walter. (6233 Wilshire Blvd., Los Angeles, Calif.) **The therapist's merchandise.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 57-60.—The therapist's merchandise is "self-disclosure presented with clarity." It is his ability to know and to reveal himself as he is in relation to his patient. It is his own freedom from self-deception. It is his personal power and this power is his merchandise, "manifest presence." Manifest presence is said to be the richness of what the therapist is experiencing and his ability to express that richness. His personality and the discipline he reflects are considered determinants of how he expresses himself.—S. R. Greenwald.

6429. Klachan, Jean & Kalwinski, Helen. (Wellesley Hosp., Toronto, Ontario, Canada) **The nurse's role in the informal group.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Sep), Vol. 6(5), 267-273.—Presents observations of nurses who involved themselves in informal patient groups in a psychiatric ward over a 4-wk period in order to examine their sociotherapeutic role in such groups.

6430. Kurtz, Nancy; Kurtz, Richard, & Hoffnung, Robert. (Washington U.) **Attitudes toward the lower- and middle-class psychiatric patient as a function of authoritarianism among mental health students.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 338-341.—There is evidence that many clinicians' activities with lower-class patients may be influenced more by attitudes reflecting a middle-class orientation than by objective criteria. Authoritarianism seems especially germane to the problems of social class bias. For the evaluative dimension of the semantic differential, it was predicted that lower-class case histories would be judged more negatively by those Ss who were more authoritarian as measured by the

California F Scale. This prediction was confirmed for a group of 24 psychiatric residents and bordered on significance for a group of 16 social work students.—*Journal abstract.*

6431. Lovibond, S. H. (U. New South Wales, Sydney, Australia) **Specialized training in clinical psychology: The experimental approach.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 140-146.

6432. Nolan, Kenneth J. & Cooke, Edwin T. (U.S. Army Medical Field School, Brooke Army Medical Center, Ft. Sam Houston, Tex.) **The training and utilization of the mental health paraprofessional within the military: The social work/psychology specialist.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 74-79.—Discusses a new program which has developed as a result of the manpower shortages in the social worker/psychologist field within the military. The program entails a 10-wk training session for qualified military men, i.e., those with IQs of 100 or better, and who have some college experience. Objectives are defined as developing the ability to: (a) administer and score selected psychological tests; (b) conduct disciplined purposeful interviews; (c) obtain historical, situational, and observation data; and (d) report pertinent verbal and written findings. It is suggested that this experience with the paraprofessional in broad areas of mental health may be relevant to the problems of utilization and training in a number of civilian areas.—P. R. Shibleski.

6433. Pazdur, Helen. **Conflict: The nurse as therapist and researcher.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Jul), Vol. 6(4), 202-207.—Examined the problems and conflicts of a psychiatric nurse during operant conditioning therapy of an 8-yr-old nonverbal psychotic boy in which the nurse was required to be therapist and at the same time participated in a research study with the patient that required relationship therapy techniques. (19 ref.)—M. Daniels.

6434. Petrovich, Donald V., Bennet, John R., & Jackson, Jean. (Veterans Administration Hosp., St. Louis, Mo.) **Nursing apparel and psychiatric patients: A comparison of uniforms and street clothes.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 344-348.—Used a survey to assess patients' and nurses' attitudes after a 13-wk trial period in which nursing personnel wore street clothes rather than uniforms. Results obtained from 50 psychiatric patients and 15 nurses indicate a preference for street clothes as more conducive to providing patients with behaviorally therapeutic treatment, a result commensurate with milieu and community therapy programs in their emphasis on people as people, with greater approximation in treatment to the realities of social existence. It is concluded that the clothing worn by personnel is a significant variable in the treatment of Ss with behavioral disturbances. The wearing of street clothes by nurses in their treatment interactions with psychiatric patients is encouraged.—*Journal summary.*

6435. Pettifor, Jean L. & Pettifor, R. E. (Alberta Guidance Clinic, Calgary, Canada) **Is graduate training opting out?** *Western Psychologist*, 1970(May), Vol. 1(3), 97-99.—Discusses P. O. Davidson's (see PA, Vol. 44:21060) analysis of graduate training in clinical psychology in Canada, which emphasizes breadth of training at the possible expense of developing practitioner skills. Differences in emphasis between university training departments and service settings (e.g., hospitals

and clinics) are stressed. It is concluded that closer collaboration between these 2 groups is needed to meet mental health manpower needs more effectively.—*P. McMillan.*

6436. Quirk, Mary A. (City of Houston Health Dept., Tex.) **Occupational therapy demonstration for nursing students.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Sep), Vol. 6(5), 284-286.—Presented and evaluated a method of teaching nursing students about psychiatric occupational therapy in which students are placed in the role of patients and very poor therapy is administered to them. It is concluded that "by experiencing this anxiety-producing situation, the students become more cognizant of object relationships, group and individual behavior and how it affects others, and nonverbal communication."—*M. Daniels.*

6437. Ryback, David. (U. Hawaii) **The student nurse.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Jul), Vol. 6(4), 219-223.—Reviews studies concerning the values, interests, and personality characteristics of student nurses and the relationship between these factors and academic success. (34 ref.)—*M. Daniels.*

6438. Sata, Lindbergh S. & Shennig, Mary. (U. Maryland, Medical School) **Administrative implications of small group experiences.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Sep), Vol. 6(5), 261-266.—Initiated an 8-mo project to determine the efficacy of a didactic training group among 11 nurses in a psychiatric ward as a way of dealing directly with the high turnover rates among nurses. It is concluded that such small group experiences affect morale in a positive manner and that decreased turnover rates result.—*Journal summary.*

6439. Weinshel, Edward M., et al. **The changing identity of the psychiatrist in private practice: A symposium.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1577-1587.—Presented are brief comments, in essay form, upon the subject of the changing identity of the psychiatrist in private practice by each of the authors: E. M. Weinshel, L. C. Patterson, I. Philips, L. H. Schwartz, and D. A. Schwartz. Aspects, i.e., the desire to learn, the patient and society, the present role of the psychiatrist, training the psychiatrist, changes in private practice and the future of private practice, are discussed.—*P. R. Shibelski.*

PSYCHOTHERAPY & ANALYSIS

6440. Alpert, Murray. (New York U., Medical School) **Television tape for evaluation of treatment response.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 467-469.—Discusses the use of television recordings of patient interviews as a means of correcting a major source of biasing in double-blind studies. These studies have revealed that side effects rather than therapeutic effects have often served as cues in the rating process of treatment outcome. An illustrative example of such ratings is included. Videotape methodology permits comparison of pre- and posttreatment conditions within minutes and is not subject to the distortions of memory. Recordings can be useful in improving standardization of the rating process and in the teaching of psychopathology. They are also easily stored and transported.—*P. McMillan.*

6441. Aramoni, Aniceto. **Nuevo psicoanálisis?** [New psychoanalysis?] *Revista de Psicoanálisis, Psiquiatría y*

Psicología, 1970(Jan), No. 14, 34-39.—Discusses the problem of traditional psychoanalytic methods and theory becoming obsolete in the face of social and cultural changes. The relevance of applying subconscious pathogenic material from Freud's era to modern youth is questioned. It is noted that youth's attitudes toward sex, authority, conventionalism, and established values have changed. It is suggested that psychoanalysis, if it is to continue being a science of man, must remain flexible to social, economic, political, and historical change, as well as to the psychological and biological aspects of human nature, and strive to comprehend this dynamic interrelation in human existence.—*P. Hertzberg.*

6442. Avenburg, Ricardo. **La regresión en el proceso analítico en la obra de Freud.** [Regression in the analytic process in the work of Freud.] *Revista de Psicoanálisis*, 1969, Vol. 26(3), 669-677.—Examines the progression of concepts in Freud's works which lead to the development of his views on regression in analysis. It is noted that when Freud abandoned regression as a therapeutic artifice, it emerged spontaneously in transference. After the discovery of transference, Freudian concepts of regression in sleep, dream interpretations, the conflict between repression and the repressed, and the conflict between memory and repetition are discussed. (32 ref.)—*P. Hertzberg.*

6443. Banerji, Saradindu. **A case of anxiety about blindness.** *Samiksa*, 1968, Vol. 22(1), 23-32.—Describes the case of a 32-yr-old unmarried male civil servant treated for acute anxiety alternating with depression. During analysis it was pointed out to the patient that, among other things, (a) he was worried about his own blindness, rather than that of others; (b) the thought of blindness came to him as a form of punishment; and (c) in all his worries he was concerned about some loss to his ego. Interpretation of the case ascribed the main symptoms to 2 unconscious factors: The S's tendency of observing the sex organs of both elderly males and females, a voyeuristic tendency due to homosexual and oedipal interest. And the patient's oedipal desire, associated with guilt feelings, led to the necessity of punishment which took the form of blinding (symbolizing castration). The eye as a symbol of the penis is discussed with respect to the oedipus myth and Indian mythology.—*T. N. Webster.*

6444. Barros Santos, Oswaldo de. **Teorias e técnicas de Carl Rogers.** [Theories and techniques used by Carl Rogers.] *Revista de Psicologia Normal e Patológica*, 1968(Jul), Vol. 14(3-4), 170-185.—Presents a brief biographical sketch of C. Rogers, and reviews his major theories (i.e., client-centered therapy). The dynamics of the therapeutic process and the personality as described by Rogers and the significance and applicability of Rogerian techniques for current psychotherapy are discussed. Personal experiences with the use of Rogerian techniques are described.—*B. A. Stanton.*

6445. Bennett, Douglas. (Maudsley Hosp., London, England) **The value of work in psychiatric rehabilitation.** *Social Psychiatry*, 1970(Oct), Vol. 5(4), 224-230.—Discusses work as a beneficial treatment in the rehabilitation and care of psychiatric patients. Work can provide the psychiatrically ill with an opportunity for socially productive behavior. It fosters social interaction and, by recognizing a sick person's capacities, reduces the sense of social incompetence which he may experience as a patient. It helps him to structure his time

usefully. By developing skills it prevents the development of secondary disabilities and prepares him to return to an acceptable position in society. In a discussion of work, E. Jaques has said that it gives to man "a continuous account of the correspondence between outside reality and the inner perception of that reality, as well as an account of the accuracy of his appraisal of himself . . . In a very deep sense, it gives him a measure of his sanity." (French & German abstracts) (23 ref.).—*Journal abstract*.

6446. Berger, Milton M. (Columbia U., Coll. of Physicians & Surgeons) **Integrating video into private psychiatric practice.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 78-85.—Explores the value of videotape playbacks. Regardless of one's theoretical view of personality dynamics, use of video is seen as valuable for both patients and therapists. The importance of confidentiality, the type of "hardware" needed, and the manner in which the material is presented to the patient(s) is discussed. Except for severely depressed, suicidal patients whose self-hate centers around some physical characteristic, it is predicted that within 5 yr., 25% of private practitioners will make use of videotape playback.—S. R. Greenwald.

6447. Brodsky, Carroll M. (U. California, Medical School, San Francisco) **The systemic incompatibility of medical practice and psychotherapy.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 597-604.—Discusses problems encountered when a physician (who is not a psychiatrist) undertakes psychotherapy with his patients. Part of the data used was collected over an 8-yr period from a course in psychotherapy given to general practitioners and other specialists. Reasons for referral to a psychiatrist were derived from discussions with patients and physicians and include: (a) increase in symptoms, (b) difficulties in communication, (c) intense transference and countertransference, (d) the threat of suicide, (e) increased use of alcohol or drugs, (f) social discomfort (moving in the same social circles), (g) problems of allocating adequate time, and (h) the threat to the physician-therapist of changes in the patient produced by therapy. It is concluded that "psychotherapy is not natural to other medical systems" and if undertaken in such a context will "suffer a foreign body reaction and be rejected." (16 ref.).—P. McMillan.

6448. Castelnovo-Tedesco, Pietro. (U. California, Medical School, Los Angeles) **The "20-minute hour" revisited: A follow-up.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 108-122.—Sent a questionnaire dealing with the use of psychotherapy by nonpsychiatrists to 50 internists who, during their residency, took part in a psychotherapy course for medical residents. It was found that the majority of patients with emotional difficulties are treated by the physician himself and only a few are referred to psychiatrists. Most such patients are treated with drugs and reassurance, or drugs and brief psychotherapy. The "20-minute hour" is regarded as a useful approach to brief psychotherapy. 76% of the physicians believed that psychotherapy is an effective form of treatment, favor brief treatment emphasizing activity, and would be interested in further postgraduate training.—D. Prager.

6449. Christoffers, Carol A. **Movigenic intervention: An expanded dimension.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 349-351, 354-360.—Discussed the importance of body language as communication, citing specific patient behaviors as

illustrations. Psychiatric health workers need to become physically literate, i.e., to develop an understanding and appreciation of the part played by body language in human relationships. It is proposed that some of the techniques used in dance education could be employed to accomplish this purpose. Some suggested exercises are presented. It is concluded that psychiatric health workers and patients should be encouraged to explore and experiment in the widest range of communication.—*Journal summary*.

6450. Davidson, P. O. & Schrag, A. R. (U. Calgary, Alberta, Canada) **Factors affecting the outcome of child psychiatric consultations.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 774-778.—A follow-up study of 780 children seen for psychiatric consultation established several variables as significant determinants of whether the recommendations made during the consultations would or would not be carried out. Many of these factors can be manipulated by the psychiatrist to ensure that his consultations are more effective.—*Journal abstract*.

6451. Gedo, John E. (U. Illinois, Medical Coll.) **The psychoanalyst and the literary hero: An interpretation.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 174-181.—The psychoanalyst's recurrent fascination with the literary hero implies that this is 1 aspect of his ongoing self-analysis. As long as insights are achieved only in terms of an externalized self-representation, such efforts remain at best partially successful. If conscious self-recognition occurs, however, the intermediary step of projection will have served as a facilitating function similar to that of the transference resistance in analysis. (18 ref.).—D. Prager.

6452. Haley, Jay. (Philadelphia Child Guidance Clinic, Philadelphia, Pa.) **The art of being a failure as a therapist.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 691-695.—Presents 12 steps, through which a psychotherapist can fail in the treatment of a patient. These steps are interpreted as restraining the patient who might spontaneously improve.—A. M. Berg.

6453. Havens, Joseph. (U. Massachusetts) **London? To study psychotherapy?** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 53-56.—The author describes his work experiences at Tavistock Clinic in London, especially in the areas of group and marriage therapy. After exploring London's East End, he affirms his belief that the therapist needs to participate with patients in their attempts to change the community.—S. R. Greenwald.

6454. Heap, Robert F., Boblitt, William E., Moore, Charles H., & Hord, James E. (Central State Psychiatric Hosp., Nashville, Tenn.) **Behaviour-milieu therapy with chronic neuropsychiatric patients.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 349-354.—Attempted to shape complex socially oriented behaviors in a group of chronic neuropsychiatric patients. A behavior-milieu therapy ward was formed in conjunction with a chronic ward which served as a control. The goal of the treatment program was to restore the patients to their communities. The treatment program consisted of a combination of behavior therapy, token economy, attitude therapy, and ward government. A total of 478 patients passed through the treatment program over a period of 35 mo. 68% of the Ss were returned to their communities with a relapse rate of 14%. Aside from the positive effects of the treatment program, many unprogrammed behavioral influences were observed

to have a direct effect upon the staff's and Ss' performance.—*Journal abstract.*

6455. Knobel, Mauricio. **Psicoterapia breve en la infancia.** [Brief childhood psychotherapy.] *Revista de Psiquiatría y Psicología Médica*, 1969(Apr), Vol. 9(2), 74-84.—Within the context of "brief psychotherapy" defined as "a therapy of limited time and objectives, involving a certain type of phenomena and determined methods of treatment which will allow for a better adjustment of the child to reality," it is proposed that: (a) the therapist be experienced, be able to establish a rapid rapport with his patient, and focus upon the important area of conflict (focal psychotherapy); (b) along with the techniques used in brief child psychotherapy, e.g., play, stories, drama, the theory of apprenticeship should continue to be implemented; and (c) in addition to group therapy and teamwork with the child, psychotherapy with the parents has also proven effective. Various problems particular to brief psychotherapy in children are analyzed. These include a firm knowledge of normal evolutive and pathological psychology of which age is a variable, and the parent-therapist relationship. Of the differences between brief psychotherapy and psychoanalytic therapy, the following points are discussed: (a) regression, (b) transference neurosis, (c) elaboration, and (d) objectal mutation. It is suggested that case histories (e.g., those involving family diseases, deaths, and divorces) and the various psychiatric problems of childhood be studied. It is concluded that brief psychotherapy has been very successful with children. (19 ref.)—S. Maze.

6456. Leitenberg, Harold, et al. (U. Vermont) **Practice as a psychotherapeutic variable: An experimental analysis within single cases.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 215-225.—An individual case method of experimentation was used to investigate the possible psychotherapeutic effects of a single environmental variable. The opportunity to practice nonphobic behavior in a gradual manner was introduced, withdrawn, and reintroduced in sequence, while amount of therapist attention and instruction designed to create expectancies for change were kept constant. Patients only showed positive change in a specific behavioral measure during practice phases; when practice was removed, performance either regressed or stayed the same. When practice was reinstated, phobic avoidance behavior began to decline again. (20 ref.)—R. V. Hamilton.

6457. Mendel, Werner M. (U. Southern California, Medical School) **Tandem treatment.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 110-113.—Proposes an administrative procedure which makes use of a 2nd therapist when the primary therapist feels overstressed in his own life. This procedure is especially designed for very sick, needy patients, and is initiated as soon as this evaluation has been made. The patient is scheduled for several visits with the secondary therapist near the beginning of treatment in order to establish a relationship which can be revived as needed. Requirements for using tandem treatment are that the 2 therapists like and respect each other, agree on basic goals of therapy, and that the patient must like both therapists.—S. R. Greenwald.

6458. Moss, C. Scott & James, Pauline. (U. Illinois) **"Black rover, come over!": The hypnosymbolic treatment of a phobia.** Urbana, Ill.: U. Illinois Press, 1970. x, 140 p. \$3.95(paper).

6459. Paz, Carlos A. **Reflexiones técnicas sobre el proceso analítico en los psicóticos fronterizos.** [Technical reflections on the analytic process in borderline psychotics.] *Revista de Psicoanálisis*, 1969, Vol. 26(3), 571-608.—Discusses theoretical bases and technical instrumentation which promote a progressive analytic process on the treatment of borderline psychotics who are capable of undergoing analysis. Based on the theory and technique of M. Klein, contributions from the Argentinian school are also considered for their therapeutic value. Certain basic elements were derived: (a) a technique for the interpretation and elaboration of psychotic anxieties in the regressive levels particular to borderline Ss; (b) the recognition of the existence of disrupted ego functions which may be recuperated through profound analysis; (c) the existence, in borderline Ss, of good inner aims which enable them to be potentially curable; (d) the benefit of the systematic interpretation of transference, even negative transference, as soon as it appears; and (e) the importance of the systematic use of countertransference on the regressive tendencies in borderline Ss. The difficulties presented by borderline Ss in various technical aspects of their therapy are considered and illustrated by clinical experiences with 2 male Ss. (English & French summaries) (51 ref.)—P. Hertzberg.

6460. Reynolds, David K. (U. California, Los Angeles) **Directed behavior change: Japanese psychotherapy in a private mental hospital.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 492.

6461. Ross, W. Donald. (U. Cincinnati) **The unmasking of diabetes mellitus by psychoanalysis.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 182-184.—Reports 2 cases in which psychoanalysis was accompanied by or followed by the appearance of diabetes mellitus. When this complication appears, a modified psychotherapeutic approach is indicated. (26 ref.)—D. Prager.

6462. Ruiz, Ogara C. **Principios fundamentales en la psicoterapia breve de orientación dinámica.** [Fundamental principles in brief dynamic psychotherapy.] *Revista de Psiquiatría y Psicología Médica*, 1969(Apr), Vol. 9(2), 97-106.—Discusses various aspects in the field of brief psychotherapy: (a) the existing confusion, (b) the various definitions, (c) its objectives (including the questioning of all concepts of normality and cure), (d) therapeutic factors (e.g., insight), (e) the ideas underlying the author's concept of brief dynamic psychotherapy, and (f) the areas of therapeutic intervention. Sufficient knowledge and experience without overemphasis on technical norms, deep respect for the patient, and an understanding of the therapist's own personality and reactions toward the patient are discussed as areas of therapeutic intervention. It is argued that: (a) brief psychodynamic therapy is a vague term used to designate various methods that follow limited therapeutic objectives and involve less time and depth of treatment than traditional psychoanalysis; (b) this treatment implies shorter and more flexible techniques that are planned according to the patient's needs; (c) the therapist must be experienced and must detach himself from prior judgments; and (d) due to the insufficient knowledge of those factors intervening in psychotherapy, other criteria (e.g., objectivity, verification, and precision) must be used so that psychotherapy can become an empirical science.—S. Maze.

6463. Schwartz, Barry J. (Woman's Medical Coll.,

Philadelphia, Pa.) **Psychiatric judo. Voices: The Art & Science of Psychotherapy**, 1969-1970(Win), Vol. 5(4), 73-76.—The art of therapy is likened to the art of judo in that instead of countering a patient's moves, the therapist will "seize hold of them, propelling them and exaggerating their energy." In so doing, the therapist must feel he can succeed even though to succeed, he must first learn to lose. This is seen as especially effective with masochistic patients, though the therapist must be careful not to let his concentration on skill occupy the whole substance of the relationship. Comments by T. W. Leland reinforce the author's position which is similar to J. Haley's method of taking charge of the patient's symptoms and gaining control.—S. R. Greenwald.

6464. Shore, Milton F. & Massimo, Joseph L. (National Inst. of Mental Health, Clinical Research & Program Evaluation Section, Adelphi, Md.) **Five years later: A followup study of comprehensive vocationally oriented psychotherapy. American Journal of Orthopsychiatry**, 1969(Oct), Vol. 39(5), 769-773.—Presents a follow-up study of 4 adolescent delinquent boys successfully treated in an experimental program 5 yr. ago. Few legal difficulties, stable employment, and personal growth were shown in those treated. However, 3 of the untreated youth were in adult correctional institutions, employment was irregular, personal rewards few. Contact with usual rehabilitative agents of society seemed unable to reverse the deterioration in the untreated group.—Journal abstract.

6465. Smolensky de Dellarossa, Giuliana. **Reanálisis. [Reanalysis.] Revista de Psicoanálisis**, 1969, Vol. 26(3), 545-569.—Discusses (a) taboos associated with reanalysis; (b) termination of the 1st analysis and ensuing technical implications; (c) reanalysis with a different analyst, including the 1st interview and the normalities and pathologies of treatment dynamics; (d) reanalysis with the same analyst using the same technique as before, illustrated by a clinical example; and (e) the metapsychological aspects of reanalysis. Investigation is centered on finding the moment of therapeutic change and its manifestations in the different psychic levels of the patients, as well as the attitudes of the therapist confronted with a patient who has been previously treated by 1 or more psychoanalytic method. (17 ref.)—P. Hertzberg.

6466. Sorrells, James. (U. California, Berkeley) **Sharing the supervisory tape in training and therapy. Voices: The Art & Science of Psychotherapy**, 1969-1970(Win), Vol. 5(4), 61-62.—A family in treatment was presented with an audio tape that contained not only the dialogue from their treatment session, but also supervisory remarks which were superimposed on the recording. The stated benefits from this technique are: (a) the family gets feedback from Os with a small investment in the outcome; (b) the students learn that greater emotional expression may be appropriate; (c) the family may learn that critical feedback can be constructive; and (d) the family is enabled to assume greater responsibility as they learn their therapist is in the process of growing and learning.—S. R. Greenwald.

6467. Taylor, Graham C. (McGill U., Montreal, Quebec, Canada) **The essentials of psychosynthesis. Psychosynthesis Research Foundation**, 1968, No. 22, 1-13.—Presents a brief summary of psychosynthesis, defined as a "frame of reference which includes the biological, the psychological... spiritual, philosophical and ethical realms and hence, strives to be compre-

hensive and inclusive without being eclectic." Locations of institutes of psychosynthesis now in operation are included. Psychosynthesis draws upon psychoanalytic, existential, and humanistic psychology, and Eastern philosophy. It employs such methods of therapy as "symbolic visualization and development of latent functions." The key concept is "the unifying, integrating center or self as a center of awareness and will." Psychosynthesis is a method of treatment for psychiatric disturbances, and "psychological development and self-realization for normal people who wish to grow beyond the level of more freedom from symptoms."—P. McMillan.

6468. Tomim, B. & Glenn, A. G. (Brooklyn State Hosp., N.Y.) **Psychotherapy with drug abusers in a male admitting service. Psychiatric Quarterly Supplement**, 1968, Vol. 42(1), 144-155.—Describes the combination of individual and group therapy with drug abusers and the various techniques and approaches in a state hospital setting. Also, the goals and results of treatment are presented. It is suggested that the program could be more effective if this group of patients were treated separately in a special unit with multidisciplinary staff. The community resources and agencies are key factors in reintegrating these patients in their community.—Journal summary.

6469. Weiss, Steven L. (U. Oklahoma) **Perceived effectiveness of therapy as a function of professional identification. Dissertation Abstracts International**, 1970(Aug), Vol. 31(2-B), 921.

6470. Zaborowski, Zbigniew. **Próba zastosowania koncepcji wyrównania postaw do zjawisk psychopatologicznych.** [An attempt to apply the conception of equalization of attitudes to psychopathological phenomena.] *Studia Socjologiczne*, 1970, Vol. 2(37), 187-213.—Examines the role of attitudes in ambivalent and neurotic interpersonal relations. Maladapted interpersonal behavior can be modified by a therapeutic process whose goal is to generate a positive attitude toward the therapist. This tactic forces a shift in the client's frame of reference thereby altering his interpersonal life style. (22 ref.)—H. Kaczkowski.

Therapeutic Process

6471. Berlin, Roger. **The team approach in hospital treatment as a defense of the psychiatrist. Comprehensive Psychiatry**, 1970(Mar), Vol. 11(2), 147-158.—Traces the "history of the team approach and touches on its contemporary aspects." Then it is suggested that passive defenses and feminine identifications may lead a psychiatrist to relinquish his responsibility to a team. The psychiatrist divesting himself of executive power reminds some patients of actually experienced parental neglect or role reversal, engenders painful affects, and exposes patients to values of individual team members which may not best suit their own personalities. It is suggested that the psychiatrist's personality in relation to the team approach needs reevaluation. (20 ref.)—D. Prager.

6472. Blumberg, Richard W. (U. Florida) **Client dogmatism, therapist leadership and the psychotherapeutic relationship. Dissertation Abstracts International**, 1970(Jul), Vol. 31(1-B), 389.

6473. Carr, John E. (U. Washington, Medical School) **Differentiation similarity of patient and therapist and the outcome of psychotherapy. Journal of Abnormal**

Psychology, 1970(Dec), Vol. 76(3, Pt. 1), 361-369.

—Supported the hypothesis that differentiation compatibility of patient and therapist is essential to improved outcome as perceived by the patient and as evidenced by his reported symptom reduction. Therapists were 4th-yr medical students; patients were 16 male and 8 female adult out-patients with predominately neurotic diagnoses. In an initial phase of therapy, incompatible patients and therapists "seek" compatibility as a basis for establishing productive communication. Following the establishment of compatibility, therapists' differentiation levels increase, presumably reflecting their efforts to further articulate the patient's relevant conceptual dimensions. Patients' level relates to number of symptom complaints, and it is hypothesized that differentiation (and thus symptom) change in the presence of cognitive compatibility is perceived as therapeutically derived improvement. The importance of role identities is considered in relation to the perception of outcome and the assumption of vantage points. (24 ref.)—*Journal abstract*.

6474. Gustin, Ann W. (Syracuse U.) **Biased therapists: The effects of prior exposure to case history material on therapists' attitudes and behavior toward patients.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 394.

6475. Marshall, John R. (Randolph Air Force Base, 3510th Hosp., Tex.) **Treatment problems of a military psychiatrist with patients of higher rank.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 190-195.—Describes several difficult countertransference situations, and discusses possible errors. These errors may result initially from role conflicts but basically arise from transference feelings and their effects. Recognition is essential to their management and suggestions to this end are offered. 4 case histories are presented.—*Journal summary*.

6476. Reisman, John M. (Memphis State U.) **Ratings of self and therapist: Two studies.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 116-123.—The 1st study measured changes in a 14-yr-old boy's concepts of the therapist and himself over a 50-session course of psychotherapy. S's ratings became more positive of himself and less positive of his therapist, so that by the conclusion of therapy, the ratings were similar, positive, and relatively stable. It is hypothesized that clients willing to be involved in therapy at 1st rate themselves lower than the therapist, while clients who are resistant to treatment initially rate themselves as high as or higher than the therapist. In the 2nd study this hypothesis was tested by asking 55 Ss to rate themselves and a psychotherapist, and to indicate their willingness to be seen in therapy. Results support the hypothesis.—D. Prager.

6477. Trousdale, Jean B. (U. Oklahoma) **The demand characteristics of psychotherapy.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 921.

6478. Waters, Carrie W. & Pullen, Maxwell. (Ohio U., Center for Psychological Services) **Effect of the sudden departure and replacement of one member of a co-therapy team on a married couples group.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 65-74.—Examines the effect of a change of therapists on a group. The presence of the remaining therapist made it easier for members to handle their intense feelings of anger and desertion toward the departed therapist. The increase in anxiety and hostility heightened group

interaction. Results indicate that when there are cotherapists, the departure (and replacement) of 1 may bring positive results.—*Journal summary*.

6479. Winnicott, D. W. (87 Chester Square, London, England) **Aspectos clínicos y metapsicológicos de la regresión dentro del marco psicoanalítico.** [Clinical and metapsychological aspects of regression in the psychoanalytic framework.] *Revista de Psicoanálisis*, 1969, Vol. 26(3), 693-716.—Discusses the differences in technique that are necessary for achieving therapeutic success with 3 different types of patients: (a) those with difficulties in daily interpersonal relations, but with a satisfactory development in former infantile stages; (b) those who require analysis with a depressive position, and are characterized by a pathological mother-child relationship; and (c) those with primitive emotional development where the mother's management of the child is a necessity. Discussions of what may be expected in clinical encounters with the regressive patient follow.—P. Hertzberg.

Group Therapy

6480. Bailey, Kent G. (Virginia Commonwealth U.) **Audiotape self-confrontation in group psychotherapy.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 439-444.—Tested the usefulness of audiotape playback during psychotherapy. 24 inmates at a federal women's prison were randomly divided into an audiotape-playback group, a regular therapy group, and a non-therapy control group. All Ss were administered a special Q-sort test immediately before and following a 6-wk therapy or control period. The groups did not significantly differ on any of the 3 Q-sort indices used. Taped excerpts from the 2 experimental groups showed that the playback Ss were significantly more verbally productive/unit of time, and it is suggested that playback may have affected the process but not the outcome of psychotherapy. (19 ref.)—*Journal abstract*.

6481. Borofsky, Ruth B. (Boston U., School of Education) **Learning from group experience: An analysis of the experiential structure of therapeutic dialogue.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 389.

6482. Clement, Paul W., Fazzone, Roger A., & Goldstein, Bertram. (Fuller Graduate School of Psychology, Pasadena, Calif.) **Tangible reinforcers and child group therapy.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 409-427.—16 2nd and 3rd grade boys were randomly assigned to 2 therapy and 2 control groups, 4 Ss each. Ss had been referred to the clinic by their teachers because of shy, withdrawn behavior. The "token" group met in a play group, had a therapist, and received tangible reinforcements for social approach behaviors. The "verbal" group was treated similarly to the token group except that no tangible reinforcements were used. Control Group A met in a play group without a therapist present. The Ss in Control Group B were placed individually in separate play rooms with no therapist present. Each group came to the clinic for 20 consecutive 1-hr sessions, 1 session/wk. The token group changed more than the verbal group; the verbal group changed more than Control Group A; Control Group A changed more than Control Group B; and Control Group B showed no changes on the objective measures used. A 1-yr,

posttherapy follow-up was performed. Data were combined with those from a 2-yr follow-up on children from an earlier study. The token group Ss continued to be better adjusted than the verbal and control group Ss; however, there were no reliable differences between the verbal and control groups. (31 ref.)—*Journal summary*.

6483. Derbolowsky, Udo. **La técnica tridimensional de la interpretación de los sueños en el proceso psicoanalítico.** [The tridimensional technique of dream interpretation in the psychoanalytic process.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1970(Jan), No. 14, 23-33.—Discusses a technique which implies a renunciation of the associative technique in dream interpretation in group therapy. Patient-analyst dialogues are used to illustrate a process of reaching patients who resist elaborating their dreams. The 1st step is compelling the S to recall his dream in its original form. The 2nd level involves complementary inversion of the 1st process. After a transformation of the original form into its opposite, a manifestation of the conflict situation is sought. In the 3rd level of dream elaboration, an oneiric signal is revealed. This is characterized by a complete disinvolverment by the S as a member of the group. Insight is gained and marked by joyful revelation. (34 ref.)—*P. Hertzberg*.

6484. Dworin, Jack. (Veterans Administration Mental Hygiene Clinic, Denver, Colo.) **The alternate session in group psychotherapy.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 105-107.—The alternate session is a regularly scheduled session of a psychotherapy group in which the therapist(s) is not present. Alternate sessions begin after the group members start to work things out on their own and are somewhat comfortable in expressing feelings. A lessening of dependency on the therapist, closer relationships among members, more freedom of expression, and a hastening of the psychotherapeutic process are considered to be some of the benefits of the alternate session.—*S. R. Greenwald*.

6485. Leeman, Gavin P. (Harvard Medical School, Boston, Mass.) **Dependency, anger, and denial in pregnant diabetic women: A group approach.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 1-12.—Attempted to provide psychological assistance with the emotional complications of diabetic pregnancy through a form of group psychotherapy met with overwhelming difficulties. These difficulties seemed to arise from a conflict between the patients' angry feelings and their feelings of dependency, a conflict they handled by massive psychological denial. Despite the obstacles, several Ss became better able to cope with their problems.—*Journal summary*.

6486. Mintz, Elizabeth E. (41 5th Ave., New York, N.Y.) **The marathon on wings.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 23-27.—The author shares an afternoon of a marathon therapy group, and describes the experiences of 3 participants. In so doing, she illustrates the movement away from self-absorption toward interest in others and the impact of symbolic encounters which are said to be part of the marathon process.—*S. R. Greenwald*.

6487. Ortega, Manuel S. **Estado actual del psicodrama.** [Present state of psychodrama.] *Revista de Psiquiatría y Psicología Médica*, 1969(Apr), Vol. 9(2), 107-121.—Analyzes the origins, methods, techniques, and personal experiences of psychodrama. The theory of spontaneity (including the "e factor" and "warming-

up"), and the theory of characters (roles) are discussed as part of the sources of psychodrama. The methods used are of a diagnostic (characterological-psychobiographic) or therapeutic (cathartic-educational) nature. The various theories of (a) the stage and its different types; (b) the protagonist; (c) the director-therapist and his positions as interviewer, O, and spectator; (d) the auxiliary egos and their triple function of actor, leader, and social analyst; and (e) the public are examined. The 15 techniques studied include those of Moreno (the inventor of psychodrama), and those derived from him. It is concluded that psychodrama functions (a) diagnostically and should be used in every type of neurosis (including borderline cases); (b) characterologically in that it becomes a "performance test"; (c) psychobiographically, whereby it provides precise information on S's problem; and (d) therapeutically, including the cathartic, educational, and didactic criteria. Observation and personal experience are stressed.—*S. Maze*.

6488. Payne, I. Reed; Rasmussen, Della M., & Shinedling, Martin. (Brigham Young U.) **Characteristics of obese university females who lose weight.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 567-570.—Compared 18 successful and 9 unsuccessful participants in group therapy for reducing weight, using responses to the EPPS scales. Only the Consistency scale differentiated between groups; however, the Nurturance and Succorance scales differentiated successful Ss from the normative population. Successful Ss felt more responsible on the goal check list, while unsuccessful Ss rated themselves on the check list as more self-satisfied and better able to establish meaningful relationships. Possible explanations are suggested. A cross-validation study confirmed that unsuccessful Ss scored higher on the Consistency scale of the EPPS. It is suggested that the Consistency scale of the EPPS may serve as an effective screening device in treatment programs for the obese university female. (19 ref.)—*Journal abstract*.

6489. Robertiello, Richard C. (Long Island Consultation Center, Forest Hills, N.Y.) **Encounter techniques: Ridiculous or sublime?** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 89-90.—The author shares his experience as a coleader in an encounter group. While some people experience nonverbal encounter techniques as permission to be free and to express feelings, others experience them as specific demands to produce feelings. Accordingly, only certain patients will respond to this form of treatment.—*S. R. Greenwald*.

6490. Sadoff, Robert L., Resnik, H. L., & Peters, Joseph J. (Temple U.) **On changing group therapists.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 156-166.—Discusses the dynamics of the change of therapists for a character-disordered pedophile group, utilizing analytically-based observations, interpretation of dreams, and behavior distortions. The conflicts of the therapists were resolved in part by intellectual defenses—the substitution of a writing team for the therapy group. The change in rank on the paper-writing team reflects this resolution. Unresolved feelings between and among a new therapist, the coterapist, and administrative team, are clearly reflected in the dynamics of the therapy group.—*Journal summary*.

6491. Wile, Daniel B., Bron, Gary D., & Pollack, Herbert B. (California State Coll., Hayward) **The Group Therapy Questionnaire: An instrument for study of leadership in small groups.** *Psychological Reports*,

1970(Aug), Vol. 27(1), 263-273.—Presents the Group Therapy Questionnaire (GTQ), which describes 20 realistic situations which may occur in the course of group therapy and asks each S to indicate how he might respond if he were the group leader confronted with such a situation. The format of this instrument constitutes an attempt to deal with the classical incompatibility between clinical meaningfulness and scientific measurability. The particular leadership variables explored by the GTQ were selected primarily because they seemed to involve fundamental decisions concerning leadership in small groups. 4 general situations are described in which the GTQ has potential usefulness: (a) as a criterion for evaluating the effectiveness of training courses in group therapy, (b) as a criterion measure for comparing different types of leaders, (c) as an independent variable in outcome studies, and (d) as a teaching device. (36 ref.)—*Journal abstract*.

6492. Wollersheim, Janet P. (U. Missouri) **Effectiveness of group therapy based upon learning principles in the treatment of overweight women.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 462-474.—Following an 18-wk base-line period, 79 motivated overweight female students were randomly assigned from stratified blocks, on percentage overweight, to 1 of 4 experimental conditions: (a) positive expectation—social pressure; (b) nonspecific therapy; (c) focal therapy based upon major learning principles; or (d) no-treatment—wait—control. 2 male and 2 female therapists each treated 1 group of 5 Ss in each of the 3 treatment conditions for 10 sessions extending over a 12-wk period. At both posttreatment and the 8-wk follow-up, the focal group was superior in weight reduction and reduction of reported frequencies of various eating behaviors. Evidence for "symptom substitution" was lacking. While significant differential weight reduction occurred for the various treatments, it did not occur for the different therapists or for the various therapist-treatment combinations. (31 ref.)—*Journal abstract*.

Behavior & Conditioning Therapy

6493. Friedman, Philip H. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Limitations in the conceptualizations of behavior therapists: Toward a cognitive-behavioral model of behavior therapy.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 175-178.—Proposes a cognitive-behavioral approach to behavior therapy as an alternative to the counter-conditioning model presently in vogue. The key terms in this model are cognitive appraisal, threat, counterharm resources, behavioral coping action tendencies, situational constraints, internalized values and affects. The approach based on R. Lazarus' theorizing is briefly described, personalistic broad-spectrum behavior therapy techniques are classified according to this model, and an outline is presented to demonstrate the value of the cognitive-behavioral approach in conceptualizing the development and change of maladaptive behavior.—*Journal abstract*.

6494. Kraft, T. (Claybury Hosp., Woodford Bridge, England) **A note on aversion therapy.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 165-166.—Aversion therapy may lead to suppression of undesired behavior without altering the underlying disturbances which originally led to the behavior. Desensitizing the patient

to his underlying difficulties might be more helpful to the patient and lead to a more permanent recovery. (18 ref.)—*Journal abstract*.

6495. Ribes I, Emilio, et al. (Veracruzana U., Xalapa, Mexico) **El uso de castigo en la modificación de conducta de niños retardados.** [Use of punishment in the behavior modification of retarded children.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(2), 137-159.—Techniques of behavior modification by punishment were applied to 4 mentally retarded children. It is concluded that: (a) Punishment is highly effective in the elimination of undesired behaviors. (b) It does not seem to produce noxious side effects on the S. (c) Punishment by time-out and physico-social punishment imply less discriminative stimuli, in relation to their conditions of application, than electric shock. (d) Punishment should be applied in 2 types of situations: when the contingencies that maintain the behavior are intrinsic to its emission, and no control of reinforcers is available; and when the emission of responses incompatible with the reinforced behavior makes it impossible to put the S under direct immediate control of the positive contingencies of reinforcement.—*English abstract*.

6496. Suinn, Richard M. (Colorado State U.) **Desensibilización: Nuevos procedimientos.** [Desensitization: New procedures.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(2), 129-136.—Reviews some innovative modifications in technique and usage of behavior therapy with an emphasis on desensitization. The topics discussed are: (a) use of desensitization in group treatment, (b) use of audio or videotapes in place of a therapist for desensitization, (c) the new marathon desensitization group procedure, (d) the use of relaxation in a case of LSD intoxication, (e) the use of behavior therapy to treat a case of highway hypnosis, and (f) the treatment of clients without their awareness of being treated. (25 ref.)—*English abstract*.

6497. Tramontana, Joseph & Stimbirt, Vaughn E. (U. Tennessee, Child Development Center) **Some techniques of behavior modification with an autistic child.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 498.—Marked changes in the social behavior of a 7-yr-old autistic child occurred during 50 twice-weekly training sessions. An extensive repertoire of questions and answers was developed by fading imitative prompts. Written materials were also effective in teaching the answers to questions. A variety of techniques were used to increase generalization and appropriate "spontaneous" language.—*Author abstract*.

6498. Trejo, Benjamín D. **Modificación y análisis de la conducta en pacientes mentales.** [Behavior analysis and modification in mental patients.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(2), 123-128.—Presents an application of behavior analysis and modification of mental patients in psychiatric settings. Behavior therapy techniques are discussed, and their basic foundations are analyzed. A comparison is made with traditional psychoanalytic techniques and the results are found to be favorable to the behavior therapy approach.—*English abstract*.

6499. Ullmann, Leonard. (U. Illinois) **On behavior therapy.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 13-17.—Presents a capsule survey of the actions that distinguish behavior therapists. Behavior is said to be changeworthy because of its social consequences, not because it is "good" or "bad." Behaviorists, following an educational model, consider

diagnosis to be a designation of what should be changed and a selection of 1 or more procedures for making these changes likely. The author indicates what using this form of treatment with his patient has done for him.—S. R. Greenwald.

6500. Walker, C. Eugene, et al. **Behavior theory and therapy.** *California Mental Health Research Symposia*, 1968, No. 2, 50 p.

6501. Woody, Robert H. (U. Maryland) **British behavioural counselling.** *Educational Research*, 1968(Jun), Vol. 10(3), 207-212.—Reviews the literature supporting behavioral counseling techniques, and compares the responses of therapists of various counseling orientations to specific client comments. The directive techniques and reinforcement procedures of the behavioral counselor are emphasized. It is suggested that behavioral counseling is appropriate for use in the British setting for at least 3 reasons: (a) the conditioning procedures involved in such counseling have been used in other settings by British educational and clinical psychologists and psychiatrists; (b) behavioral counseling is not incompatible with the more traditional insight approaches, and the integration of the approaches has been found to give more successful results; and (c) behavioral counseling employs clearcut goals and techniques which are readily recognizable and should be advantageous in the early periods of counseling in Britain. (20 ref.)—R. Wiltz.

Special & Adjunctive Therapy

6502. Davis, Harry K. & Franklin, Roy W. (U. Texas, Medical Branch, Galveston) **"Continuing grief" as a method of psychotherapy following E.S.T.: A preliminary report.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 626-630.—Discusses a special psychotherapeutic technique called "continued grief" therapy which is particularly applicable to depressed patients who are inclined to relapse after initially successful ECS treatment. 5 case studies where this technique was used with success are presented. Interviews held 8-54 mo. after discharge with each patient indicated freedom from overt symptoms at that time. Continued grief therapy is described as modified psychotherapy which utilizes both supportive and psychoanalytically oriented techniques (including the concepts of "ambivalent love object loss" and "unresolved grief"). Tranquilizers and antidepressants were also used as needed in all cases. Schemata are included to illustrate the psychological processes occurring in this type of therapy. (17 ref.)—P. McMillan.

6503. Diephouse, John W. (19 Lorraine St., Hartford, Conn.) **Music therapy: A valuable adjunct to psychotherapy with children.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 75-85.—Reviews the history of the soothing effects of music since Biblical times, and discusses physiological effects of music therapy which has developed around physiology, socialization and communication, and motivation. By 1st communicating through music, it is possible to make a child more receptive to other forms of therapy. Music provides motivation for the child so that psychotherapy may be of maximal benefit. Music therapy allows a child to recognize his emotions, express them openly, and then bring them under control in a socially acceptable manner. (15 ref.)—D. Prager.

6504. Gebbie, Kristine M. (U. California, Los An-

geles) **Treatment drop-outs and the role of the crisis therapist.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 328-333.—Examined 7 cases of patients leaving crisis intervention therapy before termination. Reasons for leaving included: inability of consultant to identify precipitating crises, financial difficulties of the patient leading to further helplessness, decision to seek treatment elsewhere, and achievement of stability before the end of treatment. Methods of preventing early withdrawal are suggested.—M. Daniels.

6505. Kamerschen, Karen S. (Michigan State U.) **Multiple therapy: Variables relating to co-therapist satisfaction.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 915.

6506. Piaget, Gerald W. & Serber, Michael. (555 Middlefield Rd., Mt. View, Calif.) **Multiple impact therapy.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 114-124.—Multiple impact therapy (MI) is a time-limited series of clinical encounters between several therapists and a single patient oriented toward a specific therapeutic goal. MI is an adjunct to individual therapy. Patient and therapists are briefed beforehand. Cooperation among therapists is vital. The MI group is limited and invariant; however, when handled properly, MI incorporates the best characteristics of individual and group psychotherapy. (17 ref.)—*Journal summary*.

6507. Tobin, Stephan A. (San Fernando Valley State Coll.) **Self-support, wholeness, and Gestalt therapy.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 5-12.—Considers a ubiquitous problem of our times to be the feeling of incompleteness which people experience, accompanied by their need to manipulate others into confirming them. This feeling of incompleteness is considered to be caused by the view that man is basically evil, by authoritarianism in major institutions, by emphasis on achievement in the future, by playing comparison games and blame games, and by the duplicity which can be found in interpersonal relationships. Self-esteem, which the author states is related to awareness of the here-and-now, is said not to be experienced by most Americans who spend their time daydreaming about the past or future. The phenomenology of wholeness and how it can be achieved in therapy is discussed.—S. R. Greenwald.

6508. Williams, Jack D., Dudley, Harold K., & Guinn, Terry J. (Rusk State Hosp., Tex.) **Use of day treatment center concepts with state hospital inpatients.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 748-752.—Examines the effect of the therapies and team approach used in day treatment centers (DTCs) as an adjunct for the treatment of chronic inpatients in traditional mental institutions. 204 inpatients with which the day treatment concepts were used performed significantly better on an objective measure of intelligence than did controls. Fisher's t test was used to compare posttest beta IQ scores for the experimental and control groups. Results indicate effectiveness of DTC increased personality integration reflected in the higher percentage of discharges and furloughs for the experimental group (54.8%) as compared to the control group (34.3%).—*Journal abstract*.

Drug Therapy

6509. Avakumov, V. M. & Vikhlyaev, Yu. I. **Metabolizm psikhotropnykh sredstv (proizvodnye**

fenotazina I iminodibenzila.) [Metabolism of psychotropic agents (derivatives of phenothiazine and iminodibenzyl).] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 444-452.—Presents a survey of the literature on the metabolism of psychotropic agents, whose structure is tricyclic (phenothiazine and iminodibenzyl derivatives). The (a) processes of conversion of psychotropic agents with tricyclic structure, (b) specific differences between phenothiazine and iminodibenzyl derivatives, (c) pharmacological properties of the metabolites, and (d) significance of several metabolites of imizine and aminazine (chlorpromazine) in the emergence of therapeutic and side effects are discussed. (90 ref.)—*J. D. London.*

6510. **Azcarate, Carlos A. Ensayo experimental con un nuevo antidepressivo (Tiazenona, SQ 10496): Estudio controlado con imipramina y placebo.** [Experimental essay with a new antidepressant (Thiazene, SQ 10496): Controlled study with imipramine and placebo.] *Revista de Neuro-Psiquiatria*, 1969(Sep), Vol. 32(3), 194-211.—Describes the evaluation of a new antidepressant, thiazene (T), using 60 18-56 yr. old psychoneurotic depressive outpatients. 20 received T in 50-mg tablets, 20 received placebo, and 20 received imipramine (I) (tofranil, an antidepressant) in 25-mg tablets. Over an 8-wk period, T dosage was increased to 800 mg/day and I dosage to 400 mg/day. 39 Ss completed 3 wk. of study and 27 completed 8 wk. Ss were evaluated by weekly interviews and by a Squibb Laboratories evaluation form. Significant improvements were found after 3 and 8 wk. for all treatment groups, with active medication groups showing the most favorable results. Most side effects, found only in the active medication groups, were of the autonomic type and were well tolerated. T produced only 1/3 as many side effects as I. The therapeutic effectiveness of T and I were found to be similar, although a slightly larger number of Ss benefited from I. However, T was recommended for Ss where side effects might present a problem. No correlations were found between sex, age, diagnosis, and therapeutic outcome. (48 ref.) (English, German, & French summaries)—*P. Hertzberg.*

6511. **Blanc, M., et al. (Centre Psychiatrique St. Anne, Paris, France) Etude comparative de l'activité de deux neuroleptiques.** [A comparative study of the activity of two neuroleptics.] *Encéphale*, 1970(Mar), Vol. 59(2), 97-161.—Compared the therapeutic activity of TPN 12 with that of thioridazine. The 2 drugs share an important therapeutic action even though they can be differentiated by degree of activity. Both drugs were found to be effective in chronic hallucinatory psychoses and delirious states. TPN 12 seemed to be more effective in manic states, and superior in cases of paranoia or paranoid schizophrenia or acute delirious excitation. It was not as successful in cases of chronic hallucination, hebephrenia, or paraphrenia.—*W. W. Meissner.*

6512. **Bruschi, Walter C. (Louisiana State Medical School, Shreveport) Psychopharmacology and general adaptation syndrome.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 513-516.—Discusses the relationship of certain psychoactive substances in the response of organisms to local or topical stress, and generalized or systemic stress. It has been noted that chlorpromazine inhibits the effects of topical stress. It is observed that when the organism is faced simultaneously with both topical and systemic stress, it will deal with the systemic stress at the expense of the topical insult. The impli-

cations of Bertalanffy's General System Theory, where living matter exists as "an open system, all parts teleologically in mutual interaction," are discussed. It is concluded that psychotropic agents provide a temporary benefit in that they are "able to induce both polarities in adaptation: active involvement and unconditional withdrawal."—*P. McMillan.*

6513. **Butler Blacker, Alberto. Ensayo terapeutico con el tiotixeno en desórdenes emocionales: Estudio controlado y empleo de nuevas formas de evaluación.** [Therapeutic essay with thiothixene in emotional disorders: Controlled study and use of new forms of evaluation.] *Revista de Neuro-Psiquiatria*, 1969(Jun), Vol. 32(2), 120-134.—Tested thiothixene (P-4657-B), a new neuroleptic with antipsychotic action on 33 male and 47 female ambulatory psychoneurotics with a mean age of 34.8 yr. 40 Ss received 3 1-mg tablets of thiothixene/day for 2 wk., after which the dosage was adjusted to individual needs for 2 more wk. 40 Ss received placebo. Psychiatric evaluations included symptomatic questionnaires completed by both doctors and Ss. 23 Ss on thiothixene and 26 Ss on placebo completed 4 wk. of study, while 11 Ss on the drug and 5 on placebo completed 2 wk. of study. The common side effects were (a) somnolence from both drug and placebo, (b) tremor and restlessness from thiothixene, and (c) dryness of mucus membranes from the placebo. There was a 96% improvement rate in the 49 Ss who completed the study, although there was no significant difference between the medication groups. Thiothixene, however, was found to be more effective in treating cases of mixed anxiety and depression. (English, French, & German summaries) (61 ref.)—*P. Hertzberg.*

6514. **Caffey, Eugene M. & Prine, Robert F. (Veterans Administration, Dept. of Medicine & Surgery, Washington, D.C.) The VA-NIMH study of lithium in affective disorders.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 409-412.—Provides an interim report of a 4-yr study on the "therapeutic and prophylactic efficacy of lithium carbonate in affective disorders." The study involved 12 Veterans Administration and 6 state and private hospitals. Approximately 295 patients who met careful diagnostic requirements of (a) manic, (b) schizoaffective, or (c) mixed were selected for a modified blind 3-wk treatment program of either chlorpromazine or lithium carbonate. Considerable dropout occurred (21, 28, and 17%, respectively) for the 3 groups. A full analysis of the efficacy of treatment is not yet available, although it is noted that "lithium has behaved as predicted" and, while toxic, can be adequately managed by clinicians who make accurate diagnoses, and alert to possible toxicity, and have reliable laboratory support. Preliminary results of prophylactic treatment of manic-depressive illness and a companion outpatient study are presented.—*P. McMillan.*

6515. **Cannarsa, D. N. (Pfizer Laboratories, New York, N.Y.) Drug combinations and interactions.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 526-529.—Discusses the history and efficacy of polypharmacy, "the simultaneous prescription of 2 or more drugs to a patient." The recent marked increase in the use of combination medication has given rise to questions concerning the nature of the interactions which may occur when drugs are given concurrently. The sequence of possible metabolic processes for a given drug involves the following considerations: (a) absorption from the intestinal tract is subject to various influences; (b) drug

distribution in plasma or tissues may be affected; (c) biotransformation of 1 drug may be influenced by another drug which either inhibits or stimulates its metabolism; and (d) drug excretion can be influenced by another agent's effect on the urinary pH. (17 ref.)—*P. McMillan*.

6516. Capstick, N. (Graylingwell Hosp., Chichester, England) **Long-acting drug treatment in overall psychiatric management.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 15-17.—Discusses side effects and related problems in relation to both oral and intramuscular administration of the long-acting phenothiazines. Results of a study of 56 patients being given intramuscular fluphenazine indicate that: (a) whenever phenothiazines are clinically indicated, injections of fluphenazine enanthate can be used as an alternate to oral administration; (b) side effects occur but can be controlled; and (c) drug administration is needed, on the average, only every 14 days. Suggestions for the management of outpatients on long-acting drugs are presented.—*P. McMillan*.

6517. Carbajal, Carlos L. & Jeri, F. Raul. **Intoxicación grave con tranilcipromina y trifluoperazina: Informe de tres casos.** [Severe intoxication with tranilcipromine and trifluoperazine: Report of 3 cases.] *Revista de Neuro-Psiquiatria*, 1969(Sep), Vol. 32(3), 180-193.—Describes 3 cases of intoxication by tranilcipromine (Tra) and trifluoperazine (Tri) (stelapar) in a 13-yr-old girl, a 22-yr-old man, and a 7-mo-old baby. The management of intoxication is considered very risky because Tra, of which Tri is a psycholeptic derivative, is the most powerful MAO inhibitor known, and particularly affects the cerebral and cardiovascular systems. In the 1st 2 Ss, poisoning was manifested by headache, fast pulse, high blood pressure, uncoordination, psychomotor excitation, and muscle spasms. The baby showed muscle contractions, oculogyric crises, tremor, opisthotonus, hyperthermia, and somnolence. Recommendations are made for treatment according to the symptoms manifested by an individual S. (45 ref.) (English, French, & German summaries)—*P. Hertzberg*.

6518. Chanas, Peter J. (A. H. Robins Co., Richmond, Va.) **Problems regarding the introduction of a psychopharmaceutical agent in international markets.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 530-531.—Discusses standards that must be met to introduce a new drug into the market outside the United States. Requirements to bring a new drug into use in the United States are reviewed, including the role of the Food and Drug Administration. The role of patent protection on new drugs is summarized. It is urged that such protection not be diminished, as has been proposed in some countries.—*P. McMillan*.

6519. da Costa Machado, Alberto. (General Polyclinic, Rio de Janeiro, Brazil) **Enurese infantil: Revisão e tratamento pela imipramina.** [Infantile enuresis: Revision of treatment with imipramine.] *O Hospital*, 1969(Mar), Vol. 75(3), 917-931.—Reviews incidence and etiology of infantile enuresis and reports personal experience with the use of imipramine (tofranil) in 50 outpatients with psychogenic enuresis. Psychological tests were administered and care was taken not to include organic enuresis cases, by taking X-rays of the lombo-sacra region (spina bifida) and urinalysis. The drug was efficient in 70% of the cases (20% of 13 cases optimal and 50% of the cases good). The dosage was 10-25 mg, according to the age. Tolerability was good,

with no side effects reported. The treatment was maintained for 60-90 days. (25 ref.)—*English summary*.

6520. Dasberg, H. & Robinson, S. (Talbieh Psychiatric Hosp., Jerusalem, Israel) **Correlation between electroencephalographic deviations following anti-psychotic drug treatment and the course of mental illness.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 185-200.—Observed and studied EEG deviations in 10 mental patients treated by phenothiazine derivatives. Findings simulate brain damage, intoxication of the CNS, or convulsive disorders. In some cases a previously existing brain damage was revealed and appeared aggravated. In the unfolding EEG, 3 types of changes became discernible tallying with a specific clinical course and with the results obtained by the antipsychotic drug treatment. Clinical phenomena presumably arising in the wake of psychotoxic effects of the drugs are discussed. (25 ref.)—*Journal abstract*.

6521. Dickel, Herman A. (U. Oregon, Medical School, Portland) **A survey of anti-anxiety agents used over the past 30 years.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 477-482.—Reports results of a survey of over 35,000 patients treated since 1939 in a psychiatric clinic where over 1/2 of the patients were suffering from anxiety-tension states. Illustrative graphs are provided showing trends during the 3 decades from 1939-1969 for factors, i.e., age and sex of patients, source of referral, place of treatment, relative number of physicians and psychiatrists in the area, percentage of patients receiving drugs, and typical medications used. 2 major impressions are gained: (a) antianxiety drugs have seldom produced fundamental change in the basic physiology of anxiety reactions; and (b) the final answers to the treatment of anxiety cannot be found solely in drug therapies. The importance of the physician as an antianxiety agent is stressed.—*P. McMillan*.

6522. Dykstra, P. (U. Groningen, Psychiatric Clinic, Netherlands) **Some methods for measuring changes in the behaviour of depressive patients.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 219-224.—Presents a survey of different methods used to measure the effects of an antidepressive drug. The validation of a Q-sort constructed for the measurement of changes of depressive patients is discussed. Significant differences between the self-assessments of depressive Ss before and after treatment were found. The self-assessments of nondepressive Ss, however, shifted into the same direction.—*Journal summary*.

6523. Earle, Brian V. (12 1st Ave., Ilion, N.Y.) **Thyroid hormone and tricyclic antidepressants in resistant depressions.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1667-1669.—Outpatients who had become resistant to tricyclic antidepressants (N = 17) or who had responded inadequately (N = 8) were also administered 25 mcg. of sodium triiodothyronine daily. Psychotherapy was continued throughout. Excellent results were obtained in 14 cases. Ss showed improvement on the average within 5 1/2 days. 4 out of 8 cases relapsed after 5-8 mo., although they subsequently responded to MAO inhibitors. It is not certain whether this good response was related to previous treatment or not, but systemic side effects were insignificant. The method was ineffective in schizoaffective disorders, of limited use in neurotic depressions, but useful in retarded depression. Thyroid hormone has been shown to accelerate response to imipramine by A. J. Prange. It is suggested that the hormone is also useful combined with

tricyclic antidepressants in the treatment of resistant depressions in an outpatient setting.—*Journal summary.*

6524. **Faleni, Ricardo A.** (Hosp. Nacional Brailio A. Moyano, Inst. Nacional de Salud Mental, Buenos Aires, Argentina) **The use of high doses of fluphenazine in the treatment of psychotic patients.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 496-499.—Investigated the effects of fluphenazine, a "potent neuroleptic," on 21 22-55 yr. old hospitalized psychotic patients who had responded poorly to other psychotherapeutic drugs. 14 Ss were placed on high doses and 7 on low doses on a 3-mo treatment program. Results indicate that 12 of the high dosage Ss improved, and 9 were discharged. Of the remaining 5, only 2 showed no change. In the low dosage Ss, an increase in anxiety was observed without a correlated antipsychotic effect. It is concluded that high doses of fluphenazine (a) are beneficial to Ss who have resisted other treatments; and (b) are more efficacious than low doses, with similar or fewer side effects. Although side effects may appear sooner, "they are similar to those produced by other incisive neuroleptics and give way to specific medication."—*P. McMillan.*

6525. **Faretra, Gloria; Doohar, Lillian, & Dowling, Jean.** (Queens Children's Psychiatric Hosp., Queens Village, N.Y.) **Comparison of haloperidol and fluphenazine in disturbed children.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1670-1673.—Compared haloperidol, the new butyrophenone tranquilizer, with fluphenazine in a double-blind study in which 30 children (86.9% of which were schizophrenic) received each drug. The comparison was based on the effectiveness of the drugs in reducing the severity of several target symptoms and symptom clusters and on the overall improvement of the Ss during 8 wk. of drug administration. Results show that (a) both drugs were similar in overall improvement effectiveness (50+% in each drug group); (b) both drugs reduced anxiety effectively; (c) haloperidol was more effective in reducing provocativeness and autism and acted more quickly to control social and motor behavior symptoms, requiring 4 wk. for a significant change whereas fluphenazine took 8 wk.; (d) side effects were mainly extrapyramidal and easily controlled with biperden. It is concluded that haloperidol is an effective antipsychotic agent in the treatment of disturbed children.—*P. R. Shibelski.*

6526. **Fisher, Gary & Martin, Joyce.** (U. California, Center for Health Sciences, Los Angeles) **The psychotherapeutic use of psychodysleptic drugs.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 67-72.—The basic goal of the psychedelic approach is seen as enabling the patient to experience a transcendental state of consciousness which results in an identity with the life process. Drugs are said to make available to consciousness core experiences from the person's past which, when revived, can result in new attitudes being developed. The therapist's function is to be in intuitive contact with those states of consciousness and to be present for clarification, if needed. To do this the therapist is considered to need personal exposure to altered states of consciousness. A brief description of 1 patient's treatment is provided. (19 ref.)

6527. **Garber, Robert S.** (Carrier Clinic, Belle Mead, N.J.) **The impact of psychopharmacology on medicine and psychiatry.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 386-390.—Reviews the development and use of psychotropic drugs, with special emphasis on the

"modern era of psychopharmacology" that began with the use of chlorpromazine in France in 1952. Major recent texts in psychopharmacology are cited. The use of various antipsychotic and antidepressant drugs are critically reviewed, noting strengths and weaknesses (i.e., adverse side effects) of each. The impact of these drugs on research is also considered and the new possibilities afforded by complete technology. Some of the newer chemical agents, still under investigation, are examined. (20 ref.)—*P. McMillan.*

6528. **Garcia, J. Alves, et al.** (School of Medicine & Surgery, Rio de Janeiro, Brazil) **O problema problema terapêutico da insônia: II. Ensaio clínico com um novo sono-regulador butirofenônico.** [The therapeutic problem of insomnia: II. Clinical assays with a new sleep-regulator, butyrophenone.] *O Hospital*, 1969(Jul), Vol. 76(1), 77-86.—Reports the clinical bioassays with a new butyrophenone derivative, a fluorine compound with 2 piperidine nucleus, the dipiperon, which is described as a mood elevator, and as a phenothiazine-like drug it reestablishes encephalic and psychic homeostasis. The derivative is not a hypnotic drug, but a hypnoregulator medicine, in small doses, without producing in the patients the side effects so common in other somniferous remedies. It is concluded that dipiperon is really effective on the control of insomnia of any etiology. The 48 patients with insomnia submitted to treatment with dipiperon showed optimum results in $70.83 \pm 9.86\%$ and good results in $25.00 \pm 9.18\%$ of the cases.—*English summary.*

6529. **Goldberg, Harold L., DiMascio, Alberto, & Chaudhary, Basudeo.** (Boston State Hosp., Mass.) **A clinical evaluation of fluphenazine enanthate.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 46-47.—Evaluated the usefulness of parenteral long-acting prolixin enanthate (a major tranquilizer) in the management of 26 patients who were thought to sequester oral medication. Ss were divided into 2 groups of those who were to continue on oral phenothiazine medication and those to be treated with prolixin enanthate, (in most cases 25 mg. every 2 wk. for 6 mo.). The Brief Psychiatric Rating scale was administered to each S before and after clinical evaluations. Results indicate that prolixin enanthate was superior to the oral phenothiazine treatment, particularly with paranoid Ss. 70% of enanthate Ss showed mild to marked improvement, while 70% of controls showed no improvement or worsened. The drug was particularly useful in Ss treated at home, of whom many would have required hospitalization without this drug.—*P. McMillan.*

6530. **Goryachkina, M. V.** (Research Inst. of Child Infections, Leningrad, USSR) **Izuchenie terapevticheskoi éffektivnosti kortikosteroidov pri porazheniyakh tsentral'noi nervnoi sistemy parotitnoi étiologii.** [Study of the therapeutic effectiveness of corticosteroids in dealing with central nervous system lesions of parotitic etiology.] *Pediatriya*, 1970, Vol. 49(1), 11-12.—32 3-14 yr. old patients with severe forms of meningitis and meningo-encephalitis were observed in the study which utilized clinical tests and EEGs to trace the dynamics of recovery in the group receiving prednisolon and in a control group of 32 Ss not receiving it. The data demonstrate that (a) prednisolon promoted a more rapid restoration of disturbed cerebral functions, and (b) hormonal therapy should be introduced into the complex of therapeutic measures utilized.—*I. D. London.*

6531. **Greenspan, Kenneth, et al.** (National Inst. of

Mental Health, Chevy Chase, Md.) **Catecholamine metabolism in affective disorders: III. MHPG and other catecholamine metabolites in patients treated with lithium carbonate.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 171-183.—In each of the hypomanic patients, norepinephrine, epinephrine, and metabolites—normetanephrine, metanephrine, 3-methoxy-4-hydroxyphenylglycol (MHPG), and 3-methoxy-4-hydroxymandelic acid (VMA)—were greater during the pretreatment period. In the patients with agitated depressions, MHPG levels were lower during the pretreatment period; these values were also considerably lower than the MHPG levels observed in any of the other patients in this study. For the group as a whole, the excretions of normetanephrine and metanephrine decreased significantly when lithium carbonate was administered. The changes in the excretion of the catecholamines and the deaminated methylated metabolites VMA and MHPG, however, appeared to be more consistently related to changes in clinical state than to the administration of lithium carbonate, although a direct action of lithium carbonate cannot be excluded. (35 ref.)—R. V. Hamilton.

6532. Herrera, Julio J. & Espinosa, Nolberto. **La psicofarmacología y la psicoterapia breve en la clínica.** [Brief psychopharmacology and psychotherapy.] *Revista de Psiquiatría y Psicología Médica*, 1969(Apr), Vol. 9(2), 61-73.—Discusses, from the analytical-existential perspective, what role brief psychotherapy and psychopharmacology play in general medicine with special reference to clinical psychiatry, and analyzes: (a) how psychotherapy and psychopharmacology differ from other methods of therapy; (b) the meaning of the term "psycho" in determining methods of cure; (c) the "dimensions" of the patients "being" toward which psychotherapy and psychopharmacology are oriented; (d) whether the "psychic" contrasts with the "somatic" elements; (e) how an effect of a drug on a patient can differ from the "verbal" action of the doctor in psychotherapy; and (f) how psychotherapy and psychopharmacology resemble and differ from each other in psychic therapy. A phenomenological attitude is adopted while stressing the importance of the doctor-patient relationship. For the purpose of objectivity and effectiveness, the patient is studied as a "phenomena" that reveals itself as it is, free of causality. The "briefness" of brief psychotherapy is examined as 1 of intensity, extension (time), and depth, and is suggested to be a premechanism for all types of therapy. It is concluded that brief psychotherapy is effective in general and in psychosomatic medicine (although not in all cases, e.g., neurosis), and can be practiced by a general doctor.—S. Maze.

6533. Johnson, Gordon. (New York U., Medical School) **Differential response to lithium carbonate in manic depressive and schizo-affective disorders.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 613-615.—Observes that the use of lithium carbonate in the treatment of manic states has produced markedly different reactions in patients diagnosed manic depressive manic phase and schizophrenia schizoaffective excited phase. A study is described comparing the reactions of 19 manic Ss and 11 schizoaffective Ss with manic features, to lithium (1.5-3.5 gm/day). Results indicate that within 10-14 days: (a) clinical remission occurred in 79% of manic Ss with normalization of behavior, affect, and ideation; and (b) only 1 schizo-

affective S remitted while 55% showed worsening psychopathology. It is concluded that manic phase manic depressive and schizoaffective patients differ in psychological profiles, background factors, and clinical symptomatology, and show a marked difference in their responses to lithium. Rigid criteria for diagnosis is urged in the selection of patients for lithium treatment. A differential diagnostic scale designed to standardize and objectify clinical judgments is described. The scale includes social, familial, premorbid, and physiological factors, personality characteristics, course of illness, and present illness.—P. McMillan.

6534. Klee, Gerald D. (Temple U., Health Sciences Center) **Research in psychotherapy: An allegorical experiment.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 57-64.—Presents an objective comparison of 2 treatment modalities in a clinical setting. 33 18-65 yr. old patients were treated with penicillin and aspirin or with insulin and digitalis or not at all. After 3-6 mo. the results were the same for all 3 groups. The need for more elegant theory and for additional solid research is suggested.—D. Prager.

6535. Kline, N. S., Simpson, G. M., & Swenson, J. E. (Rockland State Hosp., Research Center, East Orangeburg, N.Y.) **Private ambulatory patients treated with fluphenazine enanthate.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 43-45.—Reports that long-acting parenteral fluphenazine enanthate is a unique therapeutic agent, despite the high incidence of extrapyramidal side effects. Results of treatment with 28 ambulatory schizophrenics and 13 manics indicate that large doses of the drug were more effective than smaller doses and permitted a greater interval of time between injections. Only 2 Ss averaged less than 25 mg/injection, while 8 Ss averaged from 35-75 mg. every 2 or 3 wk. for periods up to 4 yr. or more. Results were superior with schizophrenic Ss; with manic Ss, the drug provided sufficient control to administer lithium. It is concluded that without this drug, a substantial number of the Ss would have required hospitalization.—Journal summary.

6536. Knobel, Mauricio. (U. Buenos Aires, Brazil) **Elementos extrafarmacológicos en psiquiatría y medicina psicósomática.** [Extrapharmacological elements in psychiatry and psychosomatic medicine.] *Revista de Psiquiatría y Psicología Médica*, 1968(Jan), Vol. 8(5), 263-266.—Acknowledges the existence of the "placebo effect" and its limitations on the use of the double-blind methods in pharmacological research. The revision of various pharmacological studies using different drugs confirms the existence of various extrapharmacological factors. The attitude of the doctor toward the medication and especially the attitude of the patient prior to taking the medication are emphasized. The antidrug effect must be taken into consideration, not only for the purpose of pharmacological research, but also for direct medical use. Patients with an antidrug attitude must be given psychotherapy before or at the same time as the medication. The importance of the antidrug effect variable in pharmacology will allow research in this field to confirm the true effectiveness of the various drugs used. (16 ref.)—S. Maze.

6537. Lambert, P. A. & Marcou, G. (Hôpital de Bassens, Chambéry, France) **Fluphenazine enanthate given to inpatients and outpatients.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 63-65.—Administered fluphenazine enanthate to 57 16-79 yr. old outpatients and 53 inpatients. Average length of

treatment was 13 mo., although some Ss required more than 2 yr. A comparison of inpatients with outpatients indicates that (a) outpatients needed less fluphenazine enanthate than inpatients, (b) time between injections was longer for outpatients, and (c) injections were well tolerated without biological changes. The most frequent side-effects were asthenia, depression, and chronic dyskinesia. Fluphenazine enanthate is particularly adapted to long-term treatment, and reduces potential toxicity by reducing the amount of major tranquilizer given. The drug is useful for most chronic psychotic patients, particularly rehabilitated schizophrenics.—*Journal summary.*

6538. **Lehmann, H. E.** (McGill U., Montreal, Quebec, Canada) **The philosophy of long-acting medication in psychiatry.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 7-9.—Suggests that certain types of acute and chronic psychotic patients can best be kept on medication through injections of long-acting antipsychotic preparations. These patients include (a) acutely disturbed, aggressive and agitated catatonics; (b) delusional and extremely rigid paranoids; (c) outpatients who are doing well on maintenance therapy, but who often forget or decide against taking medication and thus risk relapse; and (d) dangerous, homicidal paranoids, who although recovered and nondelusional, will remain well only while on medication. The advantages of weekly or biweekly injections are discussed to insure that this type of patient is kept on medication regularly. It is suggested that legislation be passed requiring that such patients present themselves at predetermined intervals at a clinic to receive injections of long-acting antipsychotic preparations.—*P. McMillan.*

6539. **Leite Naves, Armando.** (Goode Hope Clinic, Belo Horizonte, Brazil) **Tratamento das síndromes depressivas com a Clorimipramina.** [Treatment of depressive syndromes with chlorimipramine.] *O Hospital*, 1969(Jul), Vol. 76(1), 113-119.—Reports results obtained with chlorimipramine (anafranil) in 16 Ss with endogenous depressions, 15 Ss with situational depressions, 2 Ss with obsessive neuroses, 8 Ss with prepsychotic personalities, 3 Ss with schizophrenic depressions, and 1 Ss with an organic depression. From this group, 16 Ss experienced a complete remission of symptoms, while 16 Ss experienced good results. 7 Ss achieved moderate improvement, and 6 Ss remained unchanged.—*English summary.*

6540. **Lowenthal, U.** [Placebo treatment.] *Harefuah*, 1970(Jul), Vol. 79(2), 64-67.—Reviews the use of placebos in medical practice. A placebo is an inert substance without known biologic significance which is administered to the patient instead of a pharmacologically active substance. While the placebo has been introduced mainly as a tool in drug research, it is also an important therapeutic tool. The placebo is viewed as a "concrete symbol of support" in the doctor-patient relationship, which "helps the patient to gather inner strength and reduce his suffering." (English summary). (60 ref.)—*E. Donchin.*

6541. **Maillet-Jurquet, A., et al.** (Clinique Mon Repos, Marseille, France) **La chlorimipramine traitement majeur des états dépressifs: A propos de 103 cas, traités par perfusion intraveineuse.** [Chlorimipramine effectiveness in the treatment of depressive states: 103 cases, treated by intravenous perfusion.] *Encéphale*, 1970(Mar), Vol. 59(2), 180-188.—Diagnoses included, for 35 males and 68 females, neurotic depressions,

involuntal depressions, hypochondriacal depressions, and some atypical depressions. It is concluded that chlorimipramine (anafranil) was an effective antidepressant when iv perfusion was used. This form of treatment was though suitable to replacing ECS in endogenous depressions. It was also felt to be effective in neurotic depressions.—*W. W. Meissner.*

6542. **McKnelly, W. V., Tupin, Joe P., & Dunn, Marvin.** (U. Kansas, Medical Center) **Lithium in hazardous circumstances with one case of lithium toxicity.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 279-286.—Given a reasonably healthy person, the risk is minimal if the dose, serum level, and clinical course is carefully monitored by a person experienced in the use of lithium. Extreme caution must be exercised and exceptional justification must exist before lithium is used in patients with kidney or heart disease. 4 case histories are presented.—*D. Prager.*

6543. **McNair, Douglas M., et al.** (Boston U., Medical School) **Persistence of a drug-personality interaction in psychiatric outpatients.** *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 299-305.—This follow-up study reevaluated 4 small groups of psychiatric outpatients who, 4 mo. earlier, had completed a double-blind trial of diazepam. A drug-personality interaction demonstrated during the 2-wk trial that "high acquiescer-placebo" and "low acquiescer-diazepam" groups improved significantly more than "high acquiescer-diazepam" and "low acquiescer-placebo" groups. The follow-up data supported 2 principal conclusions about the long-range combined effects of medication and personality: they can modify patients' reactions to subsequent treatment, and they also can endure for a considerable period. Thus, the same 2 groups who improved most during the clinical trial significantly less often prematurely quit their subsequent therapy and, further, they maintained their significantly greater symptomatic improvement 4 mo. later.—*R. V. Hamilton.*

6544. **Mella, P. I.** (St. Patrick's Hosp., Dublin, Ireland) **Prophylactic lithium: A double-blind trial in recurrent affective disorders.** *British Journal of Psychiatry*, 1970(Jun), Vol. 116(535), 621-624.—Performed a double-blind trial on 18 patients with recurrent affective disorders. The superiority of lithium over sodium bicarbonate (placebo) just failed to be significant at the 5% level. One case of serious toxicity occurred. Results lend corroborative evidence to the hypothesis that lithium has a prophylactic action. (15 ref.)—*Journal summary.*

6545. **Merlis, Sidney; Sheppard, Charles A., Collins, Lois, & Fiorentino, Diane.** (Central Islip State Hosp., N.Y.) **Polypharmacy in psychiatry: Patterns of differential treatment.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1647-1651.—125 men and 375 women, were randomly selected from a group of 1350 patients treated with combinations of psychoactive medications. Each patient had been on his treatment combination for a minimum of 30 days prior to admission to the study and was considered relatively stabilized before initial assessment. Interviews and records of manifest pathology on the 18-item Brief Psychiatric Rating Scale (BPRS) and judgment of degree of mental illness on a 7-point scale were assessed. Evenly divided into 3 groups, 1 group was taken off medications completely (with placebo being replaced for the normal medication); the 2nd group had 1 placebo substituted for

an active medication; and, the 3rd group remained on original medication. Reevaluation was performed after a 30-day period. Results show that men, unlike women, do not respond nearly as well to therapy under polypharmacy methods. Implications were drawn from this data concerning the ineffectiveness of polypharmacy in males.—*Journal summary.*

6546. **Pisciotta, Anthony V.** (Marquette Medical School, Milwaukee, Wis.) **Agranulocytosis Induced by certain phenothiazine derivatives.** *JAMA: Journal of the American Medical Association*, 1969(Jun), Vol. 208(10), 1862-1868.—Clinical and hematologic characteristics suggest that development of agranulocytosis is "related to a possible suppressive effect of phenothiazines on cell division. This suggests that even before exposure to chlorpromazine, sensitive patients have a less efficient mechanism for cell division...." It is concluded that "one may be able to identify chlorpromazine-sensitive patients because his marrow cells show limited incorporation of ³H-thymidine. (17 ref.)—*P. McMillan.*

6547. **Platz, Arthur; Panepinto, William C., Kissin, Benjamin, & Charnoff, Stanley M.** (State U. New York, Downstate Medical Center, Brooklyn) **Metronidazole and alcoholism: An evaluation of specific and non specific factors in drug treatment.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 631-636.—Reports a double-blind study with 169 clinic outpatients evaluating the use of metronidazole in the treatment of alcoholism. This drug (initially thought to reduce the craving for alcohol and cause mild antibuse-like reactions during drinking) has shown contradictory results in previous studies. In the present study metronidazole and placebo were administered in identical 250-mg capsules. During each clinic visit, Ss answered questions concerning regularity of taking medication, amount and frequency of drinking since the last appointment, and occurrence of any unusual side effects. Results indicate no difference between placebo and drug groups in (a) regularity of clinic visits, (b) reported periods of abstinence, (c) overall ratings of improvement, and (d) incidence of adverse side effects. Various patient variables (including influence of race and social class) are also discussed. It is noted that Ss were remarkably consistent in their drinking patterns (i.e., 69% of Ss abstinent at the 1st rating were also abstinent at the last, while only 19% of those drinking were abstinent at the final rating). It is concluded that the best predictor of abstinence at the end of treatment is not mode of treatment or type of drug to be used, but the patient's drinking behavior prior to treatment. (28 ref.)—*P. McMillan.*

6548. **Prange, Arthur J., et al.** (U. North Carolina, Medical School, Chapel Hill) **Use of a thyroid hormone to accelerate the action of imipramine.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 442-444.—Reports that triiodothyronine (T₃), in a dose too small to produce toxicity or factitious hyperthyroidism, can be used to enhance the therapeutic action of imipramine in retarded or nonretarded depressed patients. Whatever the thyroid state of the patient, T₃ and imipramine may interact to elevate central adrenergic activity.—*Journal summary.*

6549. **Robinson, S. & Dasberg, H.** (Talbieh Psychiatric Hosp., Jerusalem, Israel) **Observations on melleril-induced EEG changes in mental patients and their relationship to course and outcome of the illness.** *Israel Annals of Psychiatry & Related Disciplines*,

1969(Nov), Vol. 7(2), 201-212.—Investigates the correlation between EEG aberrations caused by phenothiazine derivatives and the clinical course and outcome of mental illness in 20 24-60 yr. old patients exhibiting anxiety, psychomotor restlessness, and affective disturbance. Ss were treated with thioridazine in dosages varying from 75-400 mg/day. 3 types of development in EEG aberrations were found: (a) normal EEG; (b) slowed background activity with theta and delta waves, and slowing of alpha rhythm and heightened amplitude; and (c) alteration of background activity as mentioned in b with reversible paroxysmal activity. Characteristics of each type are illustrated by a case history. Areas for further research are discussed.—*G. Steele.*

6550. **Schlemper, M. S., Hustinx, A., Kooyman, M., & Janssen, R. H.** (State U., Leyden, Netherlands) **Measurement of depression.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 225-241.—Describes EEG variables which may be indications of the degree of attention or intention of the patient. In order to investigate whether these variables are negatively correlated with degree of depression, a quantitative method was sought to assess the severity of the depression. The course of the depression in patients treated with amitriptyline or a placebo was followed using a double-blind crossing-over method. The severity of the depression was ascertained by means of the method of Shapiro and with the Leyden Assessment Scales. 4 assessment lists were developed to be used by: (a) psychiatrists, (b) therapy leaders, (c) nursing staff, and (d) patients for self-assessment. Results obtained with 4 patients are discussed. There was generally good agreement between the different methods of observation used. Some limitations of the methods studied are given.—*Journal summary.*

6551. **Shepherd, M.** (U. London, Inst. of Psychiatry, England) **Therapeutic problems with psychotropic drugs: Some epidemiological considerations.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Nov), Vol. 72(6), 503-506.—Examines the contribution of epidemiological inquiries to the evaluation of treatment for mental disorders. Examples are given of studies which examine the impact of psychotropic drugs on populations of psychiatric patients in hospital and in the community. Results indicate the need to include social factors among the criteria of therapeutic efficacy.—*Journal summary.*

6552. **Simpson, George M.** (Rockland State Hosp., Research Center, East Orangeburg, N.Y.) **Long-acting, antipsychotic agents and extrapyramidal side effects.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 12-14.—Discusses the concept of long-acting drugs and describes their usefulness. Long-acting, extrapyramidal side effects are shown to be no different than those of routine antipsychotic drugs, although the onset may be different and the dystonic reactions more bizarre. The extrapyramidal effects of the enanthate and the decanoate drugs are easily treated; the decanoate is noted to be the longest-acting and probably has fewer side effects.—*Journal summary.*

6553. **Spring, Gottfried K., Schweid, Daniel; Steinberg, Joel, & Bond, Douglas.** (University Hosp. of Cleveland, O.) **Prophylactic use of lithium carbonate? More data concerning its use in manic depressive illness.** *JAMA: Journal of the American Medical Association*, 1969(Jun), Vol. 208(10), 1901-1903.—Presents the case histories of 9 manic patients who received

lithium carbonate after an acute manic attack and were followed up for 3 mo. to 1 yr. 5 of the 9 patients relapsed. It is concluded that a cautious and critical approach to the prophylactic use of lithium carbonate is necessary.—*Journal abstract.*

6554. Stern, Francis H. (St. Joseph's Hosp., Philadelphia, Pa.) **Use of a new antidepressant in the female climacteric.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 464-466.—Reports a preliminary trial of a new psychostimulant compound (pyrovalerone hydrochloride) in the treatment of mental and emotional symptoms associated with the menopause. Ss were 20 45-65 yr. old patients from private office practice whose durations of symptoms ranged from 2-12 yr. The 10-wk treatment period included periodic laboratory studies. Results show significant body weight loss and an increase in insomnia. Combined ratings by Ss and therapists suggest that over 1/2 of Ss showed improvements in the symptoms of fatigue, depressed mood, and boredom. It is concluded that further clinical evaluation in a controlled double-blind study of this drug is justified.—P. McMillan.

6555. van der Helm, H. J. & de Jonghe, F. E. (U. Amsterdam, Neurological & Psychiatric Clinics, Netherlands) **Determination of psychotropic drugs in body fluids.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Nov), Vol. 72(6), 507-512.—Investigates individual differences in the therapeutic and toxic effects of drug therapy by examining the relationship between plasma concentration and effect. Absorption, rate of elimination, and metabolism are factors affecting plasma concentration. The procedure for the determination of the plasma concentration of psychotropic drugs is described. It is concluded that plasma concentration is "a likely aid in rationalizing drug therapy and might well lead to a reduction of the vast number of drugs and combinations of drugs now in use."—G. Steele.

6556. Wilson, Ian C., Alltop, Lacoe B., & Riley, Lewis. (Dept. Health, Raleigh, N.C.) **Tofranil in the treatment of post alcoholic depressions.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 488-494.—Assigned 40 consecutive, female, postalcoholic depressed patients, aged less than 60 yr., to receive either 50 mg. 3 times a day tofranil (an antidepressant) pamoate liquid or equivalent dosage of placebo. The intensity of depression was evaluated initially and then at weekly intervals over a 6-wk study period on both an O and subjective rating scale. Data indicate that both treatment groups showed significant improvement over time. The active treatment group showed significantly more improvement on both rating scales than the placebo group. Generally the most substantial differences occurred in early weeks of treatment. Item analysis of items in both the Hamilton Rating scale and Self-Rating Depressive scale defined different patterns of individual symptom improvement. In general, the physiological depressive symptoms showed the most remarkable beneficial response to tofranil therapy. (16 ref.)—*Journal summary.*

6557. Wintrob, Ronald M. (U. Connecticut, Health Center, Hartford) **Long acting phenothiazines and long term psychotic patients: The role of fluphenazine enanthate in treatment.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 50-62.—Administered fluphenazine enanthate in 25 mg. intramuscular biweekly injections to 14 therapy resistant Liberian patients with a history of severe and recurrent psychotic reactions. 10 Ss responded favorably to the

drug. The onset of action was variable, with a range of 3 days-2 wk. being most representative. An asymptomatic fall in blood pressure of 5-15 mm. Hg. was also characteristic. Extrapyramidal reactions occurred in 9 Ss, but were adequately managed with oral anticholinergic drugs and did not impede the continued use of the drug. It is concluded that fluphenazine enanthate is effective in the treatment of therapy resistant patients with long-term psychotic illness.—*Journal summary.*

HOSPITAL CARE & INSTITUTIONALIZATION

6558. Camp, Ruth P. & Onnembo, Florence. (Western Connecticut State Coll.) **Discharged psychiatric patients' visits to a former treatment center: A nursing dilemma.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Jul), Vol. 6(4), 213-218.—Studied number and nature of expatients' visits to a small psychiatric treatment center where most patients stay for over 6 mo. to obtain insight into: (a) the transition problems that occur when patients leave a hospital, (b) the role of the nurse as seen by the patient, and (c) characteristics in the organizational and social structure of the hospital which might be related to why and how expatients return.—M. Daniels.

6559. Green, Hattie. (Stockton State Hosp., Calif.) **Patients speak out.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Sep), Vol. 6(5), 279-283.—Surveyed 15 patients about to be discharged from an acute psychiatric female unit of a state hospital to determine their opinions concerning the therapeutic effectiveness of hospital employees and to find out what is important to patients.

6560. Jablon, Norman C., Sadoff, Robert L., & Heller, Melvin S. (State Maximum Security Forensic Diagnostic Hosp., Holmesburg Prison, Philadelphia, Pa.) **A unique forensic diagnostic hospital.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1663-1667.—Describes a maximum security prison in which the purpose of the 100-bed unit is to extensively test and analyze those defendants who have been classified as having violent criminal behavior. Following completion of the 60-day testing procedure, which is performed within the security of a prison atmosphere by a university staff in law and psychiatry, certain recommendations are made on each of the pretrial or presentencing patients. Representative samplings are offered, showing the success of the program to date. Out of 27 people on probation, 20 have not yet been involved in any mental or legal difficulties. The realization that the program is but the 1st step towards better methods of treatment of criminally violent people does not overshadow the apparent success of the program. A brief analysis of the program by H. G. Modlin follows the report.—P. R. Shibleski.

6561. Moosbrucker, Jane & Spivak, Mark. (Boston Coll.) **The therapeutic community: A study of identification.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 55-69.—Found that hospitalized mental patients who identified more with the chief psychiatrist were more likely to improve than patients who identified less. Identification was defined as becoming more like the group leader wanted them to be in their attitudes toward the hospital milieu and was measured by a questionnaire, the Patient Role Inventory. Ss were 16 male and 21 female psychiatric patients. Ss whose individual psychotherapists were in conflict with

the chief psychiatrist were less likely to identify with the chief than Ss whose therapists were not in conflict. Ss who identified with the group leader were more likely to perceive their therapists and other staff members as supportive of the leader and the group meetings even if they were not. S improvement was not related to therapist conflict or perception of staff support, i.e., it was only related through the use of identification as an intervening variable. (34 ref.)—*Journal abstract*.

6562. Munoz, Rodrigo A., Tuason, V. B., & Dick, Earl. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **Psychiatric emergency room service patterns.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 185-189.—Asserts that the success of the emergency room is based on precision in diagnostic formulations, early intervention in stress situations, and utilization of community resources. Social workers and visiting nurses are essential in promoting and maintaining changes necessary to the patient's reintegration into the community.—D. Prager.

6563. Napolitani, Diego. (Centro di Socioterapia "Villa Serena," Milan, Italy) **Approccio psicoanalitico alla sociodinamica delle istituzioni psichiatriche.** [Psychoanalytic approach to the social dynamics of psychiatric institutions.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(Mar), Vol. 31(2), 144-169.—Suggests that custodial psychiatric institutions tend to assume defensive structures belonging to the schizoparanoïd type; psychiatric hospitals tend to assume obsessive structures (treatment oriented) and therapeutic communities tend to assume hysterical structures. (French, English, & German summaries)—L. L'Abate.

6564. Pokorny, Alex D. (Veterans Administration Hosp., Houston, Tex.) **Moon phases and mental hospital admissions.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 325-327.—Examined the relationship of daily psychiatric hospital admissions, suicides, and homicides over a 3-yr period to moon phases and apogee-perigee cycles in lagged and unlagged comparisons. A significant relationship was found with hospital admissions.

6565. Schneider, P. B., Chistoni, G. C., Baron, P., & Meylan, D. (U. Lausanne, Psychiatric Polyclinic, Switzerland) **Le logement des malades d'un service psychiatrique ambulatoire.** [Accommodation of patients in a psychiatric ambulatory service.] *Social Psychiatry*, 1970(Oct), Vol. 5(4), 202-211.—Investigated the physical accommodations of 100 patients using a university psychiatric clinic. Type of accommodation, size of dwelling, the way in which the accommodation was obtained, and degree of patient satisfaction were considered. Associations between these facts and sociocultural data concerning the course of study, professional training and activity are discussed. Data indicate no striking difference between the accommodation of the patient population and that of the general population. Within the patient sample, there appeared to be more association between dwelling, sex of patient, and sociocultural factors, than between dwelling and type of psychiatric problem. (German abstract)—*English abstract*.

6566. Tisza, Veronica B., Hurwitz, Irving, & Angoff, Kristine. (Harvard Medical School, Boston, Mass.) **The use of a play program by hospitalized children.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 515-531.—Studied the play activity of hospitalized children in the playroom of a hospital for

children, emphasizing the emotional processes and their behavioral manifestations which help the child to recover from the acute trauma and to regain the ability to use play in the service of mastery. The project was restricted to the description and analysis of observational data during the 1st 3 days in the playroom, and is a combined cross-sectional and longitudinal study. 3-4, 4-6, and 6-8 yr. olds served as Ss. The reaction of the Ss to hospitalization, their attendant modes of relating to adults and to peers, and their use of toys are examined and described. The importance of the continuity of supportive relationships for young hospitalized children is demonstrated. If relationships are offered, not even the 3-4 yr. olds experience the absence of the parent as so profound a loss, because of the relative stability of the introjected image of the parent. However, results indicate that the external and internal threats inherent in the hospital experience create so much anxiety that, at least during the 1st 3 days in the playroom, Ss are largely unable to master the situation through dramatic play. During the initial period of hospitalization they either regress or struggle against regression, with resultant primitivization or even absence of play activity. (33 ref.)—*Journal summary*.

PSYCHOANALYTIC INTERPRETATION

6567. Bressler, Bernard. (Duke U., Medical Center) **The ego ideal.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 158-174.—Clarifies the various usages of the term "ego ideal," including a review of Freud's and current definitions. The origin of the ego ideal is discussed as "the replacement of earlier feelings of omnipotence." The relationships between ego ideal and superego, shame, guilt, adolescence, and the group are discussed. The methods of psychoanalysis for dealing with the ego ideal are included. (28 ref.)—G. Steele.

6568. Caruso, Igor A. **Sirve el psicoanálisis de coartada social?** [Is the psychoanalysis of social repression useful?] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1970(Jan), No. 14, 3-9.—Discusses the role of psychoanalysis in situations where sociopolitical changes are inevitable. The human condition is regarded as a model of conflict between desire and reality. The necessity of conflict in the socio- and ontogenesis of man is considered basic to the psychoanalyst as a representative of the reality principle. The ambivalence of the Utopia phenomenon is thought to represent a test for the psychoanalyst in which his role is to explore the motivations for social repression and objectively examine governmental authority.—P. Hertzberg.

6569. Chadoff, Paul. **Una crítica de la teoría de Freud acerca de la sexualidad infantil.** [A critique of Freudian theory on infantile sexuality.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1970(Jan), No. 14, 10-16.—Examines some of the consequences of blind acceptance of Freud's theory of infantile sexuality and proposes a return to Freud's primary viewpoints, but with modifications. It is noted that the psychoanalytic literature reveals 3 basic themes in relation to Freudian theory on infantile sexuality: (a) sexual perversions of adult life and nongenital adult sexuality, (b) recuperation or reconstruction of infantile sexual life during psychoanalysis, and (c) direct observation of infants and children. It is suggested that more attention should be focused on the parents than on the children because

sexual disturbances may develop from a pathological family situation.—P. Hertzberg.

6570. Levenenz, Lanquair D. (U. California, Berkeley) **A psychoanalysis of American literature.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 763.

6571. Mitscherlich, Alexander. (Sigmund Freud Inst., Frankfurt am Main, W. Germany) **Introducción a la mesa redonda sobre protesta y revolución.** [Introduction to the round table on protest and revolution.] *Revista de Psicoanálisis*, 1969, Vol. 26(3), 631-642.—Examines psychoanalytic bases for political activism, noting the influence of ego, superego, and id on behavior. Protest and revolution are defined and the roles of the individual and groups are examined. It is suggested that the role of a psychoanalyst in a situation of protest or revolution should be to investigate how the antagonists maintain their basic instinctive needs, i.e., grade of sublimation, type of objectal relations, types of defenses. (17 ref.)—P. Hertzberg.

6572. Orgel, Samuel Z. **The unconscious.** *Samiksa*, 1968, Vol. 22(1), 1-22.—Explores Freud's topographic theory, dividing the psychic apparatus into systems on the basis of their relationship with consciousness (unconscious, preconscious, and conscious, together with the intersystemic censor), and his structural theory of id, ego, and superego roles in the development and organization of mental functions. Regression is discussed in terms of both theories, as modified by Freud and others, including the concept of regression of ego functions, after which hypotheses on regressive ego functions are viewed within the framework of the psychodynamics of normal development, neurosis, and psychosis. (27 ref.)—T. N. Webster.

6573. Rosenfield, Israel. (Queens Coll., City U. New York) **Freud: Character and consciousness: A study of Freud's theory of unconscious motives.** New York, N.Y.: University Books, 1970. 190 p. \$5.95.

6574. Salas, Eduardo J. (Coronel Diaz 1731, Buenos Aires, Argentina) **Un enfoque psicoanalítico de las identificaciones en Dorian Gray: La psicopatía y la perversión.** [A psychoanalytic look at the identifications in "Dorian Gray": The psychopathology and perversion.] *Revista de Psicoanálisis*, 1969, Vol. 26(3), 643-667.—Presents an analysis of Oscar Wilde's *Dorian Gray* which traces the sources of psychopathology and perversion that lead the character to suicide. Consideration is given to Dorian's symbolic parental couple, and their perverse influence on his adult life. Dorian's precarious equilibrium and its rupture is analyzed, noting his double life and the intensification of his aggressions. Dorian's suicide is attributed to an irreversible psychosis. The renunciation of his identity is equated with the renunciation of life. It is hypothesized that there are 3 types of identification; fecundating, gestatory, and digestive-metabolic. (English & French summaries) (24 ref.)—P. Hertzberg.

6575. Thomas, Glen R. (Emory U.) **The Freudian approach to James's "The Turn of the Screw": Psychoanalysis and literary criticism.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 770.

PSYCHODIAGNOSIS

6576. Block, William E. **A phenomenological-existential view of causation in relation to projective test data.** *Psychiatric Quarterly Supplement*, 1968, Vol.

42(1), 4-21.—Presents a case study to illustrate the phenomenological-existential approach to psychological test data. Only the existential method, and not the genetic mode of investigating test data, keeps the clinician open to actually experiencing the data.—D. Prager.

6577. Davis, Leo J. & Swenson, Wendell M. (Mayo Clinic & Foundation, Rochester, Minn.) **Factor analysis of the Wechsler Memory Scale.** *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 430.—Submitted the Wechsler Memory Scale to a factor analysis to determine if more than 1 substantive dimension was present. Ss were 622 15-87 yr. old patients. 2 clear-cut correlated ($r = .62$) factors were found, suggesting that the scale "might... be analyzed in terms of a Memory Quotient or individual subtests. Such analysis might yield clinically useful distinctions between psychiatric and neurologic patients and between subgroups within these 2 broad categories."—M. West.

6578. Dickes, Robert; Simons, Richard C., & Weisfogel, Jerry. (State U. New York, Downstate Medical Center, Brooklyn) **Difficulties in diagnosis introduced by unconscious factors in the interviewer.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 55-90.—States that difficulties in both diagnosis and therapy are ubiquitous and have been attributed to experience, nosologic problems, theoretical orientation, age, sex, and religion of interviewers. However, an examination of the material presented by the patient reveals it to be of the type that impinges on the "universal and unacceptable drives present in all people," and therefore the cause of error stems from the deeply repressed unconscious constellations present in all interviewers. Several clinical studies support the hypothesis. (90 ref.)—D. Prager.

6579. Dinoff, Michael; Stenmark, David E., & Smith, Robert E. (U. Alabama) **Comparison of video-tape and face-to-face interviewing.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 53-54.—Interviewed 1 highly verbal S via a standardized video-taped presentation of E followed later by a live E reading the same library of utterances from a script to S in a face-to-face encounter. Temporal data of the 2 interview techniques are quite similar.—*Journal abstract*.

6580. Dinoff, Michael, et al. (U. Alabama) **Reliability of video-tape interviewing.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 275-278.—Testing 12 normal male and 12 female Ss twice within approximately 24 hr. on a standardized video-tape interview showed high reliability in temporal speech characteristics ($rs = .57-.99$). The potential of the use of such an instrument as a tool in clinical research is discussed.—*Journal abstract*.

6581. Dodd, Jack L. (U. Arizona) **The nosology of unhappiness and craziness.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 36-37.—Indicates that a nosology which uses "objective static terms to describe relative, subjective, interactional phenomena" is not logical. It is suggested that a diagnosis would take into account, not just the patient, but the patient in relation to his world. It is pointed out that definitions are relative, and when one attempts to study a patient, one alters the field.—S. R. Greenwald.

6582. Hamilton, M. (U. Leeds, England) **Standardised assessment and recording of depressive symptoms.** *Psychiatry, Neurology, Neurochirurgia*, 1969(Mar), Vol. 72(2), 201-205.—Argues that standardized records ignore the unique aspects of a patient's

illness and are concerned only with selected common elements. The selection depends on the purpose of the record and on the theoretical orientation of the interviewer. Records are classified into self-assessment data and ratings by Os. The advantages and disadvantages of these scales are considered and some specific scales are reviewed in detail.—*Journal abstract.*

6583. Harris, Richard J., Wittner, William; Koppell, Bert, & Hilf, Franklin D. (U. New Mexico) **MMPI scales vs. interviewer ratings of paranoia.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 447-450.—Reports that 3 subscales of the MMPI (Schizophrenia, Paranoia, and Stein's recently devised Suspicion scale) had low positive correlations with 2 interview-derived indices of paranoia. Ss were 44 patients who had been classified by the staffs of their wards as either clearly paranoid or clearly nonparanoid.—*Journal abstract.*

6584. Jackson, Basil. (Marquette U., Medical School) **The revised Diagnostic and Statistical Manual of the American Psychiatric Association.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 65-73.—Discusses the inadequacies of the Diagnostic and Statistical Manual of Mental Disorders (DSM-II). Among those aspects described as "less than desirable" are: (a) lack of a clear and concise definition of such rudimentary terms as symptom, syndrome, and symptom complex; (b) classification of neurosis as a disease entity; and (c) inadequate childhood psychiatric disorders sections. An alternate system is proposed and commonly used terms are defined.—P. R. Shibelski.

6585. Kendell, R. E. (Maudsley Hosp., London, England) **The classification of depressive illness: The uses and limitations of multivariate analysis.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 207-216.—Examines different types of multivariate analyses of clinical data from patients with depressive illnesses to reveal the fundamental relationships underlying the variety of symptom combinations. The statistical techniques are described and the theoretical requirements for establishing a disease entity are defined. Their inherent limitations and the nonexistence of clearly defined entities are examined. Either way, most studies have been handicapped by the poor quality of their original clinical data. The low reliability of clinical ratings obscures any distinctions or boundaries that may be present; and their liability to be biased by the rater's diagnostic preconceptions tends to create spurious distinctions. These deficiencies would be reduced if information was elicited by standardized interviewing procedures. Although no discrete entities have yet been defined, there is now broad agreement on the main dimensions of depressive symptomatology and the positions of individual patients on these dimensions can be identified either by factor scores or by a diagnosis score derived from a discriminant function analysis. It is concluded that this provides a more satisfactory means of characterizing patients than does a traditional clinical diagnosis. (26 ref.)—*Journal summary.*

6586. Knights, Robert M. & Watson, Peter. (U. Western Ontario, London, Canada) **The use of computerized test profiles in neuropsychological assessment.** *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(12), 696-709.—Describes the development and use of standard score profile programs based on psychological tests for evaluating the patterns of abilities and deficits in children with various types of brain damage or dysfunction. The test profile is described and

comments are made on: the collection of normative data, standard score characteristics, standard deviation limits, age change problems, and the use of a summary score. Cases are presented on a 9-yr-old boy with a brain tumor and a 13-yr-old boy with a history of learning problems. The technique of profile interpretation is illustrated, and the test scores are related to the medical history. A 2nd computer program which selects the test profiles most similar to any criterion case, from all the previous cases, in an effort to develop a technique for improved classification, is described.—*Journal abstract.*

6587. León, Carlos A., Climent, Carlos E., Estrada, Harold, & Jaramillo, Ramón. (U. del Valle, Faculty of Medicine, Cali, Colombia) **Assessment of instruments for studying the prevalence of mental disorders.** *Social Psychiatry*, 1970(Oct), Vol. 5(4), 212-215.—Assessed 86 men and 101 women from a semirural Colombian town for mental disorders. Ss completed the Health Opinion Survey (HOS) questionnaire, and a checklist (filled in by an informant) from the Family Identification Questionnaire. In 33 cases, a psychiatric interview was given. A comparison of results indicates that (a) The mean HOS score did not differentiate between the mentally ill Ss (assessed at interview) and normal Ss, nor did it indicate a diagnosis. The mean score of mentally disordered Ss, however, was significantly lower than that of normal Ss. (b) The checklist did identify a small proportion of the mentally ill Ss, but gave no information about type of disorder. (c) A 2nd psychiatrist agreed with the diagnosis of the 1st (using the same collected material) in a satisfactory number of cases, but they did not agree on the indication for psychiatric treatment. (French & German abstracts)—*Journal abstract.*

6588. Liem, G. Ramsey, et al. (U. Rochester) **Some correlates of early-detected emotional dysfunction in the schools.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 619-626.—Studied clinical judgments of early-detected emotional dysfunction in relation to a battery of adjustment, parent attitude, sociometric, and achievement measures given at the end of the 3rd grade. The ratings, made on a 7-point health-pathology scale, correlated in meaningful ways with the criterion variables attesting to the sensitivity of the early detection procedure. (25 ref.)—*Journal abstract.*

6589. Maxson, Linda S. & Neuringer, Charles. (U. Kansas) **Evaluating legal competency.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 267-273.—Attempted to discover whether the MMPI could be used to differentiate the legal competency status of individuals referred to state mental hospitals. The protocols of 538 male competent and 56 male incompetent individuals were examined and compared. The data indicated that there was a greater amount of overall mental disturbance in the incompetent group as compared to the competent patients, and that the former group was much more confused and suspicious than the latter Ss. Cutoff score identification tables were constructed for the differentiating scales.—*Journal summary.*

6590. McKenzie, D. J. & Wilson, P. E. (Child Guidance Clinic, Canberra, Australian Capital Territory) **A pilot study of the Bristol Social Adjustment Guides used with pre-school children.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 177-180.—Reports a pilot study with 20 preschool children in which objective data from interviews supports the suggestion that the Bristol Social Adjustment Guides (BSAG) are useful in early identification of emotional problems of preschool children.

However, it is concluded that the BSAG require further development and inclusion of items more appropriate to the activities of children of this age group.—*M. Maney.*

6591. **Poslavy, A.** (Willem Arntsz Hoeve, Den Dolder, Netherlands) **Behaviour and the possibility of quantitating behaviour.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Sep), Vol. 72(5), 447-454.—Possibility and feasibility of quantitating behavior in clinical practice depend on the problems which the psychiatrist has to solve. After a review of various aspects of the clinicians work, it is concluded that quantification of behavior is most feasible in those situations in which it is most needed, i.e., in those situations in which the patient does not respond well to treatment endeavor. In these situations quantification can refine the information on which new therapeutic decisions can be made. (18 ref.)—*Journal summary.*

6592. **Schultz, J. H.** (17 Bayernallee, Berlin, W. Germany) **Die Verantwortung für die Diagnose.** [The responsibility for the diagnosis.] *Praxis der Psychotherapie*, 1968(Dec), Vol. 13(6), 253-263.—Emphasizes the extreme importance of carefully ruling out all possible differential diagnoses before beginning treatment with psychotherapy or psychoanalysis. Briefly reports cases of patients who received only psychotherapy or psychoanalysis and died as a result of the lack of medical or surgical treatment.—*B. A. Stanton.*

6593. **Schwarz, I. Gene.** (U. Cincinnati, Medical School) **Observation on the "process" of psychiatric evaluation.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 248-255.—Illustrates the unreliability of the tools of psychiatric evaluation and suggests the possibility that what is being sampled in microcosm in a diagnostic interview is the patient's capacity to adapt as shaped by the uniqueness and development of his psychic apparatus. For the evaluation to have significance, both S and evaluator must be studied. Via training, personal experience, and/or personal therapy, the doctor in clinical practice must develop the capacity for self scrutiny and analysis. In clinical research the diagnostic interview may be of additional value when viewed from the perspective of studying the evaluator effect on the process.—*Journal summary.*

6594. **Seva Díaz, Antonio & Salvanes Pérez, Roberto.** **Valor de lo comicial en ciertas psicosis delirantes.** [Value of diagnosis in certain delirious psychoses.] *Revista de Psiquiatría y Psicología Médica*, 1968(Jan), Vol. 8(5), 267-275.—Analyzes the probability that there are many psychopathological cases which are mistaken for schizophrenic psychotic cases and gives an example of a patient whose diagnosis was made by confusing different possibilities. An epileptic condition was diagnosed which, by facing an unfavorable environment (in this case immigration) activates the endogene (partial schizophrenic predispositions of Luxemburger). This, in turn, becomes a delirium schizophreniform psychosis and appears to be a "Gran Mal" attack when juxtaposed with an acute psychic environmental trauma. By delving deeper into the psychopathology of these patients and by progressing further with the means of diagnosis, the term "schizophrenia" will be less abused.—*S. Maze.*

6595. **Tien, H. C.** (World Journal of Psychosynthesis, Lansing, Mich.) **Organic Integrity Test (OIT) in monitoring drug effects.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 445-455.—Tested the Organic Integrity Test (OIT) to confirm its validity as a test of organicity, independent of other psychological tests and clinical

judgments. A 1-yr EEG-OIT correlation study was made on 456 adult patients. Data, including the age, EEG abnormality index, OIT score, and clinical diagnosis of each S, were processed at a university computer center. The t test revealed that the OIT is a better test in detecting organic brain dysfunction such as psychosis, e.g., schizophrenia, than the EEG. The overall OIT-EEG correlation ($r=.39$) would indicate that the OIT is a useful test. The effective psychotropic agents (e.g., chlorpromazine, thioridazine, etc.) can reverse the low OIT scores in schizophrenia, involutional psychosis and other organic brain disorders. The profitable use of the OIT time-graph to monitor drug therapy in 667 patients with various diagnoses on a neuropsychiatric ward is described. It is concluded that the OIT time-graph is applicable to all neuropsychiatric patients as a daily diagnostic and therapeutic index. (22 ref.)—*Journal summary.*

6596. **van Praag, H. M.** **Behaviour and the possibility to quantitate behaviour: An account.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Sep), Vol. 72(5), 425-428.—Purports that the use of psychotropic drugs, biological psychiatry, psychotherapy, projective tests, and experimental psychology require a more "strict objectivizing and quantitating approach" to psychiatric diagnosis. As a result, the question is raised of what to objectivize and quantify and how to find the "optimum between the 2 extremes" of hard vs. soft facts in psychiatric diagnosis. The sources of diagnostic information, somatic examination, case history, clinical observation, and empathy are examined.—*G. Steele.*

6597. **Vestre, Norris D. & Zimmermann, Robert.** (Washington State U.) **Validation study of the Psychotic Inpatient Profile.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 3-7.—Obtained validity data on the Psychotic Inpatient Profile (PIP), a revision of the Psychotic Reaction Profile, by comparing ratings of closed- (locked) ward ($N=71$) vs. open-ward ($N=87$) patients and admissions ($N=52$) vs. releases ($N=54$). Discriminant analyses differentiated the groups in each comparison at the .01 level. Correct classification was obtained for 84.2% of the Ss in the closed vs. open comparison and for 75.5% in the admissions vs. releases comparison. Univariate tests indicate that all 12 PIP scales discriminated between groups in the expected direction in at least 1 of the 2 comparisons made.—*Journal abstract.*

6598. **Vossen, J. M.** (U. Nijmegen, Netherlands) **The possible utility of quantification of behaviour in psychiatry.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Sep), Vol. 72(5), 481-489.—In the behavioral sciences it is of essential importance to distinguish between observations of behavior and inferences drawn from these observations. Behavior defined as the whole of the activities of the effector organs of a living organism constitutes a common starting-point for all behavioral sciences; inferences, on the contrary, are derived from theories, which are particular to a given branch of science. By using behavior as the common starting-point, it becomes possible to place observations, made in psychiatry with respect to normal and abnormal behavior phenomena, against the background of results and theories, originating from experimental, animal, and physiological psychology. This procedure can only be successful to the extent to which psychiatry succeeds in describing and quantifying observable behavior as exactly as possible. (16 ref.)—*Journal summary.*

6599. Weiss, A. A., Robinson, S., & Winnik, H. Z. (Talbieh Psychiatric Hosp., Jerusalem, Israel) "Obsessive psychosis": Psychodiagnostic findings. *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 175-178.—Contends that obsessive psychosis may be considered a specific nosological category to be differentiated on the levels of classification, prognosis, and treatment from both compulsion neurosis and schizophrenia. Psychodiagnostic findings on 18 patients with a diagnosis of obsessive psychosis as opposed to compulsion neurosis are reported, and clinical criteria for differentiating this group are defined.—*Journal abstract*.

6600. Zwaan, E. J. (State U., Psychiatric Clinic, Utrecht, Netherlands) Towards the measurement of depressive states. *Psychiatria, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 243-248.—Developed methods for measuring the effectiveness of antidepressive drugs. 13 5-point rating scales were designed, 4 to be used by psychiatrists, 9 to be filled in by nurses. The use of these rating scales is facilitated by explicit descriptions given for each point on each scale. These descriptions were added in the expectation that they might enlarge the interrater reliability. Results indicate that: (a) Psychiatrists rate depressive symptoms according to a normal distribution model. Consequently, sums of ratings also tend to be normally distributed. Therefore, syndromes are not likely to show up, if operationally defined as sum scores of ratings on selected scales. (b) On the basis of quantitative rating, vital depression symptomatology cannot be distinguished from general severity of depression. (c) A factor analysis of the ratings reveals retarded depression and agitation to be relatively independent factors. (d) Little information is lost if the severity of depressive states is measured by a few relevant items only. Interrater reliability might be raised by use of descriptions of the depressive states and symptoms (as to kind and degree) to which these items refer.—*Journal summary*.

BEHAVIOR DISORDER

6601. Giel, R., Bishaw, Makonnen, & van Luijk, J. N. (Haile Sellasie I. U., Medical School, Addis Ababa, Ethiopia) Behaviour disorders in Ethiopian children. *Psychiatria, Neurologia, Neurochirurgia*, 1969(Jul), Vol. 72(4), 395-400.—Found that psychiatrically disturbed Ethiopian children are absent in out- and inpatient populations and in schools for various reasons such as the scarcity of medical services. However, surveys of the general population and of a remand home show that behavior disorders are definitely a problem in Ethiopia. Of children up to 9 yr. old, 3-4% were found to suffer from psychiatric illness compared with 5-10% of 10-19 yr. old children. Of the boys in the remand home, 46% were found to be psychiatrically ill. Bedwetting was one of the most frequent complaints, occurring in 4-5% of 5-14 yr. old children.—*Journal summary*.

6602. Safer, Daniel J. (Johns Hopkins Hosp., Children's Medical & Surgical Center, Baltimore, Md.) Establishing boundary lines for families of children with behavior disorders. *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 86-97.—Asserts that children with behavior problems usually come from homes with high tension, lack of parental union, inappropriate permissiveness and punishment, and lack of family cohesion. Where family conflict is recurrent, boundaries

between parents, child, and community become skewed and the family's ability to handle the child's deviant behavior becomes limited. Examples of boundary-line conflicts and their resolution are presented.—*D. Prager*.

6603. Von Hilsheimer, George. *How to live with your special child: A handbook for behavior change*. Washington, D.C.: Acropolis Books, 1970. 272 p. \$7.50.

Drug Addiction

6604. De Leon, Ovidio. Epidemiología del consumo de psicoestimulantes entre universitarios peruanos. [Epidemiology of the consumption of psychostimulants in Peruvian universities.] *Revista de Neuro-Psiquiatria*, 1969(Mar), Vol. 32(1), 17-32.—Discusses information gained through a 54-questionnaire investigating (a) general character; and (b) the causes, effects, and characteristics of an individual drug addiction. 1256 students in 3 Peruvian universities were issued the questionnaire between December 1965 and January 1966. Results were analyzed by the chi square technique. General results show 18.8% of the Ss could be considered normal drug users, while 1.1% could be considered addicted. Women were found to be the predominant drug users. A greater number of Ss who took drugs for medical reasons became dependent than those who took them for other reasons. The most frequent reason for taking stimulants was for increased intellectual performance. A statistically significant relation between depression or alcoholic intoxication and dependent Ss suggests that drugs produce dependence in Ss with previous psychological disorders. The causes of drug addiction are speculated and suggestions for preventative and therapeutic measures are made. (English, French, & German summaries) (61 ref.)—*P. Hertzberg*.

6605. Jaffe, Jerome H., Schuster, Charles R., Smith, Beth B., & Blachley, Paul H. (U. Chicago) Comparison of acetylmethadol and methadone in the treatment of long-term heroin users. *JAMA: Journal of the American Medical Association*, 1970(Mar), Vol. 211(11), 1834-1836.—Examined the possibility that di- α -acetylmethadol hydrochloride, with a 72-96 hr. duration of action period, might be as effective in treating long-term heroin users as methadone hydrochloride, which must be taken at least every 24 hr. 21 volunteer patients from the methadone clinic of a drug abuse program were stabilized for 2 wk. on methadone and divided into an experimental group of 12 receiving acetylmethadol 3 days a wk. and a placebo on intervening days, and a control group of 9 receiving the methadone daily in a placebo container. Substitution of a placebo for 6 Ss in each group in the 7th wk. allowed for observation of withdrawal effects. On each clinic visit measures were obtained from completed forms from the opiate withdrawal subscale of the Addiction Research Center inventory, a symptom check list designed to measure intensity of withdrawal, and interviews. Results from the 16 Ss completing the study indicate no difference between groups in any measures during the observation period. Drug termination produced a marked rise in control group withdrawal complaints after 48 hr., and in experimental group complaints after 96 hr. The practical advantages of acetylmethadol and the problem of side effects in patients dropped from the study are discussed.—*R. Wiltz*.

6606. Jönsson, L. E., Schuberth, J., & Sundwall, A. (Ulleråker Hosp., Psychiatric Research Center, Uppsala,

Sweden) **Amphetamine effect on the choline concentration of human cerebrospinal fluid.** *Life Sciences*, 1969(Sep), Vol. 8(17, Pt. 1), 977-981.—Measured the choline concentration of the lumbar cerebrospinal fluid (CSF) of 8 amphetamine-dependent adults during amphetamine intoxication and after detoxification. It was found that the choline level was significantly higher during the intoxication period than after. Results are discussed in view of the known amphetamine effect on the acetylcholine (ACh) release from brain cortex. Barbiturate anesthesia decreased the release of ACh from the exposed cortex of cats and rabbits, when local application of eserine was used to preserve the released transmitter. In dogs, barbiturate anesthesia also decreased the concentration of the ACh metabolite choline in the CSF. The choline concentration in CSF of patients acutely admitted to hospital due to amphetamine intoxication was examined.—*Journal abstract.*

6607. **Robinson, S. & Winnik, H. Z.** (Talbieh Psychiatric Hosp., Jerusalem, Israel) **Motivation for the addiction to amphetamine and reducing drugs.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 213-222.—Presents the psychodynamics of amphetamine addiction in a 25-yr-old female and a 17-yr-old male. Conflicts connected with the ties to the mother image and separation from the mother in early infancy are seen as a background from which the addiction arose. The noxious influence of the drug and the addiction to it leading to mental disorders are discussed. (26 ref.)—*Journal abstract.*

Alcoholism

6608. ———. **Nikolai Vital'evich Kantorovich.** *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 471-472.—Recounts the life and work of N. V. Kantorovich (1901-1969), whose contributions were primarily in the fields of alcoholism and narcomania, and psychogeny.—*I. D. London.*

6609. **Beard, James D.** (U. Tennessee, School of Basic Medical Sciences, Memphis) **Fluid and electrolyte abnormalities in alcoholism.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 502-503.—Reviews alcohol diuresis and concludes that "rather than dehydration, over-hydration is commonly associated with excessive ethanol ingestion when a normal diet has been maintained." Therapy for alcoholics often includes the use of intravenous fluids, since it is commonly held that the alcoholic is dehydrated. Ethyl alcohol, however, acts as a diuretic only as long as the level of blood alcohol is increasing. "Once the blood alcohol level peaks, plateaus or declines, an antidiuresis ensues." An experimental study with dogs given ethyl alcohol, and a clinic situation involving 45 well-nourished chronic alcoholic patients, tested on admission and compared with 30 controls, reveal in both cases that consumption of ethyl alcohol increased the total body water, the extracellular fluid volume, and the plasma volume. When the alcoholics were retested 4 days after admission the total body water had returned to normal range following abstinence from alcohol.—*P. McMillan.*

6610. **Cornwell, Georgia.** (U. California, Santa Barbara) **Factors in interpersonal and family relationships and alcoholism.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Sep), Vol. 6(5), 274-278.—Discusses the positive reinforcement given by society and family relationships to the development of

alcoholism. Factors in early childhood development, responsibilities in early adulthood, fears associated with marriage, and marital relationships are examined in relationship to their reinforcing role in alcoholism development. It is suggested the family of the alcoholic and not just the alcoholic should be the unit for treatment.—*M. Daniels.*

6611. **Goldstein, Gerald; Neuringer, Charles, & Klappersack, Bernard.** (Veterans Administration Hosp., Topeka, Kan.) **Cognitive, perceptual, and motor aspects of field dependency in alcoholics.** *Journal of Genetic Psychology*, 1970(Dec), Vol. 117(2), 253-266.—Investigated various cognitive, perceptual, and motor skills related to Rod and Frame Test performance in alcoholic, nonalcoholic, and brain-damaged patients. It was hypothesized that such performance is related to postural orientation, visual postural and analytic skills and that field-dependent alcoholics should demonstrate more impairment of postural orientation than should field-independent nonalcoholics. This prediction was not confirmed, but it was found that the major differences in performance between field-dependent and field-independent Ss were on tests of visual-postural and analytic skills. (16 ref.)—*Author abstract.*

6612. **Gross, William F. & Alder, Linda O.** (Veterans Administration Hosp., Lexington, Ky.) **Psychological Reports**, 1970(Oct), Vol. 27(2), 431-434.—Administered the Tennessee Self-Concept Scale to 140 male alcoholics when they voluntarily entered a 60-day alcoholic treatment program. Ss differed significantly in a negative direction from the standardization group on 10 scales. Test results suggest that Ss' derogative self-perceptions are general and not specific to narrow phases of personality and behavior.—*Journal abstract.*

6613. **Hoffmann, Helmut.** (Minnesota State Hosp., Willmar) **Personality characteristics of alcoholics in relation to age.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 167-171.—Reports normative data for the Personality Research Form (PRF) on 4 different age groups of 377 hospitalized male alcoholics. Significant differences of means among age groups were found on 15 of the 22 personality scales. In comparison with a control group, alcoholics score significantly higher in abasement, affiliation, cognitive structure, harmavoidance, nurturance, order, and succorance, but significantly lower in achievement, aggression, autonomy, change, dominance, endurance, exhibition, play, and sentence.—*Journal abstract.*

6614. **Kaij, Lennart.** (U. Lund, Malmö, Sweden) **Biases in a Swedish social register of alcoholics.** *Social Psychiatry*, 1970(Oct), Vol. 5(4), 216-218.—Reports a study, drawn from a population census, of 138 men above age 15 with alcohol abuse. Ss were divided into 2 groups of those whose abuse was officially registered (O-group), and those whose abuse was known from other sources (A-group). The groups were compared on a number of social and medical variables. Results indicate significantly more psychotic and probably fewer asthenic persons in the O-group. In other respects, the O-group was representative of all alcohol abusers in the sample. Implications of the findings are discussed. (French & German abstracts)—*Journal abstract.*

6615. **Knott, David H.** (Tennessee Psychiatric Hosp. & Inst., Memphis) **Medical management of the alcohol withdrawal syndrome.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 504-505.—Characterizes with-

drawal from alcohol as either acute, subacute, or chronic. Pathophysiology of the acute withdrawal syndrome (including delirium tremens) involves (a) fluid and electrolyte imbalance, (b) abnormalities in blood glucose, and (c) associated disorders (including concomitant infections, i.e., gastritis, pancreatitis, and hepatitis). Subacute withdrawal is less well defined and is manifested by loss of appetite, insomnia, depression, episodes of anxiety and agitation, gastrointestinal complaints, etc. Chronic withdrawal involves psychological dependency on the euphoric and tranquilizing properties of alcohol. A comprehensive psychosocial rehabilitation program is required for this phase.—*P. McMillan.*

6616. Martínez, Floyd H. (Texas Technological U.) **A crosscultural study of the psychological aspects of alcoholic and tuberculous-alcoholic patients.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 398-399.

6617. Rimmer, John & Chambers, Donald S. (Renard Hosp., St. Louis, Mo.) **Alcoholism: Methodological considerations in the study of family illness.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 760-768.—Compared information obtained from alcoholics about the prevalence of psychopathology in their 1st-degree relatives with the prevalence obtained in a personal examination of these same relatives. Data were collected by administering a systematic interview to 147 alcoholics and 395 of their 1st-degree relatives. The number of positives for psychopathology increased by 175% when the relatives were interviewed. Results reveal no difference in reliability by S's sex, socioeconomic status of the S, or by nature of the relative.—*Journal abstract.*

Suicide

6618. Lester, David. (Suicide-Prevention & Crisis Service, Buffalo, N.Y.) **Personality correlates associated with choice of method of committing suicide.** *Personality*, 1970, Vol. 1(3), 261-264.—Males who completed suicide using active methods were compared to those using passive methods for their scores on the MMPI. No differences were found. Similarly, no differences in MMPI scores were found between those shooting themselves and those hanging themselves.—*Author abstract.*

6619. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Suicidal behavior, sex, and mental disorder.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 61-62.—Predicted that sexual status, a diagnosis of neurosis vs. psychosis, and attempting vs. completing suicide should be associated in the general population. An examination of available data gave some support to this hypothesis.—*Journal abstract.*

6620. Lester, David; Reeve, Calvin I., & Priebe, Kitty. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Psychological Reports, 1970(Aug), Vol. 27(1), 210.—Failed to replicate A. D. Pokorny's finding of a seasonal variation in the births of completed suicides. The exact date of birth for 285 completed suicides for the period 1966-1969 was recorded. A chi-square goodness of fit test indicated that the actual distribution of births among the sample did not differ from the expected, and no year-to-year consistency was found.—*M. West.***

6621. Levenson, Marvin & Neuringer, Charles. (U. Kansas) **Intropunitiveness in suicidal adolescents.** *Journal of Projective Techniques & Personality Assessment*, 1970(Oct), Vol. 34(5), 409-411.—Evaluated the hypo-

thesis that intropunitiveness is the fundamental dynamic underlying the self-destructive behavior of suicidal individuals (especially suicidal adolescents). 13 suicidal, 13 psychiatrically disturbed but not suicidal, and 13 normal adolescents were administered the Rosenzweig Picture-Frustration Test. Their protocols were scored for intropunitiveness. No significant differences in intropunitiveness scores were found among the 3 groups. It is concluded that the hypothesis needs to be reexamined. (20 ref.)—*Journal abstract.*

6622. Ostow, Mortimer. (5021 Iselin Ave., Riverdale, N.Y.) **Suicide and social responsibility.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 138-144.—Proposes that there is a social instinct which, when activated, arrests the drive for individual libidinal gratification, inactivates self-preservative tendencies, and endows injury with pleasure-giving potential. The social instinct is normally activated at times of danger to family or community. When the danger arises from the individual's own hostility, the hypothetical social instinct would then encourage suicide. The individual's self-sacrifice protects the group.—*Journal abstract.*

6623. Rosenbaum, Milton & Richman, Joseph. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Suicide: The role of hostility and death wishes from the family and significant others.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1652-1655.—Interviewed 35 suicidal and 15 nonsuicidal patients to determine a possible link between suicidal behavior in the patient and hostility, ambivalence, and death wishes from the patient's family and important friends. Over 1/2 of the suicidal Ss believed that someone wished them dead; while among the nonsuicidal Ss none reported such feelings. Further interview of family and friends of the suicidal Ss seemed to substantiate the view. Although there is contained in the suicidal Ss an undeniable factor of aggression, it is felt—through theory and actual examples—that the family and friends of the suicidal S and their positive or ambivalent and negative attitudes toward the S's suicidal wishes have a distinct effect on his subsequent actions.—*P. R. Shibleski.*

6624. Simon, Werner & Lumry, Gayle K. (Veterans Administration Hosp., Minneapolis, Minn.) **Suicide of the spouse as a divorce substitute.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 608-612.—Reports a study of 9 patients whose spouses had committed suicide and of 31 former patients who suicided following hospitalization, stressing the role of interpersonal marital problems. At the time of suicide, 60% of Ss had serious marital discord; 18 were either separated or divorced, and 5 reported divorce threats. A majority suffered from various types of depression; 11 had a high feminine interest score on the MMPI, indicating poor masculine identification. A similar finding was observed in 4 husbands of wives who suicided. Alcoholism and drug dependence were observed in 19 Ss, and 4 Ss whose wives suicided had a serious problem with alcohol and 1 had a problem with drugs. Examples are given of 2 murder-suicide combinations and of suicide in response to situations involving religious differences, delusional states, and dependency problems. Genuine suicide notes are cited to illustrate the divorce substitute hypothesis. The roles of the surviving member and the suicided spouse are discussed from the standpoint of hostility, punishment, separation, and guilt as they pertain to an extrapunitive motive for revenge. (17 ref.)—*Journal summary.*

6625. Stengel, Erwin. (U. Sheffield, England) **Recent progress in suicide research and prevention.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 127-137.—Discusses recent developments in the study and prevention of suicide, including: (a) the unreliability of suicide statistics; (b) high risk groups, e.g., the old and sick, physicians, and university students; (c) the effect of the legal viewpoint; (d) differentiation of 2 suicide and attempted suicide populations differing in size, sex, age distribution, and methods; (e) use of "cohort studies" of unselected samples of attempted suicides; and (f) lack of progress in the methods of descriptive clinical psychology. Contrary to traditional views, suicide attempts are viewed as complex behavioral acts stemming from conflicting motivations. 4 classifications of preventive measures and lay organizations for suicide prevention are discussed. (23 ref.)—G. Steele.

Crime

6626. Allen, Harry E. (Ohio State U.) **Bio-social correlates of two types of anti-social sociopaths.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 841.

6627. Coffman, Routh N. (George Washington U.) **Role-taking defects as correlates of criminality and mental illness in offender populations.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 910-911.

6628. Kessley, Seymour & Moos, Rudolf H. (Stanford U., Medical School) **The XYY karyotype and criminality: A review.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 153-170.—The behavioral phenotypes of XYY males, like chromosomally normal ones, are the result of both genotypic and environmental processes. To ascribe to a single chromosome specific behavioral effects fails to take account of a broad range of pertinent environmental factors and ignores the fact that the phenotype is a result of the total integrative properties of the genome interacting with the environment. (108 ref.)—R. V. Hamilton.

6629. Kinzel, Augustus F. (New York State Psychiatric Inst., New York) **Body-buffer zone in violent prisoners.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 59-64.—After psychiatric screening, 14 inmates (8 violent and 6 nonviolent) were chosen from the United States Medical Center for Federal Prisoners to ascertain the comparative measurements of the body-buffer zone of the 2 groups. Each S was placed in a 20 x 20 ft. room and instructed to indicate when he felt that the E had come "too close." Results show that violent prisoners required a body-buffer zone, approximately 4 times larger than nonviolent prisoners. It is concluded that potentially violent prisoners could be screened more easily and efficiently upon admission to an institution, emphasizing that violent behavior may be a sign of distinct psychopathological tendencies.—P. R. Shibelski.

6630. McCullough, James P. & Adams, Henry E. (U. Georgia) **Anxiety, learning sets, and sociopathy.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 47-52.—Attempted to determine if lack of ability to profit from past experience was characteristic of primary or secondary sociopaths. 22 sociopathic and 23 matched normal Ss were divided into high- and low-anxiety groups on the basis of the Lykken Activity Preference

Questionnaire, the MA scale, and the Welsh Anxiety Index. Using a modified Wisconsin General Test Apparatus, Ss were given a series of problems in order to observe the rate of formation of learning sets, this being 1 method for determining whether S profits from past experience. "Learning to learn" occurred in all groups. There were no significant differences among the 4 groups regardless of the anxiety scale used. If either secondary or primary sociopaths do exhibit an inability to profit from past experience, then it may be only in learning situations which involve noxious stimuli.—*Journal abstract.*

6631. Persons, Roy W. & Marks, Philip A. (Antioch Coll.) **Self-disclosure with recidivists: Optimum interviewer-interviewee matching.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 387-391.—Interviewed 78 male inmates. 6 interviewers interviewed an equal number of Ss chosen from the 3 most frequently occurring MMPI high-point code types. The interviewers, 1/2 of whom were college students and the other 1/2 inmates, came from the same 3 MMPI code types. The Ss became more self-disclosing over time. There were no significant differences in the student interviewers' and inmate interviewers' ability to elicit intimate responses. However, certain personality traits were associated with being intimate with college interviewers while other personality characteristics were associated with being intimate with inmate interviewers. Interviewee intimacy was greatest when the interviewees had the same MMPI code type as their interviewer. Matching on interviewer-interviewee guilt was significant. (16 ref.)—*Journal abstract.*

6632. Rotenberg, Mordechai. (U. California, Berkeley) **Relevant audience and organismic involvement as interacting variables with self-identity: The social types in prison.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 829.

Juvenile Delinquency

6633. Davies, John F. (Ohio State U.) **Differential perceptions of delinquent behavior.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 841.

6634. Hooke, James F. (Virginia Commonwealth U.) **Rating delinquent behavior.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 155-158.—Questions the utility of classifying all juvenile offenders under the single rubric of "delinquent" and presents 2 systems for classifying offenders according to the delinquent act. The 1st is a rating scale for severity. Correlations among the ratings of 13 judges ranged from .56-.93, with a mean of .77. 10 judges rated direction of aggression—against people, against property, general asocial. The percentages of items on which each judge agreed with each of the other judges ranged from 70-97. 34 offenses were rated, and a 9- and a 5-point scale of severity are presented.—*Journal abstract.*

6635. Persons, Roy W. (Antioch Coll.) **Psychometric evaluation of sociological factors in a boys' reformatory.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 407-413.—Administered a psychological assessment battery to 1011 15-19 yr. old boys in a reformatory to evaluate the milieu and the psychological impact of incarceration. Data indicate that increased incarceration results in greater psychopathology and criminal identification. The continuation of antisocial identification was especially pronounced with Ss who had had prior

incarcerations. Ss who got into trouble and were housed in disciplinary quarters tended to be anxious or neurotic rather than sociopathic. Reliability, validity, normative, and base-rate data are provided, and methodological implications discussed.—*Journal abstract.*

6636. Stewart, Denton J. & Resnick, Jerome H. (Temple U.) **Verbal conditioning and dependency behavior in delinquents.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 357-377.—Verbally conditioned 33 delinquents and 33 matched nondelinquents using dependent and aggressive verbs. It was hypothesized that delinquents, in contrast to nondelinquents, would reject verbalizations of dependency behavior because of their previous reinforcement history. The use of aggressive verbs was investigated for empirical reasons. Results support the hypothesis. Implications of the results for the treatment of delinquents by conventional therapeutic methods are discussed. (18 ref.)—*Journal abstract.*

Homosexuality & Sexual Deviation

6637. Fisher, Gary & Howell, Leisla M. (U. California, Center for Health Sciences, Los Angeles) **Psychological needs of homosexual pedophiliacs.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 623-625.—Reports analysis of 50 males who were convicted of homosexual pedophilia. Data reveal that Ss were of average intelligence, had a mean age of 40 yr., were 84% white and 88% single, and that 56% had molested children unknown to them. EPPS scores suggest that Ss: (a) had similar need structures to heterosexual pedophiles; (b) had different need structures than adult normal males; (c) were low in achievement orientation, inner direction, and assertiveness; and (d) were guilt-ridden and analytically introspective with respect to their own and others' motives. An inconsistent and unexplained finding is a higher heterosexual drive.—*Journal summary.*

6638. Fraas, Louis A. **Sex of figure drawing in identifying practicing male homosexuals.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 172-174.—Attempts to differentiate practicing male homosexuals via certain psychological indices, MMPI masculinity-femininity scale, CPI masculinity-femininity scale, and sex of human figure drawing. Neither scale was instrumental in differentiating homosexuals. While the comparison of sex of figure drawing between 9 practicing male homosexuals and 9 controls only demonstrated a trend in the predicted direction, a similar comparison with hospitalized United States Army males, both medical (N = 45) and neuropsychiatric (N = 28), was significant.—*Journal abstract.*

6639. Green, Richard. (U. California, Medical School, Los Angeles) **Persons seeking sex change: Psychiatric management of special problems.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1596-1603.—Describes a variety of issues that can be expected to arise in the course of the transsexual patients' management. Since a multitude of informative data is not available pertaining to the psychiatric handling of the transsexual, such data obtained from experience is viewed as most helpful. Typical reactions by the transsexual (both male and female) are reported covering areas, i.e., the route of referral to the psychiatrist and the transsexual's motivation for sex reassignment. Additional information pertaining to the elimination of miscon-

ceptions about the medical and surgical procedures involved (both pre- and postoperative measures) are discussed. The patient's social transition into the new gender role, the use of psychiatric medications and the handling of the patient's other family members is also covered. The patient's emotional problems during the postoperative period, the high degree of anticipation of a "better future," and the subsequent disappointments are to be expected and should be dealt with adequately. Because of the controversial nature of the patient's clinical condition, an openminded attitude is required in treating the transsexual patient.—*P. R. Shibelski.*

6640. Manosevitz, Martin. (U. Texas) **Early sexual behavior in adult homosexual and heterosexual males.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 3(76, Pt. 1), 396-402.—A sample of 50 men, 28 overt homosexuals and 22 heterosexuals, completed a Life History Questionnaire and an MMPI. The questionnaire contained items on education, occupation, physical and mental health, marital status, and sexual development and current functioning. Ss were obtained from non-clinical and nonprison populations and were fairly well matched. The homosexual group was significantly higher than the heterosexual group on D, Mf, Pt, and Sc of the MMPI. The homosexual group mean was above 70 only on the MF scale. Significant differences were found in partners, total sexual activity, and early sexual experiences at various ages. The developmental sequence of sexual activity for homosexuals and heterosexuals follows orderly, although different progressions. It is suggested that the prehomosexual child becomes sexually active earlier than the preheterosexual.—*Journal abstract.*

6641. Money, John & Brennan, John G. (Johns Hopkins U., Medical School) **Achievement versus failure: Intelligence, education and career in seven female transsexuals.** *Journal of Learning Disabilities*, 1969(Feb), Vol. 2(2), 76-81.—Reports results on the WAIS for 7 female transsexuals who had completed or begun surgical and hormonal sex reassignment. Ss tended to be average or above average in intelligence, relatively superior on verbal as opposed to numerical or mechanical abilities, and high in vocational achievement. No "stereotypically masculine intelligence-test pattern of response" was found.—*S. Appella.*

MENTAL DISORDER

6642. Carney, M. W. (382 Clifton Dr., N., St. Annes on Sea, England) **Serum vitamin B₁₂ values in psychiatric in-patients.** *Diseases of the Nervous System*, 1970(Aug), Vol. 31(8), 566-569.—Carried out serum B₁₂ estimations on 374 psychiatric inpatients admitted consecutively from a defined geographical area to a mental and a general hospital. 53 Ss had serum B₁₂ levels of 150 pg/ml. or less, 49 of whom belonged to the following diagnoses: organic psychoses, endogenous depression, schizophrenia, and neurotic depression. This distribution varied significantly from that of the whole group. 16 Ss had serum B₁₂ levels below 100 pg/ml. Hematological abnormalities were not significantly more common among low serum B₁₂ Ss than among Ss with normal B₁₂ serum levels. Data indicate that among low B₁₂ Ss (a) 49% had received drugs (mainly phenothiazines and barbiturates) during preadmission, (b) 60.4% had been ill for more than 1 yr., (c) 30.2% were classified as severely undernourished, and (d) 28.3% had concomitant physical disease. The most striking result was the high incidence of low serum B₁₂ levels in a

representative sample of major mental illness in a defined community. It is concluded that low serum vitamin B12 values are common in psychiatric patients and that vitamin B12 estimation is a useful screening procedure.—*Journal summary.*

6643. Cohen, Melvin; Klein, Donald F., & Struve, Fred. (Hillside Hosp., Glen Oaks, N.Y.) **Relationship between electroencephalographic and sociometric variables among psychiatric patients.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 97-101.—Related social interactions of 78 15-38 yr. old nonchronic hospitalized psychiatric patients to their EEG patterns. On the basis of Ss' listing of others in their unit that they liked the most, and those that they disliked the most, Ss were divided into 3 groups: (a) isolates, Ss receiving no positive and few negative votes; (b) rejectees, Ss receiving more positive than negative votes; and (c) populars, Ss receiving more than 7 positive and no more than 1 negative vote. Results show that normal EEG Ss were more popular than those with either a 14 or 6 EEG pattern, who tended to be socially rejected or those with other EEG abnormalities, who tended to be socially isolated.—P. R. Shibelski.

6644. Coppen, A. (Medical Research Council, Neuro-psychiatric Unit, Carshalton, England) **Defects in monoamine metabolism and their possible importance in the pathogenesis of depressive syndromes.** *Psychiatra, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 173-180.—Examines the role of biogenic amines in the etiology of depressive illness. Drugs, such as reserpine, which deplete the CNS of these amines can produce the depressive syndrome in a proportion of mentally normal Ss. Drugs, such as imipramine or the MAO inhibitors which increase the amount of free amines in the brain can alleviate a depressive illness. Feeding tryptophan which is the amino acid precursor of the indoleamines has an antidepressant effect. Feeding the precursor of the catecholamines has not been found to have any antidepressant effect. Investigations into the metabolism of the indoleamines in depressed patients have shown that the urinary excretion of tryptamine and the concentration of 5-hydroxy-indoleacetic acid in cerebrospinal fluid is reduced in this condition. The concentration of hindbrain 5-hydroxytryptamine and hydroxyindoleacetic acid is reduced in depressed Ss who died by suicide. It is concluded that the biogenic amines, and the indoleamines are abnormal in states of depression and that this abnormality is of etiological importance. (18 ref.)—*Journal summary.*

6645. Coppen, A. (Medical Research Council, Neuro-psychiatric Research Unit, Carshalton, England) **Disorders of mineral metabolism in depressive patients.** *Psychiatra, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 189-193.—Reviews the evidence for changes in electrolyte metabolism in depressive illness. Results show that during depression Ss have reduced extracellular water and increased residual sodium, that is intracellular sodium and a small amount of exchangeable bone sodium. After recovery these values return to normal. Total body potassium and intracellular potassium is low both before and after recovery. The etiological importance of these findings is discussed. The increase in residual sodium does not appear to be greatly affected by changes in sodium and water intake or by diuretics but it is shown that the aldosterone antagonist, spironolactone can considerably reduce this fraction of exchangeable sodium. (17 ref.)—*Journal abstract.*

6646. Favazza, Armando R. & Schaefer, Donald L. (U. Michigan, Health Services) **Arranging for air transportation of the mentally ill.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 93-96.—Outlines various methods and suggestions to be used in transporting a mentally ill patient by public airlines. Since no set standardized rules are in existence between the various airlines, a questionnaire was sent to the medical directors of 7 of the major national and international airlines in order to receive information on their policies. The resulting recommendations are discussed with regard to: the duty of the airlines, acceptability of passengers, attendants, medication, protocol for arranging air travel, and travel to a foreign country.—P. R. Shibelski.

6647. Fries, Ingrid & Smith, Gudmund J. (Lund U., Sweden) **Influence of physiognomic stimulus properties on afterimage adaptation.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 267-271.—Compares results from a process-oriented afterimage experiment in 3 groups of 24 psychiatric patients each. The fixation stimuli were a blank oval, a sad and a happy face—1 for each group. Results show that the sad stimulus produces more distinct adaptive patterns in a sequence of repeated measurements than do the other stimuli.—*Journal abstract.*

6648. Gibbons, J. L. (U. Newcastle upon Tyne, England) **Corticosteroid metabolism in depressive illness.** *Psychiatra, Neurologia, Neurochirurgia*, 1969(Mar), Vol. 72(2), 195-199.—In depressed patients, especially those with severe endogenous depression, a modest increase in adrenocortical activity is found, with a decrease after recovery. The increase in the secretion of cortisol and corticosterone during the illness is probably a special example of the adrenocortical activation that accompanies many forms of emotional arousal in healthy Ss. Although the diurnal variation in plasma cortisol level is usually maintained in depression, it may be disrupted. Recent work also suggests that pituitary adrenal function may be less readily suppressed by dexamethasone in severely depressed patients. (17 ref.)—*Journal abstract.*

6649. Greenberg, Irwin M. (Creedmore State Hosp., Queens Village, N.Y.) **Clinical correlates of fourteen- and six-cycles-per-second positive EEG spiking and family pathology.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76, Pt. 1, 403-412.—Studied differential personality patterns in 48 psychiatric patients. 10 Ss had positive EEG spiking (PSP) and asocial family syndrome (AFS). 16 Ss had PSP and no AFS. 8 Ss had normal EEGs and AFS. 14 Ss had normal EEGs and no AFS. It was hypothesized that Ss with both PSP and AFS would show (a) more affective blunting, (b) more aggressive behavior, and (c) less clinging dependent behavior than other patients, and would have lower Comprehension and Picture Arrangement scale scores. Only the 1st and 3rd hypotheses were confirmed, thus demonstrating a CNS \times Sociofamilial interaction factor. Results point to the need to consider both CNS factors and sociofamilial factors in evaluating psychiatric patients.—*Journal abstract.*

6650. Hare, Robert D. & Thorvaldson, Sveinn A. (U. British Columbia, Vancouver, Canada) **Psychopathy and response to electrical stimulation.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 370-374.—Used a forced-choice procedure, designed to maintain arousal and to reduce the influence of boredom and inattentiveness, to determine the detection threshold

(DT) for electrical stimulation in 14 psychopaths and 28 nonpsychopaths. There were no significant differences between groups, a result that contrasts with the finding of an earlier study by R. D. Hare (see PA, Vol. 42:12400), which used a more boring and tedious procedure, that psychopaths had an unusually high DT. All groups showed the same decrease in DT when incentives (cigarettes) were used for correct detections. Results are interpreted in terms of the concept of arousal. Tolerance for shock was also determined with and without incentives. Without incentives there were no significant differences between groups, either in tolerance level or in the verbal descriptions of various intensities of shock. However, when incentives were used, psychopaths were willing to tolerate more shock than were other Ss. (30 ref.)—*Journal abstract.*

6651. Hough, Richard L. (U. Illinois) **Structural stress, anomia and psychological disorder.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 835.

6652. Israelstam, David M., et al. (U. California, Berkeley) **Abnormal methionine metabolism in schizophrenic and depressive states: A preliminary report.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 185-190.—The observed changes in the oxidative metabolism of the S-methyl carbon of methionine in a small group of patients provided direct evidence for the occurrence of altered methyl metabolism in schizophrenia.—R. V. Hamilton.

6653. Kirshner, Lewis A. & Kaplan, Norman. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Conversion as a manifestation of crisis in the life situation: A report of seven cases of ataxia and paralysis of the lower extremities.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 260-266.—Only 1 of the 7 Ss gave a history of frequent prior somatic complaints. 4 were overtly depressed. Only 1 was considered an hysterical character. Intervention was limited to dealing with the current conflict out of which the symptom grew. 4 Ss made a rapid complete recovery, and 1 improved minimally. It is felt that each case represents a reaction to a crisis in the life situation.—*Journal summary.*

6654. Kostandov, E. A. (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) **Vliyaniye émo-tsional'nogo vzbuzhdeniya na porogi obnaruzheniya zvukovogo signala i subsenzornye reaktsii.** [Influence of emotional excitation on the thresholds of acoustic signal detection and subsensory reactions.] *Zhurnal Vyssheĭ Nervnoĭ Deyatel'nosti*, 1969, Vol. 19(3), 462-470.—22 "psychopaths and paranoically deluded individuals" (20-45 yr. old) were used to study the influence on subsensory reactions of emotional excitation which is a "source of powerful impulses" acting upon the nonspecific mechanisms of the reticular formation, and the level of activation in the cortex. In this connection the study was conducted on the effect of negative emotional reactions on thresholds of acoustic signal detection, and the range of the subsensory zone. The thresholds of acoustic signal detection (white noise) of various duration (from 1 msec.) were determined by the "method of minimal changes." Bioelectrical and autonomic components of the orienting reflex served as indicators of the subsensory reactions. Emotional reactions were elicited by the presentation of single words, relating to conflictful life situations, or by bright flashes of light. Reactions to "neutral" words were extinguished

in advance. Against the background of negative emotional reactions, elicited by photostimulation or by "emotional" words, the threshold of acoustic signal detection in some cases was decreased; in others increased. In cases of increase in threshold of acoustic signal detection, the number of subsensory reactions was increased.—I. D. London.

6655. Krakowski, Adam J. (Champlain Valley Physicians Hosp. Medical Center, Plattsburgh, N.Y.) **Depressive reactions of childhood and adolescence.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 429-433.—Discusses nonpsychotic depression in children, observing that it is as common in this age group as in adults. The symptoms may be secondary to other psychogenic or organic illnesses. Manifestations of depression vary with the child's age, and increased motor activity typically accompanies the depressive mood except in infancy. Depression is defined as both an illness and a feeling "caused by a loss, true or imaginary, or even by a failure to achieve a desired goal." The child's emotional defenses against this loss show a variety of behaviors including irritability, hyperactivity, aggressive behavior, or tendencies toward isolation and apathy. Characteristic manifestations of depression in infancy, childhood, and adolescence are reviewed. Various treatment procedures are discussed in light of problems, i.e., denial by the child and ambivalence on the part of the parents. The need for effective psychotherapy with the child (including a satisfactory transference relationship) and concurrent parental guidance or therapy (preferably by another member of the clinic team) is felt to be imperative for effective treatment efforts. (21 ref.)—P. McMillan.

6656. Lăpușan, I., Meiu, Gh., Cortez, P., & Seclureașu, F. **Metodologia de cercetare a morbidității și unele aspecte ale eficienței dispensarizării bolilor psihice.** [Methodology of investigation of morbidity from psychical diseases and certain aspects in the outpatient care of such cases.] *Neurologia, Psihiatria, Neurochirurgia*, 1969(Jan), Vol. 14(1), 33-40.—Describes a method of outpatient care used in the university centers of Bucharest, Timișoara, Cluj, Iași, and Tirgu-Mureș since 1965. Results obtained with mental patients (2180 adults and 2217 children) are discussed. Outpatient units treated all cases of psychosis in adults, and psychosis, neurosis, epilepsy, encephalopathy, oligophrenia, behavior disturbances, and other psychopathic states in children. Particular attention was paid to prophylaxis and the detection of mental patients, and to the organization of psycho-medico-social assistance, which increases the efficiency of the ambulatory and hospital units. This resulted in decreasing the number of admissions and duration of hospitalization, and in sociooccupational rehabilitation of the patients. (French & German summaries) (25 ref.)—*English summary.*

6657. Marshall, Myron H., Neumann, Charles P., & Robinson, Milton. (Silver Hill Foundation, New Canaan, Conn.) **Lithium, creativity, and manic-depressive illness: Review and prospectus.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 406-408.—Discusses the nature of the connection between creativity and certain forms of mental illness. Cases are cited in which high levels of creativity exist during the manic phases of persons diagnosed as manic depressive, in contrast to their lack of productivity in depressed periods. It is postulated that by determining the qualitative level of creativity in

manic-depressives and then administering lithium, controlled data will be produced "that can show the relationship between creativity and the manic phase of this illness." A major problem in studying this relationship is the lack of instruments designed to rate the creative process. Such a scale is being designed that will test patients before and after lithium treatment "to validate the hypothesis that lithium alters creativity." 3 illustrative case histories are included. (18 ref.)—P. McMillan.

6658. Mayo, Clara & Havelock, Ronald G. (Boston U.) **Attitudes toward mental illness among mental hospital personnel and patients.** *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 291-298.—The main attitudinal component identified among 62 psychiatric ward staff members and 89 hospitalized psychoneurotic patients is termed general authoritarianism and yields factor loadings for patients and staff strikingly similar in magnitude and configuration and opposite in direction. Other staff factors describe different aspects of professional roles. Patient factors show the predominance of low self-esteem, passive compliance, and a physical orientation toward the patient's own mental illness.—R. V. Hamilton.

6659. Meltzer, Herbert. (National Inst. of Mental Health, Chevy Chase, Md.) **Increased activity of creatine phosphokinase and aldolase activity in the acute psychoses: Case reports.** *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 249-262.—The increase in serum enzyme activity in an acute manic-depressive patient and in an acute schizophrenic patient were significantly correlated with clinical course, occurring at times of severe stress which preceded or coincided with psychotic behavior. The type of creatine phosphokinase and aldolase present was the muscle type. The increased enzyme activity is discussed as a manifestation of subtle myopathic changes in acutely psychotic patients. (48 ref.)—R. V. Hamilton.

6660. Miller, Louis. **The Israel Mental Treatment Act (1955): Civil commitment of the mentally ill in Israel.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 109-117.—Discusses the laws established to regulate "the treatment and status of the mental disordered in Israel," focusing on the definitions, modes of admission, and procedures for discharge.—G. Steele.

6661. Olson, John T. & Smith, David H. (Camarillo State Hosp., Calif.) **Leadership roles in a psychiatrically deviant adolescent collectivity.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 499-510.—Used sociometric and staff rating data from a sample of 33 female adolescent inpatients on a psychiatric ward, to test 2 general hypotheses regarding leadership, based on prior results for normal populations. The 1st hypothesis stated that leader roles in the present collectivity would be clearly differentiated in terms of an instrumental vs. expressive dimension and a reputed vs. actual dimension. Results did not confirm this, showing instead significant and strong correlations among the several sociometric measures of leadership roles. The 2nd hypothesis stated that leaders in the present collectivity would tend to be higher in age and other traits socially desirable in the society at large. This hypothesis was confirmed, indicating a substantial similarity between the nature of leadership in a psychiatrically deviant collectivity and other normal collectivities. A major departure from prior

results in normal collectivities was the fact that ratings of asocial aggression were independent of leadership nominations, interpreted as indicating a high tolerance for interpersonal deviance in this psychiatrically deviant collectivity.—*Journal abstract.*

6662. Paul, Michael L., Ditzion, Bruce R., Pauk, George L., & Janowsky, David S. (National Heart Inst., Lab of Chemical Pharmacology, Bethesda, Md.) **Urinary adenosine 3',5'-monophosphate excretion in affective disorders.** *American Journal of Psychiatry*, 1970(Apr), Vol. 126(10), 1493-1497.—Studied 8 male and 29 female psychiatric inpatients with affective disorders on a research metabolic ward at the National Institute of Mental Health in order to ascertain any relations between affective disorders and adenosine 3',5'-monophosphate (cyclic AMP) concentration and levels. Ss were divided into 4 groups: (a) manic, (b) neurotic depression, (c) psychotic depression, and (d) normal (10 female volunteers). Urine samples were collected from all 4 groups every 24 hr. and results show that while the differences in urine volumes between normals, moderately and severely depressed patients were not significant, manic patients' volumes were elevated. Urinary cyclic AMP concentration was similar in both the manic and normal groups. The differences found in cyclic AMP excretion between categories of affective disorders is a new finding, which seems to imply the possibility that "cyclic AMP may be important in the chain of events leading to aberrant mental states." (22 ref.)—P. R. Shibleski.

6663. Pokorny, Alex D. & Overall, John E. (Baylor U., Coll. of Medicine, Houston, Tex.) **Relationships of psychopathology to age, sex, ethnicity, education and marital status in state hospital patients.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 143-152.—A factor analysis of psychiatric rating scale results from 1500 Ss in relation to 6 background variables including age, sex, race-ethnicity, marital status, divorce history, and educational achievement indicated that the nature of manifest psychopathology was related to a variety of these background variables, both those which are not susceptible to influence by psychopathology, e.g., age, race, sex, and those which might conceivably be influenced by the psychiatric disorder, e.g., marital status. It is concluded that such background variables should be taken into consideration in both research and clinical practice as a basis for interpreting the significance of psychiatric symptom patterns.—R. V. Hamilton.

6664. Rorsman, Brigitta. (U. Lund, Psychiatric Research Center, Sweden) **Disability of psychiatric patients.** *Social Psychiatry*, 1970(Oct), Vol. 5(4), 219-223.—Using local National Health Insurance records, the amount of sickness benefit given to 74 male and 120 female patients treated at a department of psychiatry was studied for a 4-yr period. Records of controls were obtained from the same source and matched for sex, age, and domicile. Data indicate that disability pension was granted to 9 men and 15 women in the patient group and to 4 men and 1 woman in the control group. The average number of sickness benefit days/year was 4.9 times larger for male Ss and 3.4 times larger for female Ss than for controls. The higher sickness reporting in men was due to both psychiatric and physical illness. In women, only psychiatric illness was significantly higher. (French & German abstracts)—*Journal abstract.*

6665. Saavedra, Victor. **El desarrollo psíquico**

anormal: Revisión crítica y consideraciones nosográficas. [Abnormal psychological development: Critical revision and nosographic considerations.] *Revista de Neuro-Psiquiatría*, 1969(Jun), Vol. 32(2), 85-92.

—Presents theoretical considerations on abnormal psychological development, reviewing literature on somatic and psychoanalytic origins of mental illness. It is affirmed that abnormal psychological development occurs in certain personality types, with discussions on the connections between personal disposition and environment in relation to characterological theory. The problem of the nosographic ubiquity of abnormal psychological development is considered. (English, French, & German summaries) *P. Hertzberg.*

6666. **Saavedra, Victor. El syndrome de Cotard: Consideraciones psicopatológicas y nosográficas.** [The Cotard syndrome: Psychopathological and nosographic considerations.] *Revista de Neuro-Psiquiatría*, 1968(Sept), Vol. 31(3), 145-174.—Presents case histories of 8 female and 2 male 28-81 yr. old Ss which illustrate discussions of the pathogenesis, nosography, and clinical configuration of the Cotard syndrome. Cotard's concepts of negation and delirium which characterize the syndrome are discussed with references to research since his original theses. The characteristic melancholy and lapses of consciousness having varied lengths of time led to the term "nihilist delusion" to describe the syndrome. Clinical distinctions are made between the symptomatology of melancholia, mixed psychosis, and schizophrenia in regard to the Cotard syndrome. A pseudo-Cotard syndrome is described in schizophrenia. A discussion of alterations of the perception of subjective time is offered with philosophical references. (26 ref.) (English, French, & German summaries)—*P. Hertzberg.*

6667. **Saenger, Gerhart.** (Dept. of Mental Hygiene, Albany, N.Y.) **Factors in recovery of untreated psychiatric patients.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 13-25.—Studied 305 Ss who had applied for, but not entered, outpatient psychiatric treatment. Data about patient characteristics were collected independently at intake and follow-up via a checklist describing areas of psychopathology, functioning, ability to care for home and children, marital emotional-supporting role, employment status and work performance, and social adjustment. Follow-up was obtained through home interviews. 61% of all untreated cases of selected symptoms of schizophrenia and depression were improved. New symptoms were found in untreated depression twice as often as in schizophrenia. Among Ss showing improvement in psychopathologic symptoms, 69% improved in marital functioning. Degree of education was a strong influence on improvement, with Ss having a college education showing the greatest change in functioning, vocational adjustment, and self-esteem. Married Ss improved more often than unmarried, particularly those with depressive symptoms. Ss living alone experienced a reduction in schizophrenic symptoms (71%). Improvement in all Ss was strongly linked to the acknowledgement of their own contribution to their difficulties. (23 ref.)—*M. West.*

6668. **Schneck, Jerome M.** (26 W. 9th St., New York, N.Y.) **Pseudo-malingering and Leonid Andreyev's "The Dilemma."** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 49-54.—Pseudomalingers deliberately feign psychological illness and discover later that they actually had unconsciously been suffering the distress they

believed they were falsifying. This misrepresentation to the self and to others is necessary for these people to maintain ego integrity. Pseudomalingering is a measure that satisfies a need to maintain intact a self-image that would be marred by acknowledging psychological problems which cannot be consciously mastered. This form of deception is a temporary ego supporting device. It is an odd denial of illness through claims of illness. The chief character in Andreyev's story is a pseudomalingering.—*D. Prager.*

6669. **Skea, Susan; Draguns, Juris G., & Phillips, Leslie.** (U. Dundee, Scotland) **Ethnic characteristics of psychiatric symptomatology within and across regional groupings: A study of an Israeli child guidance clinic population.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 31-42.—Compared discrete manifestations and inclusive categories of symptomatology between socioeconomically and educationally matched groups of boys of Iraqi, Yemenite, German, and Polish parentage in a child guidance clinic. Attempts were also made to compare smaller, unmatched groups of girls. Results reveal differences in psychopathological expression among all the groups. Middle Eastern boys tended toward overtly expressed maladaptive and aggressive behavior, while ideational and self-directed symptomatology predominated among the European boys. Within each of the 2 regions, boys of Iraqi parentage differed from Yemenites in more direct and explicit expression of aggression and boys of Polish extraction exceeded those of German background in avoidance of, and withdrawal from, social contact. Results obtained with girls were not parallel to those observed in boys and need fuller investigation. (31 ref.)—*Journal abstract.*

6670. **Smith, David H. & Olson, John T.** (Boston Coll., Inst. of Human Sciences) **Sociometric status in a psychiatrically deviant adolescent collectivity.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 483-497.—Using sociometric peer ratings, staff ratings, and hospital records, a study was made of a hospital residential ward of 33 adolescent girls. The sociometric structure of the collectivity involved 3 types of individuals: Ss high on positive sociometric status measures (association, popularity), Ss high on negative sociometric status measures (avoidance, reputed power), and Ss low on both positive and negative sociometric status measures. Positive and negative sociometric status, therefore, appeared to be independent qualities for Ss rather than having a strong negative association. High positive sociometric status was significantly correlated in a positive direction with higher psychiatric health, heterosexual interest, and social initiative. Being younger and/or more asocially aggressive was significantly associated with high reputed power, which in turn was significantly correlated with high avoidance status. Ss low in both positive and negative sociometric status tended to be low on all of the other variables noted. (20 ref.)—*Journal abstract.*

6671. **Solomon, George F., Rubbo, Sydney D., & Batchelder, Elaine.** (Veterans Administration Hosp., Palo Alto, Calif.) **Secondary immune response to tetanus toxoid in psychiatric patients.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 201-207.—When administered tetanus toxoid, 13 schizophrenic patients did not differ in their secondary immunologic responses from 6 normal controls or from normals reported by others, but the 13 nonschizophrenic patients showed a somewhat

impaired immunologic response not reaching statistical significance. Phenothiazine drugs showed no effect on antibody response. (26 ref.)—R. V. Hamilton.

6672. Steiner, Jacob E., Rosenthal-Zifroni, Anath, & Edelstein, Ekiezer L. (Hebrew U., Hadassah School of Dental Medicine, Jerusalem, Israel) **Taste perception in depressive illness.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 223-232.—Tested 21 depressive and 18 nondepressive hospitalized psychiatric patients to quantify disturbances in perception of the 4 basic taste modalities: sweet, salty, sour, and bitter. It was hypothesized that measurable function-disturbances would exist. The function of the sense of taste was expressed both in the determination of the discrimination-threshold and by the quantitative indication of the incidence of errors in each of the 4 basic taste modalities. Simultaneously, the state of depression of each S was rated by means of the Hamilton score. Comparison of results obtained from 3 critical phases of hospitalization and from statistical evaluation of findings show that: (a) depressed Ss have a higher threshold for all the basic taste modalities than the nondepressed; (b) there is significantly higher incidence of inconsistency in the recognition of the stimuli in depressive Ss; (c) there is positive correlation between the typical symptoms of depression and findings regarding the function of the sense of taste; and (d) there is close correlation between recovery from depression and the restitution of the functioning of taste. The possible mechanisms involved in these phenomena are discussed. (23 ref.)—*Journal abstract*.

6673. Taintor, Zebulon. (State U. New York, Medical School, Buffalo) **Birth order and psychiatric problems in boot camp.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1604-1610.—Studied 323 male naval recruits from October 1966 to December 1967. Ss were seen by the psychiatrist. The initial hypothesis was that individuals who were younger siblings were more likely to be found unfit for military service than older siblings because of personality disorders. Ss were interviewed, their various disorders diagnosed, and the data obtained (including parental relationships and social class) classified. Results show 5.7% psychotic, 27.2% psychoneurotic, 42.7% personality disorders, 14.8% psychophysiological disorders, and 9.6% other disorders. Only children were most often found to consult the psychiatrist, to be diagnosed as psychoneurotic, and to be discharged from the service. 1st-borns were almost equally divided between psychoneurotic and those with personality disorders (34-35%) and were more often retained than discharged from the service. Other Ss were less often diagnosed as psychoneurotic; usually being diagnosed as having personality disorders. (31 ref.)—P. R. Shibelski.

6674. Zentner, Ervin B. & Aponte, Harry J. (1514 Oakley, Topeka, Kan.) **The amorphous family nexus.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 91-113.—Describes the individuals in this type of family as being in extreme adhesion and interdependence. They are poorly differentiated from each other and introject the family en masse which then becomes a primary source of identity for them. There is an amorphous quality to the individuals within this family unit. They find all their gratification within the family circle. They supplement the functioning of each other and resist the emotional separation of any member of the family group. This is the amorphous family nexus. These family

members do not strongly cathect the therapist except as he might be taken into the family nexus. There is a need for metapsychology that will encompass both individual and family theory. (35 ref.)—D. Prager.

Neurosis & Emotional Disorder

6675. Adams, Walter D. (Utah State U.) **Survival training: Its effect on the self concept and selected personality factors of emotionally disturbed adolescents.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 388.

6676. Becker, Peter. **Investigación psicoanalítica de gemelos con neurosis.** [Psychoanalytic investigation of twins with neurosis.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1970(Jan), No. 14, 17-22.—Discusses the significance of heredity and environment in the development of neurosis with reference to studies conducted on homozygotic twins (HO), heterozygotic twins of the same sex (HE), and twins of different sexes (D). Comparisons of neurotic twins indicated that heredity influences symptomatic differences. The psychological implications of the twin relationships particular to HO's were examined because their intimacy seems to have a polarizing influence which is indicative of the nature of neurosis, i.e., integration vs. disintegration. In this relation, 1 twin is usually dominant and, in most cases, less neurotic. The influence of harmony or disharmony in the twin relationship is stressed.—P. Hertzberg.

6677. Claghorn, James. (Baylor U., Medical School) **The anxiety-depression syndrome.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 438-441.—Examines the concepts of anxiety and depression to determine the extent to which they may be relatively independent or unitary. 2 studies using psychoneurotic patients are described including (a) a comparison of the Depression and Taylor Anxiety MMPI scales on 100 outpatients in a general psychiatric clinic, and (b) an analysis of the recent literature on the relative reported effectiveness of psychotropic drugs for the treatment of anxiety and depression. Results of the 1st study indicate that anxiety and depression were significantly correlated. In the 2nd study, literature findings also suggest that "drug effectiveness is equally apparent on anxiety and depression regardless of the class of drug, supporting the concept that these are unitary and not separate symptoms." It is concluded that the term "anxiety depression syndrome" should replace the 2 terms anxiety neurosis and depressive neurosis in psychiatric nomenclature. A schema is presented to depict the "anxiety-depression syndrome," indicating preferred drug treatments depending on severity of symptoms and relative amounts of anxiety and depression. (16 ref.)—P. McMillan.

6678. Dorfman, Wilfred. (Brunswick Hosp. Center, Amityville, N.Y.) **The recognition and management of depression.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 416-419.—Discusses the high number of successful suicides in the United States (at least 20,000 each yr.), emphasizing the need to recognize and properly manage cases of acute depression. Different subtypes of depression are reviewed, including neurotic, senile, schizoaffective, and depressive equivalents. The depression that accompanies or follows various organic illnesses is also discussed. Biochemical and psychodynamic factors in depression are reviewed. Current treatments of

depression include psychotherapy, ECT, and a variety of antidepressant and anxiolytic agents.—*P. McMillan.*

6679. **Dunlop, Edwin.** (Fuller Memorial Sanitarium, Attleboro, Mass.) **Clinical and biochemical aspects of depression.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 422-425.—Discusses the mounting evidence of the role of neurochemical and endocrine factors in depression and its treatment. It has been hypothesized that the newer antidepressant drugs act by altering the metabolism of norepinephrine in the brain. 2 of these drugs, imipramine and amitriptyline, which are tricyclics, are described in detail, including dosages, mode of administration, and recommended treatment regimen. It is concluded that for optimal results there must be a careful patterning of drugs, singly or in combination, with each patient according to his diagnostic condition.—*P. McMillan.*

6680. **Faas, Larry A. (Ed.)** (Arizona State U.) **The emotionally disturbed child: A book of readings.** Springfield, Ill.: Charles C Thomas, 1970. xiv, 386 p. \$14.50.

6681. **Façon, E., Pruskauer-Apostol, Beatrice, & Alecu, C.** **Tulburări nevrotice de tip astenodepresiv în cadrul spondilartrozei cervicale.** [Neurotic disturbances of the asthenodepressive type in cervical spondylarthrosis.] *Neurologia, Psihiatria, Neurochirurgia*, 1969(Jan), Vol. 14(1), 51-54.—Studied 255 patients suffering from asthenic neurosis with depressive elements, admitted to the neurologic division of a Bucharest hospital. The importance of conflictual factors and strain in inducing this type of neurosis is shown. However, in 94 cases of cervical spondylosis, a direct relationship appeared to exist between the distal cerebral circulation perturbations brought about by cervical spondylosis and neurotic disturbances of the asthenodepressive type caused by these perturbations. (French, Russian, & German summaries) (20 ref.)—*English summary.*

6682. **Foulkes, David; Larson, James D., Swanson, Ethel M., & Rardin, Max.** (U. Wyoming) **Two studies of childhood dreaming.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 627-643.—Employed the technique of dream retrieval by nocturnal awakening during periods of REM sleep. Ss were 12 preschoolers and both 7 normal and 7 emotionally disturbed male adolescents. Dreams of Ss at both ages were generally directly related to their waking lives, but personality pathology was associated with more vivid and unrealistic dreaming. (30 ref.)—*Journal abstract.*

6683. **Frankel, A. Steven.** (U. Southern California) **Treatment of a multisymptomatic phobic by a self-directed, self-reinforced imagery technique: A case study.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 496-499.—Reports the treatment of a 24-yr-old woman with disabling fears of earthquakes, sexuality, and enclosed places. The treatment was a self-administered variation of implosive therapy in which the client was encouraged to imagine herself experiencing sequences of images involving her fears. The imagery sequences ended only when she imagined the feared experience terminating. A 6-mo follow-up found her functioning without any of the fears she reported in treatment and without the occurrence of any new fears.—*Journal abstract.*

6684. **González de Chávez, Manuel; Orbe Garay, María I., & Rodríguez Gorostiza, María I.** **Resultados del Test de Rorschach en eritrofobicos.** [Results of Rorschach test in patients with eritrophobia.] *Actas Luso-Españolas de Neurologia y Psiquiatria*, 1968(Sep).

Vol. 27(4), 525-532.—Studied 10 female and 23 male eritrophobics (17-53 yr. old) on the basis of Rorschach protocols. Certain special phenomena were noticed: (a) initial crash, characterized by anatomical and monochromatic replies, self-criticisms and reaffirming questions, increase in RT, or reduction of the number of replies; (b) red crash, a continuation of all the above protocols with compensation mechanism in each case; (c) grey crash, characterized by expressions of symmetry; (d) color crash; and (e) crash to Plates VI and VII. Frequent self-criticism was found. Analysis of protocols revealed that Ss could be classified into 2 groups those with strong inhibition, and those with anancastic traits which approximated obsessives. (English summary)—*P. Hertzberg.*

6685. **Hoffmann, Helmut & Peterson, David.** (Minnesota State Hosp., Willmar) **Analysis of moods in personality disorders.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 187-190.—95 psychiatric inpatients with the diagnosis of personality disorder and a history of acting-out behavior were rated by 3 Os on 52 mood items. A factor analysis resulted in 10 factors, 8 of which were interpreted as friendliness—hostility, guilt, activity, fatigue, efficiency, depression, confusion, tension-anxiety. When these O ratings were compared with self-ratings most differences appeared on the 1st factor, which suggests the presence of a social desirability response set. Contrary to popular conceptions of personality disorders a population with this diagnosis was rated high on friendliness and relatively low on hostility. However, absence of guilt was confirmed.—*Journal abstract.*

6686. **Knoff, William F. & Cooke, Edwin T.** (State U. New York, Upstate Medical Center, Syracuse) **A history of the concept of neurosis, with a memoir of William Cullen.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 80-84.—In the continuing effort to translate clinical observations into more accurate nosological metaphors, the term neurosis has been remarkably long-lived. An explanation for its durability in tracing the historical vicissitudes of its use, from William Cullen, who introduced it, to Freud and the 20th-century is presented. (17 ref.)—*Journal abstract.*

6687. **Lukianowicz, N.** (Child Guidance & Family Guidance Clinic, Whiteabbey Hosp., Antrim, Ireland) **Hallucinations in non-psychotic children.** *Psychiatria Clinica*, 1969, Vol. 2(6), 321-337.—Reviews the pertinent literature and describes 14 cases of hallucinations in children. The personality of parents, their religion, their socioeconomic status, the size of the family, the number and the age of the siblings, and the place of the S in the family were considered. The influence of the school, in particular the role of teachers and schoolmates, are discussed. The symptoms presented by Ss are briefly reported, and the official reason for the referral is compared with the real problem in each case. The IQ, personality of the child, and his relationship with various members of the family are discussed. Conclusions regarding the incidence, psychodynamics, and significance of hallucinations in nonpsychotic children were drawn. The treatment and some preventive measures are indicated. (28 ref.)—*Journal summary.*

6688. **Masserman, Jules H.** (Northwestern U.) **Is uncertainty a key to neurogenesis?** *Psychosomatics*, 1970(Sep), Vol. 11(5), 391-402.—The neurogenesis hypothesis states that "when physical inadequacies, environmental stresses or motivational conflicts exceed an organism's innate or acquired capacities for adap-

tation, internal tensions (anxiety) mount, neurophysiologic (psychosomatic) dysfunctions occur, and the organism develops over-generalized patterns of avoidance (phobias), stereotyped behavior (obsessions and compulsions), aberrant conspecific and extraspecific transactions (social deviations) and regressive, hyperactive or hostile, or bizarrely 'derealistic' (hallucinatory, delusional) responses analogous to those in human neuroses and psychoses." Uncertainty arises when the organism senses an inability to predict and control events important to its welfare. References ranging from classical mythology and literature to contemporary research findings with animals and men are cited in support of the hypothesis. Applications of this biodynamic orientation to clinical psychotherapy are presented. It is concluded that the essence of therapy is to assist troubled people in rebuilding confidence in themselves, and in their religious, social, and "scientific" systems.—P. McMillan.

6689. McLaughlin, Blaine E. (U. North Dakota, Medical School) **Recognition and treatment of youthful depression in a rural area.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 420-421.—Describes types of depressive reactions encountered among college students in the rural part of the great plains area. It is noted that many students come from rigid, highly religious family backgrounds and are unprepared for the new experiences of university life. They react with displays of aggressiveness and confrontation with authority. This apparent behavior disorder covers a basic depression that responds well to mild anti-anxiety and antidepressive drugs and to standard nondirective interview techniques in weekly visits over a 1-3 mo. period.—P. McMillan.

6690. Muñoz Bautista, César. **Enuresis: Correlato clínico-electroencefalográfico.** [Enuresis: Clinical-electroencephalographic correlation.] *Revista de Neuro-Psiquiatria*, 1968(Dec), Vol. 31(4), 277-289.—Reviews diverse literature on enuresis regarding the etiology and psychology of the enuretic. Observations gained from psychiatric consultations with 83 male and 27 female enuretics led to the conclusion that enuresis has a polymorphous symptomatology, predominated by behavioral disorders. A similarity is noted among character traits existing between enuretic, epileptic, and sociopathic children. The enuretic child is considered to be affected by profound psychopathological alterations which can be helped by a broad diagnostic process. In more than 90 of the cases, material gained through personal, familial, and EEG examinations indicate that primary enuresis has an organic cerebral basis. (English, French, & German summaries) (19 ref.)—P. Hertzberg.

6691. Pitts, Ferris N. (Washington U., Medical School) **The biochemistry of anxiety.** *Scientific American*, 1969(Feb), Vol. 220(2), 69-75.—Reports studies concerning the role of excessive amounts of lactate in the production of anxiety symptoms and attacks. Former studies have indicated that blood lactate in anxiety neurosis patients shows significantly higher amounts than in normal controls. In a double-blind experiment, 14 anxiety neurotics and 10 normal (nonpatient) controls were given infusions of either sodium lactate, sodium lactate with calcium or glucose in sodium chloride. Results show that patients given lactate alone reliably experienced anxiety attacks. When calcium was added, however, they had fewer symptoms and almost no symptoms appeared when they were given glucose in saline solution. Controls had fewer and less severe symptoms in response to lactate but showed similar

response patterns to lactate with calcium and to glucose. It is concluded that "a high concentration of lactate ion can produce some anxiety symptoms in almost anyone ... and that calcium ion largely prevents the symptoms."—P. McMillan.

6692. Sabakian, William S. (Suffolk U., England) **A social learning theory of obsessional neurosis.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 70-75.—Explains the obsessional neurosis from a base established by social learning theory, humanistic psychology, and ontanalytic or existential psychology. Man through social learning can develop obsessional behavior characteristics, therefore, logotherapeutic techniques of paradoxical intention and dereflection succeed in obsessional cases because the conditioning process is being reversed and the S is undergoing experimental extinction. (35 ref.)—*Journal abstract*.

6693. Sloane, R. B., Staples, F. R., & Payne, R. W. (Temple U., Medical School) **Response to social and monetary reward in neurosis.** *Journal of Psychiatric Research*, 1970(Jul), Vol. 7(4), 227-236.—Behavior-disordered Ss (neurotic patients defined by a history of antisocial illegal activities) were more responsive to positive reinforcement in the form of verbal approval and modified their behavior to obtain approval to a greater extent than the other groups of dysthmic Ss (neurotic patients with no history of antisocial illegal activities) and normal Ss (nonpatient volunteers). Behavior-disordered Ss were more persistent in responding to the monetary reward situation, although the normals were more successful in terms of total amount of money obtained. It is suggested that the interaction of the personality characteristics of the Ss with the sex and status of the E may be critical in determining responsiveness. Behavior-disordered Ss are likely to be more responsive to peers and to those of the opposite sex, and dysthmics Ss to those of higher status.—R. V. Hamilton.

6694. Takahashi, R., et al. (U. Tokyo, Medical School, Japan) **Tyrosine metabolism in manic depressive illness.** *Life Sciences*, 1968(Nov), Vol. 7(22, Pt. 2), 1219-1231.—To further examine the catecholamine theory of manic-depressive illness tyrosine metabolism in manic-depressive patients was studied in that the conversion from tyrosine to dihydroxyphenylalanine (Dopa) might be disturbed in those with the illness. Tyrosine levels in fasting plasma and in every 4 hr. following an oral load of tyrosine were studied in 5 male and 13 female patients with endogenous depression or mania. Fasting levels of tyrosine were not significantly different in normals or for either depressive or manic patients. Plasma levels after oral loads of tyrosine were not significantly different between manic and depressive patients. However, depressive patients had higher increases in plasma tyrosine levels than did normal Ss at 1-4 hr. after ingestion. There was no correlation between results of a tyrosine tolerance test and the course of depression. Tyrosine levels in the urine were almost equal for both patients and normal Ss. The present data suggest that an altered tyrosine tolerance is a characteristic feature of the manic-depressive illness without regard to moods. It is likely that there would be a decrease in tyrosine transaminase activity in both depressive and manic patients and that there may be an alteration in the pathway of tyrosine metabolism in the manic-depressive patients. (15 ref.)—W. E. Wood.

6695. Von Müller, I. (Humboldt U., Berlin, E. Germany) **Psychiatrische Auffassungen zum Wesen**

der Zwangsnervose mit therapeutischen Konsequenzen. [Psychiatric notions of the nature of obsessional neurosis and their related therapies.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Jun), Vol. 22(6), 201-208.—The ambiguous etiology of obsessional neuroses is reviewed by references to related literature. Earlier psychological explanations have proliferated into physiological and more recently anthropological ones. Therapy appropriate to the respective theoretical bases is described. (41 ref.)—K. J. Hartman.

6696. Winokur, George & Reich, Theodore. (Washington U., Medical School) **Two genetic factors in manic-depressive disease.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 93-99.—In the families of 61 manics there were more affectively ill maternal relatives than paternal relatives. This suggests that an X-linked dominant gene is implicated in the transmission of manic depressive disease. The X-linked dominant factor may be the disease factor itself. A number of affectively ill family members of manics suffer from depression only. A 2nd genetic factor may be responsible for the presence of mania. Alcoholism, frequently seen in these families, may be 1 of the ways in which this 2nd genetic factor expresses itself.—D. Prager.

6697. Zung, William W. (Duke U., Medical School) **The pharmacology of disturbed sleep.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 470-472.—Describes the laboratory characteristics of sleep (using the 6 EEG sleep stages, A, 1, 2, 3, 4, and REM) in persons complaining of anxiety and depression. The effects of drugs on sleep as reflected in these stages are summarized for the barbiturates, meprobamate and the tricyclic antidepressants. In cases using antidepressant drugs or in nondrug-related wakefulness, it is concluded that there is an altered sleep-arousal mechanism which decreases the number and duration of the REM phenomena. (24 ref.)—P. McMillan.

Psychosis

6698. Gulyamov, M. G. & Rakhminov, B. Ya. (Abuash Ibni Sino Medical Inst., Tadzhikistan, USSR) **K voprosu ob ostrom alkogol'nom gallyutsionoze, protekayushchem s bredom revnosti.** [On acute alcoholic hallucination, proceeding with delusional jealousy.] *Zhurnal Nevropatologii i Psikhatrii*, 1970(Jan), Vol. 70(1), 97-101.—Presents a study based on 18 cases of acute alcoholic hallucinosis accompanied by delusional ideas of jealousy, drawing their content from auditory hallucinations of erotic character. The psychosis was transient, and complete recovery occurred.—I. D. London.

6699. Morozov, L. T. (Research Inst. of Neurology & Psychiatry, Kharkov, USSR) **K voprosu o regulatsii urovnya sakhara i arteriovenoznoi raznitsy v ego soderzhanii pri glipertimicheskikh sostoyaniyakh tsirkulyarnogo i shizofrennogo geneza.** [On the regulation of sugar level and of arteriovenous difference in this level in hyperthymic states of circular and schizophrenic genesis.] *Zhurnal Nevropatologii i Psikhatrii*, 1970, Vol. 70(3), 394-399.—35 manic-depressives and 47 schizophrenics served as Ss. Irrespective of nosological differences, a correlation existed between arterial glycemia and the arteriovenous difference. The correlational connection was higher, the greater the salience acuity, and intensity of the affective disorders. (English summary)—I. D. London.

6700. Plutchik, R., Platman, S. R., & Fieve, R. R. (Columbia U.) **Self-concepts associated with mania and depression.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 399-405.—14 manic-depressive patients, 16 staff, and 52 undergraduates described their normal self, their ideal self, and their least-liked self in terms of certain personality traits. The emotion profile for the depressed state correlated highly with the least-liked self, but the manic profile did not correlate with any other description. Data suggest that ideal-self studies are basically concerned with social stereotypes.—*Journal abstract.*

6701. Pohlen, Manfred. **Una psicosis familiar: Análisis estructural de interrelaciones familiares.** [A familial psychosis: Structural analysis of familial interrelations.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1969, No. 11, 69-88.—Discusses the psychodynamics of the interpersonal relations between a catatonic female and her family from material gathered in 5 yr. of analysis. A ternary cycle of symbiosis between mother, child, and father is examined regarding psychoanalytic interpretation of objectal relations. A polarization of objectal relations between omnipotence and impotence is shown to create a condition of mutual contradiction in the family. Theories of dominance and dependence are discussed to show the emergence of an assassin-suicide theme in the inherent dialect of the family. (24 ref.)—P. Hertzberg.

6702. Yaryura-Tobias, Jose A., Diamond, Bruce; Wolpert, Arthur, & Merlis, Sidney. (Central Islip State Hosp., N.Y.) **The variables of silent myocardial infarction in a psychotic population.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 483-487.—Investigated whether the cause of silent myocardial infarction in psychotics might be due to (a) differences in pain thresholds, (b) analgesic actions of phenothiazines, (c) poor verbal communication, or (d) a combination of these. The study was prompted by the high prevalence (2.6%) of previously undiagnosed myocardial infarction discovered in psychiatric patients through EKG tracings and the subsequent retrospective reviews of their case histories. 12 psychotics with silent myocardial infarction, 13 psychotics without infarction, and 13 normal controls were administered a verbal pain threshold test and a word association test on 2 occasions. For the psychotics, the tests were administered 1st with medication and then without. Results show that (a) normals and paranoids tend to have a low verbal pain threshold (VPT); (b) psychotics with myocardial infarctions, hebephrenics, and catatonics tend to have a high VPT; and (c) psychotics without infarctions and psychotics due to alcohol have varying VPT scores. Phenothiazine medication tends to inhibit the infarction group's ability to communicate. It is suggested that EKG tracings should constitute part of the periodic tests administered to chronic schizophrenics who are on phenothiazine treatment.—P. McMillan.

Schizophrenia

6703. Ax, Albert F. & Bamford, Jacqueline L. (Lafayette Clinic, Psychophysiology Div., Detroit, Mich.) **The GSR recovery limb in chronic schizophrenia.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 145-147.

6704. Bryson, Carolyn Q. (Indiana U., Medical Center, Indianapolis) **Systematic identification of perceptual disabilities in autistic children.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 239-246.—Used

matching-to-sample tasks to test the ability of 6 autistic children to make visual, vocal, and fine motor responses in response to visual and auditory stimuli. Results indicate that: (a) the testing method was appropriate for low-functioning children; (b) the group was heterogeneous with respect to perceptual deficits, and (c) fine motor performance was poor. Data suggest that a basic difficulty in infantile autism may not be an avoidance of auditory and visual stimuli per se but rather a deficit in ability to make cross-modal associations. It is further suggested that the testing method would be useful for constructing profiles of perceptual disabilities with many types of low-functioning children.—*Journal abstract.*

6705. Calhoun, James F. (State U. New York, Stony Brook) **Effects of performance payoff and cues on recall by hospitalized schizophrenics.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 485-491.—Examined reinforcement and information-processing theories of schizophrenic deficit with respect to the effects of the treatments proposed by each theory in the modification of the performance on 5 free recall tasks. 162 male schizophrenics were tested on 3 conditions of monetary performance payoff (no payoff, proportionate payoff, nonproportionate payoff) crossed with 3 conditions of informational cues (no cues, increasing cues across tasks, all cues across tasks). Results indicate that both performance payoff and information independently significantly improved the recall performance across all Ss. Dividing Ss according to 2 dimensions (paranoid-nonparanoid, process-reactive) showed the effects of the conditions to be different for subgroups of schizophrenics: process nonparanoid schizophrenics were not significantly affected by different information conditions, and reactive paranoid schizophrenics were not significantly affected by different payoff conditions. (30 ref.)—*Journal abstract.*

6706. Cancro, Robert. (Center for Advanced Study, Urbana, Ill.) **A classificatory principle in schizophrenia.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1655-1659.—Attempts to establish reliable criteria for symptoms of schizophrenic syndromes. Based on the theory that "language normally shows differentiation over time," an Index of Formal Signs of thought disorders was the resulting system. 51 male Ss who had been admitted to a large city hospital and diagnosed as schizophrenic were used to test the index for data reliability and statistical validity. It was tested on 2 occasions by separate sets of psychiatrists, results of which demonstrated reliability to be .93 and .92. A direct and significant relationship was found between the severity of the index rating and a familial history of mental illness ($p < .05$) ($r = .24$). Although "the index is nothing more than an expression of the severity of the schizophrenic in a given case at a given time, it is a useful measurement in that it groups patients according to their premorbid adjustments and it predicts outcome."—P. R. Shibelski.

6707. Fuhrer, Marcus J. & Baer, Paul E. (Baylor U., Medical School, Houston, Tex.) **Preparatory instructions in the differential conditioning of the galvanic skin response of schizophrenics and normals.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 482-484.—Determined whether the GSR of schizophrenics can be differentially conditioned by using an RT task as the UCS in conjunction with informative instructions concerning the CS-UCS relations. 8-sec

tones of differing frequency were the CSs, and the CS-UCS interval was 8 sec. In contrast to schizophrenics previously demonstrated failure to condition without preparatory instructions, the instructed schizophrenic group ($N=20$) showed highly reliable GSR differentiation which differed in few respects from that shown by an instructed normal group ($N=20$).—*Journal abstract.*

6708. Green, Arthur H. (State U. New York, Downstate Medical Center, Brooklyn) **The effects of object loss on the body image of schizophrenic girls.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 532-547.—Presented case histories of 5 schizophrenic girls, who responded to separation and the threat of object loss with varieties of distortion and fragmentation of their body. This threatened loss of body integrity precipitated severe anxiety which activated primitive defensive maneuvers designed to repair the body distortions and to reestablish ties with the lost object. These defenses included introjective and incorporative mechanisms designed to achieve a symbiotic fusion with the significant person, who was often responded to as a part object. Ss also made frequent use of transitional objects and fetishistic behavior as a means of maintaining perceptual contact with significant persons. This reaction is explained by their perceptual, cognitive, and integrative failure, which impairs their ability to internalize stable images of the objects in their absence. Similar inability to conceptualize a constant body image also contributes to excessive dependence on the adult for the maintenance of body integrity. 1 common defensive adaptation, the illusory penis phenomenon, was discussed, with special reference to the role of the family constellation in its genesis. The clinical observation that the girls manifested greater difficulty with separation and the maintenance of body integrity than boys in a schizophrenic population is attributed to their sense of genital damage, a more complex genital structure and physiology, a greater dependency on their mothers for bodily definition and identification, and cultural attitudes which encourage them toward a greater body cathexis. Some therapeutic principles are outlined which promote object constancy and augment more adaptive defenses concerned with securing the body's integrity. (17 ref.)

6709. Held, Joan M., Cromwell, Rue L., Frank, E. T., & Fann, William E. (Vanderbilt U., Medical School) **Effect of phenothiazines on reaction time in schizophrenics.** *Journal of Psychiatric Research*, 1970(Feb), Vol. 7(3), 209-213.—A 2-wk substitution of placebo for routine phenothiazine therapy did not appear to affect RT. (21 ref.)—R. V. Hamilton.

6710. Hoffer, A. **Pellagra and schizophrenia.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 522-525.—Discusses whether pellagra and schizophrenia are both due to a deficiency of nicotinamide adenine dinucleotide (NAD). It is noted that some of the early descriptions of pellagra were similar to those of schizophrenia. Similarities between the 2 diseases include disturbances in process and content of thinking, mood changes, and perceptual disorders leading to bizarre and antisocial behavior. Major differences are found in characteristic pellagrous skin and changes in the gastrointestinal system. It is concluded that while pellagra and schizophrenia are "clinically identical orthomolecular diseases," their reason for deficiency in vitamin B3 differs. In pellagra the diet is deficient, and in schizophrenia

"there is a 'block' between the substrate vitamin B-3 and its synthesis into NAD." (36 ref.)—P. McMillan.

6711. Hoffman, A. & Parhon-Ştefănescu, Constanța. (Gh. Marinescu Hosp., Psychiatric Clinic, Bucharest, Romania) **Cercetări asupra capacității de muncă a bolnavilor schizofrenici.** [Investigations on the working capacity of schizophrenic patients.] *Neurologia, Psihiatria, Neurochirurgia*, 1969(Jan), Vol. 14(1), 17-25.—Describes a follow-up study of working capacity and behavior at work and in the family of 50 schizophrenic patients, treated in a Bucharest clinic. Data indicate that: (a) both longer remissions or more frequent relapses with shorter remissions had occurred; (b) some Ss had resumed their former occupations or were working in supervised workshops; and (c) in more cases, S's behavior toward friends and family was good. (French, German, & Russian summaries) (17 ref.)—English summary.

6712. Iovlev, B. V., et al. (Bekhterev Research Psychoneurological Inst., Leningrad, USSR) **Fakturny analiz v issledovaniyakh s primeneniem otsennochnykh psikhopatologicheskikh shkal.** [Factor analysis in studies using psychopathological rating scales.] *Zhurnal Nevropatologii i Psikhiatrii*, 1970, Vol. 70(3), 399-408.—Demonstrates the possibility of using special psychopathological scales to study (a) the interconnection of psychopathological symptoms in evaluating the rehabilitation of mental patients, and (b) the connection between psychopathological and biological indices. Factor analytic materials dealing with schizophrenia and depressive states are presented. (English summary)—I. D. London.

6713. Lupandin, V. M. (Inst. of Psychiatry, Moscow, USSR) **Kliniko-psikhopatologicheskie osobennosti pristupoobraznoi shizofrenii u detei i podrostkov: I. Periodicheskaya forma.** [Clinico-psychopathological features of attacklike schizophrenia in children and adolescents: I. Periodic form.] *Zhurnal Nevropatologii i Psikhiatrii*, 1970, Vol. 70(3), 425-430.—Observed 41 girls and 13 boys with periodic schizophrenia. 29 were studied during treatment for the psychosis and catemnestically for a 1-8 yr. period; 25 were studied only catemnestically 20-30 yr. after the onset of the psychosis. In childhood periodic schizophrenia (8-9 yr.), the attacks that were encountered were similar to those seen in adults. However, (a) they were elementary in psychopathological structure, (b) there were no delusions of significance as so frequently seen in adults, and (c) there were no fantasy delusions or instances of psychic automatisms. The attacks were characterized by more marked motor and sensory disorders. In adolescence the attacks resembled those of adults except that delusional states exhibited more frequently a reduced character, whereas motor and sensory disorders, and disorders related to reflexes, were more grossly expressed. Results appear to confirm the hypothesis that the establishment of psychic functions takes place approximately in the interval of time between 12 and 13 yr. (English summary) (31 ref.)—I. D. London.

6714. Magaro, Peter A. (U. Maine) **An hypothesis concerning the relations between drive and size estimation for paranoids and nonparanoids within specific schizophrenic subgroups.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 489-490.—Describes the relation between 2 skin-resistance measures and size estimation for previously described schizophrenic subgroups; in the acute poor and chronic good subgroups

size estimation was positively related to drive for paranoids and negatively related for nonparanoids. Paranoids in the chronic poor subgroup exhibited a negative size estimation-drive relationship, considered to be due to reduction in drive which allowed emergence of a functioning perceptual organization that permitted S to attend to the task and show a corresponding increase in size estimation.—Journal abstract.

6715. Melges, Frederick T. (Stanford U., Medical School) **Postpartum psychiatric reactions: Time of onset and sex ratio of newborns.** *Science*, 1969(Nov), Vol. 166(3908), 1026-1027.—Investigated a study by M. A. Taylor in which he postulated "a causal relationship between birth of a male infant and postpartum schizophrenia. He speculated that delivery of a male child unmasks the mother's schizophrenia by allowing a 'toxic blood factor,' previously inhibited by the fetus, to take effect." Studies made of the sex ratio of infants born to women with onset of psychiatric symptoms within 1 mo. or 10 days postpartum (the period of rapid hormonal changes most likely to reflect postnatal influences of fetal sex) showed no predominance of male infants. Comparisons with infants born to patients in other diagnostic categories also showed no significant difference in ratio of sexes.—P. McMillan.

6716. Mosher, Loren R. & Feinsilver, David. **Special report on schizophrenia.** Washington, D.C.: U.S. Dept. of Health, Education, & Welfare, 1970. 16 p.—Reviews current research into the nature, causes, and treatment of schizophrenia. The supporting role of the National Institutes of Mental Health and other health organizations is described. Problems of diagnosis and classification through cross-cultural research are examined, noting difficulties of diagnostic comparability and methodologic imprecisions. Highlights of biologic, genetic, and family studies are separately examined for their contribution to the further understanding of schizophrenia. New insights into childhood schizophrenia and various treatment methods are also presented. It is concluded that prevailing opinion favors "multiple entities within the disorder" as the most tenable explanation of the nature of the disease.—P. McMillan.

6717. Obiols, VÍ, J. **Fenomenología de los mecanismos de simbolización en el hombre normal y en el esquizofrénico.** [Phenomenology of the mechanisms of symbolism in the normal and schizophrenic man.] *Revista de Psiquiatría y Psicología Médica*, 1969(Jul), Vol. 9(3), 127-141.—By analyzing phenomenologically the processes of symbolism observed in normal and schizophrenic behavior, different fundamental characteristics which make it possible to know the nature and essence of mental disease can be found. It is argued that: (a) psychoanalytic symbolism is relative and subjective, (b) symbolism is always anthropocentric, (c) no symbol is universal or eternal, (d) a symbol may or may not be observed as such, and (e) a symbol may be a biological constant. It is believed that symbolism and a phenomenological analysis adds to traditional psychoanalysis the importance of free choice by the S, his "free acts," his conscious behavior, tastes, desires, and life style. Through an existential and anthropological attitude: conscious free choice takes the place of the unconscious, the sexual aspect in psychic acts is diminished, and every manifestation is taken in-itself toward the fulfillment of the for-itself. Following a philosophic interpretation of being, having, and doing, it is assumed that: (a) desire and knowledge imply a lack of

being and longing for possession; (b) play (i.e., in sport) becomes a means toward a fulfillment of being and possession; and (c) possession can imply destruction for the schizophrenic. It is also assumed that the schizophrenic is unable to know, create, and possess, although money becomes important to him. It is suggested that food and its selection by a schizophrenic, physical contact, disease, and death must be thoroughly examined anthropologically. (23 ref.)—*S. Maze.*

6718. **Ornitz, Edward M.** (U. California, Medical School, Los Angeles) **Vestibular dysfunction in schizophrenia and childhood autism.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 159-173.—Central vestibular mechanisms play a basic role in the pathogenesis of schizophrenia and childhood autism. Disturbances of perception and motility occurring in schizophrenic adults and autistic children are attributed to vestibular dysfunction during REM sleep and waking. This dysfunctioning appears to be maturationally determined. (75 ref.)—*D. Prager.*

6719. **Roth, Sheldon.** (National Inst. of Mental Health, Bethesda, Md.) **The seemingly ubiquitous depression following acute schizophrenic episodes, a neglected area of clinical discussion.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 51-58.—Notes that 2 phases which follow acute schizophrenic episodes: compensated-transition and depressive-neurasthenic phases, are often treated too lightly. Because the psychotic patient has the inability to cope with either real or imaginative object loss and cannot relate to his surrounding environment, depressive states are often brought about by favorable response to psychotherapeutic treatment. These latter stages of psychosis are viewed as being important and treatment by the same physician is urged following 3 basic steps outlined by E. V. Semrad: (a) "help the patient to acknowledge (substitution of 'real' affect for psychotic symptoms)," (b) "bear (mourn with the patient, increase the ego's ability to bear anxiety and sadness)," and (c) "put his life into perspective (working through one's feelings about one's abilities and disabilities as a person)." More research and greater emphasis in residency programs are recommended.—*P. R. Shibelski.*

6720. **Rubin, Leonard S. & Barry, Theodore J.** (U. Pennsylvania) **Dysautonomia in schizophrenic remission.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 506-512.—Investigated whether (a) patients in remission show aberrant autonomic responses comparable to those shown by actively psychotic schizophrenics at rest, and (b) whether schizophrenics in remission show autonomic responses during stress and at the end of stress that are different from normal patients or patients who are actively psychotic. Pupillary reactivity was used as the measurement of autonomic responsivity on 43 psychotic patients, all diagnosed as schizophrenic, 27 of whom were judged actively psychotic at the time of examination. Results suggest that schizophrenic patients in remission, as well as those actively psychotic, show nonintegrative autonomic activity at rest, during stress, and following the termination of stress. It is concluded that the adaptive synergistic relationship between sympathetic and parasympathetic systems is not found in schizophrenia. The utility and power of pupillography for diagnosis and classification of schizophrenia is suggested. (21 ref.)—*P. McMillan.*

6721. **Scherer, Milo W.** (U. California, Los Angeles) **Width of cue utilization, selective attention and**

development of a set in facilitation of visual reaction time among chronic and acute schizophrenics. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 920-921.

6722. **Shader, Richard I. & Grinspoon, Lester.** (Harvard, Medical School, Boston, Mass.) **The effect of social feedback on chronic schizophrenic patients.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 196-199.—Feedback on patterns of social interaction was given to 10 chronic schizophrenic patients at their weekly ward community meetings for a 4-wk period. This feedback produced a significant decrement in aloneness relative to the initial prefeedback period. Isolation had returned to the initial prefeedback level 6 mo. later when a replication of the feedback procedures again produced a similar aloneness decrement. No differences were observed between drug and placebo patients. (15 ref.)—*Journal summary.*

6723. **Shapiro, Theodore; Roberts, Arlene, & Fish, Barbara.** (New York U., Medical School) **Imitation and echoing in young schizophrenic children.** *Journal of the American Academy of Psychiatry*, 1970(Jul), Vol. 9(3), 548-567.—Compared imitative responses of 8 schizophrenic children at or near their 4th birthday to those of control groups of 6, 4, 3, and 2 yr. olds without symptoms and to 3 nonschizophrenic hospitalized children. The imitations were extracted from single 10-min interviews. Ss were then divided into 5 categories ranging from exact congruent echoing to creative use of the examiner's words into newly structured sentences. The criteria for categorization were based on structural-grammatical differences. The schizophrenic Ss spoke as often as the controls but were retarded in the length and expansiveness of their utterances. Ss also had a significantly greater proportion of imitations than the 3 and 4 yr. olds. When considering the relative rigidity of their utterances, Ss had significantly more congruent echoes than even the 2-yr-old controls. The hospitalized nonschizophrenic group fell between the 2 yr. olds and schizophrenic Ss. Data indicate that the speech of 4-yr-old schizophrenic Ss was not only retarded but developmentally deviant. Normal children integrate the words of the mother into new structures and relate them to new categories in a flexible form even at 2 yr. This deviance in schizophrenic speech was discussed as a defect in integrative function accounting for the rigidity of imitation. This rigidity in language structure is explored as an index to the general rigidity of identification and ego structure. (52 ref.)—*Journal summary.*

6724. **Shimkunas, Algimantas M.** (U. Missouri) **Reciprocal shifts in schizophrenic thought processes.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 423-426.—Examined changes in abstract, concrete, and autistic responses to proverbs by 36 acutely disturbed schizophrenics. Abstract responses increased, while autistic responses decreased significantly from admission to the 5th wk. of hospital treatment. These changes accompanied a significant decrease in degree of psychopathology. Virtually no change was noted in concrete responses to Proverbs and Vocabulary IQ scores. Data support a revised version of K. Goldstein's theory of cognitive deficit and suggest an extension of the formulations of interference theory. (17 ref.)—*Journal abstract.*

6725. **Shumakov, V. M.** (Inst. of Psychiatry, Moscow, USSR) **Alkoholizm u bol'nykh shizofreniei.** [Alcoholism in schizophrenics.] *Zhurnal Nevropatologii i*

Psikhiatrii, 1970, Vol. 70(3), 435-443.—Observed 85 alcoholic and 67 nonalcoholic schizophrenics in a clinicocatamnestic study of the features characterizing the emergence and course of alcoholism and schizophrenia in mutual conjunction, considering the various forms of the latter. It is shown that in most cases the predisposition toward the use of alcohol was the result of the psychosis and can be correlated with various psychopathological factors. Different degrees of the psychosis are noted among the different forms of schizophrenia. Alcohol influences the psychopathological structure and development of schizophrenia depending on the form of the psychosis, its stage, and individual traits. Outpatient and hospital treatment of schizophrenia complicated by alcoholism, and the preconditions for more effective therapy and organization of social aid are discussed. (English summary) (31 ref.)—*J. D. London*.

6726. Stam, F. C., Heslinga, F. J., & van Tilburg, W. (Free U., Valerius Clinic, Amsterdam, Netherlands) **Schizophrenia and pink spot.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Nov), Vol. 72(6), 513-524.—Postulates that studies of the correlation between schizophrenia and 3,4-dimethoxyphenylethylamine (DMPE) require an operational definition. Reports so far published indicate that the pink spot described by A. J. Friedhoff and E. Van Winkle is probably not identical with DMPE. The negative results of other investigators are ascribed to the technique used. A technique developed to convincingly demonstrate the pink spot is described. The pink spot was found in some 80% of the schizophrenic patients examined. (32 ref.)—*Journal summary*.

6727. Stoyanov, St. & Liberman, Yu. I. (Research Inst. of Neurology & Psychiatry, Sofia, Bulgaria) **O nekotorykh statisticheskikh kharakteristikakh patokineza shizofrenii, protekayushchei s pristupami, soprovozhdayushchimiya maniakal'nyimi rasstroistvami.** [On several statistical characteristics of the pathokinesis of schizophrenia, proceeding with attacks accompanied by manic disorders.] *Zhurnal Nevropatologii i Psikhiatrii*, 1970, Vol. 70(3), 418-424. Presents a statistical study of the dynamics of schizophrenia whose course is attacklike and is marked at some stage by the advent of manic disorders in the form of either pure manic attacks or attacks that are "acutely paraphrenic, manic-delusional, polymorphous manic-catatonic, [or] manic-hebephrenic." [26 schizophrenics served as Ss. In this group other types of attacks were seen besides the manic attacks. As the psychosis developed, catatonic, hebephrenic, and hallucinatory-delusional disorders became more prominent along with a diminution of the depth of the affective disturbances occurring. The oneiroid syndrome occurred twice as frequently in persons up to 20 yr. than it does where the onset is at a later age. In females there was a relatively larger number of attacks than in males (mainly due to more frequent depressive-paranoid attacks). Males displayed a large number of remissions with mildly expressed personality changes. In females the remissions were characterized by affective fluctuations and neurotiform states. (English summary) (24 ref.)—*J. D. London*.

6728. Sussman, Sylvia & Sklar, June L. (Kaiser Allergy Research, San Francisco, Calif.) **The social awareness of autistic children.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 798-806.—Ob-

served interaction in a day setting for 10 4-7 yr. old autistic children. It was posed that if autistic children were unresponsive to social cues their behavior would not be socially patterned. Analysis of interactions showed both workers and children to be highly responsive to each other and to context.—*Journal abstract*.

6729. van Epen, J. H. (Delta Hosp., Poortugaal, Netherlands) **Defect schizophrenic states (residual schizophrenia): A clinical study prompted by K. Leonhard's classification.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Jul), Vol. 72(4), 371-394.—Studied 183 male and 173 female chronic schizophrenics to establish whether K. Leonhard's classification of defect schizophrenic states could be traced in this material. A description of K. Leonhard's concepts about schizophrenia is followed by a report on the procedure and results of the follow-up study. Findings correspond to those previously reported. However, unlike Leonhard, it was found that afflicted near relatives of a schizophrenic show another type of schizophrenia than the proband.—*Journal summary*.

6730. Yates, Aubrey J. & Korboot, Paula. (U. Western Australia, Nedlands) **Speed of perceptual functioning in chronic nonparanoid schizophrenics.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 453-461.—Measured inspection time, uncontaminated by verbal response time, for groups (N=10 in each group) of acute and chronic paranoid schizophrenics, nonparanoid schizophrenics, and neurotics on 3 types of material (lines, words, and symbols) at each of 5 degrees of complexity. The chronic nonparanoid schizophrenic group was significantly slower than all other groups at all levels of complexity for 3 types of material, with the exception of the verbal material, in the comparison with acute nonparanoid schizophrenics. Results are discussed in relation to theories of slowness of functioning in schizophrenia. (30 ref.)—*Journal abstract*.

6731. Young, Sylvia T. (U. California, Los Angeles) **Visual attention in autistic and normal children: Effects of stimulus novelty, human attributes, and complexity.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 922-923.

Schizophrenia Treatment

6732. Bucci, Luigi; Fuchs, Maria; Simeon, Jovan, & Fink, Max. (New York Medical Coll., Metropolitan Mental Health Center) **Depot fluphenazine in the treatment of psychosis in a community mental health clinic.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 28-31.—Administered to 80 consecutive schizophrenic patients in a community mental health clinic either depot fluphenazine decanoate or depot fluphenazine enanthate. After stabilization, 40 Ss were transferred to the other dosage form. Both drugs successfully modified the psychotic pattern in 87.5% of the cases. The average dose and interinjection intervals were .88-.91 cc and 18.9-20.6 days. Priming with oral fluphenazine was not necessary to achieve satisfactory clinical effects with either depot form.—*Journal summary*.

6733. Goldstein, Burton J. (U. Miami, Medical School) **Comparative efficacy of thiothixene capsules and concentrate in acutely schizophrenic patients.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 434-437.—Attempts to demonstrate the utility of small sample methodology in psychopharmacology research in

which a single investigator conducts a series of small studies using identical protocols and criteria for patient selection and improvement. 31 newly admitted acutely schizophrenic patients were treated for a 6-wk period with thiothixene in either capsule or oral concentrate form. Laboratory studies were made before and after treatment and psychiatric rating scales were obtained at regular intervals. Results suggest that thiothixene in either capsule or concentrate form is an effective antipsychotic medication. Side effects were judged to be transient and moderate in severity. It is concluded that this methodology is useful for pilot studies of new compounds rather than for more extensive investigations of drug effectiveness.—*P. McMillan.*

6734. Gorham, Donald R., Green, Louise W., Caldwell, Lynn R., & Bartlett, Ellen R. (Veterans Administration Center, Bath, N.Y.) **Effect of operant conditioning techniques on chronic schizophrenics.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 223-234.—The existence of a system of quarterly ratings by nurses of psychiatric patients' behavior made possible a relatively objective evaluation of the effects of the introduction of an operant conditioning program on 1 ward. 66 patients were rated 6 mo. prior to, immediately prior to, and 3, 6, and 9 mo. subsequent to the introduction of the new treatment regimen. Whereas the behavior on 24 rated items was stable during the period preceding the new treatment, statistically significant changes occurred on 14 behavior items during the treatment period. Worsening of a group of symptoms during the early months of treatment followed by subsequent improvement seems explainable as an aggravation of chronic schizophrenics by a change of their life style. The important finding was that after 9 mo. of operant conditioning techniques, even hard-core psychotic symptoms yielded to this form of behavior modification.—*Journal abstract.*

6735. Gottschalk, Louis A., et al. (U. California, Medical Coll., Irvine) **Prediction of changes in severity of the schizophrenic syndrome with discontinuation and administration of phenothiazines in chronic schizophrenic patients: Language as a predictor and measure of change in schizophrenia.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 123-140.—Studied 74 24-54 yr. old schizophrenics for 8 wk. to evaluate the effect of withdrawal and readministration of phenothiazines. No significant differences were found. Theoretical and practical implications of findings are discussed. Further research studies are needed to account for the underlying mechanisms of the differential response to phenothiazine withdrawal. (34 ref.)—*D. Prager.*

6736. Greenbaum, Gerald H. (U. Toronto, Ontario, Canada) **An evaluation of niacinamide in the treatment of childhood schizophrenia.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 89-92.—Employed 57 4-12 yr. old schizophrenic children in a double-blind study to test the claim that massive doses of niacinamide control and significantly reduce childhood schizophrenia. Ss were divided into 3 groups: 17 received niacinamide (N group), 16 received niacinamide plus a tranquilizer (NT group), and 24 received a placebo (P group). The mauve factor, a supposed diagnostic and prognostic indicator in schizophrenia, was tested for, found to be negative, and subsequently discontinued as invalid. Before and after the 6-mo study, Ss were rated on a scale of 15 observable categories. The Wilcoxon

matched pairs test showed an improvement in the average scores of the N group of 4 units and in P group of 2.6 which was significant ($p < .05$), whereas the difference of 1.5 in the NT group was not significant ($p > .05$). Results show no appreciable difference in improvement between those who used niacinamide and those who did not. It is concluded that the drug is not as effective as previously thought and that the improvement was through maturation factors alone. (20 ref.)—*P. R. Shibelski.*

6737. Grosser, H. H. (Psychiatric Hosp., Herborn, W. Germany) **Experience of psychiatric management of schizophrenia with fluphenazine decanoate.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 32-36.—Describes a double-blind controlled trial comparing the effects of fluphenazine decanoate and fluphenazine enanthate. Ss were acute and chronic female schizophrenic patients (38 recently admitted, and 23 hospitalized for more than 1 yr.). Results indicate (a) similarity of the 2 drugs in overall therapeutic effectiveness; (b) no significant difference between the drugs regarding their influence on psychotic behavioral disorders; (c) length of effectiveness of a single injection to be practically the same for both drugs within similar patient populations, but between diagnostic categories to be considerably longer with chronic Ss; and (d) occurrence of general side effects under both drugs, with acute Ss developing them more frequently under enanthate, and chronic Ss under decanoate. Extrapyramidal side effects, however, occurred significantly less frequently under decanoate than under enanthate. It is concluded that the decanoate showed equal or better antipsychotic properties than the enanthate.—*Journal summary.*

6738. Hawkins, David R., Bortin, Aaron W., & Runyon, Richard P. (North Nassau Mental Health Center, Manhasset, N.Y.) **Orthomolecular psychiatry: Niacin and megavitamin therapy.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 517-521.—Describes the concept of orthomolecular psychiatry and its clinical application to schizophrenia. This approach utilizes an overall biochemical and pharmacologic approach in an attempt to correct either demonstrated or hypothesized biochemical abnormalities. An aftercare study including 160 patients (median age, 28) in whom $\frac{1}{2}$ were continued on megavitamin therapy is described. A correlation was established showing that the relapse rate among the megavitamin therapy group was approximately $\frac{1}{2}$ that of the control group. Findings suggest that orthomolecular therapy may be the best method of treatment for many patients. Because of variables which could not be controlled, however, an absolute causal relationship will have to be demonstrated by future studies. (112 ref.)—*Journal summary.*

6739. Higgs, William J. (U. Maryland) **Effects of gross environmental change upon behavior of schizophrenics: A cautionary note.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 3(76, Pt. 1), 421-422.—Modeled a study after the innovative treatment design for hospitalized neuropsychiatric patients, in which 1 group of patients receives a treatment while a comparable group does not. A simple administrative change in physical environment was substituted for the therapeutic "treatment." 68 "treated" Ss showed short-term changes in both behavioral appropriateness and overall pathology, with changes in the former variable also persisting over a longer period. 125 schizophrenic patients on a set of unmoved wards served as controls.

Behavior was measured by the Brief Psychiatric Rating scale and a time-sampling record of ward dayroom behavior.—*Journal abstract.*

6740. Hillel, Jean M., Albert, J. M., & Tetreault, L. (St. Charles Hosp., Inst. of Psychiatric Research, Joliette, Quebec, Canada) **Etude comparative de la thiothixène et de la trifluopérazine chez le schizophrène en phase aiguë.** [A comparative study of thiothixene and trifluoperazine in acute schizophrenic episodes.] *Encéphale*, 1970(Mar), Vol. 59(2), 162-179.—Studied 40 patients for 35 days posthospitalization. Intensity of symptoms was evaluated by the Inpatient Multidimensional Psychiatric Scale and global clinical evaluation. The antipsychotic action of the 2 drugs was comparable for the 1st wk., trifluoperazine (stelazine) was moderately more effective during the 2nd wk., and the results were comparable again in the 3rd and following wk. The incidence of extrapyramidal side effects was significantly less with thiothixene after 35 days of treatment.—*W. W. Meissner.*

6741. Itil, T. & Keskiner, A. (U. Missouri, St. Louis) **Fluphenazine hydrochloride, enanthate, and decanoate in the management of chronic psychosis.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 37-42.—Describes 4 experiments investigating the effect of long-acting phenothiazines in maintenance therapy with 82 chronic schizophrenic patients. The studies involved (a) a double-blind study comparing the clinical effectiveness of low and high doses of fluphenazine hydrochloride, (b) the effects of fluphenazine decanoate in patients with florid psychotic symptoms or whose psychopathology was controlled by other drugs, (c) the effectiveness of fluphenazine decanoate in a schizophrenic outpatient population, and (d) a comparison of the effectiveness of fluphenazine decanoate and enanthate. Results indicate that long-acting fluphenazine enanthate and decanoate are both effective as substitutes for daily oral psychotropic drugs in nonhospitalized schizophrenics. Decanoate seemed to have a longer duration of effectiveness with fewer extrapyramidal reactions than enanthate.—*P. McMillan.*

6742. Itil, T., et al. (U. Missouri, Medical School, St. Louis) **Treatment of resistant schizophrenics with extreme high dosage fluphenazine hydrochloride.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 456-463.—Compared 11 25-53 yr. old chronic therapy schizophrenics receiving high dosage fluphenazine hydrochloride (800 mg/day) with 11 Ss receiving low dosage (30 mg/day). Study design was a double-blind crossover. 6 Ss showed marked improvement with high dosage and 3 with low dosage treatment. Statistical analysis of the global evaluations demonstrated that the high dosage was significantly more effective than the low dosage treatment. More psychotic symptomatology, however, was improved with the low dosage. Extrapyramidal side effects were seen with both dosages, but more frequently with the high dosage. None of the clinical or laboratory side effects continued after dosage was decreased. The significance of high dosage treatment with therapy resistant schizophrenics is discussed in relation to the pathogenesis of resistant schizophrenia. (44 ref.)—*Journal summary.*

6743. Kraus, Robert F. (Woman's Medical Coll. of Pennsylvania) **The use of symbolic technique in the group psychotherapy of chronic schizophrenia.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 143-157.—Contributes to the subject of orality in schizophrenia

and its clinical management by symbolic means. A unique psychotherapeutic experience with a group of 6 severely and chronically ill young schizophrenic women whose therapeutic interaction was marked by the spontaneous appearance and elaboration over a period of months of a group fantasy of eating is described and discussed. Changes in this fantasy as it ran its course seemed to be associated with clinical improvement in the patients. (20 ref.)—*Journal abstract.*

6744. Kurland, Albert A., Dim, Bomen H., & Olsson, James E. (Maryland Psychiatric Research Center, Baltimore) **The effectiveness of parenteral administration of fluphenazine decanoate in the treatment of chronic schizophrenics.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 18-23.—Demonstrated the effectiveness of parenteral administration of fluphenazine decanoate as a maintenance treatment for chronic schizophrenic patients previously found to be responsive to oral fluphenazine. 13 23-58 yr. old Ss completed the decanoate treatment course, which averaged 6 mo. in length. 3 Ss were discontinued because of poor therapeutic response. Psychiatrists' ratings of discomfort and adaptability revealed no significant differences between oral fluphenazine and decanoate treatment. Data concerning the number of decanoate injections, length of intervals between injections, and dosage levels are also reported. The advantages and disadvantages of fluphenazine decanoate treatment are discussed in terms of ease and reliability of administration, extrapyramidal effects, and blood pressure changes.—*Journal summary.*

6745. Missirlu, V., et al. **Probleme de reincadrare în muncă a bolnavilor de schizofrenie trecuți prin Serviciul I medical de expertiză și recuperare a capacității de muncă al Municipiului București.** [Problems in the resumption of work of schizophrenic patients examined in the 1st Medical Unit of the Rehabilitation Experts, Bucharest.] *Neurologia, Psihiatria, Neurochirurgia*, 1969(Jan), Vol. 14(1), 11-15.—Discusses the rehabilitation of schizophrenics and suggests that whenever possible schizophrenics should resume their occupations since this strengthens the chance of rehabilitation. Account must be kept of the symptomatology, stage of the disease, and occupational qualifications of the patient. Listing of schizophrenics in a lower grade of invalidity is possible, especially when requested by the patient. This usually occurs in the paranoid form of the disease. (French, German, & Russian summaries) (33 ref.)—*English abstract.*

6746. Neal, C. D. & Imlah, N. W. (Shelton Hosp., Shrewsbury, England) **Institutional management of chronic schizophrenics with fluphenazine decanoate.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 24-27.—Reports results of the treatment of 20 male chronic schizophrenic inpatients with fluphenazine decanoate. The initial injection of 12.5 mg. produced a rapid response, with the maximal effect appearing within the 1st 7 days. This observation was supported by a reduction over this period of the scores of the Brief Psychiatric Rating scale by 30% and of the Nurses Behaviour Rating scale by 25%. There was some further clinical improvement during the 2nd wk. of treatment, after which the rating score remained approximately constant for the remainder of the trial. The mean duration of effects from a single injection of 25 mg. fell between 3 and 4 wk. This form of medication was readily accepted by Ss, and in a few cases, the antipsychotic

activity of the drug was apparent within a few hr. following injection. Although signs of extrapyramidal involvement appeared (including akathisia and parkinsonism), most reactions were mild. 1 S had a convulsion 2 days after receiving the 1st full injection of 25 mg. No further convulsion occurred after a subsequent dose of 25 mg.—*Journal summary.*

6747. Pérez Sanfélix, J., et al. **Estudio clínico del TPN-12 (Imagotan) en 40 esquizofrénicos hospitalizados.** [Medical study of the effect of TPN-12 (imagotan) on 40 hospitalized schizophrenics.] *Revista de Psiquiatría y Psicología Médica*, 1969(Jul), Vol. 9(3), 160-165.—Examined the effect of imagotan (TPN-12) on 20 acute and 20 chronic cases of 20-50 yr. old male hospitalized schizophrenics. Acute symptoms included drastic changes of behavior, psychomotor agitation, incoherent speech, hallucinations, and anxiety. Chronic symptoms included difficulty in relating, negativism, and loss of thought. TPN-12 was given orally (50-mg pills), or im (50-mg injections). The 4-mo experiment was studied through use of the Overall and Gorham evaluation and individual medical histories. Observations of the Ss' condition was made prior to use of the drug, during the 1st wk., 2 wk. later, monthly, and at termination of the experiment. Blood and urine were tested. Results among acute and chronic cases show TPN-12 to be very effective. Some secondary effects were noted, but could be overcome with proper medication. It is concluded that (a) TPN-12 is an effective neuroleptic drug, especially with acute cases. (b) There was no correlation between intensity of secondary effects and therapeutic effectiveness. (c) Compared to chlorpromazine, TPN-12 produced less apathy. And (d) TPN-12 must be administered carefully, should be included among present drugs, but should not be used by a doctor not trained in neuroleptics.—*S. Maze.*

6748. Polvan, N. (Neuropsychiatric Clinic, Istanbul, Turkey) **Fluphenazine hydrochloride and enanthate in the management of chronic psychosis.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9, Suppl.), 48-49.—In an experiment with 14 chronic therapy resistant schizophrenic patients, it was found that fluphenazine hydrochloride was more effective and caused fewer side effects in high doses (100 mg. initially, increasing to 600-800 mg/day) than in lower doses (25-60 mg/day). It is noted that side effects appeared quite rapidly and were more pronounced with the low dosage. In high dosage without antiparkinsonian drugs, however, sedation and somnolence were observed. In very high doses (900-1200 mg.), depression was observed with a slight background rigidity. In an experiment with 55 ambulatory schizophrenics with acute symptomatology, it was found that with the administration of 1 cc fluphenazine enanthate every 2 wk., all delusional and persecutive ideas disappeared. This drug can also be used for maintenance therapy after high dosage fluphenazine hydrochloride treatment in chronic schizophrenic patients.—*Journal summary.*

6749. Rodríguez Suárez, Francisco J. & Concepción Pérez, Antonio. **Tratamiento de esquizofrénicos antiguos con dosis altas de reserpina.** [Treatment of chronic schizophrenics with high doses of reserpine.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1968(Sep), Vol. 27(4), 556-595.—Tested 30 chronic schizophrenics (15-50 yr. old) who had a history showing a poor prognosis and had been treated with at least 3 medications without obtaining improvement. Ss were

given 100 mg/day of chlorpromazine (thorazine, minor tranquilizer) for the 1st 2 days of treatment, 100 mg/day promethazine (fenegan) during the entire treatment period, and reserpine (serpasil, major tranquilizer) in elixir in doses which began with 3.2 mg. and were gradually increased to 44.8 mg/day. Results were favorable, with 23.33% of the Ss showing complete remission, 26.66% showing social remission which enabled them to be integrated back into society, and 23.33% showing remission within their establishment, which involved improved adjustment to hospital life. In all Ss, a marked Parkinsonian syndrome was evident, but remitted without residual effects. Reserpine therapy was recommended in association with occupational therapy. (English summary)—*P. Hertzberg.*

6750. Stanciu, Eugenia; Grecu, Gh., Cseh, Anna M., & Balint, Rozalia. (Psychiatric Clinic, Tirgu Mures, Romania) **Rezultatele dispensarizării și unele aspecte ale readaptării sociale a bolnavilor schizofrenici în orașul Tirgu Mureș.** [Results of outpatient care and certain aspects in the social rehabilitation of schizophrenics in Tirgu Mureș.] *Neurologia, Psihiatria, Neurochirurgia*, 1969(Jan), Vol. 14(1), 27-32.—Presents results of the social rehabilitation of 76 schizophrenic patients after the introduction of outpatient care. 31 Ss were in the course of complete remission, with 27 minimal and 18 acceptable social remissions. Social and vocational rehabilitation was possible in 26 cases who were able to resume their former occupations. Others were pensioned or had simple jobs. Optimal environmental conditions and the necessity of maintenance treatment are emphasized and cooperation with a psychiatric department with vocational therapy is stressed. (French, German, & Russian summaries) (23 ref.)—*English summary.*

6751. Tappan, Cindy B. (Veterans Administration Hosp., Nursing Service Lenwood Div., Augusta, Ga.) **A program of resocialization for a long-term regressed schizophrenic patient.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 334-335.—Reports on the use of resocialization techniques to help a long-term 47-yr-old male schizophrenic regain control over his behavior and learn to differentiate between fantasy and reality. The interpersonal process, group interactions, and reality-oriented diversional experiences were utilized in treatment. The interpersonal process was centered around continual acceptance of S, showing recognition and acceptance of realistic behavior and talk, and rejection of behavior beyond the bounds of social acceptance. An approach, which emphasized that realistic talk and acceptable behavior were expected from the S, was consistently used by all personnel involved in his care. This approach was considered a significant factor in S's progress.—*Journal summary.*

6752. Tedeschi, G. **Psicoterapia analitica (C. G. Jung) della schizofrenia.** [Analytic psychotherapy of schizophrenia according to C. G. Jung: A personal contribution.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Mar), Vol. 30(2), 185-196.—Although Jung did not believe in the psychotherapeutic treatment of schizophrenia, the case of a Jewish schizophrenic who improved on the basis of expressing archaic biblical fantasies and the revival of an ancient rite from Leviticus is presented.—*L. L'Abate.*

6753. Truax, Charles. (U. Calgary, Alberta, Canada) **Effects of client-centered psychotherapy with schizophrenic patients: Nine years pretherapy and nine**

years posttherapy hospitalization. *Journal of Consulting & Clinical Psychology*, 1970(Dec), Vol. 35(3), 417-422.—The long-term effects on patient hospitalization of therapeutic conditions (accurate empathy, nonpossessive warmth, and genuineness) offered by therapists were compared to a control (no-therapy) group ($N = 16$) in a population of 32 schizophrenics. The study dealt with hospitalization experience over a 9-yr period prior to entry into therapy research and a 9-yr period after entry into therapy research. Findings indicate no overall mean differences but significant differences in trend tests across time. There was some evidence of negative effects from low levels of therapist-offered therapeutic conditions.—*Journal abstract*.

PSYCHOSOMATIC DISORDER

6754. **Gilbert, Michael M.** (U. Miami, Medical School) **Reactive depression as a model psychosomatic disease.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 426-428.—Formulates a model of reactive depression containing 3 basic criteria: (a) the condition must be produced by prolonged psychic stress, (b) it must involve structural or biochemical changes as a result of the stress, and (c) it characteristically occurs in a specific personality type described as perfectionistic, overconscientious, neat and orderly, etc. A case history is presented in support of this formulation. The application of the model to another psychosomatic disorder, that of peptic ulcer, is described.—*P. McMillan*.

6755. **Giordano, D. & Muzio, N. R.** **Rapporti fra cefalee psicogene e sentimenti di inferiorità.** [Relationships between psychogenic headaches and feelings of inferiority.] *Neuropsichiatria*, 1968(Jan), Vol. 24(1), 15-21.—In 10 cases of psychogenic headache, constant presence of inferiority feelings, high aspiration level, and parental overprotection were found.—*L. L'Abate*.

6756. **Sanger, Maury D.** (Albert Einstein Coll. of Medicine, Yeshiva U.) **Psychosomatic allergy.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 473-476.—Emphasizes the importance of recognizing psychological as well as physiological stress in the allergic patient. It is suggested that history-taking should allow sufficient time for the patient to discuss his case and ventilate his tensions. Examples are cited of cases with asthma and dermatitis, etc. where psychological factors (e.g., "the anniversary reaction" and "ring-finger" dermatitis) played a prominent role. Tables are provided which show responses of allergic patients to tranquilizers and to antidepressants. It is concluded that good rapport between patient and physician and mutual awareness of the possible emotional basis for allergic attacks can lead to quicker return to homeostasis in the patient.—*P. McMillan*.

6757. **Schwab, John J., McGinnis, Nancy H., Norris, Linda B., & Schwab, Ruby B.** (U. Florida, Medical School) **Psychosomatic medicine and the contemporary social scene.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1632-1642.—A scrutiny of the relationships between sociocultural processes and psychosomatic illness lead to the questioning of the relevance of current concepts of psychosomatic medicine to the contemporary social scene. Also, (a) the frequency and distribution of psychosomatic illnesses, (b) the demographic characteristics of the afflicted, (c) changing patterns of individual and group susceptibility, and (d) the emergence of newer forms of illness and the waning

of others are examined. In order to elaborate new concepts, psychosomatic medicine must draw upon the knowledge and help of the workers in the social sciences because our natural environment is increasingly man-made. It is concluded that to be relevant, psychosomatic medicine must meaningfully integrate ecological principles with its knowledge of psychic and physical processes. In view of the black-white confrontation, the rural-urban shifts, and the deprived-affluent inequities that disturb the social scene, the need for social homeostasis has only begun to be thought about. (4 p. ref.)—*Journal summary*.

6758. **Smith, Jackson A.** (Loyola U., Stritch Medical School, Maywood, Ill.) **Hypochondriasis: Symptom or entity.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 413-415.—Views hypochondriasis as an entity in which patients become ill from complaints that have become in themselves an illness. These complaints are varied, long-standing, atypical, but not incapacitating. The symptoms exist without "demonstrable physical change or any typical aberration in the laboratory findings." It is suggested that the relationship between the hypochondriac and his physician can readily become "mutually accusatory," with the doctor accusing the patient of feigning his symptoms and the patient accusing the doctor of being unwilling to relieve his illness. It is concluded that in hypochondriasis "the complaints do not arise in response to outer events or known inner illness."—*P. McMillan*.

CASE HISTORY

6759. **Angrist, Burton M., Gershon, Samuel; Levitan, Stephan J., & Blumberg, Arnold G.** (New York U., Medical School) **Lithium-induced diabetes insipidus-like syndrome.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 141-146.—Reports 2 cases who developed a diabetes insipidus-like syndrome during the course of treatment with lithium salts for psychiatric disorders. The syndrome resolved after lithium was discontinued for up to 3 wk. It is suggested that the mechanism for this renal impairment is based on a temporary hypokalemic nephropathy.—*D. Prager*.

6760. **Aronson, Stanley M. & Aronson, Betty E.** (State U. New York, Downstate Medical Center, Brooklyn) **Clinical neuropathological conference.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 637-643.—Presents the case of a 66-yr-old female with presenting symptoms of throbbing of the head and pain over 1 eye, and later, vomiting, neck pain, increased blood pressure, and collapse. She was hospitalized upon subsequent loss of consciousness. A discussion of the clinical aspects of the case by a physician suggests a diagnosis of a primary vascular lesion such as an aneurysm of the brainstem. A discussion of pathological aspects of the case after autopsy suggests a diagnosis consistent with cryptococcal leptomeningitis, which may begin suddenly with a 1st complaint of headache. Neurological examination in these cases "may suggest a meningitis or even an expanding intracranial lesion."—*P. McMillan*.

6761. **Falk, K. & Holstein, P.** **Die optische Agnosie als diagnostisches Problem.** [Optic agnosia as a diagnostic problem.] *Psychiatria Clinica*, 1969, Vol. 2(6), 368-379.—Describes visual-agnosia and amnesic-aphasic disturbances occurring in a 65-yr-old thoroughly investigated patient suffering from acute cerebral ischemia with diabetes mellitus, latent cardiac failure, and generalized arteriosclerosis. The common charac-

teristics of object agnosias described in the literature can also be demonstrated in the present case. Besides a marked arteriosclerosis of the basal vessels, autopsy revealed an old softening in the left occipital cerebrum and a large angioma in the right basal ganglia. (17 ref.)—*Journal summary*.

6762. Gomez, Efrain A. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Uso compulsivo y dependencia física al meprobamato: A propósito de un consumidor de 24 gramos diarios.** [Compulsive use and physical dependence on meprobamate: On a consumer of 24 grams daily.] *Revisita de Neuro-Psiquiatria*, 1968(Sep), Vol. 31(3), 202-209.—Clarifies the nature of the compulsive use of meprobamate (equanil, a minor tranquilizer) in great quantities and makes suggestions for the therapeutic management of an abstinence program. The psychological implications of compulsiveness and previous research on meprobamate addiction are discussed. Points are illustrated by the case of a 26-yr-old male who was addicted for 10 yr. and reached a dosage intake of 24 gm. in 20 mo. before hospitalization. Individual treatment is considered to be relative to the dose and duration of addiction. Therapeutic measures stressed strict medical supervision, maintenance of hydroelectrolytic balance, vitamins, and the replacement of meprobamate with phenobarbital. During the initial hospitalization, the difficulty of diagnosing between severe intoxication and the abstinence syndrome is discussed. Psychological difficulties during the treatment period are considered. (30 ref.) (English, French, & German summaries)—*P. Hertzberg*.

6763. Green, Pat. (1038 Shepherd Dr., Corpus Christi, Tex.) **This bright child.** *Journal of Learning Disabilities*, 1968(Jul), Vol. 1(7), 423-428.—Presents a case report of a dyslexic child.

6764. Luria, A. R. & Klinkovskii, M. (Moscow State U., USSR) **O modal'noi organizatsii kratkovremennoi pamyati.** [On modality organization of short-term memory.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 80-85.—Reports results of experiments on memorization as a function of modal (auditory, visual) participation in the retention and reproduction of presented series of words and sentences. A 35-yr-old man with traumatic lesion of the left temporal region of the brain served as S. "Auditory-speech memory" may be acutely disturbed as a result of pathologically enhanced retroactive inhibition. The ensuing effects are abolished on transition to written reproduction of a series presented in printed or spoken form.—*I. D. London*.

6765. Milbury, Allen W. (Indiana U.) **What is the effect of a precision teaching program on the behavior of an adult trainable mental retardate?** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 656.

6766. Norman, Arthur & Broman, Harvey J. (Georgia Mental Health Inst., Atlanta) **Volume feedback and generalization techniques in shaping speech of an electively mute boy: A case study.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 463-470.—An electively mute 12-yr-old boy was successfully treated using positive reinforcement procedures. Visual feedback from the volume-level meter of a tape recorder was used to help in inducing sounds and to aid in raising speech volume. Various other techniques were employed in 44 sessions lasting from 30 min.—1 hr. to increase the rate of speech and to generalize it to a variety of environmental situations.—*Journal abstract*.

6767. Otsuka, Yoshitaka. [A family case with induced invocatory psychosis: II. Clinico-psychological study.] *Japanese Journal of Clinical Psychology*, 1968(Jul), Vol. 7(2), 115-127.

6768. Sefer, Joyce & Schuell, Hildred. (U. Minnesota) **A year of aphasia therapy: A case study.** *British Journal of Disorders of Communication*, 1969(Apr), Vol. 4(1), 73-82.—Presents the case study of a 48-yr-old female who showed severe aphasia reflected in all language modalities, complicated by partial or intermittent auditory imperception. Speech attempts often resulted in jargon; and groping movements of the articulators, forcing, and articulatory errors were observed. However, the presence of some connected speech that was well-articulated, natural, and fluent led to the postulation that this behavior resulted from loss of auditory, rather than somatosensory control.—*Journal summary*.

6769. Staal, A. & Bots, G. T. (State U., Inst. of Neurological Sciences, Leyden, Netherlands) **A case of hereditary juvenile amyotrophic lateral sclerosis complicated with dementia: Clinical report and autopsy.** *Psychiatria, Neurologia, Neurochirurgia*, 1969(Jan), Vol. 72(1), 129-135.—Examines a patient suffering from a slowly progressive juvenile amyotrophic lateral sclerosis, dementia complex of 27-yr duration. The healthy parents were 1st cousins. Inheritance was due to an autosomal recessive gene. Neuropathological investigation demonstrated a diffuse demyelination of the spinal cord, degeneration of the anterior horn cells and spinal ganglion nerve cells. The corpus callosum was extremely thin, with active demyelination; this was also found in the white matter beneath the motor cortex and in the internal capsule. Throughout the white matter of the brain and the cerebellum perivascular tissue degeneration was found. Difficulties in the classification of hereditary neurological diseases are discussed, and the arguments for the existence of a clinical and pathological continuum of hereditary neurological disorders are given. (20 ref.)—*Journal summary*.

6770. Stark, Joel; Meisel, Joan, & Wright, Teris S. (Queens Coll., City U. New York) **Modifying maladaptive behaviour in a non-verbal child.** *British Journal of Disorders of Communication*, 1969(Apr), Vol. 4(1), 67-72.—Describes some of the procedures employed to eliminate maladaptive, disruptive behavior, and to teach more appropriate responses to environmental stimuli with a nonverbal 3-yr-old boy who had normal hearing and was physically healthy. After 40 training sessions over a 6-mo period, during which time food and verbal praise were used as reinforcers, S progressed to the point where he would respond to verbal commands, imitate sounds, and discriminate objects and people in response to verbal stimuli. S was able to start a preschool program at a special children's center and was interacting with other children.—*M. Maney*.

6771. Thomas, Mary E. **Assessment and treatment of receptive and executive aphasia in identical twin boys.** *British Journal of Disorders of Communication*, 1969(Apr), Vol. 4(1), 57-63.—Summarizes an account of treatment, involving daily speech therapy for identical twin boys in a residential school, covering the years from 6 to school leaving age and a follow-up to 19 yr. of age. A method of training for cases of receptive and executive aphasia is described, showing the slow start and later development of the language learning process. Comparison and possible association with autism, deafness,

and other conditions is discussed. The added involvement of personality problems is considered and the results assessed accordingly.—*Journal abstract.*

6772. **Welman, A. J.** (State U., Neuropsychological Lab., Leyden, Netherlands) **Visual agnosia and asomatognosia as behaviour disorders.** *Psychiatra, Neurologia, Neurochirurgia*, 1969(Jan), Vol. 72(1), 153-160.—Describes a right-handed patient with a left-sided hemisindrome. S's behavior was disturbed, while he ignored the left side of the visual space and had no awareness of the left side of his body. After an improvement of some weeks S died. In the cortex and subcortex of the right hemisphere a pale soft infarction was found in the area between the end regions of the anterior cerebral artery, the middle cerebral artery, and the posterior cerebral artery. Some remarks are made about the symptoms and the short period of improvement before death occurred.—*Journal summary.*

MENTAL HEALTH & REHABILITATION

6773. **Albrecht, Gary L.** (Emory U.) **Adult socialization: The effects of aspiration and social interaction upon rehabilitation.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 823.

6774. **Bolton, B. F., Butler, A. J., & Wright, G. N.** **Clinical versus statistical prediction of client feasibility.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 7, 68 p.—Presents information about the important counselor function of evaluating a client's feasibility for rehabilitation, making the classic comparison of the clinical and statistical methods of predicting it. Feasibility was defined for the study as the counselor's prediction of the positive result of a client's receipt of vocational rehabilitation services. The statistical method of predicting rehabilitation feasibility was found significantly more accurate than the clinical one in this first attempt to analyze rehabilitation counselors' predictions of feasibility in an actual division of vocational rehabilitation setting. The importance of this study's analysis of the processes through which critical decisions are made daily about whether disabled persons receive rehabilitation services or not is obvious. Also, if a potential nonrehabilitant's probable rehabilitation outcome could be accurately estimated at the time he is accepted for services, it would be possible to then provide him with specialized services to meet his special needs and, hopefully, increase his potential for rehabilitation success.—*Journal abstract.*

6775. **Dumas, N. S., Butler, A. J., & Wright, G. N.** **Counselor perceptions of professional development.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 4, 46 p.—Identifies issues related to the professional development of rehabilitation counselors based on the perceptions of counselors themselves. 280 counselors working in Illinois, Indiana, Michigan, Ohio, and Wisconsin were surveyed and the responses of a random sample of those completing the "professional development" section of the instrument were interpreted. This included perceptions in the 6 areas of: counselor characteristics and qualifications; pre-, in-, and out-service training; journal and agency literature; consultation, information, and reference services; staff interaction and communication; and self-evaluation procedures. More than 1/2 of the counselors surveyed expressed a need for modifying the professional development activities now available to them. Their principal

concern was the need for innovation in the areas of research and development. Almost all of their recommendations require the generation of new information, new administrative control techniques, and a new system for analysis and decision-making. The need for a comprehensive information storage and retrieval system to organize, evaluate, and disseminate research data on demand was also recognized. The variable which seemed to discriminate best among the counselors in relations to their perceptions was the type and degree of their formal training, suggesting the need for more research in the area of the formal training counselors receive.—*Journal abstract.*

6776. **Dumont, Matthew P.** **Industrial psychiatry for the employer of last resort.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 411-417.—Describes problems that will be faced by supervisors, administrative officers, and personnel representatives if the federal government finds itself in the position of hiring large numbers of hard-core unemployed individuals. This will entail a major crisis for agencies accustomed to traditional personnel practices. A program of mental health consultation with concerns for the individual and the social system in which he works may be of help. An example of such a program in a federal agency is described.—*Journal abstract.*

6777. **Fullerton, John R.** (Pennsylvania State U.) **A factor analytic study of rehabilitation role perceptions reported by undergraduate rehabilitation students.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 607-608.

6778. **Gandy, Patrick & Deisher, Robert.** (U. Washington, Child Development & Mental Retardation Center) **Young male prostitutes: The physician's role in social rehabilitation.** *JAMA: Journal of the American Medical Association*, 1970(Jun), Vol. 212(10), 1661-1666.—50 male prostitutes were engaged in street conversation and 30 of these "hustlers" were interviewed for vocational counseling. The characteristics of the male prostitute are described. Several methods used to establish a workable relationship and key factors and techniques in approach and attitude are discussed. Many of these methods can be used before he engages in hustling. This effort at vocational rehabilitation lasted 15 mo. with a halfway house being utilized during the last 6 mo. "Efforts were generally unsuccessful with the individuals who had psychopathic personalities and with those hustlers who were very successful." The 30 youths who expressed interest in a job were eventually placed.—*B. A. Burkard.*

6779. **Hammond, C. D., Wright, G. N., & Butler, A. J.** **Caseload feasibility in an expanded vocational rehabilitation program.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 6, 56 p.—Focuses on the potential of vocational rehabilitation services to meet the needs of all handicapped people—including those with cultural disadvantages. The possibility of expanding rehabilitation services to include a wider range of handicapped persons without lowering the number of clients feasible for an agency's caseload was investigated. An experiment is described in which a traditional rehabilitation program was expanded by extending its eligibility criteria, i.e., in addition to the physically, emotionally, and mentally handicapped, those who were educationally, socially, and economically disadvantaged were eligible. Also included is an extensive review of the literature relating personal and

sociocultural variables to success in rehabilitation and allied areas. It is demonstrated that reliable instruments to measure general rehabilitation feasibility level can be developed and that similar instruments can be constructed to assess feasibility level for specific client handicap areas: emotional, intellectual, job skills, social, and motivational. It is also concluded that extending rehabilitation services to a larger number of handicapped people in a rural community does not decrease an agency's rehabilitation caseload feasibility. It is also indicated that culturally handicapped clients generally have higher levels of case feasibility than clients with whom rehabilitation personnel have traditionally been involved; the culturally disadvantaged clients were found to be "just as feasible."—*Journal abstract.*

6780. Klerman, Gerald L. (Yale U., Medical School) **Mental health and the urban crisis.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 818-826.—Examines the effect of the current urban crisis on mental health workers and institutions. Community consultation, emergency treatment, group therapy, and nonprofessional activities are growing in importance. Yet mental health institutions and programs are under attack from various factions in both the community and the profession.—*Journal abstract.*

6781. Kramer, Morton. (National Inst. of Mental Health, Chevy Chase, Md.) **Applications of mental health statistics: Uses in mental health programmes of statistics derived from psychiatric services and selected vital and morbidity records.** Geneva, Switzerland: World Health Organization, 1969. 112 p.

6782. McCarthy, Barry W. (American U.) **New approaches to mental health services in colleges and universities.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 420-422.—Advocates a concept of mental health emphasizing educational and developmental processes for college students. Focus is on prevention and development of positive functioning rather than on remediation. Innovative procedures being proposed or in preliminary stages of implementation are discussed.—*Journal abstract.*

6783. Minuchin, Salvador. **The paraprofessional and the use of confrontation in the mental health field.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 722-729.—Examines the effect of confrontation in the mental health field as creating some degree of crisis and having a "division of viewpoint and strategy within the ranks." The present crises are viewed as a struggle between the traditional and sociological approaches. The conflict is "inherent in the attempt to introduce paraprofessionals into the delivery of services while trying to maintain the traditional conceptualizations of mental illness." Improved training and credentialization techniques are discussed. It is concluded that confrontation is 1 means to induce change, but that the "static of undifferentiated, power-play confrontations" must be reduced to facilitate communication.—*G. Steele.*

6784. Parhon-Ștefănescu, Constanța & Ciurezu, T. **Evaluarea capacității de muncă în bolile psihice în perspectiva recuperării.** [Evaluation of the working capacity in psychical diseases viewed from the perspective of rehabilitation.] *Neurologia, Psihiatria, Neurochirurgia*, 1969(Jan), Vol. 14(1), 1-9.—Discusses the rehabilitation of psychical defectives, of particular interest at present in view of prospects opened by neuroleptic therapy and the large number of patients

who may benefit by the resumption of work. Valid rehabilitation presupposes not only the absence of symptoms, but also employability. In appraising a patient's potential working capacity, both his emotional state and the nature and possible stress of his projected employment must be considered. Realistic evaluation should be made during the patient's hospital stay of the level at which he can be expected to function and his possibilities for future compensation. (French, German, & Russian summaries) (20 ref.)—*English summary.*

6785. Reagles, K. W., Wright, G. N., & Butler, A. J. **A scale of rehabilitation gain for clients of an expanded vocational rehabilitation program.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1970, No. 13, 90 p.—Investigated the effects of rehabilitation services on rehabilitated clients, focusing on a comparison of the culturally-handicapped clients (who were being served under the extended eligibility criteria) and the medically-handicapped clients (those traditionally served by vocational rehabilitation agencies) to delineate any significant differences between the types of services needed by these 2 handicap groups. The development of a 20-item scale to measure "rehabilitation gain" is described, and rehabilitation client status and rehabilitation process variables that discriminate among different degrees of client gain are identified. The primary conclusion is that rehabilitation gain can be conceptualized as a single variable. Also, it was demonstrated that a scale to measure rehabilitation gain could be developed which could compare a client's satisfaction rehabilitation to his status after successful rehabilitation, yielding a score indicating the extent of impact of rehabilitation services.—*Journal abstract.*

6786. Reagles, K. W., Wright, G. N., & Butler, A. J. **Correlates of client satisfaction in an expanded vocational rehabilitation program.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1970, No. 12(Series 2), 72 p.—Describes 1 of a series of investigations assessing the impact of the vertical and horizontal expansion of rehabilitation services. It describes the development of a measuring scale to assess the satisfaction of clients with the rehabilitation services they receive, assuming this satisfaction to be an important aspect of rehabilitation outcome. Phase 2 identifies variables possibly discriminating among clients expressing varying degrees of satisfaction. The unique Scale of Client Satisfaction measures clients' perceptions of their emotional, occupational, and social characteristics, in addition to providing information related to their disabilities and satisfaction with rehabilitation services. Identification of correlates of client satisfaction showed that the intensity for intervention by the counselor in using agency resources to effect client closure was generally reflected in the client's expressed satisfaction with the rehabilitation services he received. Purchased services, measured by total cost of each case, were not related to a client's satisfaction. Generally, demographic and idiographic prerehabilitation status variables were not related to it, either, while process variables indicating "purposeful counselor contact" and postprocess client variables—especially those related to vocational status—were significantly related to client satisfaction.—*Journal abstract.*

6787. Reagles, Kenneth W. (U. Wisconsin) **Rehabilitation gain of clients in an expanded vocational rehabilitation program.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 385.

6788. Richards, Hilda & Daniels, Marionette S. (Harlem Hosp. Center, Div. of Rehabilitation Services, New York, N.Y.) **Sociopsychiatric rehabilitation in a black urban ghetto: II. Innovative treatment roles and approaches.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 662-676.—Discusses the sociopsychiatric orientation and the "need to maximize human potential and to encourage the entry into more productive social systems of larger numbers of people." The systems approach is advocated. Psychiatric improvement, vocational, educational, familial, sociotherapeutic, medical, and community involvement is viewed as essential for total rehabilitation. Psychiatric, continuing, and vocational rehabilitation programs are included in the Harlem Rehabilitation Center of a black urban ghetto, illustrating the innovative approach to total rehabilitation. Group meetings, communal activities, and adjustment activities are emphasized. The team approach has proven particularly effective in dealing with crisis situations. (15 ref.)—G. Steele.

6789. Sather, W. S., Wright, G. N., & Butler, A. J. An instrument for the measurement of counselor orientation. *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 9, 54 p.—Discusses the development of a framework or model to measure the professional orientation of rehabilitation counselors. Results indicate that a reliable instrument to identify 4 distinct professional orientations of rehabilitation counselors—relationship, situation, bipolar, or neutral—could be developed. Also, discussed is the necessity of further refining and using this instrument for research on rehabilitation counselors. The issue that needs to be analyzed is how the 4 orientations affect the services provided by the counselors to their clients. Because rehabilitation involves more than just counseling, because it involves coordination of services also, these orientations must be studied in terms of their effectiveness in the rehabilitation process and agency setting in general and in serving specific client needs.—*Journal abstract*.

6790. Thoreson, R. W., Smits, S. J., Butler, A. J., & Wright, G. N. **Counseling problems associated with counselor characteristics.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 8, 46 p.—This report was 1 aspect of a large-scale study of rehabilitation counselors' perceptions of their roles and functions. It specifically concerned counselors' perceptions of their own characteristics which cause problems in counseling and vocational planning. The counselors reported 4 major areas which cause problems in their work: lack of knowledge and skills, imposition of their perceptions and goals on clients, lack of objectivity, and personality conflicts between counselors and clients. The problem mentioned most frequently—lack of knowledge and skills—was further broken down into more specific areas. Also, the major problem areas were analyzed in terms of counselor characteristics, such as age and experience.—*Journal abstract*.

6791. Thoreson, R. W., Smits, Stanley J., Butler, A. J., & Wright, G. N. **Counselor problems associated with client characteristics.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 3, 46 p.—Identifies professional problems rehabilitation counselors encounter which seem to be associated with various characteristics of their clients. An extensive review of the literature concerning client characteristics is also in-

cluded. Complementing the data on client characteristics, the study presents information relating the counselors' perceptions of client problems with attributes of the counselors themselves. The counselors reported that the chief barrier to effectively serving the client was the client's "lack of motivation for rehabilitation," an area further delineated into 3 psychological patterns of client problems. In addition, counselors reported problems of their clients' "unrealistic vocational goals," "undesirable personal characteristics," and the "low labor market demand" for the client's services. The counselors' employer (agency), education, age, and experience were significantly related to their perceptions of client problems. The major deterrent reported by the counselors to effective counseling was that of "time pressures"—the need to serve large numbers of clients, limiting the time available for each.—*Journal abstract*.

6792. Tosi, Donald J. & Vesotsky, Louis R. (Western Michigan U.) **Successful rehabilitation as a function of client status.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 37-38.—Investigated the relationship between client status and successful vocational rehabilitation. Clients defined in terms of disabled and disabled-disadvantaged differed with respect to successful rehabilitation. Disabled Ss evidenced a greater success rate than disabled-disadvantaged Ss.—*Journal abstract*.

6793. Trotter, Ann B., Wright, G. N., & Butler, A. J. **Research media.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 5, 62 p.—Develops and evaluates a uniform and consistent method of abstracting the results of vocational rehabilitation association sponsored research and demonstration projects. The need for improved communication of research results was investigated, and a means of presenting information in a concise and readable way about this potentially valuable but presently relatively unexplored source of rehabilitation information is described. It was found that uniform research and demonstration project abstracts were a more effective medium for communicating rehabilitation information than were summaries of the vocational rehabilitation association projects. A secondary hypothesis—practicing rehabilitation counselors are able to assess the contents of abstracts as well as rehabilitation researchers and educators—was supported.—*Journal abstract*.

6794. Wade, Ruth; Jordan, Garland, & Myers, George. (Harlem Hosp. Center, Div. of Rehabilitation Services, New York, N.Y.) **Sociopsychiatric rehabilitation in a black urban ghetto: III. The view of the paraprofessional.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 677-683.—Discusses the recruitment, training, and role of the paraprofessional in the Harlem Rehabilitation Center in a black urban ghetto. The 4-wk training program encompassed in-depth coverage of all aspects of multiservice rehabilitation and aided in establishing increased communication between professionals, paraprofessionals, and members. Illustrations of practical applications are presented.—G. Steele.

6795. Waggoner, Raymond W. (U. Michigan, Neuropsychiatric Inst.) **The presidential address: Cultural dissonance and psychiatry.** *American Journal of Psychiatry*, 1970(Jul), Vol. 127(1), 1-8.—Discusses broad social issues of the times, i.e., overpopulation, racism, the nuclear threat, with a view toward establishing some understanding of these problems from which appropriate remedies can be developed. With regard to deper-

sonalization and alienation of the patient-doctor relationship, a shift in the field of psychiatry toward humanization and personal contact is called for. It is further recommended that: (a) the Commission on the Delivery of Mental Health Services be continued for at least 5 yr., (b) a training program for potential parents of high school and college students be developed, (c) counseling centers for parents seeking advice be established, (d) the establishment of a Presidential Advisory Council on Children be urged on all concerned, and (e) a new institution along the lines of the Joint Commission on Mental Illness and Health be established to pick up where the Commission left off. The general thesis of the address is directed toward preventative psychiatry, particularly in the young. A response by R. S. Garber follows.—*P. R. Shibelski.*

6796. Wiley, E. David. (Dept. of Mental Hygiene, Albany, N.Y.) **Review of mental hygiene and related legislation for the year 1968.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 124-143.—The New York State Legislature in 1968 passed 7 out of 8 Department of Mental Health program bills. "25 bills amending the Mental Hygiene law were passed, and 18 of these were approved by the Governor and 6 vetoed. This Legislature gave considerable attention to legislation for children, medicaid, health and social services.—*D. Prager.*

6797. Wright, G. N. & Butler, A. J. (U. Wisconsin, Rehabilitation Research Inst.) **Rehabilitation counselor functions: Annotated references.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 1, 460 p.—Presents annotated references to published works dealing with the roles and functions of rehabilitation counselors, with an interpretative review for each title. References were selected for their relevance to the vocational rehabilitation counseling process; only documents published after 1965 are included. (1412 ref.)—*Journal abstract.*

6798. Wright, G. N., Smits, S. J., Butler, A. J., & Thoreson, R. W. (U. Wisconsin, Rehabilitation Research Inst.) **A survey of counselor perceptions.** *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 2, 73 p.—Describes the problems rehabilitation counselors encounter in delivering rehabilitation services—barriers to effective professional efforts as perceived by the counselors themselves. Presented is a brief overview of the results of a survey of 58 counselors in a 5-state region (Illinois, Indiana, Michigan, Ohio, and Wisconsin), along with the raw data obtained from the instrument used in the survey. The major problems the counselors indicated included their clients' lack of motivation for rehabilitation, unrealistic vocational goals, undesirable personal characteristics, unrealistic attitudes toward employment procedures, and physical appearance. The most frequently reported ways in which counselors saw themselves responsible for problems in the rehabilitation process were in their lack of objectivity, lack of knowledge or skills, and in their tendency to impose their own perceptions and goals on their clients. Large caseloads and pressures for closures, too much clerical work, and agency policies and procedures were perceived by the counselors as problems created by the agency. Outside the agency, problems created by the community were described as lack of understanding, apathy, and lack of diagnostic, training, and medical facilities.—*Journal abstract.*

COUNSELING & GUIDANCE

6799. Cunningham, Louis M. (Ohio State U.) **Approaches to counseling/psychotherapy: A selected examination for school counselors.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), '607.

6800. Farnsworth, Dana L. & Braceland, Francis J. (Eds.) (Harvard U., Health Services) **Psychiatry, the clergy and pastoral counseling: The St. John's story.** Collegeville, Minn.: St. John's U. Press, 1969. xviii, 356 p. \$6.50.—Chapters by various authors portray clinical aspects of behavior of interest to the clergyman, including techniques of pastoral counseling, crisis intervention, emotional problems of children and adults, changing sexual expectations, marital counseling, and chapters on drugs, suicide, depression, and alcoholism.

6801. Glick, Morley D. (St. Cloud Hosp., Minn.) **A rational approach to short-term counseling.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 336-338.—Examined the use of the rational approach to short-term counseling developed by A. Ellis (see PA, Vol. 37:1437). The counselor attempts to: (a) isolate the patient's irrational ideas which effect his disturbed behavior, (b) challenge the irrational sentences so that the illogical thinking will become apparent to the patient, and (c) help the patient cope with his difficulties by teaching him to logically think through his problems. The approach was found to be successful in 80-90% of cases faced by mental health workers. It is concluded that this approach should be used by hospital counselors with short-term cases as it aims to change behavior in a brief time period.—*M. Daniels.*

6802. Skafte, Dianne. (U. Colorado, Student Life Center) **The use of palmistry in counseling.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 38-41.—Selected use of palmistry and other occult skills is said to promote openness and feelings of intimacy and understanding in the therapeutic relationship. For the person who has difficulty letting others know him, this technique is considered most useful. It is concluded that, since the therapist leaves himself open to the ridicule of his client by using occult skills, he tends to diminish the barrier between himself and his patient.—*S. R. Greenwald.*

6803. Stein, Calvert. **Practical pastoral counseling.** Springfield, Ill.: Charles C Thomas, 1970. xiii, 283 p. \$10.75.

Marriage & Family

Social Casework

6804. Bradford, Kirk A. (Los Angeles County Department of Social Services, Calif.) **Existentialism and casework: The relationship between social casework theory and the philosophy and psychotherapy of existentialism.** New York, N.Y.: Exposition Press, 1969. 82 p. \$4.50.

6805. Conrad, Gertrude. **Short-term casework treatment of obesity in two young women.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Nov), Vol. 7(2), 179-184.—Distinguishes the common characteristics in case studies of 2 obese 19- and 29-yr-old females as denial of sexuality, parental conflicting messages, masochism, dependency, and lack of normal adolescence.

During short-term treatment, the role of the social worker "was to act as a catalyst, and to help these young women attain the more mature status toward which they had already made much progress on their own."—G. Steele.

6806. Fox, Evelyn F., Nelson, Marian A., & Bolman, William M. (Central Wisconsin Colony, Developmental Evaluation Center, Madison) **The termination process: A neglected dimension in social work.** *Social Work*, 1969(Oct), Vol. 14(4), 53-63.—A review of the social work and child psychiatry literature revealed an absence of attention to the termination phase of therapy. It is suggested that this gap reflects the social worker's defensive processes against the affects involved in termination, i.e., grief over the loss, anger at the worker for leaving, and narcissistic wounds based on disappointed expectations. 3 phases in the management of these affects are discussed: denial of the impending loss; emotional reaction and expression of sadness, hurt, and anger; and working through of these feelings. A clinical example of a 12-yr-old girl is presented, based on observations during 5 therapy sessions which point up the important aspects of the process, the client's feelings, and the worker's problems in helping the client work through to termination.—*Journal summary*.

PHYSICAL HANDICAP

6807. Cull, John G. & Colvin, Craig R. (Virginia Commonwealth U.) **Correlation between the Quick Test (QT) and the WAIS Verbal scale in the rehabilitation setting.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 105-106. Administered the Quick Test and the WAIS Verbal scale to 30 severely physically handicapped persons in a physical medicine and rehabilitation hospital. There was no significant difference between the mean IQ scores of the QT and the WAIS Verbal scale. This, coupled with a correlation of .80, supports the hypothesis that the QT can be utilized for a quick assessment of intellectual functioning in the rehabilitation setting.—*Journal abstract*.

6808. Etkes, Asher B. (Playground Corp. of America, Long Island City, N.Y.) **Planning playgrounds for the handicapped.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Nov), Vol. 6(6), 339-343.—Discusses considerations in designing play areas for handicapped children that would improve the efficacy of recreation in the rehabilitation process. The use of self-directed play with minimal supervision is suggested with design "...based upon studies of children's behavioral characteristics, their energetic and imaginative natures and an awareness of their short spans of interest and need for successful play experiences."—M. Daniels.

Blindness & Visual Disorder

6809. Barraga, Natalie C. (U. Texas, Coll. of Education) **Learning efficiency in low vision.** *Journal of the American Optometric Association*, 1969(Aug), Vol. 40(8), 807-810.—Discusses the importance of considering the total visual system in understanding learning problems of persons with low vision. It is suggested that enhancing visual behavior in preschool children might be accomplished by programs of planned stimulation and learning through the visual system. A particular experimental program for progressive training is outlined, detailing the

stages in visual discrimination, and sequence of activities. (20 ref.)—P. McMillan.

6810. Foulke, Emerson. (U. Louisville, Non-Visual Perceptual Systems Lab.) **The development and testing of the caster cane.** *New Outlook for the Blind*, 1969(Oct), Vol. 63(8), 247-250.—Describes a program which attempts to develop the "ability to measure total mobility performance over a standardized course that confronts the S who moves through it with a broadly representative sample of the problems that must be solved by a blind cane traveler." The caster tip was developed because it was reasoned that "if surface characteristics could be monitored continuously, the cane traveler might be able to obtain useful information that is apt to be missed with an ordinary cane used in the ordinary way." The caster cane was sent to 3 institutes for the blind where it was tested and its assets and liabilities evaluated.—B. A. Burkard.

6811. Hartlage, Lawrence C. (Veterans Administration Hosp., Indianapolis, Ind.) **Deficit in space concepts associated with visual deprivation.** *Journal of Learning Disabilities*, 1968(Nov), Vol. 1(11), 649-651.—Used a spatial relationship test to measure a deficit in space concepts associated with visual deprivation in a comparison of 50 2nd, 3rd, 5th, 7th, and 12th grade children blind from birth and 50 sighted Ss matched for age, sex, and achievement test scores. Significant differences were found between blind and sighted Ss on spatial relationships, but not on other base-line measures. It is suggested that the development of spatial abilities is dependent on visual experience.—*Journal abstract*.

6812. Mehr, Edwin B. & Mehr, Helen M. **Psychological factors in working with partially sighted persons.** *Journal of the American Optometric Association*, 1969(Aug), Vol. 40(8), 842-846.—Discusses the emotional and attitudinal aspects encountered in the treatment of persons with low vision. It is noted that both optometrist and patient can be subject to potentially negative psychological "sets": (a) the optometrist may feel nothing more can be done and that optical aids may be rejected anyway, and (b) the patient may feel depression or self-recrimination following sudden or recent vision loss. The optometrist can benefit from the assistance of the patient's family, teachers, and mental health professionals in dealing with these problems. 2 illustrative case studies are presented.—P. McMillan.

6813. Novomeiskii, A. S. (Pedagogical Inst., Sverdlovsk, USSR) **Obuchenie slepykh raspoznavaniyu tsveta s pomosh'yu kozhnoi chuvstvitel'nosti.** [Teaching the blind to recognize color by means of dermal sensitivity.] *Spetsial'naya Shkola*, 1969, No. 1, 77-84.—Reports results of experiments with selected blind children, showing that it is possible to train these children to use their hand to recognize color tones on paper either by touching the paper or with the hand held away from the surface.—I. D. London.

6814. Pasnak, Robert & Ahr, Paul. (Catholic U. of America) **Tactual Poggendorff illusion in blind and blindfolded subjects.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 151-154.—Presented tactual Poggendorff illusions to 11 blind and 19 blindfolded normal 17-21 yr. old Ss according to the method of constant stimuli. The reports of both groups showed small illusions which did not differ significantly in magnitude. Results indicate that sensory experience per se is probably not an important determinant of the

illusion's magnitude since the greater experience of the blind Ss should produce a smaller illusion. The equivalence of the illusions obtained for the 2 groups argues against receptor sensitivity as an important factor. Theoretical explanation of illusions should rely on central mechanisms and not the visual system.—*Journal abstract.*

6815. Požár, L. (Comenius U., Bratislava, Czechoslovakia) **Vremya reaktsii u tupoglaznykh detey.** [Response time in amblyopic and strabismic children.] *Studia Psychologica*, 1970, Vol. 12(2), 112-119.—Recorded response time to a light stimulus in 83 10-11 yr. old students. Ss were given a ophthalmological and neurological check-up and divided into 3 groups according to the degree of amblyopia, and into 2 groups according to their neurological findings. Although the mean response time in the amblyopic eye was longer than that in the normal eye, the difference was not of statistical significance; neither were such differences significant when measured in monocular and binocular fixation. Groupings according to neurological findings proved to be of great value. Ss with a positive neurological finding, with a probable such finding, and those with a minimum cerebral dysfunction were assigned to 1 group and their results differed considerably from those of other Ss. It is concluded that any experimental work with amblyopic and strabismic children should be preceded by a neurological examination, and all those with a positive finding should be assigned to a separate group.—*English summary.*

6816. Riley, Leo H. **Low vision statistics.** *Journal of the American Optometric Association*, 1969(Aug), Vol. 40(8), 820-826.—Discusses problems of definition and measurement in considering the prevalence of low vision in the United States population. Estimates range from 90,000,000 with ocular defects to approximately 300,000 cases of legal blindness. It is felt that the National Health Survey figure of 1,227,000 persons with severe visual impairments represents the most meaningful figure in estimating low vision. Problems in interpretation of the prevalence data are considered. (22 ref.)—*P. McMillan.*

6817. Rosenberg, Robert & Werner, D. Leonard. (Optometric Center of New York, Low Vision Clinic, N.Y.) **Nystagmus and low vision.** *Journal of the American Optometric Association*, 1969(Aug), Vol. 40(8), 833-835.—Considers problems encountered in the optometric management of a patient with nystagmus. Impaired visual acuity often accompanies this condition. It is noted that patients with nystagmus are more often treated for the cosmetic aspects of this condition, involving involuntary movements of the eyes, than for the more important need of improving their visual acuity. The role of magnification in the diagnosis and treatment planning of the low vision patient with nystagmus is reviewed.—*P. McMillan.*

6818. Smith, Marguerite A., Chethik, Morton, & Adelson, Edna. (U. Michigan) **Differential assessments of "blindisms."** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 807-817.—Examines the etiology and psychological significance of "blindisms" which refers to repetitive or bizarre behaviors occurring in the blind population. A longitudinal study of 3 infants blind from birth offers examples of adaptive, transitory, and pathologically fixated blindisms with etiology comparable to related behaviors in sighted children. (18 ref.)—*Journal abstract.*

6819. Terekhov, V. A. (Moscow State U., USSR)

Issledovanie évristik. [Research on heuristics.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 31-36.—Reports results of a study on the problem-solving activity of blind chess players, where the tactile "search activity" of the player in the solution of the mental problems involved is seen as (a) serving not so much perceptual as intellectual functions, and (b) exteriorizing such components of thinking activity as "the comparison of the situational change with the hypotheses of the chess player, the discovery of the opponent's ideas, and the planning of next moves." Light is cast on the factors leading to shortcuts in the quest for information, i.e., on the heuristic activity involved in problem solving.—*I. D. London.*

6820. Wheeler, Jane G. (Inst. of Rehabilitation, Industrial Home for the Blind, Jamaica, N.Y.) **A practical knowledge of color for the congenitally blind.** *New Outlook for the Blind*, 1969(Oct), Vol. 63(8), 225-231.—Presents a method giving congenitally blind persons a knowledge of color using "words and concepts already in his frame of reference from previous experience" or those than can be demonstrated. Association, incorporation, and retention allow S to learn about color. Dimensions of hue, value, and intensity are discussed, emphasizing the use of primary and secondary colors in the formation of others and the feeling associated with each. A description of the "personalities" of colors for use with children is included.—*G. Steele.*

Deafness & Hearing Disorder

6821. ———. **Directory of services for the deaf in the United States.** *American Annals of the Deaf*, 1970(May), Vol. 115(3), 97-452.

6822. Allende Navarro, Fernando. **La prueba de Rorschach en sordomudos: I. Breve introducción y reminiscencias a la investigación en sordomudos por el método de Rorschach.** [The Rorschach test in deaf-mutes: I. Brief introduction and reminiscences on the investigation of deaf-mutes by the Rorschach method.] *Revista de Neuro-Psiquiatria*, 1969(Sep), Vol. 32(3), 153-160.—Describes preliminary experiences accompanying an experiment begun in collaboration with Rorschach in 1922. The relation of these experiences to tests, observations, and notes gathered in latter investigations is discussed.—*P. Hertzberg.*

6823. Allende Navarro, Fernando & Aliaga, Pedro. **La prueba de Rorschach en sordomudos: II. Estudio de cinco niños y diecinueve adolescentes sordomudos.** [The Rorschach test in deaf-mutes: II. Study of five deaf-mute children and nineteen deaf-mute adolescents.] *Revista de Neuro-Psiquiatria*, 1969(Sep), Vol. 32(3), 161-179.—Describes the testing of 24 11-16 yr. old deaf-mutes, considering 3 major factors: (a) rapport with the Ss, (b) cultural background, and (c) the influence of global circumstances on the psychological traits of the Ss. 5 kinds of apperception were distinguished: (a) response to global environment, (b) normal detail, (c) minute detail, (d) oligophrenic detail, and (e) interpretation of a part of white background. Responses were analyzed regarding the age of the S and were compared to those of B. Serebrinsky. It was generally found that (a) apperception of normal and minute detail increased, indicating an interest in the concrete and practical as well as in the superfluous in a negative sense and in acute observation in a positive sense; (b) associate processes, attention span, and capacity for concentration tended to

diminish; (c) monochromatic responses indicated an inhibition of primary affective reactions, incompatible with normal ego development; and (d) an increase of human responses indicated a preoccupation with the S's own person. (English, French, & German summaries)—P. Hertzberg.

6824. Blegvad, B. (University Hosp., Audiological Lab., Copenhagen, Denmark) **Differential intensity sensitivity and clinical masking.** *Acta Oto-Laryngologica*, 1969(Apr), Vol. 67(4), 428-434.—Examined 32 25-74 yr. old patients with unilateral perceptive hearing loss to determine whether masking of the good ear influences the DL of intensity. The measurements were made with the aid of the Short Increment Sensitivity Index (SISI) procedure using increments of different magnitudes, until the psychometric function was determined both without and with masking (80-db SPL). The level of the test tone was maintained constant (20 db. above the threshold determined without masking). At 1000 and 4000 cps, the contralateral noise resulted in a significant improvement in the intensity discrimination, while no change occurred at 250 cps. With a few exceptions, the masking had no significance for the result of the topognostic SISI test using 1 db. increments. (German summary) (15 ref.)—*Journal abstract*.

6825. Byers, Vincent W. (Louisiana State U., Medical Center, New Orleans) **Speech therapy for the learning disabled child.** *Journal of Learning Disabilities*, 1969(Jul), Vol. 2(7), 363-367.—Describes 2 functions of the ear: 1 while the individual is talking, the other while he is listening. The understanding of the differences is important for the clinician engaged in speech therapy with the hearing impaired child. A therapy program is outlined, utilizing the proprioceptive and tactile mechanisms as primary source information with the auditory as secondary, for the correction of defective articulatory sounds in hearing impaired children with learning problems.—*Journal summary*.

6826. Chovan, William L. (Western Carolina U.) **Vocal mediating responses in short-term memory of severely and profoundly deaf children.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 539-544.—15 young severely and 15 profoundly deaf children served as Ss. The purpose was to determine to what extent vocal responses are dependent upon auditory stimulation on recall, on 3 different tasks. Findings suggest that whether vocal responses were effective mediators for the deaf depended upon the meaningfulness of stimulus material and the amount of attention directed to the verbal act. Where considerable effort had to be extended to the expressive functions, it seemed to be at the expense of effective sensory input; vocal responses by the severely deaf appeared to be more interfering than facilitating on visual-memory tasks. (17 ref.)—*Journal abstract*.

6827. Clack, T. D. & Bess, F. H. (U. Michigan, Medical School, Kresge Hearing Research Inst.) **Aural harmonics: The tone-on-tone masking vs. the best-beat method in normal and abnormal listeners.** *Acta Oto-Laryngologica*, 1969(Apr), Vol. 67(4), 399-412.—Describes 2 experiments which demonstrate the similarity between the harmonic and the masking threshold. In Exp. I, with 5 22-33 yr. old undergraduates, the thresholds of masking at 1 octave above the fundamental (1000 Hz.) and the 2nd harmonic thresholds were shown to be within a few db. sound level (SL) of each other in normal ears. Both techniques tend to rank the 2 ears of the same listener in a similar way. Exp. II showed that

the masking thresholds of 8 sensorineural impaired patients were lower than for 8 normal-hearing undergraduates. Also, the mean masking threshold of the abnormals, 26-db SL, is within the range of harmonic thresholds, 13-30 db. SL, reported by previous investigators. Results indicate that the diagnostic information obtained by the tone-on-tone masking technique is equivalent to the harmonic thresholds measured by the best-beat method. The masking procedure is simpler and quicker than the best-beat method and more practical for clinic use. (German summary)—*Journal abstract*.

6828. Harbert, F., Young, I. M., & Weiss, B. G. (Jefferson Medical Coll. Pa.) **Clinical application of intensity difference limen.** *Acta Oto-Laryngologica*, 1969(Apr), Vol. 67(4), 435-443.—Administered the Short Increment Sensitivity Index (SISI) tests at various SPLs in normal and pathologic Ss. When the inner ear received an audible signal of 60 db. SPL or greater, a positive SISI score occurred in both normal and sensorineural hearing losses except in those with abnormal adaptation. A negative SISI score in the absence of a conductive barrier occurred only in abnormally adapting ears and is probably indicative of supra-threshold adaptation. Data indicate that recruiting ears and normal ears perceived intensity increments of equal size at equivalent SPL. In abnormally adapting ears, as Békésy separation increases, the increment tends to become larger than normal. Continuous tone Békésy thresholds measured at the bottom of the 1st spike increased directly with starting intensity and inversely with attenuation rate. Variations of the SISI test and Békésy audiometry are proposed. (German summary) (25 ref.)—*Journal abstract*.

SPEECH DISORDER

6829. Chudinova, L. M. (Inst. of Defectology, Moscow, USSR) **Nachal'nye etapy obucheniya rechi detei s sensornoi afaziei.** [Beginning stages in teaching speech to children with sensory aphasia.] *Spetsial'naya Shkola*, 1969, No. 1, 120-125.—Describes 3 stages, corresponding temporally with the 1st yr. of speech training. Practical recommendations are made and illustrated.—J. D. London.

6830. Hood, Stephen B. (U. Wisconsin) **Investigation of the effect of communicative stress on audible, inaudible and avoidance-escape components in stuttering.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 946.

6831. Ostwald, Peter F. (U. California, Medical School, San Francisco) **Psychiatric evaluation and treatment of patients with major speech handicaps.** *California Mental Health Research Monograph*, 1969, No. 10, 60 p.—Reports a pilot study exploring the development of mental health services for speech-handicapped, deaf, and language-deprived persons. Tables are presented providing information on the referral source, education, occupation, nature of the disorder, diagnosis, and management efforts for 32 male and 12 female patients. It is concluded that: (a) speech disturbance is a generic diagnosis; (b) normality of speech cannot be determined by studying an isolated dimension, as speech is part of a larger social process; (c) the majority of speech patients are not referred to psychiatrists, who only see the most severe cases; (d) patient-management

involves reliance on all available methods for rehabilitation and requires coordination by clinically experienced individuals; (e) individual and group psychotherapy should be selectively used; (f) basic research into all levels from neurophysiology to sociology is necessary for progress in managing the speech handicapped person; and (g) professional training in this field should begin early. (78 ref.)—*P. McMillan.*

6832. Ryabova, T. V. (Moscow State U., USSR) **K psikholingvisticheskomu analizu rechi bol'nykh dinamicheskoi afaziei.** [On the psycholinguistic analysis of speech in cases of dynamic aphasia.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 117-124.—Studied the grammatical structure of speech in a case of dynamic aphasia (gross disorder of speech employing full sentences, with relative preservation of sensory and motor components), in order to get closer at the mechanisms involved in the disorder, and develop means for the restoration of speech in such cases. In dynamic aphasia "disturbances of combination at the level of words and sentences" were observed—disturbances connected with the loss of appropriate models. For this reason, it is easy to understand why replies to questions are comparatively easy, since the former utilizes the model contained in the latter. Combinatorial disturbances, being at the same time "disturbances of successive syntheses," unites dynamic aphasia with other forms of disorders characteristic of the premotor syndrome, and efferent motor aphasia especially. If efferent motor aphasia with marked "telegraphic style" is viewed as a disorder involving the combination of syllables, words, and sentences, then dynamic aphasia, while close to this form of speech pathology, does differ from it when the level of disturbance is considered, since in dynamic aphasia there are no disturbances of lower order—"disorders in the actualization of syllabic motor programs."—*I. D. London.*

6833. Sheehan, Joseph G. (U. California, Los Angeles) **Stuttering: Research and therapy.** New York, N.Y.: Harper & Row, 1970. viii, 424 p.

6834. Tsvetkova, L. S. & Shagi, Yu. (Moscow State U., USSR) **Issledovanie narusheniya vnutrennei rechi pri dinamicheskoi afazii.** [Study of disturbance of internal speech in dynamic aphasia.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 129-133.—Reports results of 2 series of experiments employing Ss with either motor or dynamic aphasia. Neuropsychological analysis of the disturbance of internal speech was employed in the 1st series; in the 2nd, EMGs were employed. The latter method is useful not only in studying the structure of the disturbance of internal speech in dynamic aphasia, but also in choosing the most effective means for the restoration of speech.—*I. D. London.*

6835. Witt, Elisabeth H. & Bliss, Lynn S. (U. Michigan) **Selection of visual dimensions by aphasics and non-aphasics.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 435-440.—Investigated the visual dimensions utilized by 11 aphasics in a match-to-sample task to match visual stimuli to determine if the response patterns differed significantly from those of 11 non-brain-damaged controls. There were no significant differences between aphasics and nonaphasics in their selection preference for the dimensions of color, size, orientation, or form. Thus, aphasics and nonaphasics responded similarly with respect to perceptual functioning, nonverbal behavior, and P. Dale's model of naming and color perception. (16 ref.)—*Journal abstract.*

NEUROLOGICAL DISORDER

6836. ———. Danil Grigor'evich Gol'dberg. *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 473-474.—Recounts the life and work of D. G. Gol'dberg (1902-1969), noted for his research on traumatic lesions of the peripheral nervous system.—*I. D. London.*

6837. ———. Roman Aleksandrovich Shakhnovich. *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 472-473.—Recounts the life and work of R. A. Shakhnovich (1896-1969), noted for his contributions in the field of neuroinfections.—*I. D. London.*

6838. Akhutin, E. A. **Spisok knig po nevropatologii, psikiatrii i smezhnym distsiplinam, postupivshikh v Gosudarstvennyy tsentral'nyy nauchnyy meditsinskuyu biblioteku v dekobre 1969 g.** [List of books on neuropathology, psychiatry and contiguous disciplines, arriving in the State Central Scientific Medical Library in December 1969.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 469-470.—Presents a list of Soviet and non-Soviet publications.—*I. D. London.*

6839. Bersnev, V. P. (Research Neurosurgical Inst., Leningrad, USSR) **Izuchenie regeneratsii nerva po dannym krivoi "intensivnost'-dлитel'nost'."** [Study of nerve regeneration according to the data of the "intensity-duration" curve.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 365-369.—The response of muscles to electrical stimulation of different "intensity-duration" curves for 75 patients were investigated monthly over a time period from several hr.-5 yr. after lesion, i.e., from the time of rejoining of the nerve until the reestablishment of voluntary movements. Findings are detailed. (English summary) (26 ref.)—*I. D. London.*

6840. Brown, George W. (Lovelace Clinic, Albuquerque, N.M.) **Suggestions for parents.** *Journal of Learning Disabilities*, 1969(Feb), Vol. 2(2), 97-106.—Describes how children suffering from neurological disabilities of behavior, attention, and learning can benefit from (a) understanding of the child as an individual, (b) structuring of the environment, (c) setting of good examples and high standards, (d) providing firm but loving control, and (e) providing opportunities for success and for the development of self-esteem. Some specific suggestions in these areas are provided.—*S. Appelle.*

6841. Burgess, Michael M., Kodanaz, Altan, & Ziegler, Dewey K. (U. Missouri, Kansas City) **Prediction of brain damage in a neurological population with cerebrovascular accidents.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 595-601.—Examined a total of 15 intellectual and 12 sensory-motor variables as predictors of brain damage in a neurological population with cerebrovascular accidents. Results obtained via Student's t tests and multiple regression analyses demonstrate that it is possible to predict brain damage significantly in this clinical population. It is concluded that: (a) as single predictor variables, sensory-motor measures are superior to intellectual measures; (b) brain damage as measured behaviorally is consistent across patient populations in neurological, psychiatric, and subgroups with cerebrovascular accidents (CVA); and, (c) multiple variant prediction holds promise for diagnosis of brain damage in CVA population. (15 ref.)—*Journal abstract.*

6842. Cleeland, Charles S., Matthews, Charles G., & Hopper, Cornelius L. (U. Wisconsin, Medical School)

MMPI profiles in exacerbation and remission of multiple sclerosis. *Psychological Reports*, 1970(Oct), Vol. 27(2), 373-374.—Reports profile analysis of MMPI profiles generated by 30 20-67 yr. old patients displaying exacerbation (E) or remission (R) of the symptoms of multiple sclerosis. Profiles classified as abnormal were significantly more frequent in the E group. Significantly more E Ss had elevations on the Depression scale greater than 70. The ordering of elevations of the clinical scales was similar in both groups.—*Journal abstract*.

6843. Drachëva, Z. N., Yablokova, M. S., & Litvinenko, N. I. (Medical Inst., Kiev, USSR) **Lopatochno-peroneal'naya amiotrofiya kak odna iz form progressivnoi myshechnoi distrofii.** [Scapulo-peroneal amyotrophy as one of the forms of progressive muscular dystrophy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 337-341.—Presents a report based on clinical studies of 5 cases with disorders of the neuromuscular apparatus. Scapulo-peroneal amyotrophy should be viewed as a form of progressive muscular amyotrophy and not as a form of neuralgic amyotrophy. (English summary) (15 ref.)—*I. D. London*.

6844. Faurbye, Arild. (St. Hans Hosp., Roskilde, Denmark) **The structural and biochemical basis of movement disorders in treatment with neuroleptic drugs and in extrapyramidal diseases.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 205-225.—Studies the movement disorders produced by neuroleptic drugs and by brain diseases. The movement disorders occur by interference with transmitters in the synapses or as a result of toxic effect on nervous tissue. It ought to be possible to develop new neuroleptic drugs with good antipsychotic effect and little or no toxic effect on nerve tissue because there is no parallel between these 2 qualities. (104 ref.)—*D. Prager*.

6845. Kudashov, N. I. (Inst. of Pediatrics, Moscow, USSR) **Klinika i patogenez vegetativno-nervnykh narushenii pri gripe u detei.** [Clinical picture and pathogenesis of autonomic nervous disturbances in gripe in children.] *Pediatrics*, 1970, Vol. 49(1), 42-47.—Observed 101 children suffering from the gripe. In the period of initial toxicosis, dysfunction of both divisions of the autonomic nervous system was observed along with a short period of predominance of sympathetic reactions. Parasympathetic reactions with signs of asthenia (2nd period of the illness) were accompanied both by disturbance of cholinergic reactions with increase in acetylcholine level and by inhibition of adrenergic reactions with decrease in the sympathomimetic properties of the blood. In this period cholinesterase activity was at the lower limit of the normal, while the level of the inhibitors of acetylcholine increased. During the period of recovery, complete normalization of the clinical indices of autonomic functions, and the level of neurohumoral substances did not occur.—*I. D. London*.

6846. Lansdell, H. (National Inst. of Neurological Diseases & Stroke, Surgical Neurology Branch, Bethesda, Md.) **Relation of extent of temporal removals to closure and visuomotor factors.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 491-498.—Factor analysis of scores for 159 Ss on the Wechsler-Bellevue Scale of Intelligence, Mooney's Closure Faces Test, and a visuomotor task (in which 4 blocks were assembled 10 times alternately into square and triangular frames) yielded 3 similar factors for each sex: verbal comprehension, visual construction, and closure. Mean factor

score estimates showed the expected verbal deficit in 7 Ss with left temporal removals and closure deficit in 14 Ss with right temporal removals, but no asymmetry for the visuomotor factor. The negative correlation of the latter scores with extent of surgery in the right temporal area was different from the positive 1 found for the left temporal group. (23 ref.)—*Journal abstract*.

6847. Lekar', P. G., et al. (Hygienic Medical Inst., Leningrad, USSR) **O roli punktsionnoi biopsii pecheni v diagnostike hepato-tserebral'nykh zabolevaniy.** [On the role of hepatic puncture biopsy in the diagnosis of hepatocerebral diseases.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 345-351.—26 patients with chronic hepatitis and cirrhosis of the liver and 5 patients with hepatolenticular degeneration were Ss. The degree of neurological disorders as a function of (a) the functional state of the liver, and (b) the character of the morphological changes was studied. Findings are detailed and discussed from the viewpoint of differential diagnosis. (English summary) (21 ref.)—*I. D. London*.

6848. Makarova, L. G. & Gurskaya, N. Z. (Inst. of Neurology, Moscow, USSR) **Izmenenie elektricheskoi aktivnosti mozga pri bolezni Fridreikha.** [Alteration of cerebral electrical activity in Friedreich's disease.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 370-376.—Describes a clinico-EEG analysis of 34 cases of Friedreich's ataxia. Ss were 14-50 yr. old and suffered from Friedreich's disease from 3-30 yr. Spontaneous EEGs and cerebral bioelectrical reactions to trigger photic stimulation were recorded. In all cases, changes were observed in the development of the bioelectrical processes, expressed in (a) different degrees of changed alpha activity including its absence, (b) weakening of beta activity, (c) the sharp waves (irregular as a rule), and sequence of slow waves of the theta rhythm. Trigger photic stimulation accentuates the changes displayed in the spontaneous EEG. The character of EEG deviations from normality and the topographical distribution of pathological forms of activity suggest that involved in the pathological process are the brainstem-diencephalic structures. Degenerative changes in the cerebellospinal pathways disturb considerably the electrogenesis of the cerebrum. The disturbances of bioelectrical activity provide evidence for a decrease of tonus in the cortical structures and activating reticular system of the brainstem. (English summary) (26 ref.)—*I. D. London*.

6849. Margerison, J. H., Binnie, C. D., & McCaul, I. R. (St. Bartholomew's Hosp., London, England) **Electroencephalographic signs employed in the location of ruptured intracranial arterial aneurysms.** *Electroencephalography & Clinical Neurophysiology*, 1970(Mar), Vol. 28(3), 296-306.—Of a consecutive series of 133 patients with spontaneous subarachnoid hemorrhage, 70 had ruptured intracranial aneurysms identified by angiography, at craniotomy or at autopsy. EEG studies were made on which predictions were based, without contamination from clinical or radiological sources, as to the anatomical sites of the leaking aneurysms. It is concluded that if EEG investigations are started shortly after bleeding, lesions can be reliably located. Results are presented in respect of the 35 EEG criteria derived from an original 180 possible observations/tracing. These EEG features, detailed for 6 anatomical sites of ruptured aneurysm, should enable the clinical electroencephalographer to afford practical assistance, of known reliability, to the neurosurgeon.

Results support a general contention that the human capacity for pattern recognition has not yet been adequately exploited in clinical electroencephalography. (French summary) (25 ref.)—*Journal summary*.

6850. Miller, Donald L. (1143 5th Ave., New York, N.Y.) **Kleine-Levin syndrome: An atypical case.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 26-35.—In sharp contrast to all previous cases this 21-yr-old male patient appeared to be quite seriously ill. A mixture of psychological and physiological stressors precipitated an attack of hypersomnia, megaphagia, activated sexuality, and an altered state of consciousness with both organic properties and a strong indication of secondary gain in a borderline young man. It is hoped that it will be possible to study future patients with this disorder in prolonged intensive psychotherapy, with specialized psychological testing during and between episodes, and with the help of advanced sleep techniques.—*D. Prager*.

6851. Nikitina, M. **Organizatsiya pomoshchi detyam stradayushchim tserebral'nyimi paralichami.** [Organization of care for children suffering from cerebral palsies.] *Pediatrics*, 1970, Vol. 49(1), 63-67.—Presents a survey of current institutional organization and care for children with cerebral palsy in the Soviet Union.—*I. D. London*.

6852. Ponomareva, E. D. (Central Inst. for Advanced Medical Training, Moscow, USSR) **O redkikh formakh ostrogo leikoza s porazheniem pozvonochnika i nervnoi systemy.** [On rare forms of acute leucosis with lesion of the spine and nervous system.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 357-362.—Presents observations of 3 cases of acute hemocytoblastosis with lesion of the spine, and spinal disorders. Neurological symptoms discussed were headaches, and engirdling pain in the thorax and spine with irradiation into the lower extremities. Anatomohistological and medical findings are detailed. (English summary)—*I. D. London*.

6853. Rudnev, V. A. (Medical Inst., Krasnoyarsk, USSR) **Vosstanovlenie dvigatel'noi funktsii u bol'nykh s ostatochnymi yavleniyami porazheniya tsentral'nykh dvigatel'nykh putei metodom ritmizirovannoi trenirovki so zvukovym i svetovym podkrepleniem.** [Restoration of the motor function in patients with residual symptoms of lesion of central motor pathways by means of rhythmic training with acoustic and photic reinforcement.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 361-365.—Presents details of a new method for restoration of walking by means of "exogenic" stimulation of the movements involved with light and sound after an affection in the mechanism of central regulation. Positive results were observed in all of 40 patients undergoing treatment for walking disorders of pyramidal, extrapyramidal, cerebellar, and hysterical character. The greatest effects were attained in treating patients with cerebellar disturbances and with nonprogressive lesion of subcortical ganglia. (English summary)—*I. D. London*.

6854. Sabatino, David A. & Cramblatt, Henry. (Catholic U. of America) **A longitudinal study of children with learning disabilities subsequent to hospitalization for viral encephalitis: I.** *Journal of Learning Disabilities*, 1969(Feb), Vol. 2(2), 65-75.—Reports "on the information processing behaviors, and the relationship that these behaviors have to learning variables, during a 3-yr follow-up period for 13 children

subsequent to their hospitalization for [California encephalitis virus]." Patients 5.1-14 yr. old were given a battery of clinical tests designed to assess intelligence, performance, and perception. Decrements associated with learning disability were found in all 3 categories. It is concluded that these children would "become poor academic risks in the regular classroom," and "supportive psychoeducational work" is recommended.—*S. Appelle*.

6855. Sabatino, David A. & Cramblatt, Henry G. (Catholic U. of America) **A longitudinal study of children with learning disabilities subsequent to hospitalization for viral encephalitis: II.** *Journal of Learning Disabilities*, 1969(Mar), Vol. 2(3), 124-135.—Presents part of a 3-yr follow-up study which investigated relationships between physical findings from 13 school-age children during the acute illness associated with California encephalitis virus, and the reading comprehension academic underachievement at 6 and 36 mo. postillness. Results from the WISC, 2 perceptual tests, and parents' and teachers' responses to Ss' observable behavior show (a) a trend between length of hospital stay, seizure activity, and reading comprehension; (b) no relation between duration and height of fever and learning disability; (c) no significant differences between physical findings during illness and their prediction of reading comprehension underachievement; and (d) no obvious central language impairment, but serious perceptual problems in visual-motor and auditory areas of function making school failure a major issue. It is concluded that "classroom management for the resulting behavior is an educational problem, demanding the involvement of all disciplines" if behavior is to be altered and if an identifiable pathology is to be provided.—*M. Maney*.

6856. Schulman, Carol A. (San Diego State Coll.) **Heart rate response habituation in high-risk premature infants.** *Psychophysiology*, 1970(May), Vol. 6(6), 690-694.—Tested the hypothesis that infants with CNS damage fail to habituate to repeated stimulation using infants whose clinical course suggested a high probability of CNS damage, a control group matched for age in wk. since conception, and a group of normal, fullterm infants. An auditory stimulus at 80-db sound pressure level was presented for 3 sec. at 20-sec intervals. Heart rate change averaged across time on Trials 1-5 and 26-30 were compared. The hypothesis was not confirmed, since significant habituation was found on Trials 26-30 for all groups. However, latency of response was significantly longer in high-risk Ss. A developmental trend toward decreased latency of response with increasing gestational age was identified. (17 ref.)—*Journal abstract*.

6857. Sheval'e, A. V., Shapiro, B. M., & Shvartsur, L. S. (Medical Inst., Tselinograd, USSR) **Lopatochno-peroneal'naya amiotrofiya: Sindrom ili samostoyatel'noe zabolevanie?** [Scapuloperoneal amyotrophy: Syndrome or independent disease?] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 341-345.—Describes a case of this disease which involves a hereditary pathology of the metabolism of both nerve and muscle tissue. Biopsy of the trapezius muscle was undertaken, with microscopic studies revealing trabecular atrophy of muscle fibers and dystrophy of the nerve trunks, characteristic of secondary forms of progressive muscular atrophy. Along with atrophied

muscle fibers, normal or hypertrophied ones are noted, as in myopathy. It is reasonable to consider scapuloperoneal amyotrophy as an independent disease which includes aspects of primary and neurogenic muscular atrophy. (English summary)—*I. D. London.*

6858. Speranskii, A. P. & Antropova, M. I. (Central Inst. for Advanced Medical Training, Moscow, USSR) **Elektromiograficheskie issledovaniya bol'nykh s travmami perifericheskikh nervov pri lechenii ikh ul'trazvukom.** [Electromyographic examinations of patients with peripheral nerve traumata during ultrasonic therapy.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 382-388.—Observed 124 20-63 yr. old patients, suffering for a period of 3 mo.-21 yr. from the sequelae of different lesions of the nerve trunks of the extremities. Ultrasound (single or multiple application) promoted restoration of the functions of the limbs. The therapeutic effect was a function of both severity and duration of the injury, and the presence of a tendency to restoration. EMG examinations provide evidence for (a) the positive action of ultrasound on muscular electrogenesis, and (b) the improvement of central influences on the excitability of the neuromuscular apparatus. (English summary)—*I. D. London.*

6859. Zavallishin, I. A. (Inst. of Neurology, Moscow, USSR) **Osobennosti myshechnoi gipertonii (spastichnosti) u bol'nykh bokovym amiotroficheskimi i rasseyannym sklerozom: Kliniko-élektromiograficheskoe issledovanie.** [Features of muscular hypertonia (spasticity) in patients with lateral amyotrophic and multiple sclerosis: A clinico-electromyographic study.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 351-357.—Patients with spasticity in lateral amyotrophic (N = 36) and multiple sclerosis (N = 34) served as Ss. An attempt was made to determine the influence on muscular tonus of lesion of (a) the spinal anterior horn structures in lateral amyotrophic sclerosis, and (b) cerebellar systems in multiple sclerosis. Differences are demonstrated for the distribution, degree of manifestation, and electrographic characteristics of spasticity in these 2 diseases. (English summary) (28 ref.)—*I. D. London.*

6860. Zhirmunskaya E. A., Voitenko, G. A., & Konyukhova, G. P. (Inst. of Neurology, Moscow, USSR) **Izmenenie korrelyatsionnykh funktsii pri razlichnykh tipakh narusheniya bioélektricheskoi aktivnosti mozga.** [Alteration of correlational functions in different types of disturbance of cerebral bioelectrical activity.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 376-382.—Presents results of a study of correlational functions, involving an analysis of 90 EEGs, in patients with different lesions of the nervous system. The remote synchronization of cortical neuronal activity resulting from morphological connections between cerebral structures was studied. Measurements were made of the magnitudes of the periodic and random components of the coefficient of cross-correlation of 2 simultaneously registered oscillatory processes, recorded either from identical points in the 2 hemispheres or from different points in 1 hemisphere. These magnitudes changed differently for different types of impairment of the EEG. It is conjectured that the calculation of correlational functions can promote a bolder discrimination of "local (or primary)" changes from those that are "remote (secondary)" in the electrogenesis of the cerebral cortex. (English summary)—*I. D. London.*

Brain Damage

6861. Barraquer Bordás, L. (U. Navarra, Barcelona, Spain) **El sueño y el mutismo aquinético.** [Sleep and akinetic mutism.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1968(Sep), Vol. 27(4), 544-555.—Reviews the physiology and general pathology of sleep, noting that the crucial condition for the appearance of akinetic mutism is a lesion of the mesencephalodiencephalic zone. This is believed to have an indirect influence on mimic expression. 2 analogous states, associated with akinetic mutism by lesion, are described. 1 involves bilateral flexion "distone" with the conservation of ocular vigilance. The other does not have "distone" and shows the loss of visual fixation. (English summary)—*P. Hertzberg.*

6862. Blinkov, S. M. & Moskatova, A. K. (Moscow State U., USSR) **K mekhanizmu prostoi dvigatel'noi reaktsii: Vremya reaktsii pri razdel'nom i odnovremennom dvizhenii obelimi rukami.** [On the mechanism of simple motor reaction: Reaction time in separate and simultaneous movement of both hands.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 86-97.—Measurements of RT following cutaneous, photic, and auditory stimulation were made on 17 normal Ss and 11 Ss with focal lesions of the brain. In normal Ss the average time of simple motor reaction to such stimulation was identical whether the response movements of the hands were made singly or together. However, differences in some normal Ss did appear. Variability in hemispheric functional asymmetry may account for this. In most normal Ss RT was the same whether the conduction of the impulse was through the right or left motor center. In Ss with focal lesion of the brain, the asymmetry of the cerebral centers with respect to RT, on simultaneous movement of both hands, was, in most cases, more pronounced than in the case of separate responses for each hand. It is concluded that the mechanism involved in the simultaneous response of both hands is different from that involved in the function of 1 hand.—*I. D. London.*

6863. Faglioni, Pietro & Spinnler, Hans. (U. Milan, Clinic of Nervous & Mental Disease, Italy) **Immediate and delayed recognition of nonsense figures in patients with unilateral hemisphere damage.** *Journal of Learning Disabilities*, 1969(Dec), Vol. 2(12), 652-658.—Investigates the performance of 119 patients with unilateral hemisphere damage in immediate and delayed recognition of meaningless visual patterns (scrawls). In both tasks the group with right hemisphere damage was found to be inferior. The impairment was considered to reflect a hemispheric asymmetry in perception, which is apparent whenever subtle visual discrimination is required. The assumption that the right hemisphere plays a role in certain types of memory processes was not confirmed. (21 ref.)—*Journal abstract.*

6864. Hartman, Bernard T. & Richards, George B. **The effect of using a black light apparatus to reduce attention scatter in brain injured children.** *Journal of Learning Disabilities*, 1969(Aug), Vol. 2(8), 391-394.—Randomly divided 20 children diagnosed as brain damaged and having severe reading and perceptual impairments evenly into an experimental group (EG) and a control group (CG). Each S in the EG was given 10 stimulus cards (learning task) under the attention-scatter reduction conditions using a black light apparatus and

then immediately given a matching test of retention. CG Ss were treated in exactly the same manner except they did not receive the stimulus under the attention-scatter reduction conditions. A t-test for difference between the 2 independent means (EG and CG) was applied, and a significant difference ($p < .001$) was shown between the test performances of the EG Ss and CG Ss. It is concluded that the EG Ss who received the learning task under attention-scatter reduction conditions retained more than the CG Ss who received the stimulus under ordinary classroom conditions.—*Journal abstract.*

6865. Kahn, J. P. (Stanford U., Medical School) **The emotional concomitants of the brain-damaged child.** *Journal of Learning Disabilities*, 1969(Dec), Vol. 2(12), 644-651.—Presents a resume of accepted premises in the field of the brain-damaged child with regard to neurological aspects, psychological concomitants, case management, differential diagnosis, and parental response. It is asserted that it is neither useful nor possible to entirely separate the neurophysiological from the psychological effects of minimal cerebral dysfunction. The child with minimal cerebral dysfunction perceives the world in a different fashion from the normal. There is a deviant construction of reality, both internal and external resulting in an organism-environment, nonfluency, and noncongruity. The child's special education and environmental requirements are discussed, and it is suggested that frequently the best psychotherapy for such a child is to meet his special educational requirements.—*Journal abstract.*

6866. Karaseva, T. A. (Moscow State U., USSR) **K voprosu o funktsiyakh korkovogo otdela slukhovogo analizatora cheloveka.** [On the functions of the cortical region of the human auditory analyzer.] *Psikhologicheskoe Issledovaniya*, 1969, No. 1, 98-102.—35 Ss with focal lesion of the upper region of the temporal lobe (21 sinistral; 14 dextral), involving the auditory cortical zone, participated in the study along with 56 controls (49 with differently located lesions; 7 normal). In the 1st group, the perception of acoustic signals of small duration (shorter than 14 msec.) directed to the ear, contralateral to the pathological focus, was affected. The disturbance of perception occurred whether the lesion was of the dominant or subdominant hemisphere and did not undergo complete compensation with time through the activity of other cerebral regions. The data provide evidence for the important role of the auditory cortex in gauging the temporal parameters of sound and in perceiving signals of small duration.—*I. D. London.*

6867. Karpov, B. A. (Moscow State U., USSR) **Sravnitel'nyi analiz narusheniya gnosticheskikh professor pri porazhenii zadnikh i perednikh otdelov golovnogo mozga u cheloveka.** [Comparative analysis of the disturbance of gnostic processes in cases of lesion of the posterior and anterior regions of the human brain.] *Psikhologicheskoe Issledovaniya*, 1969, No. 1, 108-116.—Reports results of a "dynamic neuropsychological study," in which eye movements were registered for 3 Ss viewing a picture with complex content (1 S with lesion of parietal-occipital parts of the brain; 2 with lesion of frontal parts). Depending on the locale of the lesions, there were sharp differences in "active visual perception." In the former type of lesion, the structure of the "active perceptual act" was preserved. The "orienting-investigatory stage" underwent "compensatory hypertrophy and change"; the detection of meaningful items

proceeded with purpose, i.e., selectively, in correspondence with the demands of a perceptual task or hypothesis. Eye movements reflect the selectivity and plasticity of the process of active perception. In the latter type of lesion, the structure of "prolonged active perception" is disturbed. The orienting stage in perceptual activity drops away and is replaced by the impulsive formation of a fragmentary hypothesis. The elements of the picture are not distinguished on the basis of a purposeful process, but passively by means of inert, unorganized viewing movements. Visual items that are picked out passively are not related to each other or matched against earlier formed hypotheses, thus (a) providing no stimulus for pushing the perceptual process to perfect itself, and (b) creating thereby for the perceptual process instability, rapid extinction, inertness, and interruption through irrelevant association.—*I. D. London.*

6868. Kok, E. P. & Fedorov, S. N. (Burdenko Inst. of Neurosurgery, Moscow, USSR) **Narushenie vysshikh zritel'nykh funktsii pri sdavlenii nizhnemisochnoi oblasti bol'shikh polushariy u cheloveka.** [Disturbance of higher visual functions due to compression of the inferior temporal region of the human brain.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(4), 602-610.—Ss were 64 14-58 yr. old patients in a tachistoscopic study of object perception in the presence of compression of the inferior temporal region of the brain or other cerebral regions, the latter for purposes of control, using the decline of speed of object perception as the most sensitive index of visual gnostic defectiveness. Disorders of visual object perception in 12 Ss with extracerebral tumors of the inferior temporal region were manifested in a drop in speed of perception of object representations. Indices for the principal group were significantly lower than those for the control groups: (a) 14 Ss with extracerebral tumors of the occipital, parietal, frontal, and superior temporal regions; and (b) 38 Ss with different kinds of lesions of the brain, cerebral membranes, extracerebral vessels, and vessels within the medial and deep portions of the brain. Indices showed the grossest decline in lesion of the right (subdominant) hemisphere—further evidence that visual gnostic function is a higher cortical function, since in man the higher functions alone are unequally provided for by the 2 hemispheres. The resulting hemispheric differences may be explained by the greater differentiated character of the functional systems of the left hemisphere and the greater selectivity of their activity.—*I. D. London.*

6869. Lebedinskii, V. V. (Moscow State U., USSR) **K voprosu o narushenii kontrolya za protekayushchimi deistviyami u bol'nykh s porazheniem lobnykh dolei mozga.** [On the disturbance of regulation of a course of actions in cases of lesion of the frontal lobes of the brain.] *Psikhologicheskoe Issledovaniya*, 1969, No. 1, 103-107.—12 Ss with frontal lesions of light severity and 16 with serious resultant functional disorders participated in a study of the state of visual and kinesthetic regulation of ongoing action in such cases. It is concluded that the perseverations observed in frontal lesions are, in fact, complex motor disorders. The data lend support to those explanations of certain behavioral disorders, resulting from frontal lesions, that do not go beyond conceptions which view the frontal lobes as effector systems to promote the "organization of motor programs."—*I. D. London.*

6870. Williams, Moyra. (Addenbrooke's Hosp., Cambridge, England) **Brain damage and the mind.** Baltimore, Md.: Penguin Books, 1970. 175 p. \$1.95(paper).

6871. Woo-Sam, James, et al. (Rancho Los Amigos Hosp., Downey, Calif.) **Socio-economic status and post-trauma intelligence in children with severe head injuries.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 147-153.—Study of 46 severely head-injured children suggests that the degree of intellectual recovery posttrauma is best predicted by the age at injury. Younger Ss generally fared less well than older. However, socioeconomic affiliation also was a determining factor. The majority of younger Ss were from the lower socioeconomic class and proportionately more younger than older Ss of lower-class affiliation functioned at the subnormal level. In contrast, for the middle-class group proportionally as many younger as older Ss functioned at the subnormal level. (21 ref.)—*Journal abstract.*

Epilepsy

6872. Badalyan, L. O., et al. (2nd Moscow Medical Inst., USSR) **Kliniko-geneticheskoe i elektroentsefalograficheskoe izuchenie epilepsii u bliznetsov.** [Clinico-genetic and electroencephalographic study of epilepsy in twins.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 69(3), 329-336.—Studied 15 monozygotic and 20 dizygotic twins (1½-16 yr. old) in which in each pair either 1 or both had epilepsy, 7 monozygotic and 9 dizygotic twins underwent EEG examination. The EEGs were subjected to visual quantitative evaluation and automatic integrative analysis. A definitely higher correlation was observed between the clinical development of epilepsy and changes in biopotentials among the monozygotic twins. Correspondingly, the changes noted between the pairs of dizygotic twins with respect to clinical and EEG data are much more at variance, especially when different sexes are involved. Among phenotypically normal twin-partners, paroxysmal disturbances of the EEG of the epileptic type may be observed. Such changes may be viewed as an EEG effect resulting from "heightened convulsive readiness" of the brain. Since these twins are under 16 yr. old, the possibility of a "manifestation" of epilepsy in the future cannot be excluded. (English summary)—*I. D. London.*

6873. Fuster, Pilar & Barcia, Demetrio. (U. Valencia, Faculty of Medicine, Spain) **Ninfomania y epilepsia en la infancia: Presentación de cuatro casos.** [Nymphomania and epilepsy in infancy: Presentation of four cases.] *Revista Española de Oto-Neuro-Oftalmología y Neurocirugía*, 1968(Jul), Vol. 27(158), 259-271.—Presented case histories of 4 girls (ages 8-12) who were suffering from temporal lobe epilepsy with concomitant nymphomania. All 4 Ss had a common behavior pattern which oscillated between exaggerated needs for affection and manifest anxiety. Each of the 4 Ss demonstrated signs of infantilism, while 3 of the Ss had pronounced fixations at the oral stage of psychosexual development. Following careful interviewing, EEG recordings, IQ testing, personality testing (Rorschach), and neurological examinations, it is concluded that the nymphomaniac behavior was the result of a poor family environment which elicited abnormal personality development and immaturity. (English summary)—*B. A. Stanton.*

6874. Gandiglio, G., Ferro, F. M., & Gambi, D. **Un'esperienza epilettica: Analisi dal diario.** [An epileptic experience: Analysis of a diary.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1969(Mar), Vol. 30(2), 167-184.—The diary of an epileptic girl revealed individual

depths that transcend rigid nosological considerations and that emphasize the transactional aspects of any organic disease with the interpersonal context, especially the therapeutic.—*L. L'Abate.*

6875. Gorbacheva, N. I. (Moscow State U., USSR) **K voprosu o narushenii dinamiki poznavatel'nykh protsessov.** [On disturbance of the dynamics of the cognitive processes.] *Psikhologicheskie Issledovaniya*, 1969, No. 1, 167-171.—30 epileptics (duration of pathology, 1-8 yr.) were used to study the psychological characteristics of the dynamic disturbances of the cognitive processes during the early stages of the pathology. The results of various tests show that the disturbances were not uniform. In 1 group, "exhaustion of psychic processes and oscillation of mental efficiency" was exhibited—symptoms basically typical for cases where there are marked organic disturbances of the CNS. In the 2nd group, features of the psyche were exhibited that were typical of epilepsy, such as inertness and decline of the level of generalization. Several of the disturbances of cognitive activity, which have previously been considered to be a "manifestation of intellectual operations, represent, judging by their structure, a dynamic change of cortical activity."—*I. D. London.*

6876. Moretti, G., Bertamino, F., & De Negri, M. **Contributo preliminare allo studio della coscienza di malattia nel bambino epilettico.** [Preliminary contribution to the study of awareness of sickness in the epileptic child.] *Neuropsichiatria*, 1968(Jan), Vol. 24(1), 65-80.—20 7-14 yr. old epileptic children reported on their awareness of their sickness in various ways, according to cognitive patterns typical of each stage of development.—*L. L'Abate.*

6877. Sal y Rosas, Federico. **Abrogación de la epilepsia esencial.** [Abrogation of essential epilepsy.] *Revista de Neuro-Psiquiatria*, 1969(Jun), Vol. 32(2), 105-108.—Presents arguments on the genesis of epilepsy which support the contention that essential epilepsy would be more accurately described as centroencephalic epilepsy. The existence of centroencephalic alterations as the cause of essential epilepsy is considered important because it rules out a "sine materia" etiology. The implications are (a) that all clinical forms of epilepsy have an origin somewhere in the brain, and (b) that a predisposition toward epilepsy is as universal as a lesion. It is suggested that the lesion which causes centroencephalic epilepsy is of the structural type. (English, French, & German summaries)—*P. Hertzberg.*

6878. Serafetinides, E. A. (U. Oklahoma, Medical Center) **Memory for words and memory for numbers.** *Journal of Learning Disabilities*, 1969(Mar), Vol. 2(3), 142-143.—Reports pre- and postoperative observations on the relationship of verbal to numerical learning and memory in 2 males, a 23 and a 25 yr. old, on whom anterior temporal lobectomies for epilepsy were performed on the dominant side for speech. Postoperative WAIS results show that both Ss had nominal expressive aphasia and auditory verbal learning deficit, but no deficit on arithmetic tasks or memory for numbers. Results suggest that the dominant temporal lobe may not be involved primarily in arithmetic processes.—*M. Maney.*

6879. Sörgel, H. J. & Schmeisser, G. (Medical Academy, Erfurt, E. Germany) **Untersuchungen zur Spätepilepsie bei hirnatrophisierenden Prozessen.** [Investigations on delayed epilepsy with encephalatrophy processes.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Jun), Vol. 22(6), 227-230.—Cryptogenic

epilepsy was diagnosed in 77 of a sample of 1724 patients admitted to the Erfurt Nerve Clinic between 1954-1967. The majority of patients were males, 50 yr. of age or older. An encephalotropic process established by means of pneumoencephalography is described. (25 ref.)—*K. J. Hartman.*

MENTAL RETARDATION

6880. Altman, R., Swartz, J. D., & Cleland, C. C. (U. Texas) **Differential sensitivity of profound retardates to adults' steady gaze.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 30.—Showed that all of 10 ambulatory male profoundly mentally retarded Ss were sensitive to steady gaze. 2 distinct types of behavior were elicited within 30 sec. "Avoiders" (N = 6) typically turned and walked away; "approachers" (N = 4) typically laughed, increased babbling, embraced E, and appeared pleased. Such intra-S consistency supports the notion of a "high degree of regularity and organization among... nonverbal behaviors..."—*M. West.*

6881. Burchard, John D. (U. North Carolina) **A methodology for conducting an experimental analysis of cheating behavior.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 146-158.—Presents data from 2 mildly retarded, adolescent boys to demonstrate how variables, e.g., surveillance, task difficulty and punishment influence the frequency of their cheating behavior. Ss responded to a light signal flashed at 15 sec. intervals and were rewarded for correct responses by candy and a redeemable token. After training was completed, Ss guessed when the now hidden light was on. Cheating responses were recorded when Ss attempted to uncover light to see if it was on. Although the data suggest some strong effects from the variables, there was insufficient replication to warrant meaningful generalization. (15 ref.)—*Journal abstract.*

6882. De Siqueira, Maria. (Dr. Edmundo Carvalho Experimental Psychology Group, São Paulo, Brazil) **Subdesenvolvimento e deficiência mental: Aspectos psicológicos.** [Underdevelopment and mental deficiency: Psychological aspects.] *Revista Brasileira de Deficiência Mental*, 1969(Jul), Vol. 4(1-2), 23-28.—Asserts that mental deficiency is basically a cultural problem, noting that 15% of cases of mental deficiency have biomedical causes while 85% are cultural or socioeconomic backwardness. The mechanism of stimulus deprivation is explained, with attention given to "critical learning periods." The psychological characteristics of the culturally-deprived child, and the impact which school has on him are discussed. His language disability limits his reasoning in abstractions; his difficulty with sensory discrimination leads to lack of perceptual discrimination; and his memory is underdeveloped. On failing in a school oriented towards middle-class children's needs, in which he is rejected by both teachers and classmates, he loses confidence in his ability to learn, loses motivation, and can become aggressive because he cannot control his impulses. A study on reversibility-irreversibility of processes leading to lowered intellectual development capacity is recommended. Early detection via preschool education, maternal schools, community, and family work is suggested.—*K. Rissland.*

6883. Macht, Joel. (U. Denver) **Examination and reevaluation of prosthetic lenses employing an operant procedure for measuring subjective visual acuity in a retarded child.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 139-145.—Ex-

amined and evaluated prosthetic lenses that were prescribed without a professional subjective visual-acuity examination. The procedure employed a bar-press response to Snellen "E" visual symbols viewed from varying distances. S was a 6-yr-old retarded female with severe bilateral strabismus and nystagmus. Evaluation of the prescribed lenses indicate their magnitude was too strong for the S to accommodate, thus accounting for nonglass-wearing behavior of the S. Reevaluation resulted in a decrease of more than +3 diopters of refraction of lens size. Suggestions are offered regarding prerequisite inclusions for procedures for obtaining psychophysical threshold information from children.—*Journal abstract.*

6884. Manfredini, Jurandyr. **Subdesenvolvimento e deficiência mental: Aspectos psiquiátricos: Análise de dados de incidência no Brasil.** [Underdevelopment and mental deficiency: Psychiatric aspects: Analysis of data on the incidence in Brazil.] *Revista Brasileira de Deficiência Mental*, 1969(Jul), Vol. 4(1-2), 37-44.—Presents statistics which basically show that the better a country or region is developed, the lower the incidence of mental deficiency. The characteristics of mental deficiencies were grouped into 7 categories: (a) psychological retardation, (b) psychological overdevelopment, (c) morphological defects, (d) neuropathological anomalies, (e) sensory deficiencies, (f) congenital visceropathology, and (g) behavioral disturbances. The incidence of mental deficiency in Brazil between 1963 and 1967 showed an increase. However, the incidence of oligophrenia was also studied according to regions. It was found that the greater the development of the region, the lesser the amount of mental deficiency. Variations in the different grades of Brazilian mental deficiency and in the etioclinal aspects are also presented.—*P. Hertzberg.*

6885. Mehl, Herley. (Federal U., Parana, Brazil) **Subdesenvolvimento e deficiência mental: Aspectos psicológicos.** [Underdevelopment and mental deficiency: Psychological aspects.] *Revista Brasileira de Deficiência Mental*, 1969(Jul), Vol. 4(1-2), 29-36.—Discusses the relationships between economic underdevelopment and mental deficiency on 2 levels: individual and group. In regard to groups, Brazilian cultural and socioeconomic situations which contribute to mental deficiency are regarded from a social psychological viewpoint. Suggestions include the improvement of educational facilities and the establishment of family guidance procedures to help in the detection and treatment of mental deficiency. Studies are cited, including those of Margaret Mead and Barbara Ward, which further the conclusion that mental deficiency is conditioned by social factors. Further suggestions include (a) the establishment of national and regional diagnostic centers, (b) the improvement of existing clinical programs and the creation of new ones, and (c) different types of reactions to mental deficiency based on different social class levels in Brazil. (19 ref.)—*P. Hertzberg.*

6886. Meyer, Roger J., Stafford, Richard L., & Jacobsen, Milton D. (Northwestern U., Medical School) **Patterns of family followup: A study of children with mental retardation and associated developmental disorders.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 393-400.—Describes a follow-up study of services to 100 children with mental retardation and associated disorders. Results reveal many unmet needs, although the great majority of families received satisfactory service. The importance of considering the

families' presenting problems as the focal point of management was demonstrated. Family characteristics of social class, referral source, and presenting problems were correlated with the expressed needs. The specific nature of S's mental retardation problem was less closely related to these needs. The importance of a continuing diagnostic-therapeutic evaluation as a model for management of mental retardation is emphasized.—*Journal abstract.*

6887. Peterson, Martin Q. (U. Wisconsin) **Morphological sub-groups in Down's syndrome.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 779.

6888. Pinto, Luiz F. **Aspectos psiquiátricos da deficiência mental em países subdesenvolvidos.** [Psychiatric aspects of mental deficiency in underdeveloped countries.] *Revista Brasileira de Deficiência Mental*, 1969(Jul), Vol. 4(1-2), 45-54.—Presents a panoramic view of the social, economic, and cultural problems which contribute to the high rate of mental deficiency in Latin America and particularly Brazil, which is seen as a poor agrarian country in need of modernization and socioeconomic reform. The influence of malnutrition and health problems on the incidence of mental deficiency is discussed. The problems of high illiteracy rates and the emigration of professional talent of Brazil is considered. Suggestions for reform include the expansion of schools and improvement of the quality of education. (21 ref.)—P. Hertzberg.

6889. Rice, James A. (U. Houston) **Confusion in laterality: A validity study with bright and dull children.** *Journal of Learning Disabilities*, 1969(Jul), Vol. 2(7), 368-373.—Analyzed laterality confusion with 200 kindergarten-3rd grade bright Ss and 41 age-to-grade matched educable mental retardates. Results based on a 24-item right-left discrimination test, 2 subtests of the Illinois Test of Psycholinguistic Abilities, and the Reading and Arithmetic subtests of the Wide Range Achievement Test suggest that: (a) confusion is related principally to CA, and broadly, to intelligence; (b) rate of decline in laterality confusion is not different for the 2 groups; and (c) measures of language and achievement are only moderately related to laterality confusion, and reading in particular, is not.—*Journal abstract.*

6890. Riedel, Wolfgang W. & Milgram, Norman A. (Catholic U. of America) **Level of aspiration, locus of control and n-Achievement in retardates and normal children.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 551-557.—Compared 49 educable retardates with 20 3rd and 19 6th grade normal children on measures of locus of control, level of aspiration, and need-Achievement. Results are consistent with a developmental progression, 6th graders scoring more internal in locus of control and more realistic in level of aspiration than 3rd graders. The retardates who were chronologically older than the 6th graders tended to resemble 3rd graders on these various measures. (19 ref.)—*Journal abstract.*

6891. Sole Sagarra, Jose. **El substrato organico de las oligofrenias.** [The organic substratum of oligophrenia.] *Revista de Neuro-Psiquiatria*, 1968(Sep), Vol. 31(3), 175-193.—Distinguishes between inherited and acquired oligophrenia, noting the importance of neuropathological, biochemical, and EEG research to determine the causes and treatments of the disease. The anatomical and physiopathological bases of mental deficiency are discussed, including disorders in prenatal nervous system development, prenatal circulatory disorders, infection, metabolic disorders, neoplastic mal-

formation, and chromosomal abnormalities. The diverse nature of anatomical lesions caused by oligophrenia is examined. 3 major lesion groups are elaborated: (a) those of congenital origin, (b) delayed brain development through an acquired affliction, and (c) active pathology in the brain. The physiopathology of oligophrenia is discussed with emphasis on amaurotic idiocy, phenylketonuria, cretinism, diffuse sclerosis, and Downs syndrome. (English, French, & German summaries)—P. Hertzberg.

6892. Terrell, Catherine G. (George Peabody Coll. for Teachers) **Effects of chemical stimulation on activity level and cognitive behavior of high-active and low-active retardates.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 427-428.

6893. VanEvery, Philip G. (U. Michigan) **Socio-economic status differences in the social responsiveness of trainable mentally retarded adolescents.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 649.

6894. Vlasova, T. A. & Petrova, V. G. (Inst. of Defectology, Moscow, USSR) **Pervyi mezhdunarodnyi kongress po izucheniyu umstvennoi otstalosti.** [1st International Congress on the Study of Mental Retardation.] *Spetsial'naya Shkola*, 1969, No. 1, 128-135.—Presents an account of the 1967 Congress, held in Montpellier, France. Summaries of papers are given and commented upon.—I. D. London.

6895. Wallace, R. M. & Fehr, F. S. (U. Illinois, Children's Research Center) **Heart rate, skin resistance, and reaction time of mongoloid and normal children under baseline and distraction conditions.** *Psychophysiology*, 1970(May), Vol. 6(6), 722-731.—Evaluated RT, body movement, heart rate, and skin resistance of mongoloid and normal control children under base-line and distraction conditions. Mongoloids demonstrated: (a) slower RT under both conditions, (b) a reduced skin resistance response and fewer heart rate fluctuations during the base-line period, and (c) fewer skin resistance fluctuations during the distraction condition. Skin resistance fluctuations were negatively correlated with RT, and heart rate fluctuations, although not significant, were in the same direction. Findings support the theoretical assertions of J. I. Lacey and B. C. Lacey that spontaneous activity is related to motor impulsivity, cortical activity, and general skeletal-motor functions. Body movement was negatively related to these measures of spontaneous activity and cannot be invoked as an explanation for the findings. (15 ref.)—*Journal abstract.*

Learning & Motor Ability

6896. Bitsky, Linda. (George Peabody Coll. for Teachers) **The role of cue novelty and cue discriminability in the discrimination shift performance of retardates and normal children of comparable ability.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 406.

6897. Blue, C. Milton. (U. Georgia) **Anticipation vs recall in the paired-associate learning of intellectually average and retarded subjects.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 327-334.—Conducted a paired-associates (visual materials) study with 24 intellectually average and 24 educable mentally retarded individuals of high school age. Each S received 2 equivalent tasks, 1 in the anticipation method of presentation and the other in the recall method. The

learning speed of the average Ss was significantly superior to that of the retardates. Method of presentation did not influence the learning of the average Ss but learning in the recall presentation was superior for retarded Ss.—*Journal abstract.*

6898. **Graham, N. C.** (U. Birmingham, School of Education, England) **Memory span and language proficiency.** *Journal of Learning Disabilities*, 1968(Nov), Vol. 1(11), 644-648.—Reports thinking and experimentation concerned with the relationships between memory span which is usually very short in educationally subnormal children and the ability to process sentences of standard English in a limited number of tasks. The input, integration, and output of learned material is discussed, and the dependence of ability to repeat and comprehend sentences on memory span as well as a procedure for testing repetition of sentences ability is demonstrated.—*M. Maney.*

6899. **Lewis, Merrilee R.** (U. Illinois) **IQ, MA, and meaningfulness in paired associate learning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 932.

6900. **Sommers, Paul A., Joiner, Lee M., Holt, Laurence E., & Gross, J. C.** (Southern Illinois U.) **Reaction time, agility, equilibrium, and kinesioperceptual matching as predictors of intelligence.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 460-462.—Attempted to determine the predictive validity of 5 kinesioperceptual (KP) items (dynamic equilibrium, RT, agility, static equilibrium, and KP matching) contained in a test battery administered to 120 institutionalized retarded children, with CAs of 8-20 yr. When multiple linear regression analysis was used to predict scores on the WISC the multiple correlation was .75 ($R^2 = .57$, $p = .001$). Knowledge of CA and sex added only 1% to the total amount of IQ variance accounted for. The conflict between the goals of developmental validation is discussed and prediction of intellectual criteria presented.—*Journal abstract.*

6901. **Whitman, Myron A.** (U. Illinois) **Discrimination learning as a function of MA, IQ, and institutionalization.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 907.

Training & Vocational Rehabilitation

6902. **Brolin, Donn E.** (U. Wisconsin) **The implementation of recommendations from an evaluation center for the mentally retarded and an analysis of variables related to client outcome.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 896.

6903. **Linford, Anthony G. & Duthie, James H.** (U. Illinois, Children's Research Center) **Spontaneous unintentional conditioning of the experimenter as a reinforcer.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 518.—During a study in which a chaining technique was used to teach young trainable Down's syndrome children a high endurance physical activity, an S failed to exhibit response decrement on withdrawal of primary and social reinforcement. By use of remote control TV cameras it was possible to establish that the behavior was maintained by the presence of the E alone. The need for reversal procedures to determine controlling stimuli in operant studies is indicated.—*Author abstract.*

6904. **Shulman, Lee S.** (Michigan State U.) **Negro-white differences in employability, self-concept, and**

related measures among adolescents classified as mentally handicapped. *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 227-240.—Investigated the determinants and course of vocational development in white and Negro adolescents classified as mentally handicapped. 36 Negro and white children diagnosed as essentially the same in mental retardation by school psychologists were found to be significantly different on measures reflecting "ability to comprehend instructions, work rhythm and coordination, absence of odd or inappropriate behavior, absence of complaints about self-inadequacies and appropriateness of expressed worker role." In all cases the Negro Ss were superior. Analysis of the Ss' home environments suggest that these results reflect contrasts between "lower-class disadvantaged youngsters and middle-class retardates" rather than Negroes and whites per se. It is argued that "better means of identifying the etiologies of educational handicaps" are needed.—*S. Appelle.*

PHYSICAL ILLNESS

6905. **Futterman, Edward H. & Hoffman, Irwin.** (U. Illinois, Medical School, Chicago) **Transient school phobia in a leukemic child.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 477-494.—Presented a case of transient school phobia in a fatally ill little girl in which death played a major role in the genesis of the phobia. With reduction of the immediacy of the danger and appropriate parental response, spontaneous remission occurred. The impact of the prolonged threat of death is critical in distinguishing families with a leukemic child from other families coping with day-to-day separations. When the threat interacts with family vulnerabilities during a particular developmental period, potential for regression at a later time is enhanced. Further threat can lead to symptoms. In this child, school phobic symptoms appeared which are less refractory and more responsive to ego control of mother and child than previously described in the literature. In the family usual criteria for psychopathology were difficult to apply. Data indicate that, in the face of severe threat, families often demonstrate great resources along with great distress. The route to adaptation is often circuitous, with transitory symptom formation related to coping processes. (30 ref.)—*Journal summary.*

6906. **Honzik, Marjorie P., Collart, Donna S., Robinson, Saul J., & Finley, Knox H.** (U. California, Inst. of Human Development, Berkeley) **Sex differences in verbal and performance IQ's of children undergoing open-heart surgery.** *Science*, 1969(Apr), Vol. 164(3878), 445-447.—In an experiment with 60 boys and 58 girls with congenital heart defects, it was found that boys had essentially normal verbal and performance IQs on pre- and postoperative tests. Girls' verbal IQs, however, were significantly lower than those of boys, and lower than girls' own performance IQs. This sex difference among congenital heart cases reverses the usual finding that girls excel on verbal tests.—*Journal abstract.*

6907. **Nan'no, Hisashige, et al.** (Osaka U., Medical School, Japan) **A neurophysiological study of sleep paralysis in narcoleptic patients.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 382-390.—Studied behavioral response by pressing a switch placed in the hand and EEG arousal response to external stimuli (calling S by name 3-5 times at short intervals) in the REM period in nocturnal sleep. Ss were

8 normal 21-29 yr. old controls and 8 15-50 yr. old narcoleptics with sleep paralysis and other narcoleptic symptoms. All vocal stimuli, with a few exceptions, were perceived by Ss. Narcoleptics and controls, when stimulated in the REM period occurring more than 1 hr. after sleep onset (the nonsleep-onset REM period), responded to most of the stimuli by pressing the switch. In the REM period occurring at the sleep onset (the sleep-onset REM period), in which narcoleptics experienced sleep paralysis, they frequently failed to show a behavioral response (statistically significant). EEG arousal response was more marked in controls than in narcoleptics. In narcoleptics it was more prominent in the nonsleep-onset REM period. Findings suggest that a dissociation between perception or consciousness level and somatic motor function occurring in narcoleptics in the sleep-onset REM period produces sleep paralysis. Possible neurophysiological mechanisms related to the occurrence of this dissociation in the sleep-onset REM period and of this sleep state in narcoleptics are discussed. (French summary) (46 ref.)—*Journal summary*.

6908. Piana, Mary T. (Creedmore State Hosp., Queens Village, N.Y.) **An economical enzymatic debriding agent for chronic skin ulcers.** *Psychiatric Quarterly Supplement*, 1968, Vol. 42(1), 98-100.—Papain-urea ointment is as effective as any topical preparation previously used in the treatment of chronic skin ulcers. A preliminary double-blind test was performed on a 72-yr-old woman with 2 decubitus ulcers. In a subsequent trial, "27 patients with a total of 59 ulcers were treated with the papain-urea debriding ointment." In all the cases excellent debriding action was noted. "Generally the lesions became clean and free of necrotic tissue in 3-4 days." Since it is much cheaper than other enzyme products, it can be recommended particularly for large institutions with long-term, elderly patients, and small nursing forces.—*D. Prager*.

6909. Rodos, Jerry. (1660 Broad St., Cranston, R.I.) **The treatment of obesity with voranil (SU-10568), a new non-amphetamine anorexigenic agent.** *Journal of the American Osteopathic Association*, 1969(Oct), Vol. 69, 161-164.—Attempted to determine the effectiveness of voranil in producing weight loss through appetite suppression. Ss were 11 men and 39 women whose weight was at least 20% above ideal. They were placed on a regimen of voranil 50 mg/day and a 1000 calorie diet and studied for 6 mo. The final weight reduction figures were calculated for all but 5 Ss. 6 lost 20 lb. or more, 15 lost more than 10, 10 lost less than 10, and 9 patients lost less than 5. 4 gained weight. Side effects, chiefly headaches, caused 4 Ss to drop out of the study. 3 Ss experienced transient elevations in the serum glutamic oxaloacetic transaminase level. There was considerable variation in Ss' reports of hunger, but most felt "full" or "satisfied."—*Journal abstract*.

6910. Schucman, Helen & Thetford, William N. (Columbia U., Coll. of Physicians & Surgeons) **A comparison of personality traits in ulcerative colitis and migraine patients.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 443-452.—Tested 3 hypotheses based on the Personality Assessment System (PAS), a new theoretical approach to relating personality traits to patterns of intelligence test performance. The ultimate aim of the PAS is to provide insights into personality structure and function based on objective test data. The sample included 35 Ss with ulcerative

colitis, 29 with migraine headaches, and 207 controls. It was hypothesized that: (a) migraine group would be predominately externalizers, while colitis Ss would be internalizers; (b) both groups would evidence "an uncompensated but modified contact state"; and (c) the migraine Ss would consist mainly of regulated Ss and the colitis group of flexible. Results support the hypotheses. (17 ref.)—*Journal abstract*.

6911. Vaughan, Herbert G. & Ritter, Walter. (Albert Einstein Coll. of Medicine, Yeshiva U.) **The sources of auditory evoked responses recorded from the human scalp.** *Electroencephalography & Clinical Neurophysiology*, 1970(Apr), Vol. 28(4), 360-367.—Studied the scalp distribution of auditory evoked responses (AERs) in 6 normal adult male Ss and in 4 patients who had undergone carotid angiography. The late (200 msec.) component to regular stimulation showed a polarity inversion across a line overlying the Sylvian fissure, being positive above and negative below it. The observed distribution, when compared with that predicted from a multishell volume conductor model, was most consistent with dipole layer sources within the primary auditory projection cortex in the supratemporal plane. AERs to monaural stimuli were larger over the contralateral hemisphere, also supporting their specific origin. In contrast, the longer latency (300 msec.) component appearing in AERs elicited by infrequent aperiodic stimuli possessed a different distribution consistent with its origin in parieto-temporal association cortex. It was possible to differentiate the myogenic postauricular response, which possessed a quite circumscribed distribution, from the early AER components of intracranial origin whose distribution was similar to that of the 200-msec component. (French summary) (25 ref.)—*Journal summary*.

6912. Zivin, Israel. (Northwestern U., Medical School) **The neurological and psychiatric aspects of hypoglycemia.** *Diseases of the Nervous System*, 1970(Sep), Vol. 31(9), 604-607.—Discusses hypoglycemia, stressing both the neurological and emotional aspects of the illness. 2 illustrative case studies are presented of patients with hypoglycemia who were initially felt to be emotionally disturbed. The organic nature of their illness was revealed after hospitalization. It is noted that altered physical and emotional behavior with periods of unawareness can indicate the presence of hypoglycemia. Common symptoms include light headedness, anxiety, tremulousness, irritability, hunger, and nausea. Causes of the illness are presented including exogenous insulin overdosage in diabetics, adreno-cortical insufficiency, pituitary tumors, lesions of the hypothalamus and brainstem, alcoholism, hypothyroidism, intestinal surgery, and prolonged diarrhea. Results of severe or prolonged hypoglycemia are discussed.—*P. McMillan*.

6913. Roberts, Leigh M., Halleck, Seymour L., & Loeb, Martin B. (Eds.) (U. Wisconsin) **Community psychiatry.** Garden City, N.Y.: Anchor, 1969. x, 269 p. \$1.45(paper).—Presents proceedings of the 1964 Symposium on Community Psychiatry at the University of Wisconsin. Papers are presented by various authors representing the fields of psychiatry, psychology, social work, sociology, education, and law.

COMMUNITY SERVICES

6914. Beigel, Allan. (U. Arizona, Medical School)

Planning for the development of a community mental health center: II. Planning of services. *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 356-365.—Describes the planning of comprehensive services within a community mental health center. Basic principles and guidelines are detailed for each of the 5 essential services: inpatients, outpatients, partial hospitalization, emergency, and consultation and education. Special attention is called to additional services of training and research and evaluation which are crucial to the growth of the program. The planning of any service will only be as effective as the amount of consideration which has also been given to understanding the catchment area, administration, continuity of care, and the areas of staffing and funding. (52 ref.)—*Journal abstract.*

6915. Braun, Samuel J. & Reiser, Nancy R. (Somerville-Cambridge Mental Health & Mental Retardation Program, Cambridge, Mass.) **Teacher-parent work in the home: An aspect of child guidance clinic services.** *Journal of the American Academy of Child Psychiatry*, 1970(Jul), Vol. 9(3), 495-514.—Describes preschool counseling in the home. The following skills and qualities of preschool teachers relevant for parent work are discussed: (a) ability to observe young children, (b) a framework of child development which emphasizes learning, (c) ability to translate abstract concepts into concrete operations, (d) a professional title which embodies the expectations of growth and future, and (e) the capacity to empathize with the parental role. The parental role in the helping process is examined. (16 ref.)—G. Steele.

6916. Cohen, Raquel E. & Schulberg, Herbert C. (Harvard Medical School, Boston, Mass.) **A review and preview of a training program in community mental health.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 383-386.—Describes the evolution of the community mental health training program at Harvard Medical School and the ways in which it has attempted to remain relevant and flexible. Issues affecting future directions are described.—*Journal abstract.*

6917. Cook, Patrick E. (Ed.) (Florida State U.) **Community psychology and community mental health: Introductory readings.** San Francisco, Calif.: Holden-Day, 1970. xiii, 286 p.

6918. Daniels, Robert S. (U. Chicago, School of Biological Sciences) **Disorganization in statewide planning for improved mental health services: Problems and possible solution.** *Comprehensive Psychiatry*, 1970(Mar), Vol. 11(2), 100-107.—Asserts that planning for human services is disorganized and inefficient. Deficiencies in the current system include its complexity, its lack of clear goals, its lack of interrelationships among its parts, and its rapidly pyramiding structure. Suggestions are made to clarify structure and function and to interrelate the parts. Meeting the needs of consumer more than on professional and organizational needs is emphasized.—D. Prager.

6919. Glaser, Frederick B. (Temple U., Health Sciences Center) **Our place: Design for a day program.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 827-841.—Faced with the challenge of community mental health, a day program, which operates as a therapeutic community under a nonmedical model of treatment and utilizes multiple interlocking group therapy exclusively, is discussed. Particular emphasis is placed on the importance of nonprofessional and outpatient staff members. (60 ref.)—*Journal abstract.*

6920. Gorman, Mike. (National Committee Against Mental Illness, Washington, D.C.) **Community mental health: The search for identity.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 347-355.—Evaluates the performance and potential of the community mental health center movement from the perspective of 6 yr. of operation on a national scale. The program has (a) brought psychiatric care to hundreds of thousands of citizens who were never reached before, and (b) affirmed the dignity of the individual suffering from an emotional disturbance. The major difficulty at this time is the uncertain financial support from the federal government and at the local level, which makes it difficult for many centers to acquire and hold the staff necessary to meet the demands upon their services. As a consequence, it is the belief of many associated with this program since its inception that the community mental health center will achieve neither stability nor its true potential until a universal system of prepaid medical care in this country is devised.—*Journal abstract.*

6921. Gottschalk, Louis A., Morrison, Gilbert C., Drury, Robert B., & Barnes, Allen C. (U. California, Medical Coll., Irvine) **The Laguna Beach experiment as a community approach to family counselling for drug abuse problems in youth.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 226-234.—Describes the Laguna Beach Drug Abuse Center for Youth in California which served as a problem clarification and communication facilitating occasion between children and parents. It did not function for the purpose of individual problem solving. An attempt is made to encourage young people and their parents to express their views about the usual problems of adolescence and parenthood. Informal information about drugs, their pharmacology, their uses, and adverse side effects is provided. There is need in this program for close cooperation between the school, the community, and the family.—D. Prager.

6922. Hailey, Anthea; Wing, Lorna, & Wing, J. K. (Inst. of Psychiatry, London, England) **Camberwell Psychiatric Case Register: II. Basic data required for planning.** *Social Psychiatry*, 1970(Oct), Vol. 5(4), 195-202.—Presents findings for the 1st 3 yr. of a study of the mental health services in southeast London. The characteristics of 416 long-hospitalized patients are discussed. Data indicate that: (a) the number of patients is decreasing, but at a slower rate than officially forecast; (b) admissions for organic psychosis show the highest retention rate over time, and those for reactive depression the lowest; (c) replanning of short- and medium-term inpatient beds has been initiated; (d) changes in the local inpatient agencies are being examined; and (e) the number of outpatient services is higher for Camberwell than nationally, due largely to the teaching hospitals in the area. The direction of future developments in the area, and the importance of a case register in monitoring them, are discussed. (French & German abstracts)—*Journal abstract.*

6923. Lamb, Charles W. (Mary Imogene Bassett Hosp., Cooperstown, N.Y.) **Telephone therapy: Some common errors and fallacies.** *Voices: The Art & Science of Psychotherapy*, 1969-1970(Win), Vol. 5(4), 42-46.—Presents some of the common problems encountered in learning and teaching "telephone therapy" with callers to a suicide prevention and crisis service. Various pitfalls are pointed out, and positive suggestions are given for avoiding these. Also, what the person

engaged in "telephone therapy" has to offer the caller is described.—*S. R. Greenwald.*

6924. **Langston, Robert D.** (Baylor Coll. of Medicine, Houston, Tex.) **Community mental health centers and community mental health ideology.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 387-392.—Studied the adherence of 2 community mental health center staffs to community mental health ideology, as measured by the Baker-Schulberg Community Mental Health Ideology (CMHI) Scale. The results for equivalent populations were the same as those of the only previously reported study, indicating the CMHI Scale is a reliable research tool. Significant relationships were found between scores and (a) professional affiliation, (b) years of liberal arts education, and (c) length of time working in a mental health center. Medical education appears to have a different effect on adherence to the ideology of the community mental health movement than that of liberal arts education.—*Journal abstract.*

6925. **Newman, Leonard.** (Contra Costa County Mental Health Services, Martinez, Calif.) **Instant placement: A new model for providing rehabilitation services within a community mental health program.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 401-410.—Discusses methods of restoring the social-vocational functions of mental patients. Traditional methods, developed for use with the physically disabled and outside the mainstream of the mental hygiene movement, may bias the selection process and reinforce patients' unemployed status. A new model is proposed consisting of: (a) job placement at the start of the rehabilitation process, (b) extinction of inadequate social-vocational behavior and shaping of appropriate work habits and interpersonal skills, and (c) use of nonprofessional leaders directing work-related activity groups. More realistic criteria of success and new professional roles by staff are proposed.—*Journal abstract.*

6926. **Purvis, S. A. & Miskimins, R. W.** (Ft. Logan Mental Health Center, Denver, Colo.) **Effects of community follow-up on post-hospital adjustment of psychiatric patients.** *Community Mental Health Journal*, 1970(Oct), Vol. 6(5), 374-382.—Discusses the effects of community follow-up programs in increasing the adjustment of former psychiatric patients. It is suggested that even intermittent hospitalization perpetuates dependency and hinders full rehabilitation in the community. Research findings are presented which indicate that 152 psychiatric patients receiving posthospital follow-up in the community showed reduced hospital contact and recidivism and increased vocational success and satisfaction. It is concluded that follow-up which offers moderate support and is distinct from the hospital, i.e., community-based, fosters the most independence and adjustment in its participants. (18 ref.)—*Journal abstract.*

6927. **Roe, Anne.** (5151 E. Holmes St., Tucson, Ariz.) **Community resources centers.** *American Psychologist*, 1970(Nov), Vol. 25(11), 1033-1040.—Proposes 2 kinds of community resources centers combining both services and training functions, and offering immediate help or referral to citizens lacking information or skills to cope with a situation. This breadth of approach is made possible by: (a) involving a variety of disciplines; (b) utilizing computer technology for detailed educational and vocational information (i.e., the already functioning Computerized Vocational Information System); and (c)

making referrals to health, welfare, and other established resources. The following university divisions could be involved: business, law, psychology, psychiatry, social work, and vocational and educational counseling. Others could be added. A center for community services is described which is integrated with different university departments such as those listed above, including economics and sociology.—*Author abstract.*

6928. **Salzman, Carl; Shader, Richard I., Scott, Dorothy A., & Binstock, William.** (Harvard Medical School, Boston, Mass.) **Interviewer anger and patient dropout in walk-in clinic.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 267-273.—Examined interviewer attitudes, e.g., liking and anger for patients during initial consultation. Among those assigned "extended diagnostic" at the end of their consultation, it was found that when an interviewer felt angry toward an applicant there was an increased probability that the applicant would not return for a 2nd interview. This group of dropouts was distinguished from the remaining population by a greater percentage of women, non-Caucasians, and members of the lower socioeconomic classes. (16 ref.)—*Journal summary.*

6929. **Satloff, Aaron & Worby, Cyril M.** (U. Rochester, Medical & Dental School) **The psychiatric emergency service: Mirror of change.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1628-1632.—Compared the data collected from the population consulting the Rochester Medical Center psychiatric emergency service during 2 identical time spans 10 yr. apart (1958 and 1968) consisting of 100 consecutive 24-yr periods. It was found that: (a) the service load increased over 49%, (b) more women than men used the service in both years, (c) fewer patients were judged to require hospitalization in 1968 than in 1958, and (d) there was a shift to a younger age group utilizing the service in 1968. Implications of the findings for the planning of an adequate network of community mental health facilities are discussed. (16 ref.)—*P. R. Shibelski.*

6930. **Zuithoff, D.** (Ministry of Cultural Affairs & Social Welfare, The Hague, Netherlands) **Community psychiatry and social action: A survey.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1621-1627.—Defines the role of community psychiatry (presenting its various aspects and various different meanings) and attempts to achieve a viable meaning to ambiguous terms, i.e., "health" and "well-being." 6 workable definitions of community psychiatry are given with the "preventative psychiatry" interpretation favored and expounded upon. The role of the community psychiatrist as he conforms or identifies with the existing sociocultural system is analyzed and scrutinized. Social action and its effectiveness, and of the role of the consultant are briefly described as they pertain to the community's social welfare and well-being.—*P. R. Shibelski.*

GERIATRICS

6931. **Beard, Margaret T. & Bidus, Donald R.** (Veterans Administration Hosp., Augusta, Ga.) **A study of the effects of remotivation on social competence, social interest and personal neatness.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Jul), Vol. 6(4), 197-201.—Initiated remotivation techniques on several geriatric wards with a total of 111 patients. The Revised-Nurses' Observation Scale for Inpatient Evaluation was used to assess changes in social com-

petence, social interest, and personal neatness. Results indicate significant improvement of social interest for all Ss and some improvement in social comprehension and personal neatness. Although all Ss responded favorably to some degree, remotivation techniques were most effective for Ss over 60.2 yr. old who had been hospitalized for long time periods, especially in terms of social interest and competence. Although most Ss tended to improve in neatness, none did so to a significant degree.—*Journal summary.*

6932. Dana, Lawrence A., White, Leonard, & Merlis, Sidney. (Central Islip State Hosp., N.Y.) **A new approach to measuring short-term memory in geriatric Ss: A pilot study.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 8-10.—Evaluated the short-term memory of 20 geriatric Ss in a state hospital with a new method. Ss placed figures of a doll family into various rooms of a doll house, and then recalled their placement. Since S recalled his own placement, initial level of learning was assured. Pilot data suggest the measure is reliable even with Ss suffering from both psychiatric and physical illness.—*Journal abstract.*

6933. Haney, J. R., Welsh, D. Kent; Finch, A. J., & Dinoff, Michael. (U. Alabama) **Comparison of age matched regressed patients on the Minimal Social Behavior Scale.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 104.—Attempted to determine whether the Minimal Social Behavior Scale differentiates groups based on age or level of regression. Ss were 30 chronically regressed geriatric neuropsychiatric patients differing only in degree of regression. A statistically significant difference was found between scale means, demonstrating that it can successfully discriminate levels of regression in 2 groups matched for age.—*M. West.*

6934. Oberleder, Muriel. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Crisis therapy in mental breakdown of the aging.** *Gerontologist*, 1970(Sum), Vol. 10(2), 111-114.—Life crises had precipitated institutionalization in all cases in a random selection of state hospital patients, whose "senile" symptoms were successfully treated during a 6-mo period of therapy based upon crisis theory. 12 patients, average age 76.4 yr., all having diagnoses of chronic brain syndrome or arteriosclerosis with psychosis, were exposed to an intensive treatment and practical action program geared toward discharge and expedited by staff, family, and community collaboration. The posthospital adjustment of the discharged patients offers an opportunity for study of the recovery potential of the so-called "hopelessly deteriorated" elderly person. The present study offers alternative interpretations of symptoms commonly attributed to organic impairment and suggests some preventive and treatment approaches.—*Journal abstract.*

6935. Simon, Alexander. (U. California, Medical School, San Francisco) **Physical and socio-psychologic stress in the geriatric mentally ill.** *Comprehensive Psychiatry*, 1970(May), Vol. 11(3), 242-247.—Considers the "interrelationship of physical and mental status in the elderly and the influence on them of a number of sociopsychologic factors." It is concluded that these "patients rarely require just 1 type of treatment or service. The deprivations they suffer are likely to be multiple. What is needed is continuing attention to their overall circumstances and the provision of [the conducive] services . . . to a comfortable, safe, and satisfying life within the limitations of their physical and mental capacities."—*D. Prager.*

EDUCATIONAL PSYCHOLOGY

6936. Adams, Raymond S. (Massey U., Palmerston North, New Zealand) **Location as a feature of instructional interaction.** *Merrill-Palmer Quarterly*, 1969(Oct), Vol. 15(4), 309-321.—Studied videotaped records of live elementary and secondary school lessons. Location of the actors in classrooms indicated that "communicatory behavior was heavily concentrated in the center front of the room and—with ever-diminishing force—in a line directly up the center of the room The greater the distance a location is from the center line of the room and the greater the distance it is from the center front of the room, the less the likelihood that inhabitants of that location will be involved in the direct communication-interaction system."—*R. V. Hamilton.*

6937. Bjerstedt, Åke. (Inst. of Pedagogy-Psychology, Malmö, Sweden) **Två svenska pedagoger.** [Two Swedish research workers in education.] *Pedagogisk-Psychologiska Problem*, 1970(Sep), No. 114, 47 p.—Reviews and discusses the main publications of U. Dahllof and I. Johannesson within the educational and psychological fields.—*English abstract.*

6938. Cellura, A. Raymond. (Rhode Island Coll.) **The application of psychological theory in educational settings: An overview.** *American Educational Research Journal*, 1969(May), Vol. 6(3), 349-382.—Analyzes the atheoretical approach which is characteristic of educational research and presents 2 contrasting philosophies of science which may account for this. The relevance of formal theoretical approaches to the prediction of behavior is examined, particularly some of the difficulties that appear to be associated with the application of contemporary psychological theory in educational settings. The construct systems of several theories are elaborated including similarities and differences in their functional relationships and the implications of these. Attention is given to the applicability of utility-expectancy theory, and to some of the problems and prospects associated with its use in educational research. (5 p. ref.)—*Journal abstract.*

6939. Davis, Frank R. (U. California, Riverside) **Environmental influences on substrates of achievement leading to learning disability.** *Journal of Learning Disabilities*, 1969(Mar), Vol. 2(3), 155-159.—Discusses the view that achievement in school reflects "behavior which happens when the contents of many subability- and valuing-systems have been tied together in an action directed working system." The development of achievement is viewed as the development of hierarchies of subsystems which over time become more efficient working systems and which, when deficient, result in symptoms of learning disability. Implications of this theory for the correlation of the psychological and physiological domains in explaining achievement, and for consideration of the influence of the family, neighborhood, and school in synthesizing the child's available systems are discussed. It is concluded that research guided by substrata theory which probes conceptual, perceptual, emotional, and psychophysiological subsystems to explain the characteristics of school achievement working systems, is "the proper strategy to isolate and determine the interaction among the substrates of achievement."—*M. Maney.*

6940. Higson, C. W. (U. Leicester, School of Education, England) **Finding out about educational**

research. *Educational Research*, 1968(Nov), Vol. 11(1), 31-37.—Provides information on where to find documents concerning educational research in Britain. The British library system is explained and appropriate bibliographic references, research journals, abstracting journals, handbooks, and literature surveys are listed.—R. Wiltz.

6941. Karasick, B., Leidy, T. R., & Smart, B. **Characteristics differentiating high school leaders from nonleaders.** *Purdue Opinion Panel Poll Report*, 1968(May), Vol. 27(3), 18 p.—Administered questionnaires containing 7 biographical data items and 2 personality scales to a total sample of 12,000 high school students. Analysis of a stratified sample of 2000 questionnaires indicate that student leadership, as defined by being captain or cocaptain of a varsity sport, being cheerleader or bandleader, or holding office, is related to 6 of the biographical items in the following manner: the student leader is differentiated from other students in that he is more likely to (a) have a mother who has graduated from high school or college, (b) be a boy, (c) have above-average grades, (d) plan on going to college, (e) be of above-average socioeconomic status, and (f) prefer the Republican party. Neither of the personality scales, 1 of which measured the degree to which events in one's life are considered to be controlled internally or externally, and the other of which was designed to measure alienation from society, were found to relate to student leadership. Additional items relating to the leadership variable were also listed, and an appendix provided a complete item analysis.—R. Wiltz.

6942. Rosenshine, Barak. (Temple U.) **Evaluation of classroom instruction.** *Review of Educational Research*, 1970(Apr), Vol. 40(2), 279-300.—In this review, an attempt is made to describe available instruments for the observation of classroom instruction and to suggest modifications for local evaluation of instruction. Classroom observational instruments are discussed, followed by reviews of category systems. Rating systems and the use of observational systems together with a consideration of the difficulties of their use are discussed. (4 p. ref.)—P. D. Leedy.

6943. Suchodolski, B. **Świat człowieka a wychowanie.** [The world of man and education.] Warsaw, Poland: Książka i Wiedza, 1967. 590 p.—Presents a Marxist analysis of certain philosophical problems of pedagogy, and the characteristics of contemporary youth and their relation to education.—I. D. London.

6944. Waters, Thomas J. & Daugherty, Robert A. (Southern Illinois U., Edwardsville) **Student leadership, mathematics aptitude and college major.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 406.—Hypothesized that college student leaders would (a) score significantly lower on the American College Testing Program Mathematics Usage test, and (b) more frequently select "person oriented" majors than their nonleader counterparts. Ss were 30 male student leaders of junior or senior level and 30 matched controls. Results support both hypotheses.—P. McMillan.

ATTITUDE & ADJUSTMENT

6945. Al-Talib, Nizar M. (U. Illinois) **Attitude: Consonant or dissonant role playing with high or low justification.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 630-631.

6946. Anderson, Carl E. (U. Maryland) **A study of selected psycho-social correlates of college student protesters and non-protesters.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 606.

6947. Anderson, Clifford L. (Ohio U.) **A test to determine the degree to which the school as an attitude object is perceived as masculine by third grade boys.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 638-639.

6948. Croake, James W. & Knox, Frances H. (Florida State U.) **Changing attitudes toward parents and university personnel.** *College Student Survey*, 1970(Fal), Vol. 4(2), 60-64.—Studied the attitudes of college students toward their parents and university administrative personnel. The Nye scale was used to assess the attitudes of 500 Ss toward their parents. A Likert-type scale was constructed to measure the respect of the Ss for the administrative personnel. Both males and females hold a mildly positive attitude toward their parents with the females being more favorable than the males. Upper-class Ss indicated a more favorable attitude toward their parents than the lower-class students. No significant differences were found between the sexes and student classification in their attitudes toward school personnel.—A. J. Ter Keurst.

6949. Douglas, Leonard. (U. Michigan) **A comparative analysis of the relationships between self-esteem and certain selected variables among youth from diverse racial groups.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 641-642.

6950. Hannah, William. (U. Southern California) **Dropout-stayin personality differentials and college environments.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 584.

6951. Harris, Edward E. (Indiana U., Indianapolis) **Conforming and deviant educational attitudes and group position.** *College Student Survey*, 1970(Fal), Vol. 4(2), 33-42.—The extent of conforming, deviant, and ambition-reduction attitudes of college students may vary with respect to their positions in the social structure. Conformation is the endorsement of a cultural goal achieved by educational success. Deviation is the attainment of success by illegitimate means. Ambition reduction is the reduction of the desired level success, if the attainment of success entails the risk of deviant behavior. Ss were 660 junior and senior class students. About 40% were Negro. By the Duncan index Ss were classified into low- and high-social status. Attitudes were measured by Ss' responses to an account of Joe who seeks admission to a medical school. Joe receives "D" grades in a required course. By illegitimate means he can obtain an advanced copy of a crucial examination. He can also reject the fraud and obtain a position as a teacher. Ss' responses indicated "what they would do" if they were in Joe's place. The conforming attitude was dominant among all groups, regardless of color or status. The ambition-reduction was most prevalent among Negro women. The results were in keeping with the idea that innovation was mostly found among deprived groups and conformity was identified with the socially privileged groups.—A. J. Ter Keurst.

6952. Kaufman, James M. (U. Kansas) **Perception of family and school related variables by school adjusted, school disordered, and institutionalized emotionally disturbed preadolescent boys.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 562-563.

6953. **Lievens, Paul.** (Catholic U., Louvain, Belgium) **Approche neuro-psychologique du probleme que pose l'ecolier lymphatique, fatigüé et nerveux.** [Neuropsychological approach to the problem posed by a lymphatic, tired and nervous student.] *Information Psychologique*, 1969(Oct), No. 36, 27-47.—The 3 adjectives are not scientific ones, but rather used commonly by lay people in Belgium. The syndrome they point to can have 3 causes depending on whether the symptoms occurred before school age, whether they occurred as a result of starting school or only later. A number of the factors that could cause "listlessness" or "nervousness" at these 3 stages are discussed. Examples are constitutional factors or family disturbance (Stage I), sensory defects, mental retardation (Stage II), and family conflicts, psychosis (Stage III). This is a general review paper without any references however.—S. G. Vandenberg.

6954. **Luck, James I. & Gruner, Charles R.** (Texas Christian U.) **Note on authoritarianism and critical thinking ability.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 380.—Administered the Watson-Glaser Critical Thinking Appraisal Form YM (W-G) and a 28-item version of the California F Scale to 128 high school students. A negative correlation ($p < .01$) was found between authoritarianism and total W-G scores. W-G subscore correlations indicate that authoritarianism most affects ability to determine whether conclusions logically follow from given information and least affects the ability to recognize assumptions.—*Author abstract.*

6955. **Lundberg, Ulf & Ekman, Goesta.** (U. Stockholm, Psychological Lab., Sweden) **Emotional involvement while anticipating an examination: A psychophysical study.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 603-609.—During a period of 23 days, 51 undergraduates reported on their emotional reaction to an examination taking place at the end of the period; a variant of the method of magnitude estimation was used for this purpose. Scale values of elapsed time were also obtained. Results show that emotional involvement increased as subjective time before the examination decreased. The process could be described by a simple exponential function. (20 ref.)—*Journal abstract.*

6956. **Meredith, Gerald M.** (U. Hawaii) **Public stereotype of the ideal university president.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 588.—Tested agreement among students concerning the attributes of the ideal university president. 131 undergraduates described their concept with Block's Clinical Q Deck. The ideal president was described by the 15 most highly endorsed clinical statements. A checklist for recruitment of administrative personnel is proposed, using the 15 attributes as measures.—*Author abstract.*

6957. **Messer, Stanley.** (Rutgers State U., Psychological Clinic) **Reflection-impulsivity: Stability and school failure.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 487-490.—Studied the stability of the cognitive disposition of 65 boys to be impulsive or reflective over a 2½-yr period. Retest correlations were modest but significant and ranged from .25-.43. Ss who failed a grade were discovered to be significantly more impulsive than their peers, but highly comparable in verbal intelligence. Some possible reasons for the decrease of stability over time might include a differential growth of anxiety over error and the effects of modeling.—*Journal abstract.*

6958. **Mueller, Daniel J.** (U. Illinois) **Differences in**

social responsibility among various groups of college students. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 646-647.

6959. **Musgrove, F.** (U. Bradford, England) **Personal problems in learning environments.** *Educational Research*, 1968(Jun), Vol. 10(3), 235-238.—Investigated the types of problems encountered in the university as compared with those experienced in industrial employment. A problem check list was administered to a random sample of 392 male and 77 female undergraduates, and 173 engineers. 84 of the engineers had received training in industry while the remaining were trained in the university. On the basis of number of problems checked, it was found that (a) females were significantly more worried than males; (b) male arts and social science students were significantly less worried by academic work, but more generally than those enrolled in science and technology; and (c) engineers studying in the university listed significantly more worries than those receiving training in industry.—R. Wiltz.

6960. **Nickel, Horst & Schlüter, Peter.** (Rheinland Pedagogical Coll., Bonn, W. Germany) **Angstwerte bei Hauptschülern und ihr Zusammenhang mit Leistungs- sowie Verhaltensmerkmalen, Lehrerurteil und Unterrichtsstil.** [Anxiety values in schoolchildren and their relationship with performance and behavior characteristics, teacher judgment and teaching style.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(2), 125-136.—567 6th and 8th graders in a German school were tested with 2 anxiety scales: the German adaptations of Castaneda's Children's Manifest Anxiety scale and Sarason's Test Anxiety Scale for Children. Teacher style was also judged. Results show differences in age and sex for the anxiety scales (.01 and .05). The style of teaching seems to influence the degree of correspondence between self-ratings and teachers' anxiety ratings. Those students judged by their teachers as being relaxed, emotionally warm, and nondirective tended to have higher anxiety scores on both anxiety scales. (English summary) (21 ref.)—R. F. Wagner.

6961. **Rogers, William R.** (Earlham Coll.) **The alienated student.** Nashville, Tenn.: United Methodist Church, 1969. 74 p. \$1.50(paper).

6962. **Sidorova, A. V.** (Research Inst. of Pediatrics & Child Surgery, Moscow, USSR) **O kharaktere shuma v yasel'nykh gruppakh.** [On the character of noise in day nursery groups.] *Pediatrics*, 1970, Vol. 49(1), 67-70.—Attempted to determine the factors affecting the noise level in the day nursery, and the noise level in the day nursery for children of different ages and at different intervals of time. There is no doubt that degree of excitation in children and their behavior are a direct function of noise level in the group.—I. D. London.

6963. **Treadwell, Thomas W.** (West Chester State Coll.) **Comparing autocratic and democratic leadership techniques for college women.** *College Student Survey*, 1970(Fal), Vol. 4(2), 46-51.—This descriptive report indicates the development of a democratic group climate among 42 female college students. After 25 wk. of this experience, the college administration resolved to place the women in the traditional dormitory setting. The changing attitudes of the Ss indicated a considerable increase in the student attitude that the administration generally treats the students more like children and consequently tends to destroy individual initiative.—A. J. Ter Keurst.

TESTING

6964. Burgess, Thomas C. (Portland State U.) **Evaluation of an IBM card punchboard used as a test answer sheet.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 146.—"Use of the punchboard answer sheet as a final examination for a psychology course was well received by the [23] students but with some reservations by those who became upset by knowing the number of errors they were making. It gave results which were equally reliable and equally variable [with those on traditional answer sheets,] but lower mean scores suggested that it made the test more difficult."—*M. West.*

6965. Cashen, Valjean M. & Leicht, Kenneth L. (Illinois State U.) **Role of the isolation effect in a formal educational setting.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 484-486.—Extended the laboratory finding that setting an item apart from other list items facilitates recall of the item to a formal educational setting. Performance of 40 undergraduates on questions based on statements set apart by underlining was superior to performance on questions about the same statements when they were not underlined. Contrary to many laboratory studies, performance on questions about materials adjacent to materials selected for isolation was better in underlined than in nonunderlined conditions. Results suggest that making materials conspicuous by underlining serves the same function as presenting the material as an advanced organizer.—*Journal abstract.*

6966. Dyer, Henry S., Linn, Robert L., & Patton, Michael J. (Educational Testing Service, Princeton, N.J.) **A comparison of four methods of obtaining discrepancy measures based on observed and predicted school system means on achievement tests.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 591-605.—Investigated 4 methods of obtaining discrepancy measures from the actual means and predicted means of school systems on achievement test scores. Method I employed a matched-longitudinal sample and used the scores of the individual students in the regression analyses. Method II employed the same sample but used school system means in the analyses. Methods III and IV also used school system means in the analyses, but in Method III an unmatched-longitudinal sample was used, while in Method IV a cross-sectional sample was used. It is concluded that neither Method III nor Method IV is a reasonable substitute for the 1st 2 methods.—*Journal abstract.*

6967. Fogelman, K. R. (National Foundation for Educational Research, Slough, England) **Modern maths and intelligence tests.** *Educational Research*, 1968(Nov), Vol. 11(1), 71-73.—Investigated the effect on intelligence tests of previous experience with certain mathematical materials and topics. 5 classes of 7-8 yr. old English children were given training for 2 terms with an apparatus designed to promote familiarity with the grouping of objects according to their attributes. 6 classes of comparable children constituted the control group. Of those completing a picture-test pretest as well as posttests consisting of the Lorge-Thorndike Intelligence Test and Raven Progressive Matrices, the experimental group ($N = 61$) scored significantly higher than the control group ($N = 86$) on the Lorge-Thorndike Intelligence Test. It is emphasized that due to methodological weaknesses, including a different pretest and

a small and possibly atypical sample, results should be interpreted cautiously. However, it is concluded that such experience as that given the experimental group seems to improve scores on intelligence tests requiring skills similar to those fostered by the experience.—*R. Wiltz.*

6968. Kelleher, Edward J. (S. C. Johnson & Son, Racine, Wis.) **Differential prediction for non-random subgroups.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 633-644.—Investigated the efficacy of prediction of P. Horst's absolute and differential prediction methods when applied to within-groups correlation matrices. 2 treatments of missing data, employing increases of total group intercorrelation matrices and subgroup intercorrelation matrices were incorporated in both the absolute and differential prediction methods. The synthesis of these methods generated 4 composite weighting systems, thus permitting a comparison of the accuracy of predictions resulting from the 4 systems on the basis of weight validities (cross-validation correlation coefficients). (16 ref.)—*Journal abstract.*

6969. Manning, Winton H. (Texas Christian U.) **The measurement of intellectual capacity and performance.** *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 258-267.—Describes the functions, objectives, and interpretations of intelligence and performance tests. Approaches used in removing "culturally linked variance" from tests are also presented. (36 ref.)—*S. Appelle.*

6970. Meuris, G. (Catholic U., Louvain, Belgium) **La mesure du raisonnement dans l'enseignement secondaire: Les tests de raisonnement différentiel.** [Measurement of reasoning in high school education: The differential reasoning tests.] *Information Psychologique*, 1969(Oct), No. 36, 3-25.—The author constructed 4 tests of reasoning: Analyzing the relation between 2 geometric figures in order to apply the same principle to 2 other figures, Verbal reasoning, (verbal analogies), Numerical reasoning (number series), and spatial reasoning (comparing cubes in various orientations). Information is presented on item difficulty, repeat reliability, homogeneity, and internal consistency. The validity is reported separately for samples of boys and for girls in the 6 classes of 2 types of high schools: the classical lyceum type and the modern type. The criterion was the global success at the end of the year. These 24×4 validity coefficients range from .07 to .50, with generally higher values for girls than for boys. Congruent validity was demonstrated by correlations with other tests, ranging from .33 to .77. Factor analytic information is given showing that the tests measured relatively independent factors. Included are Z scores, T scores, and percentiles for 3 of the tests for the 1st yr. of teachers' college.—*S. G. Vandenberg.*

6971. Mitzel, Margaret A. (U. Maryland) **An experimental study of the effect of specific experiences on test-retest correlations.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 611.

6972. Sjogren, Douglas D. (U. Illinois) **Measurement techniques in evaluation.** *Review of Educational Research*, 1970(Apr), Vol. 40(2), 301-320.—This review presents a consideration of measurement of inputs or antecedents. Measurement of processes of transactions, measurement of outcomes, and measurement strategies are also discussed. (6 p. ref.)—*P. D. Leedy.*

6973. Sweet, Roger C. (U. Wisconsin) **Variations in the intelligence test performance of lower-class**

children as a function of feedback or monetary reinforcement. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 648-649.

6974. Wallner, Teut. **Der prognostische Wert von Tests und Handschriftenvariablen bei Eignungsuntersuchungen.** [The prognostic value of tests and handwriting variables in aptitude testing.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(2), 316-356.—The final grades of 134 participants in a course for clerical workers were used as criteria in the evaluation of the predictive value of a test battery. The addition of 17 variables extracted from the handwritten curricula vitae of Ss increased the predictive power of the initial tests considerably, although no significant correlations were found between the results of the test battery and the handwriting variables. (English & French summaries)—*W. J. Koppietz*.

6975. Ward, J. (U. Manchester, England) **On the concept of criterion-referenced measurement.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 314-323.—Discusses the distinction between norm- and criterion-referenced measurement, emphasizing inter-S variability. 3 important areas of application are suggested: curriculum development, the assessment of developmental levels, and the construction of diagnostic/remediation programs. Psychometric issues surrounding the selection of criteria and suitable items are considered with reference to these, and the possibility of individual item-sampling procedures is mentioned. It is considered that criterion-referenced test construction will require a change of emphasis from the assessment of individual differences to the identification of learning criteria and individual performance relative to these. (35 ref.)—*Journal abstract*.

6976. Zimmerman, Irla L. & Woo-Sam, James. **The utility of the Wechsler Preschool and Primary Scale of Intelligence in the public school.** *Journal of Clinical Psychology*, 1970(Oct), Vol. 26(4), 472.—Compared the test performances on the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) and the Stanford-Binet LM (SB-LM) of 2 groups of typical referred kindergartners and 1st graders. Results suggest that similar results may be obtained from the SB-LM or WPPSI below the superior level. IQs were significantly higher for gifted children with an IQ of 170 on the SB-LM corresponding to a Full Scale IQ of 155 on the WPPSI. A mean Binet IQ of 129 corresponded to a WPPSI Full Scale score of 117.—*E. J. Kronenberger*.

SPECIAL EDUCATION

6977. Abrams, Naomi & Pieper, William. **Experiences in developing a pre-school program for neurologically handicapped children: A preliminary report.** *Journal of Learning Disabilities*, 1968(Jul), Vol. 1(7), 394-402.—Describes the work of an evaluation center stressing the development of a constructive program for the rehabilitation of children with neurological handicaps.—*Journal abstract*.

6978. Ayres, A. Jean. (U. Southern California) **Deficits in sensory integration in educationally handicapped children.** *Journal of Learning Disabilities*, 1969(Mar), Vol. 2(3), 160-168.—Subjected 64 neuromuscular, perceptual, and cognitive measurements made on 36 children with educational handicaps to Q-technique factor analysis. The 2 major patterns of

deficits associated with low academic achievement were (a) auditory, language, and sequencing; and (b) postural and bilateral integration. Both of these syndromes were differentiated from syndromes of apraxia and tactile defensiveness. (17 ref.)—*Journal abstract*.

6979. Budnick, Albert. (Columbia U.) **Differences between teachers and clinicians in the perception of clinical services in special schools for socially maladjusted children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 557.

6980. Coleman, Howard M. & Dawson, Sarah T. (Rhode Island Public Schools, Rumford) **Educational evaluation and visual-perceptual-motor dysfunction.** *Journal of Learning Disabilities*, 1969(May), Vol. 2(5), 242-251.—Describes some problems in testing and test interpretation that influence the placement of children with visual-perceptual-motor problems in the educational setting, and provides a frame of reference for general educators regarding validity, reliability, and accuracy of test yield and interpretation. It is pointed out that psychological, achievement, and readiness tests measure performance, not innate capacity, and therefore, should be used as predictors of academic achievement for Ss with visual-perceptual-motor problems only if therapeutic intervention does not take place. Because of the wide use of the Stanford-Binet Intelligence Scale and the WISC, the construction and scope of these tests are examined to show how children with visual-perception-motor problems may perform on them. It is emphasized that educators must be aware of the limitations and basic statistical considerations inherent in testing these children. It is concluded that perhaps "these children might profit from a more wide-spread acceptance that their problems partially defy measurement by current instruments, and that interpretations of these partial measurements are often sufficiently incorrect to insure mis-diagnosis, mis-labeling, and mal-education."—*M. Maney*.

6981. Jaffrain, Daniele. (U. Rennes, France) **Contribution à l'étude de la rééducation des asphasiques à partir de l'approche linguistique du problème de l'aphasie.** [Contribution to the study of reeducating aphasics by a linguistic approach to the problem of aphasia.] *Information Psychologique*, 1968(Jul), No. 31-32, 35-62.—Presents a historical review and some ideas of De Saussure on linguistics with specific examples (in the French language) of the types of errors made. Also given are detailed protocols of a patient seen for several years.—*S. G. Vandenberg*.

6982. Meshcheryakov, A. I. (Inst. of Defectology, Moscow, USSR) **Iz istorii obucheniya slepoglukhonemykh detei.** [From the history of teaching blind deaf-mute children.] *Spetsial'naya Shkola*, 1969, No. 1, 89-99.—Presents a reanalysis, "from the point of materialist psychology," of the teaching process applied to Helen Keller, taking into account those factors which have been overlooked by previous investigators.—*I. D. London*.

6983. Pannbacker, Mary. **A speech pathologist looks at learning disabilities.** *Journal of Learning Disabilities*, 1968(Jul), Vol. 1(7), 403-409.—Discusses the current professional disagreements related to learning disabilities, the role and scope of speech pathology in the assessment and remediation of learning disabilities, and a review of the literature regarding the terminology of learning disabilities. The chart of the nomenclature used in the field of learning disabilities giving term, author,

and date of publication gives a clear and concise overview of the literature.—*Journal abstract.*

6984. Senf, Gerald M. & Feshbach, Seymour. (U. Illinois, Chicago) **Development of bisensory memory in culturally deprived, dyslexic, and normal readers.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt.1), 461-470.—2 experiments assessed whether 2 samples of inadequate readers were functionally similar on certain memory and attention processes. 64 elementary and junior-high culturally deprived, learning-disabled, and 32 normal control readers remembered 3 pairs of simultaneous, discrepant auditory and visual digits. In free recall, all Ss tended to recall the 6 digits in 2 modality sets at both ages though the older culturally deprived and normal control Ss ordered the digits into 3 audiovisual pairs when induced to do so while the learning disabled were insensitive to the set induction. In directed recall, culturally deprived Ss and normal controls were again more similar; older culturally deprived Ss and normal controls recalled digits in pair order more accurately than their younger counterparts while older learning-disabled Ss were no better than the young learning-disabled Ss. Though generally similar to the normals, the young culturally deprived Ss resembled the learning disabled in modality recall. Findings suggest that the learning disabilities of culturally deprived and learning-disabled samples are functionally different. (19 ref.)—*Journal abstract.*

Gifted

Remedial Education

6985. Ames, Louise B. (Gesell Inst. of Child Development, New Haven, Conn.) **Children with perceptual problems may also lag developmentally.** *Journal of Learning Disabilities*, 1969(Apr), Vol. 2(4), 205-208.—25 2nd graders judged on the basis of the Bender Gestalt to be in need of perceptual training, and given such training in a classroom setting, were compared with 25 controls before and after training, on the Gesell Incomplete Man Test and the Lowenfeld Mosaic. Before training Ss were on the average from 16.6-23.8 mo. behind the average expectation of 2nd graders. Even after 6 mo. of training, they remained far behind the average age expectations. However, Ss who received perceptual training did make relative gains, while Ss in the control group fell farther behind. It is concluded that perceptual training can help a child who is lagging developmentally to perform at his highest potential developmental level, though it seems unlikely that perceptual training actually speeds up development. Results also suggest that children with perceptual problems may be behind expected age level developmentally, and that children who are functioning substantially below their expected age level may fall behind increasingly unless some curative measures are provided.—*Journal summary.*

6986. Cromer, Ward. (Wellesley Coll.) **The difference model: A new explanation for some reading difficulties.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 471-483.—Described 4 models for accounting for reading difficulty: defect, deficit, disruption, and difference. Poor readers fitting 2 of these models, a Difference group (assumed to read word-by-word) and a Deficit group (assumed to have

relatively inadequate vocabulary skills) were compared with each other and with good readers. Ss were 64 male undergraduates. As hypothesized, the Difference group but not the Deficit group read as well as good readers when material was presented in preorganized phrases. Results support the notion that 1 source of comprehension difficulty can be attributed to a difference in the way some poor readers organize reading input. Implications for differential diagnosis, remediation, and research are discussed.—*Journal abstract.*

6987. Frostig, Marianne & Orpet, Russel E. (U. Southern California) **Four approaches to the diagnosis of perceptual disturbances in reading disability.** *British Journal of Disorders of Communication*, 1969(Apr), Vol. 4(1), 41-45.—Discusses 4 approaches to the study of perception and evaluation of perceptual functions: the psychosocial, the neuropsychological, the developmental, and the functional evaluation. It is postulated that these viewpoints should be combined and that preferred treatment will depend on the total findings in each particular case. Perceptual disturbances should be evaluated and treated intensively as well as extensively. It is also suggested that a readiness program which integrates these 4 viewpoints will in many cases prevent learning difficulties. Such a program will consider the child's psychosocial development and will use teaching methods and methods of classroom management based on present knowledge of brain functions. It will consider all psychological functions and integrate perceptual training with sensorimotor, language training, and development of higher thought processes, and it will analyze perceptual functions into their components to emphasize training of lagging functions. (20 ref.)—*M. Maney.*

6988. Griffiths, C. P. (John Horniman School, Worthing, England) **A follow-up study of children with disorders of speech.** *British Journal of Disorders of Communication*, 1969(Apr), Vol. 4(1), 46-56.—49 7-16 yr. old children who received concentrated speech therapy and remedial education were followed up to assess their progress in speech and language development, school attainment, and social and emotional adjustment. After completion of the program, 26 Ss were recommended for ordinary school. 7 of these were receiving remedial teaching and of the 19 who remained in ordinary schools, 2 were 2-4 yr. backward, 12 were in low streams, and only 5 were maintaining satisfactory progress. Results indicate that failure to maintain progress after specialized teaching ceased could not be explained by level of speech and language development at that time or by intelligence. It is suggested that earlier difficulties, although resolved at a symptomatic level, are a continuing disability and that a common etiological factor is minimal cerebral dysfunction which may be a hidden and persisting handicap in Ss who give a superficial appearance of normality.—*M. Maney.*

6989. Jones, Joyce. (Carpenter No. 2 School, Perceptual Development Center, Natchez, Miss.) **Dyslexia: Identification and remediation in a public school setting.** *Journal of Learning Disabilities*, 1969(Oct), Vol. 2(10), 533-538.—Reports on a 3-yr experimental program which successfully attempted to determine if children with dyslexia could be remediated by the use of a structural-linguistic approach taught on a 1-to-1 basis through the use of paraeducational personnel under supervision. Test-retest data show that the training improved reading skills, and that this gain was retained

or further improved after dismissal from the program.—*M. Maney.*

6990. Lewis, James N. (West Texas Education Center, Midland) **The improvement of reading ability through a developmental program in visual perception.** *Journal of Learning Disabilities*, 1968(Nov), Vol. 1(11), 652-653.—Reports a pilot study which evaluated a program of therapy designed to aid children with reading disability. The Frostig Program was administered over a 10-wk period to 5 2nd grade males who exhibited severe reading difficulties. Based on pre- and posttest criteria consisting of the SRA Reading Test and the Frostig Test, results indicate improvement in each area of visual perception. However, due to the limited number of Ss, the mean gains were not significant except in eye-motor coordination. From evidence showing a group rise in reading ability from the 48th to the 80th percentile, it is concluded that "the Frostig Program should receive consideration as a possible therapeutic program for ... youngsters exhibiting reading difficulties."—*M. Maney.*

6991. O'Donnell, Patrick A. & Eisensohn, Jon. (San Francisco State Coll.) **Delacato training for reading achievement and visual-motor integration.** *Journal of Learning Disabilities*, 1969(Sep), Vol. 2(9), 441-447.—Investigated the effects of Delacato training, a motor training program, on the reading achievement and visual-motor integration of 60 7-10 yr. old disabled readers with crossed or uncertain lateral expression. Ss received either Delacato recommended training, limited Delacato training, or selected physical education activity (control). Results based on analysis of variance for mean gains as measured by the Gray Oral Reading Test, the Stanford Diagnostic Reading Test, and the Developmental Test of Visual-Motor Integration show no statistically significant gains for either experimental group over the control group in reading achievement or visual-motor integration. The most consistent pattern that emerged was on comparison of mean gain scores of reading ability where young Ss tended to show greater gains than older Ss. Various limitations of the experimental design employed are discussed, and it is suggested that some modifications be considered before a replication is undertaken. (18 ref.)—*M. Maney.*

6992. Silberberg, Norman E. & Silberberg, Margaret C. (Kenny Rehabilitation Inst., Minneapolis, Minn.) **Myths in remedial education.** *Journal of Learning Disabilities*, 1969(Apr), Vol. 2(4), 209-217.—Discusses why research outcomes in the area of remedial education are so diverse from the actual programs being carried out, and recommends a reallocation of priorities for the education of children with learning difficulties.

6993. Stephen, Patricia. (Ludwigsburg Elementary School, New York, N.Y.) **Teaching reading by typing.** *Journal of Learning Disabilities*, 1968(Jul), Vol. 1(7), 419-422.—A case report of a disabled reader who was helped considerably with his reading by typing.—*Journal abstract.*

Sensory & Physical Handicaps

6994. Flanigan, Patrick J. & Joslin, Elizabeth S. (U. Wisconsin, Center on Behavioral Disabilities) **Patterns of response in the perception of Braille configurations.** *New Outlook for the Blind*, 1969(Oct), Vol. 63(8), 232-244.—Attempted (a) to measure the interval be-

tween braille stimulus presentation and response on a programed tachistoscopic instruction device, and (b) to determine the efficacy of the device as a teaching machine. 27 visually handicapped underwent 2 phases of experimentation. The presentation phase identified the optimal range of perception and ranked the 26 letters according to difficulty. The remediation phase employed the normative data developed in Phase 1 and attempted to devise a method whereby rapid presentation and discrimination of single-cell configurations could be attained. Results of the experiment were (a) that the optimal speed of presentation of braille configurations is .6 sec., (b) that certain letters are more difficult than others, and (c) that the difficulty of these letters could be slightly lessened by remediation. Treatment effects on traditional braille reading ability was increased by 5.7 words/min due to remediation. It is concluded that the automated learning device may be potentially beneficial in teaching people to read braille. (18 ref.)—*B. A. Burkard.*

6995. Margach, Charles & Kern, Kate C. (Pacific U., Low Vision Clinic) **Visual impairment, partial-sight and the school psychologist.** *Journal of Learning Disabilities*, 1969(Aug), Vol. 2(8), 407-414.—Discusses the utilization of the standard WISC for partially-sighted children. Special techniques in administration and interpretation are presented and evaluated in light of 10 yr. accumulation of records of testing partially-sighted children.—*Journal abstract.*

6996. Viskant, Kathryn; Rex, Evelyn, & Livers, David. **Vocational counseling of the visually handicapped in Illinois high schools.** *New Outlook for the Blind*, 1969(Oct), Vol. 63(8), 251-254.—The special teacher and the high school guidance counselor are the main sources of vocational counseling on the secondary level. 32 questionnaires with multiple choice questions were sent to special teachers of the blind and guidance counselors having programs for the visually handicapped in secondary schools in Illinois. The questionnaire covered the following areas: (a) specific information from the special teachers and counselors, (b) vocational counseling practices, (c) testing procedures, (d) sources of occupational information, (e) resources from outside the school, and (f) present needs and problems. 81% of the questionnaires were returned. Results suggest 2 main sources of vocational counseling for the visually handicapped: formal vocational counseling by the guidance counselor and informal by the special teacher. Other conclusions based on the data received are included. "The study showed that the responses of the special teachers and the guidance counselors were enthusiastic, indicating that they were interested in providing good vocational counseling to visually handicapped students."—*B. A. Burkard.*

Mental Retardation & Learning Disorder

6997. Adams, Richard B. (901 17th St., NW, Washington, D.C.) **Dyslexia: A discussion of its definition.** *Journal of Learning Disabilities*, 1969(Dec), Vol. 2(12), 616-633.—Discusses various definitions of dyslexia to point out how difficult it is to arrive at a definition that is acceptable to all. The necessity for a clear and concise definition is emphasized so that a workable solution to the problem is possible. (23 ref.)

6998. Barrington, Byron L. (U. Wisconsin, Wausau) **Special education students. How many are mis-**

placed. *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(12), 726-729.—Examined WAIS test protocols of 20 16-20 yr. old rehabilitation referrals who had been in special education classes to investigate how many were really not retarded and had been misplaced in these programs. Results show that the intellectual functioning of 25% of Ss at the time of referral was above the limit supposedly set for placement in retarded classes, and that all these Ss were males. Suggestions for modifying the evaluation procedures for special education classes are presented.—M. Maney.

6999. Carter, Darrel B. (Ed.) (U. California, School of Optometry, Berkeley) **Interdisciplinary approaches to learning disorders: A symposium by thirteen contributors.** Philadelphia, Pa.: Chilton, 1970. xii, 191 p. \$8.95.

7000. Egg-Benes, Maria. (Zurich Schools for the Mentally Retarded, Switzerland) **Rehabilitation of slow learners in Switzerland.** *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(12), 729-734.—Describes how a nation's societal structure and cultural aggregates determine what educational demands and standards will be enforced in public schools, and discusses reasons why children who cannot meet these demands should not be compelled to do so, but should be given special training. The history of special education in Switzerland is briefly outlined and the rationale, organization, and programs of present day special education classes are described.—M. Maney.

7001. Heckerl, John R. & Webb, Susan M. (Waterford Schools, Mich.) **An educational approach to the treatment of children with learning disabilities.** *Journal of Learning Disabilities*, 1969(Apr), Vol. 2(4), 199-204.—Describes the development and some initial results of an interdisciplinary approach for children with learning problems in a public school setting. The objectives of the program are identified as early identification, diagnosis, and treatment of children who experience learning difficulties in kindergarten-3rd grade in an attempt to increase effectiveness of remediation and prevent other difficulties. The diagnostic and treatment services and the roles of staff members are discussed. 1st-yr results based on pre- and posttest scores on oral reading, word pronunciation, and spelling tests indicate that "young children can profit from special instruction and that this instruction need not be delayed in the hope that developmental readiness alone will help the child to read." Several problems which became apparent during the course of the program are identified as areas requiring further study.—M. Maney.

7002. Hoops, M. Dean. (U. Michigan) **A study of the effects of video-tape feedback upon the verbal behavior of teachers in classes for the mentally handicapped.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 663.

7003. Kappelman, Murray M., Kaplan, Eugene, & Ganter, Robert L. **A study of learning disorders among disadvantaged children.** *Journal of Learning Disabilities*, 1969(May), Vol. 2(5), 262-268.—A multi-disciplined team of medical, psychological, hearing, language, and educational specialists evaluated learning disorders in 306 disadvantaged children. Evaluation was based on information from: (a) school reports outlining behavioral and learning patterns; (b) separate interviews with parents and Ss; (c) pediatric examinations followed by psychiatric or neurologic consultation as indicated; (d) audiometric and visual screening; and (e) psychometric, language, and articulation tests. Results show

that 55.6% of Ss had organic learning handicaps and 44.4% had functional learning handicaps. Approximately 25% of Ss had significant emotional disturbance as the predominant cause of their inability to learn. 4 case reports are presented to illustrate the mechanism of diagnosis selection. It is concluded that, in view of the high rate of neurologically based disabilities in children from urban slum areas, the rehabilitative and remedial programs designed for this population need to be reevaluated.—M. Maney.—M. Maney.

7004. Kass, Corrine E. & Myklebust, Helmer R. (U. S. Office of Education, Washington, D.C.) **Learning disability: An educational definition.** *Journal of Learning Disabilities*, 1969(Jul), Vol. 2(7), 377-379.

7005. Košč, Ladislav. (Research Inst. of Child Psychology & Pathopsychology, Bratislava, Czechoslovakia) **Psychology and psychopathology of mathematical abilities.** *Studia Psychologica*, 1970, Vol. 12(2), 159-162.

7006. Kreider, James M. (U. Michigan) **The effect of computer assisted teacher training system feedback on increasing teacher use of pupil ideas with EMR children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 655-656.

7007. Landreth, Garry L., Jacquot, Willard S., & Allen, Louise. (North Texas State U., Pupil Appraisal Center) **A team approach to learning disabilities.** *Journal of Learning Disabilities*, 1969(Feb), Vol. 2(2), 82-87.—Argues that the occurrence of learning disabilities in children is likely to reflect difficulties that are interrelated rather than isolated in nature. It is suggested that an interdisciplinary team is required to successfully provide the kind of remediation necessary for diagnosing and correcting learning difficulties. The university and public school are presented as communities capable of providing the services necessary for a successful team approach. Factors affecting the success of team cohesiveness, and specific diagnostic and therapeutic procedures are also discussed.—S. Appelle.

7008. Lewis, Franklin D., Bell, D. Bruce, & Anderson, Robert P. (Arkansas Polytechnic Coll., Russellville) **Relationship of motor proficiency and reading retardation.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 395-401.—Studied the relationship of motor and reading proficiency in a group of 100 junior high school males. 2 reading conditions, adequate and inadequate, and 2 racial samples, Negro and Caucasian, were employed. Motor performance was significantly different for the 2 reading groups but was not for the 2 racial ones. The findings are discussed in light of current explanations of learning disorders. (15 ref.)—*Journal abstract.*

7009. Lovitt, Thomas C., Kunzelmann, Harold P., Nolen, Patricia A., & Hulten, William J. (U. Washington) **The dimensions of classroom data.** *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(12), 710-721.—Describes how behavioral modification techniques may be employed to increase academic performance through a 3-phase procedure of data diagnosis, data programing, and data decisions. A method of obtaining pupil performance data and information concerning relevant variables of the teacher-pupil dyad is described. A 2nd method is presented whereby pupil and teacher data may empirically enable the teacher to evaluate curricular materials. The use of data in making classroom managerial decisions is discussed.—*Journal abstract.*

7010. Scagliotta, Edward G. (Midland School, North Branch, N.J.) **Reporting progress of the learning disabled child.** *Journal of Learning Disabilities*,

1969(Jul), Vol. 2(7), 345-362.—Presents a uniform inventory of general categories and specific suborders for recording maturative gains subsequent to initiation of a planned learning program. In addendum to illustrate content and style, authentic progress reports are offered, representative of CA and program groupings.—*Journal abstract*.

7011. Schiller, Jerome J. & Deignan, Margaret C. (Fairfield U., School of Education) **An approach to diagnosis and remediation of learning disabilities.** *Journal of Learning Disabilities*, 1969(Oct), Vol. 2(10), 509-519.

7012. Schwalb, Eugene; Blau, Harold, & Blau, Harriet. **Child with brain dysfunction.** *Journal of Learning Disabilities*, 1969(Apr), Vol. 2(4), 182-188.—Discusses criteria and tests used to diagnose brain dysfunction, and deals with remedial procedures and materials pertaining to a combination of the visual, auditory, kinesthetic, and tactile modalities. A theory of new education and not remediation is discussed, and the techniques presented are described as part of the process whereby educators have gained access to 1 segment or another of the originally undifferentiated groups of nonlearners. It is stressed that the ultimate goal of this process is "the day when the organization of appropriate material will be accomplished by prescription to insure mastery by the learner in terms of his special capacities."—*M. Maney*.

7013. Shearer, E. **Physical skills and reading backwardness.** *Educational Research*, 1968(Jun), Vol. 10(3), 197-206.—Established norms for skills related to specific dyslexia in 225 7-10 yr. old British school-children, and compared these norms to the performance of 114 backward readers aged 8 yr. and above. The retarded group was found to have a considerably higher proportion of individuals demonstrating (a) mixed handedness and weak hand preference, (b) difficulty in consistent right-left discrimination, and (c) poor scores on a 50-item finger localization test. The 2 groups did not differ in the proportion of strongly left-handed Ss, and both groups had in common an increase in ability with age on tests of right-left discrimination and finger localization. A considerable amount of overlap was found between the 2 groups for all tests at all ages. (55 ref.)—*R. Wiltz*.

7014. Weaver, Phillip A. (U. Michigan) **Effects of a computer assisted teacher training system and teacher expectancies on teacher-pupil verbal interaction with EMR children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 657.

7015. Wussler, Marilyn & Barclay, A. (St. Louis U.) **Cerebral dominance, psycholinguistic skills and reading disability.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 419-425.—Examined contrasting patterns of psycholinguistic functioning among 25 normal children and 25 children with reading disabilities. Results generally suggested that children with reading disabilities had significantly different patterns of psycholinguistic functioning in auditory vocal, visual motor, vocal encoding, and motor encoding activities. (23 ref.)—*Journal abstract*.

7016. Yarbrough, Ralph W. (U.S. Senate, Washington, D.C.) **The learning disabilities act of 1969: A commentary.** *Journal of Learning Disabilities*, 1969(Sep), Vol. 2(9), 437-440.

Emotional Disorder

7017. Nicolaou, Abraham W. (U. Michigan) **The relation of self-concept and frustration to aggression in emotionally disturbed and normal children placed in special and regular programs.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 647.

COUNSELING & GUIDANCE

7018. Annis, Arthur P. (U. California, Los Angeles) **The use of autobiographical communication to facilitate a high quality psychologically based professional relationship.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 893.

7019. Congram, Carole A. (U. Wisconsin) **Supervisor behavior in counselor education: The relationship of goal orientation, time, and supervisee lead.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 606-607.

7020. Erlick, A. C. (Purdue U.) **Counseling needs of high school students.** *Purdue Opinion Panel Poll Report*, 1968(Dec), Vol. 28(2), 26 p.—To define the counseling needs and objectives of high school students, questionnaires were administered to over 13,000 students. Results were based on data from a stratified sample of 2000 questionnaires. Ss with an elaborate "style of life," as defined by having parents in leadership positions, by participating to a high degree in extracurricular activities, and by extreme academic achievement, were found to (a) engage in leisure activities covering a broad range of formal skill requirements, (b) believe that they exert influence in family decisions which affect them, (c) come from families with a high income level, (d) have voluntarily seen their counselor several times in the past year, (e) feel concern for vocational decision-making and want more help with these decisions, and (f) regard parents and counselors as sources of help with vocational decisions. Ss with "restricted styles of life reported nearly the opposite set of attitudes and characteristics." An appendix provides a complete analysis of responses to each questionnaire item.—*R. Wiltz*.

7021. Häyrynen, Yrjö P. **The flow of new students to different university fields: Career motivation, educational choice and discriminating effects of university admission: A study of Finnish female students.** *Annales Academiae Scientiarum Fennicae*, 1970, Vol. B-168, 142 p.—Reports a series of studies in which factor analysis was used to obtain dimensions of vocational preferences and in which multiple discriminant analysis of 19 career groups was used. The tests used were local ones but based on the National Merit Scholarship questionnaire, the CPI, Cattell's 16 PF, the Maudsley questionnaire, the Barron-Welsh Art scale, and a semantic differential of the self-concept plus an adaptation of the Kuder Vocational Preference Record. The results are related to Holland's theory of vocational-personality types. (118 ref.)—*S. G. Vandenberg*.

7022. Klein, J. P., Quarter, J. J., & Laxer, R. M. (6300 Overbrook Ave., Philadelphia, Pa.) **Behavioral counseling of underachievers.** *American Educational Research Journal*, 1969(May), Vol. 6(3), 415-424.—Attempted to alter the behavior of 60 male 7th and 8th grade male underachieving students by giving them training in either n Achievement, moderate risk taking, or both. At the end of the 4-mo remedial program no significant improvement was found in GPA or in independent measures of the 2 training variables. It is concluded that training in n Achievement and risk taking is not generalizable to the academic situation.—*Journal abstract*.

7023. Lewis, Michael D. (U. Michigan) **A study of the relative effects of counseling and consultation upon personal and social adjustment, sociometric status, and achievement-oriented behavior of third grade children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 609-610.

7024. Lutz, Ronald J. (U. Illinois) **The identification of factors relative to the dimensionality of kinesthesia.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 628.

7025. McFie, J. & Thompson, J. A. (Guy's Hosp., Dept. of Child Psychiatry, London, England) **Intellectual abilities of immigrant children.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 348-351.—Compared test scores on the WISC and Schonell Graded Word Reading Test of 61 children of West Indian parents attending a child guidance clinic with results of a similar number of English controls. The scores were also compared of those West Indians who had arrived in the United Kingdom before and after the age of 5 yr. Significant differences were found on vocabulary and on 4 of the 5 performance subtests, and the early arrivals tended to do better on the subtests which had been done relatively badly by all immigrant children. It is concluded that: (a) teaching with constructional and geometrical material is at least as important for immigrant children as is language teaching, and (b) intelligence testing of these children can lead to serious misclassification unless cultural factors are considered.—*Journal abstract*.

7026. Minde, Klaus K. & Werry, John S. (McGill U., Montreal, Quebec, Canada) **Intensive psychiatric teacher counseling in a low socioeconomic area: A controlled evaluation.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 595-608.—The classroom behavior of 20 normal and 40 disturbed 3rd-7th graders from a low socioeconomic neighborhood school was rated objectively by Os using a frequency counting technique. The method of measurements discriminated significantly between normals and disturbed Ss in all but 1 category of behavior. Following an initial or base-line observation period, 20 of the disturbed Ss were given an intensive period of treatment. All Ss were reevaluated at the end of treatment and 1, 3, and 12 mo. later. There was no overall treatment effect, though independent global ratings did suggest some benefit from treatment. Findings are discussed in view of the limitations inherent in the school system, duration of treatment, and the involvement of the total family.—*Journal summary*.

7027. Nikkari, John G. (U. Michigan) **Freshman-to-senior personality changes in basic collegiate student nurses as compared to changes in females in a liberal arts college in a large midwestern state university: II. Appendices.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 774-775.

7028. Osterhouse, Robert A. (Ohio State U.) **A comparison of desensitization and study-skills training for the treatment of two kinds of test-anxious students.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 920.

7029. Stoudt, Calvin L. (U. Wisconsin) **The comparative effects of sensitivity training, didactic training, and no training on the rating of responses to the Wisconsin counselor education selection.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 613.

7030. Tatsuoka, M. M. & Cattell, R. B. (U. Illinois) **Linear equations for estimating a person's occupational adjustment, based on information on occupational profiles.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 324-334.—There are broadly 2 models for vocational guidance, estimating, respectively, the "efficiency" of the individual against a performance criterion and "belongingness or adjustment" based on similarity to the typical member. The former has attractions of positiveness, but data for the latter are easier to obtain. With certain reasonably acceptable assumptions, mean occupational profile data can be used via the point-biserial to get regression equations permitting the more convenient usage of the efficiency approach (though the criterion is still adjustment). An illustrative example is worked, how the proposed adjustment score functions is discussed, and a tentative decision rule is stated.—*Journal abstract*.

PERSONNEL

7031. Perry, Harold W. & Morris, Thann. (George Peabody College for Teachers, Div. of Special Education) **The special education placement specialist: A new image in special education personnel.** *Journal of Learning Disabilities*, 1968(Dec), Vol. 1(12), 739-741.—Discusses the need created by more astute diagnostic screening procedures for children with learning and behavior problems for a means of translating such data into workable programs and for informing parents and teachers, and describes how a placement specialist can fill this need. Placement specialists, described as needing a strong background in educational psychology, guidance and counseling and in several areas of special education, would (a) analyze and interpret psychological assessment data in light of the child's learning and behavioral needs, (b) discuss the child's needs and abilities with the parents, (c) aid in placement, (d) relate a case history summary to the teacher and analyze the child's needs with the teacher, and (e) carry out various follow-up procedures.—*M. Maney*.

7032. Sparks, Paul G. (U. Illinois) **An investigation of the role behavior of the secondary school principal.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 596.

Teachers & Teacher Training

7033. Adams, Patricia L. (U. Southern California) **Experiential group counseling with intern teachers.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 605-606.

7034. Bolton, Dale L. (U. Washington) **The effect of various information formats on teacher selection decisions.** *American Educational Research Journal*, 1969(May), Vol. 6(3), 329-347.—Investigated effects of 4 information-format variables on the teacher selection decision process. The experiment was conducted in a simulated situation, and 144 elementary school principals made decisions regarding fictitious applicants for a hypothetical position. Variables manipulated were: instructions for processing information, number of documents, masking of information, and interview information. Measures used to determine the effect of these variables were: consistency of decisions, fineness of

discriminations made, time required to make decisions, and feeling of certainty regarding decisions. The design was a $2 \times 2 \times 3 \times 3$ factorial for which analysis of variance was used in analyzing data. Results indicate that the format of the information did affect decisions. The optimum format consisted of: instructions regarding the processing of information, a single summary document, no masking of information, and interviews with audiovisual stimuli.—*Journal abstract.*

7035. Braun, Samuel J., Holzman, Mathilda S., & Lasher, Miriam G. (Tufts U.) **Teachers of disturbed preschool children: An analysis of teaching styles.** *American Journal of Orthopsychiatry*, 1969(Jul), Vol. 39(4), 609-618.—Observations of 2 experienced teachers of disturbed children suggest the possibility of developing a coding system for differentiating between teaching styles. Pilot efforts are presented, and questions posed about philosophies of teaching in therapeutic nursery schools which may help to refine training methods in this relatively new field.—*Journal abstract.*

7036. Brody, E. B. (Rutgers State U., Graduate School of Education) **The effects of creativity and intelligence on teacher ratings.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 342-344.—Studied the relationships between creativity and intellectual ability of student teachers and ratings of their effectiveness by pupils who differ in social class and creativity. Ss were 19 male and 26 female students, rated by a total of 1863 students in their classes. IQ ratings were based on College Entrance Examination Board-Verbal scores; creativity, on Mednick's Remote Associate Test (RAT). RAT was also administered to all secondary school students participating. Occupation of the head of the household was used to determine social class. Results indicate that teachers who score high on indices of intellectual ability and creativity or low on both of these indices are rated more favorably by their pupils than teachers who score high on only 1 of these indices. Teachers who score high or low on both indices are rated more favorably by pupils high in creativity and high in social class.—*Journal abstract.*

7037. Corl, Samuel S. (U. Michigan) **The relationships between student teacher innovative behaviors and selected attitudes, perceptions and personality characteristics.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 661.

7038. George, Julius R. (Claremont Graduate School & University Center) **Organizational structure, teacher personality characteristics and their relationship to organizational climate.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 581.

7039. Grant, Alfred D. (U. Wisconsin) **A study of the personality characteristics of the acceptor and the rejector of the newer educational media among secondary teachers of Wisconsin.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 676.

7040. Hiller, Jack H., Fisher, Gerald A., & Kaess, Walter. (Night Vision Lab., Ft. Belvoir, Va.) **A computer investigation of verbal characteristics of effective classroom lecturing.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 661-675.—Explored the feasibility of employing an electronic computer to search transcripts of teachers' lectures for verbal correlates of effective performance. A set of 5 factors, constructed from 35 categories of verbal behavior, were hypothesized to have importance for successful lecturing,

and to be capable of computer identification. The lecture data were keypunched and then scored by computer for degree of category and factor representation. These scores were then correlated with the effectiveness criterion. 1 factor termed vagueness correlated negatively with the criterion in 2 sets of lectures, and also appeared as a highly consistent instructor trait across 2 lectures. A verbal fluency factor displayed lower, but significant, criterion correlation and consistency. Factors indicating amount of information and interest achieved statistically significant correlation in the 2nd lecture but not in the 1st.—*Journal abstract.*

7041. Hogan, Ermon O. (Michigan State U.) **The influence of an in-service workshop experience on teachers' ability to positively modify the self-concepts of educationally and economically disadvantaged students.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 677-678.

7042. Ivanoff, John M., Layman, Jane A., & von Singer, Ronald. (Marquette U.) **Changes in ACL scales corresponding to changes in educational levels.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 359-363.—Examined differences in need variables and self-concepts among 107 beginning undergraduates in education, 74 student-teachers, and 40 graduate education students. The Adjective Check List (ACL) was used to obtain information on changes in the need and self-concept structure defined by the ACL scales as a function of the selective process operating within education and the impact on that structure of continuing within the field. Analysis of variance procedures show statistically significant differences among the 3 groups on over $\frac{1}{2}$ of the ACL scales.—*Journal abstract.*

7043. MacLaine, A. G. (U. Sydney, New South Wales, Australia) **The teaching of educational psychology in English Colleges of Education.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 147-157.

7044. MacNamara, Robert J. (Pennsylvania State U.) **The effect of subject matter knowledge and certain selected attitudes upon the use of verbal behaviors by social studies student teachers.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 665.

7045. Mann, Philip H. (U. Miami) **Learning disabilities: A critical need for trained teachers.** *Journal of Learning Disabilities*, 1969(Feb), Vol. 2(2), 90-96.—Argues for the need of "training selected groups of outstanding regular class and special class teachers in the dynamics of diagnosis and clinical or prescriptive teaching." A program for providing this training is described.—S. Appelle.

7046. Toussing, Povl. (U. Oklahoma, Medical School, Oklahoma City) **Teachers and differences.** *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 730-734.—Examines the nature of the encounter between pupils and teachers in relation to the success or failure of carefully planned and adequately financed educational programs. Hidden feelings and prejudices in the teachers impair success as much as de facto lack of respect for individual differences in the classroom.—*Journal abstract.*

7047. Tuckman, Bruce W., McCall, Kendrick M., & Hyman, Ronald T. (Rutgers State U.) **The modification of teacher behavior: Effects of dissonance and coded feedback.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 607-619.—Investigated the question of whether teachers whose self-perception and

observed classroom behavior were discrepant in terms of Flanders' Interaction Analysis (IA) categories would change their behavior, perception, or both as the result of feedback. 3 feedback sources were compared to a no-feedback control for 24 high school teachers, classified as high or low in terms of their initial perception-behavior discrepancy. Ss given direct verbal feedback changed significantly more than the no-feedback group while differences were not found for teachers taught the IA interaction system or those who listened to tape recordings. High discrepant Ss changed their self-perception more than lows.—*Journal abstract.*

7048. Tuckman, Bruce W. & O'Brian, John L. (Eds.) (Rutgers State U.) **Preparing to teach the disadvantaged: Approaches to teacher education.** New York, N.Y.: Free Press, 1969. xxiii, 311 p.—Presents papers by various authors on teaching the disadvantaged, including discussions of (a) the preparation of teachers from the perspectives of such disciplines as anthropology, psychology, sociology, special and vocational education, and guidance; (b) necessary attitudes and skills; and (c) detailed descriptions of 4 programs of instruction.

7049. Warren, Richard L. (Stanford U., Center for Research & Development in Teaching) **Some determinants of the teacher's role in influencing educational aspirations: A cross-cultural perspective.** *Sociology of Education*, 1968(Sum), Vol. 41(3), 291-304.—Educational "drop-outs" constitute a problem to which an increasing number of nations are sensitive. Programs to cope with this problem have focused primarily on organizational and curricular changes. Relatively little attention has been given to the role of the teacher in influencing educational and occupational aspirations. Drawing upon data from a case study of a West German village, the sociocultural factors which affect the relationship of teachers to pupils whose demonstrated abilities exceed their aspirations are examined.—*Journal abstract.*

SCHOOL LEARNING & ACHIEVEMENT

7050. Barcaski, Peter B. (Columbia U.) **Cognitive and motivational factors, methods of teaching, and their effects on achievement, transfer, and retention of pre-sequenced concepts.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 639.

7051. Bayer, Alan E. (American Council on Education, Washington, D.C.) **The college drop-out: Factors affecting senior college completion.** *Sociology of Education*, 1968(Sum), Vol. 41(3), 305-316.—Presents a follow-up study of 8567 Project TALENT students who had attended senior college within 5 yr. after high school graduation; the relative influence of 38 personal and background factors are examined as they relate to college completion. Aptitude measures and marriage and family variables are shown to be primary determinants of progress through college. However, inclusion of all 38 variables in a multiple regression prediction equation accounted for less than 30% of the variance in dropping out vs. completing senior college for women, and less than 20% of the variance in this criterion for men. While the variables employed yield results which are a considerable improvement over the results of other prediction studies, the degree of accuracy in prediction is not sufficient to be applicable in educational guidance and policy considerations.—*Journal abstract.*

7052. Borger, Valbur. (U. Wisconsin) **The predictive**

association between the ego-stage and group-relevant aspects of personality and learner satisfaction and learning achievement on the basis of the degree of congruence in teacher-learner dyads in adult learning courses. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 601.

7053. Choppin, Bruce. **Social class and educational achievement.** *Educational Research*, 1968(Jun), Vol. 10(3), 213-217.—Discusses some possible reasons for the recent findings by the International Association for the Evaluation of Educational Achievement that of 12 countries the largest discrepancy between social groups in mathematics performance existed in England. The findings could not be accounted for in terms of poor data reliability or validity or errors of classification. A determining factor was found to be the relative proportions of grammar and modern school children in the different social classes; modern school children, who performed poorly in mathematics, were found to come from predominately blue-collar families; direct grant, independent, and grammar school children who performed well in mathematics came from white collar and professional families. Another possible factor involves the unusually large proportion of blue collar children, relative to children from professional families, who dropout of school. However it is concluded that "there is no simple answer.... The outstanding result for England is probably the outcome of a number of different factors acting together."—*R. Wiltz.*

7054. Erickson, Richard C. **Visual-haptic aptitude: Effect on student achievement in reading.** *Journal of Learning Disabilities*, 1969(May), Vol. 2(5), 256-260.—Investigated whether the visual-haptic aptitude is a significant factor in level of reading achievement attained by 7th grade. Data from 325 7th grade males was derived from (a) Ss' raw scores on Gibson's Successive Perception I, a motion picture test designed to assess the ability to integrate successive partial impressions of abstract visual stimuli into an accurate single scheme or pattern; and (b) the reading portion of the Iowa Tests of Basic Skills. Analysis of variance results show that the mean reading achievement for nonvisual Ss is likely to be 1 grade level below that of their visually oriented peers and more than $\frac{1}{2}$ a grade level below that of their indeterminate classmates. The precise nature of the visual-haptic aptitude as it relates to the development of reading skill is not yet determined, however, it is hypothesized that it is, in part, "related to some 'failure' in the early development of perceptual skills."—*M. Maney.*

7055. Field, T. W. & Poole, Millicent E. (U. New England, Faculty of Education, Armidale, New South Wales, Australia) **Intellectual style and achievement of arts and science undergraduates.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 338-341.—Investigated the quality of passes attained by 101 arts and science students who entered the University of New England in 1968. Results indicate that while convergent bias was associated, in both faculties, with more high level passes in the 1st yr., there was no difference in the relative success of convergers and divergers in the 2nd yr. Also it was found that among these students the relationship between choice of faculty and intellectual style was in accord with L. Hudson's suggestions despite the less specialized schooling of Australian students when compared with their English counterparts.—*Journal abstract.*

7056. Finlayson, D. S. (U. Liverpool, School of Education, England) **A follow-up study of school achievement in relation to personality.** *British Journal of Educational Psychology*, 1970(Nov), Vol. 40(3), 344-348.—Examined the relationships between extroversion, neuroticism, and the school achievements of a group of 128 boys at the ages of 12, 13, and 14 in a grammar school using the method of "zone analysis." The Junior Eysenck Personality Inventory was given at the beginning of the 2nd yr. in the school. In the 11+ tests, no systematic differences between the groups were noted, but once in the secondary school, introverts obtained progressively higher marks in yearly examinations than extroverts. In introverts, low neuroticism is consistently associated with better achievement. In extroverts high neuroticism steadily depresses academic performance over the 3 yr. to give a significant overall effect in the 3rd yr. If the achievements of only the 2 high neurotic groups are considered, introverts tend to improve with age while extroverts deteriorate.—*Journal abstract.*

7057. Frayer, Dorothy A. (U. Wisconsin) **Effects of number of instances and emphasis of relevant attribute values on mastery of geometric concepts by fourth- and sixth-grade children.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 643.

7058. George, John E. (U. South Carolina) **Effects of fixed-ratio and variable-ratio reinforcement on reading performance.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 643-644.

7059. Gilmore, T. Dan & Willis, Edmond E. (Central U., Ia.) **Classroom performance and voice characteristics as measured by the contour sound spectrogram: Preliminary report.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 251-254.—Investigated the relationship between changes in voice characteristics and academic performance. Ss were 22 male and 28 female undergraduates. Ss who received a final grade of A showed increases in syllabic rate, pitch, and formant rate change while those receiving a grade of D or F tended to show decreases on these measures.—*Journal abstract.*

7060. Hater, Mary A. (Purdue U.) **Investigation of color in the Cuisenaire rods.** *Perceptual & Motor Skills*, 1970(Oct), Vol. 31(2), 441-442.—66 1st and 2nd graders were given treatments of teacher-presented lessons using either colored or uncolored rods. Tests of efficiency, rod identification, and comprehension were administered during the 2nd and 5th periods and after the last period. Ss using colored rods took less time to complete the tasks and received higher scores on tests of rod identification than Ss using uncolored rods. No differences in comprehension were found between the 2 groups.—*Journal abstract.*

7061. Jones, Casey. (U. Maryland) **The effects of participation in discussion of reasoning in arguments on critical thinking ability.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 680.

7062. Kanderian, Suad S. (U. Southern California) **Study of the relationship between school achievement and measures of intelligence and creativity for students in Iraq.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 644.

7063. Kositsky, Nate & Franken, R. E. (U. Calgary, Alberta, Canada) **Effects of grading and rewrite procedures on an academic performance.** *Psychological Reports*, 1970(Aug), Vol. 27(1), 244-246.—Instructed 40 undergraduates to complete a critical analysis of a book for their course in psychology. Ss were

divided into 4 different groups. 1 group was told that the grade received on this assignment would count toward the final mark, while another group was told that all reports would receive an "A" grade. A rewrite-no rewrite procedure was introduced for each 1/2 of these groups. Results show an effect of both the grading ($p < .05$) and rewrite ($p < .05$) variables in terms of improved academic performance.—*Journal abstract.*

7064. Kuttner, Robert E. (U. Chicago, Medical School) **Comparative performance of disadvantaged ethnic and racial groups.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 372.—Tested the hypothesis that environmental factors must be identified and equated before genetic influences can be considered in comparative studies of group achievement. In a national survey, American Indian children excelled Negro children on several scholastic tests. Accompanying data ranked Indian students below the Negro in socioeconomic and psychological factors, i.e., ambition, motivation, and self-concept. It is concluded that "evidence of genetic components in group performance can be obtained without ... equating all known and suspected environmental factors."—P. Zell.

7065. Marso, Ronald N. (Bowling Green State U.) **The influence of test difficulty upon study efforts and achievement.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 621-632.—Conducted 2 experiments with 155 and 44 undergraduates, respectively, to determine if a relationship exists between classroom unit test difficulty and student learning efforts and outcomes. It was hypothesized that students exposed to less difficult unit tests would achieve greater, and students exposed to less difficult unit tests during a course would spend more time studying during the course. Ss experienced unit exams of near 50%, considered statistically desirable, or near 70% difficulty. Analysis of variance procedures with a measure of mental ability used as a control variable were completed on final examination scores used as the criterion in Exp. I and on the reported daily study time used as the criterion in Exp. II. Results support the hypotheses and the classroom educators' contention that students expend greater effort and achieve more when less difficult unit tests are given during a course.—*Journal abstract.*

7066. National Center for Health Statistics. (U.S. Public Health Service, Health Services & Mental Health Administration, Rockville, Md.) **School achievement of children 6-11 years as measured by the Reading and Arithmetic subtests of the Wide Range Achievement Test, United States.** *Public Health Service Publication*, 1970, No. 1000, Series 11(103), 47 p.—Presents national estimates of school achievement for children in the noninstitutionalized population of the United States. Data were obtained from 7119 (or 96%) of a probability sample of 6-11 yr. olds. Findings are presented by age, race, region, and sex, and permit comparison with data used in Jastak's standardization of his 1963 Revised Wide Range Achievement Test. Present survey results were, on the average, lower than those for the standardization group for both Reading and Arithmetic subtests, especially in Arithmetic. Slightly greater variability was also found in the Reading subtest. An appendix provides details of survey design and reliability of estimates.—P. McMillan.

7067. Oakland, Thomas D. (U. Texas) **Auditory discrimination and socioeconomic status as correlates of reading ability.** *Journal of Learning Disabil-*

ities, 1969(Jun), Vol. 2(6), 325-329.—Studied relationships between reading achievement and socioeconomic status (SES) and performance on phonemic and non-phonemic auditory discrimination tests. Based on rating from the Index of Social Characteristics, 20 1st-6th graders were assigned to each of 3 SES groups: lower-lower (LL), upper-lower (UL), and upper-middle (UM). Ss were 1st administered the Columbia Mental Maturity Scale, the Pictorial Similarities and Differences II subtest of the Revised Stanford-Binet, and the Wepman Auditory Discrimination Test. In a 2nd meeting, 4 nonphonemic auditory discrimination tests of intensity, frequency, and pattern were given. Results show that: (a) UM Ss read significantly better than UL Ss who read significantly better than LL Ss; and (b) reading achievement measures correlated higher with phonemic auditory assessment than with nonphonemic auditory assessment. (26 ref.)—*M. Maney.*

7068. Sanders, Robert G. (U. Oklahoma) **The relationship of achievement and personality variables for graduating seniors between test performances on the American College Test and the Edwards Personality Preference Schedule.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 648.

7069. Scott, Myrtle M. (George Peabody Coll. for Teachers) **Grapheme-phoneme correspondence as related to beginning reading.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 385-386.

7070. Sumter, Paul E. (Iowa State U.) **Learning experiment: Effectiveness of controlling environmental distractions.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 628.

7071. Vaughn, Derrald W. (Ohio State U.) **The development of role-taking ability and its relationship to success in school.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 905.

7072. Watson, Billy L. (U. California, Los Angeles) **Field dependence and early reading achievement.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 656-657.

7073. Wright, Loyd S. (U. Illinois) **Perceptual and cognitive characteristics and their relationship to social factors and academic achievement in third grade conduct problem boys.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 572.

Prediction

7074. Cameron, Howard K. (Howard U.) **Nonintellectual correlates of academic achievement.** *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 252-257.—Compared the validity of a test assessing nonintellectual traits (the Michigan M-scale) with an aptitude test (School and College Ability Test) as predictors of school success among female Negro college students. It was found "that the M-scales do correlate positively with the academic achievement of these students, even though they do not contribute significantly to a multiple regression equation designed to predict achievement."—*S. Appelle.*

7075. Feldman, Bernard. (U. Southern California) **Prediction of first grade reading achievement from selected structure-of-intellect factors.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 642-643.

7076. Gómez de Pedraza, Fanny. (National U.,

Bogotá, Colombia) **Descripción de un grupo de alumnos de psicología de la Universidad Nacional.** [A description of a group of psychology students at the National University.] *Revista de Psicología*, 1967, Vol. 12(1-2), 35-39.—The results of a Spanish translation of the American Council on Education Aptitude Test, high school GPA, college admission test results, and college GPAs were used to compare 1180 candidates for admission to the various schools of the National University of Colombia, 55 candidates for admission to the Department of Psychology, and 19 students accepted in the Department of Psychology in 1962 and graduated in 1965. The major finding was that the combined high school GPA and academic aptitude test result score is an excellent student selection criterion. A question that remained unanswered concerned the reasons why some well-qualified students drop out during their college career.—*L. Zusne.*

7077. Hirst, Wilma E. (School Administration Bldg., Cheyenne, Wyo.) **Sex as a predictor variable for success in first grade reading achievement.** *Journal of Learning Disabilities*, 1969(Jun), Vol. 2(6), 316-321.—Studied the relationship of kindergarten measures of IQ, readiness, maturity development, creativity, sociometric relationship, physical skills, social-emotional growth, perceptual development, and family background with academic achievement in a 3-yr study of 14 males and 112 females. Regression equations were computed on each measurement, with achievement at the end of the 1st grade as the dependent variable. Results show that prediction of 1st grade reading success may be made if there is an estimate of (a) an intersensory (auditory-visual) symbolic function, (b) and intrasensory perceptual function, and (c) a visuomotor task that stresses intrasensory imagery. Though comparable skills for the sexes seem to be tapped and in the same order, different measures are necessary to do the tapping.—*Journal abstract.*

7078. Walberg, Herbert J. (U. Wisconsin, Research & Development Center for Cognitive Learning) **Predicting class learning: An approach to the class as a social system.** *American Educational Research Journal*, 1969(Nov), Vol. 6(4), 529-542.—Replicates and extends prior empirical work using the Getzels-Thelen model of the class as a social system. From a national sample, data were collected on the characteristics of 144 classes participating in a curriculum project. With the class mean as the unit of analysis, 3 cognitive and 3 noncognitive adjusted learning criteria were canonically correlated with 5 separate predictor batteries: 15 classroom climate scales, 7 personality scales, 20 biographical characteristics, 4 course-teacher effects, and 3 miscellaneous variables. The climate and biographical batteries were found to be highly significant and equally efficient in predicting the learning criteria. (23 ref.)—*Journal abstract.*

Overachievement & Underachievement

7079. Bell, David B. (Texas Tech U.) **The motivational and personality factors in reading retardation among two racial groups of adolescent males.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 909-910.

7080. Denhoff, Eric; Hainsworth, Peter K., & Siqueland, Marian L. (Meeting Street School, Children's Rehabilitation Center, Providence, R.I.) **The meas-**

urement of psychoneurological factors contributing to learning efficiency. *Journal of Learning Disabilities*, 1968(Nov), Vol. 1(11), 636-644.—Suggests that some children's inability to process sensory information to produce meaningful and efficient motor response is the basis for scholastic failure in many intellectually normal young school children. This neurological inefficiency as expressed through behavior is termed psychoneurological inefficiency. A system of measurement, the Meeting Street School Screening Test for Learning Disorders, is proposed. Results of an ongoing survey of 1000 5-7 yr. old children with this test are reported, generating a range of objective scores over several areas of psychoneurological functioning as a basis for tables of norms. It is stressed that in assessing inefficiency rather than pathology, a child's scores are given meaning by being compared against those of children of the same age, sex, and socioeconomic background. Implications of this measurement framework and methodology are viewed as providing physicians with a tool to increase their ability to distinguish between pathology and functional inefficiency and thus to play a more meaningful role in the assessment and treatment of school failure.—*M. Maney*.

7081. **Whiting, Anita.** (Claremont Graduate School & University Center) **Independence concepts held by parents of successful and unsuccessful elementary school boys.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 387.

CURRICULUM & PROGRAMS

7082. **Anderson, Gary J., Walberg, Herbert J., & Welch, Wayne W.** (McGill U., Montreal, Quebec, Canada) **Curriculum effects on the social climate of learning: A new representation of discriminant functions.** *American Educational Research Journal*, 1969(May), Vol. 6(3), 315-328.—Related student perceptions of the social climates of learning in a national sample of physics classes to 3 effects: course being used, teacher experience with the course, and method of selecting teacher. Differences were perceived in social climates of learning, and these were stronger for course effects than for teacher effects. Classes using the experimental course were perceived as less difficult and goal directed, more diverse, and as having a more positive environment. Experimental classes had less friction among students and fewer friendship cliques. Teachers experienced with the course had classes perceived as less democratic and intimate, with larger tendencies toward clique formation, teacher favoritism and friction among classmates. Students of randomly selected teachers indicated that their classes were more difficult, goal directed and intimate than those of volunteer teachers. (21 ref.)—*Journal abstract*.

7083. **Buchanan, Edward A.** (Southern Baptist Theological Seminary, Louisville, Ky.) **A comparative study of low-budget learning environment and enriched curriculum on the achievement of behavioral objectives.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 575-576.

7084. **Castner, Alice E.** (U. Maryland) **The relationship between the process of keeping a journal and self-esteem using sixth grade students.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 896-897.

7085. **Falik, Louis H.** (San Francisco State Coll.) **The**

effects of special perceptual-motor training in kindergarten on reading readiness and on second grade reading performance. *Journal of Learning Disabilities*, 1969(Aug), Vol. 2(8), 395-402.—Tested the efficacy of providing special perceptual-motor training as part of the general kindergarten curriculum. 42 children falling within the lower $\frac{1}{3}$ of their group on the Anton Brenner Developmental Gestalt Test of School Readiness were randomly assigned to an experimental or control group. Groups were compared for readiness for reading at the end of the year and reading achievement at the end of the 2nd grade. Results show no significant differences and suggest that the relevance of providing such special training as part of the general curriculum for nonclinical groups must be seriously questioned. (26 ref.)—*Journal abstract*.

7086. **Gordon, Edmund W. & Jablonsky, Adelaide.** (Teacher's Coll., Columbia U.) **Compensatory education in the equalization of educational opportunity: I.** *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 268-279.—Reviewed the effectiveness of 9 programs of compensatory education. Criteria stressed as important to the development of these programs include (a) attention to group interaction and the teacher-learning process; (b) longer periods of instruction extending beyond the confines of the school; (c) development of respect for the enriched school experience by the children; (d) attention to health and nutritional problems; (e) respect for language differences among the children; (f) provisions for transiency of families; (g) preparation of excellent school personnel; (h) adequate facilities and resources; and (i) emphasis on cultural, economic, and ethnic integration in education.—*S. Appelle*.

7087. **Gordon, Edmund W. & Jablonsky, Adelaide.** (Teacher's Coll., Columbia U.) **Compensatory education in the equalization of educational opportunity: II.** *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 280-290.—Presents a comprehensive model for compensatory education for socially disadvantaged children from early child care, the primary school, the elementary school, and the secondary school. Camping is discussed as a possible approach to "extension of the influence and service of formal instruction." The estimated cost of establishing a nationwide system of quality education for all disadvantaged children is discussed.—*S. Appelle*.

7088. **Mahan, Thomas W.** (U. Hartford, Inst. for Human Development) **The busing of students for equal opportunities.** *Journal of Negro Education*, 1968(Sum), Vol. 37(3), 291-300.—Assesses the effect of "busing" as a means of achieving equal educational opportunity for minority youth in Boston, Hartford, Rochester, and New York. No evidence was found of psychological trauma or alienation from their communities among the participants of busing programs. The introduction of disadvantaged black children into the classroom did not depress academic achievement among white pupils, and black pupils quickly assimilated socially and succeeded in peer group relationships.—*S. Appelle*.

7089. **Mushier, Carole L.** (U. Southern California) **A cross-sectional study of the personality factors of girls and women in competitive lacrosse.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 635-636.

7090. **Pryzwansky, Walter B.** (Columbia U.) **The**

effect of perceptual-motor training and manuscript writing on reading readiness skills in kindergarten. *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 384.

7091. Silluzio, Vincent J. (Boston U., School of Education) **An evaluation of an experimental program designed to affect student attitudes and academic achievement through modifications in the institutional structure of a high school.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 902-903.

7092. Smoll, Frank L. (U. Wisconsin) **Specificity and delay of information feedback as factors in the learning of a motor skill.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 637-638.

7093. Titone, Renzo. **Guidelines for teaching a second language in its own environment.** *Modern Language Journal*, 1969(May), Vol. 53(5), 306-309. —Reviewed the 3 basic points of reference in foreign language instruction: (a) historical antecedents of learning language abroad, (b) the scientific reasons for "cultural-linguistic immersion," (c) "natural setting" language learning guidelines. History has advanced the theory that the best possible way to learn a foreign language is through a combining of experiences and formal training. Psycholinguistics has proposed that language is a system of experience based on verbal symbols, and that it is a complex sociopsychological process. It is suggested that the student experience "systematic interaction" with the foreign environment aided by a working, selective syllabus. The student should be made aware of contrasting and comparing linguistic and cultural patterns. Well planned "life exercises" would be experiences through proper use of textbooks and audiolingual processes. It is concluded that the most vital tool in foreign language learning is the teacher and advises that he be ideally both bilingual and bicultural.—C. O'Donnell.

7094. Tyler, Robert W. (Pennsylvania State U.) **Lateral dominance as a factor in learning selected motor skills.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 638.

7095. Weisman, Seymour; Snadowsky, Alvin, & Alpert, Estelle. (City Coll., City U. New York) **Alumni feedback and curriculum revision.** *Improving College & University Teaching*, 1970, Vol. 18, 120-121. —In evaluating attitudes toward the college curriculum, graduates are too often overlooked. However, alumni are uniquely suited to determine the more stable and long-range effects of an instructional program. A survey of graduates' attitudes toward the curriculum was conducted at a large urban Eastern college. It was found that alumni reported very favorably about courses given in their major department, and much less favorably about the required core sequence. These data served as a basis for curriculum revision, improved curricular guidance, and long-range planning.—Author abstract.

7096. Westbury, Ian. (U. Chicago) **Curriculum evaluation.** *Review of Educational Research*, 1970(Apr), Vol. 40(2), 239-260. —Evaluation is considered in terms of its intentionality and curriculum in terms of systematic curriculum-evaluation. Its methodological aspects are discussed and examples of all of these evaluative curricular variants are given. 2 problems are apparent through the review: the issue of intention and the issue that centers on the conceptualization of the foundations

on which curriculum evaluation must be built. (3 p. ref.)—P. D. Leedy.

Teaching Methods & Teaching Aids

7097. Burse, Luther. (U. Maryland) **An experimental application of subsuming concepts to meaningful verbal learning terminating with the performance of selected psychomotor tasks.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 640.

7098. Dunn, Barbara J. (U. California, Los Angeles) **The effectiveness of teaching selected reading skills to children two through four years of age by television.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 655.

7099. Enstrom, E. A. (Peterson Handwriting, Greensburg, Pa.) **Left-handedness: A cause for disability in writing.** *Journal of Learning Disabilities*, 1968(Jul), Vol. 1(7), 410-414. —Compares methods of teaching writing to right- and left-handed children. (17 ref.)

7100. Huebner, Robert W. (U. Maryland) **Interactions between patterns of individual differences in sensory modalities of students and methods of classroom instruction.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 679.

7101. Jonas, Ruth A. **The twinned classroom approach to FLES: Resumé of the first two years of a five year sequence.** *Modern Language Journal*, 1969(May), Vol. 53(5), 342-346. —Summarizes the 1st 2 yr. of a 5-yr study in the "twinning" approach to foreign language acquisition. The 2 groups consisted of American and French students matched for grade level, who "met" via slides sent back and forth. A control group of Americans was also selected. This group had the same teacher, the same instructional materials and methods, but did not have access to the slides and tapes. As the study progressed, the experimental group became more intensely involved with the culture and personality of their overseas "twin." Various inventories were administered and the control group showed only slight advantage. It is suggested that no definite conclusion may be reached until the termination of the study. It is suggested that at the beginning of the 3rd yr. there is an observable decline in interest in French in the control group.—C. O'Donnell.

7102. Jones, J. Kenneth. (U. London, Inst. of Education, England) **Comparing i.t.a. with colour story reading.** *Educational Research*, 1968(Jun), Vol. 10(3), 226-234. —Compares the results of a previous 2-yr investigation of Color Story Reading (CSR) in about 400 beginning reading children, with a similar previous investigation of the Initial Teaching Alphabet (ITA). In both experiments Ss were split into control and experimental groups matched for school, age, sex, social class, and intelligence. Comparison on the basis of terminal performance on the Schonell Graded Word Reading Test and Schonell Graded Word Spelling Test "A" revealed that (a) control groups in the 2 experiments did not differ in scores; (b) the experimental top 3rd in the CSR investigation were 22 mo. ahead of their controls in reading, compared with 3 mo. for the ITA top 3rd; (c) the CSR experimental top 3rd was 17 mo. ahead of their controls in spelling, as compared to 3 mo. behind for the ITA experimental top 3rd. High scores by the CSR experimental group were suggested to be attrib-

utable to the ease of learning to read by the CSR method and the efficiency of transfer of learning to traditional orthography. (21 ref.)—R. Wiltz.

7103. Loveless, Edna M. (U. Maryland) **Developing critical thinking skills in students in eighth grade English classes.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 681.

7104. Wheeler, Robert W. (U. Michigan) **Self-transcendence as a normative philosophy and psychology underlying the teaching of literature and composition.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 689.

PERSONNEL & INDUSTRIAL PSYCHOLOGY

7105. ———. **Human Resources Research Organization: Bibliography of publications as of 30 June 1969.** Alexandria, Va.: Human Resources Research Organization, 1969. vii, 312 p.

7106. Campbell, R. J., et al. **On becoming a psychologist in industry: A symposium.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 191-221.—After an introduction by Campbell covering the objectives of a symposium presented at the 1968 APA meeting, James Naylor describes the professional-scientific dichotomy and the related training strategies. Paul Thayer reports on the responses of a small group of recent graduates and their conflicts between research interests and job demands. Training in research should develop the ability to think critically about research design and objectives. Wayne Sorenson reports on his own experiences as a beginning industrial psychologist and emphasizes the need to gain acceptance as a valuable resource person in the organization and to be aware of the misperceptions which laymen have of psychologists and which psychologists have of businessmen. Using the University of Rochester Program as an example, Bernard Bass describes a 2-track program in industrial and organizational psychology which provides concentration and interaction among psychologists and management. A symposium discussant, Douglass Bray, stresses the need to be both professional and scientific and urges that this need be considered in career planning. The characteristics of an effective practitioner include realistic expectations of the setting, grasp of the major problems of the organization, ability to identify the crucial determinants of the problem, professional sophistication and awareness of his own competencies, willingness to function at all levels of competence, ability to propose research and action adequate to the problem, and persuasive communication skills.—A. S. Thompson.

7107. Daniel, Jozef. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Achievement in the Stroop Interference test in relation to profession.** *Studia Psychologica*, 1970, Vol. 12(2), 99-102.—A comparison of scores in Stroop's subtests achieved by a group of 53 skilled workmen and those of leading executives failed to bring out significant differences. A dominance of conceptual activity was found in the executives while psychomotor activity predominated in the workmen. A significant correlation was observed between workers' subtests and intelligence, and between scores in the attention distribution test and

performance in Bourdon's test. In former studies by J. Daniel certain correlates of the Stroop interference test were reported. Achievement in this test was related to results in some further tests, to personality inventory, and to a rating by chief executives. The statement by A. R. Jensen and W. D. Rohwer that this test is suitable in the diagnosis of cognitive abilities was confirmed, with those factors proving the most suitable for the scores which embodied a color-naming component. (Czech & Russian summaries)—*Journal abstract*.

7108. de Abisambra, Gladys. (National U., Bogotá, Colombia) **Selección y orientación profesional en Colombia.** [Personnel selection and vocational counseling in Colombia.] *Revista de Psicología*, 1967, Vol. 12(1-2), 17-33.—Describes the personnel, tests, and procedures used by various educational institutions and private enterprises in Colombia to select and counsel personnel and students.—L. Zusne.

7109. Graulich, Pascal. (National U., Bogotá, Colombia) **La psicología industrial y los problemas del desarrollo económico.** [Industrial psychology and the problems of economic development] *Revista de Psicología*, 1967, Vol. 12(1-2), 13-15.—Economic development brings about problems that are primarily technological in nature. Solutions for these problems, although also technological in nature, are accompanied by a large number of social and psychological problems. The extent to which an industrial psychologist may contribute to the solution of problems brought about by change in industrial settings is outlined.—L. Zusne.

7110. Ronan, W. W., Tatro, C. R., Aral, S., & Latham, G. P. (Georgia Inst. of Technology) **Psychological, sociological, and demographic variables affecting the pulpwood harvesting labor force in a Southeastern United States community.** Atlanta, Ga.: American Pulpwood Assn., Harvesting Research Project, 1970. viii, 85 p.—Results indicate that population movement to urban centers was not affecting the ability of the pulpwood industry to attract labor in this community, but that attitudes held by community leaders, high school students, and the general public were not favorable regarding the pulpwood producer's job, his physical working conditions, the actual tasks he performs, his pay and benefits, and the type of people with whom he works. Job satisfaction questions posed to the general public were poorly received and yielded inconclusive results. Certain technical requirements of questionnaires for the studied population were determined.—*Author abstract*.

7111. Velehradský, Antonín. (Inst. of Education for Executive Staff of Chemical Industry, Prague, Czechoslovakia) **Psychologické problémy stárnutí a jejich důsledky pro personální řízení.** [Psychological aspects of aging and personnel work.] *Psychologie v Ekonomické Praxi*, 1968, No. 3-4, 136-148.—Examines the rapid technological development and more exacting qualification demands made on aging workers. The biological and psychological changes of older employees are augmented by the discrepancy between their qualification and the production requirements. The phenomenon of aging and its relation to working ability and performance is analyzed. Practical measures for the solution of this problem are presented, especially regarding the placing and retraining of older workers. (French, Russian, & German summaries)—*English summary*.

7112. Weber, Arnold R., Cassell, Frank H., & Ginsburg, Woodrow L. (Eds.) (U.S. Dept. of Labor, Washington, D.C.) **Public-private manpower policies.** Madison, Wis.: Industrial Relations Research Association, 1969. iii, 210 p.

VOCATIONAL CHOICE & GUIDANCE

7113. Sánchez de Barrientos, Lilia; Ramírez A., Hernando, & Jaramillo S., Luis J. (National U., Bogotá, Colombia) **Estudio de la batería general de pruebas de aptitudes GATB en formación profesional de adolescentes.** [A study of the General Aptitude Test Battery GATB in the vocational development of adolescents.] *Revista de Psicología*, 1967, Vol. 12(1-2), 55-68.—A modified Spanish version of the GATB was given to several hundred 5th grade students in Colombia. At this age level training in a national vocational training program may begin. While most test-retest reliabilities obtained at 8, 57, and 275 days were significant at the .01 level, they were generally low and varied inconsistently from 1 test administration to another. Validity was established by correlating GATB scores and scores obtained by students in the 1st 6 mo. of vocational training courses. In both industrial and business courses multiple *r*'s were significant at the .01 level, except in mechanical maintenance, machine-tool, and accounting courses, where they were significant at the .05 level. Recommendations are presented for improving the test battery.—L. Zusne.

SELECTION & PLACEMENT

7114. Carlson, Robert E., Schwab, Donald P., & Heneman, Herbert G. (Life Insurance Agency Management Assn., Hartford, Conn.) **Agreement among styles of selection interviewing.** *Journal of Industrial Psychology*, 1970(Mar), Vol. 5(1), 8-17.—Assessed the extent of agreement among job interviewers using structured, semistructured, and unstructured interviewing styles. In the structured style group, interviewers obtained from applicants only the information specified on an application blank. 18 male assistant city department managers served as interviewers. In the semistructured group, interviewers asked only additional questions they felt were pertinent. Members of the unstructured group interviewed applicants as they saw fit. Only interviewers performing under structured conditions agreed with each other to any appreciable extent. It is concluded that "the 3 styles are probably not measuring the same characteristics of the interviewees," and that "only with a structured interview procedure is there a potential for validity."—S. Appelle.

7115. Krau, E. (Academy of Romanian Socialist Republic, Psychology Div., Cluj, Romania) **Experimental research in vocational adjustment and personnel selection.** *Studia Psychologica*, 1970, Vol. 12(2), 125-133.—Discusses occupational maladjustment caused by lack of aptitude, interest, and a negativistic attitude toward job requirements. Personnel classification (selection) can help to cope with this problem. Psychological job descriptions for mining and turning are presented. To have the greatest efficiency, selection must take place at trade school entrance and include data on life background. Such data help to predict success in trade instruction and stability on the job. Promotional potential can also be predicted by tests.

Research with 126 miners is described. (Czech & Russian summaries)—*Journal abstract.*

7116. Rulon, Philip J., Tiedeman, David V., Tatsuoka, Maurice M., & Langmuir, Charles R. (Harvard U., Graduate School of Education) **Multivariate statistics for personnel classification.** New York, N.Y.: John Wiley, 1967. xi, 406 p. \$12.95.

7117. Thumin, Fred J. (U. Missouri, St. Louis) **Comparative study of three mental ability tests.** *Journal of Industrial Psychology*, 1970(Mar), Vol. 5(1), 1-7.—Introduces a new mental ability test, the Mental Dexterity Test (MDT), designed to be used either as a speed or power test and "of sufficient difficulty to discriminate between relatively bright individuals, such as those typically sought to fill managerial positions of considerable responsibility..." To ascertain the internal consistency and level of difficulty for this test, comparisons were made between the MDT, Otis Self-Administering Test, and the Wonderlic Personnel Test (WPT). Results suggest "that the MDT is a test of satisfactory reliability, [and] 1 which provides considerably more ceiling than either the widely used Otis or WPT..."—S. Appelle.

TRAINING

7118. Sherrow, Jeanne E. (U. Illinois) **The effect of a creative problem solving workshop on selected municipal recreation personnel.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 651-652.

7119. Walton, Howard N. & Schubert, Delwyn G. (Los Angeles Coll. of Optometry, Calif.) **Vision-perception testing and training program: Clerical operations.** *American Journal of Optometry & Archives of American Academy of Optometry*, 1969(Nov), Vol. 46(11), 840-847.—A vision and perception testing and training program for 25 post office employees (mean age, 29 yr.) shows that the span of recognition for words and digits may be significantly increased. Also, speed and accuracy in grouping and matching digits may be significantly increased. Ss with the lower starting levels in span of recognition have a tendency to show greater gains indicating high level starting perceptual skills are not necessarily a prerequisite for achievement. Programs may be specifically designed for clerical and industrial situations.—*Journal abstract.*

TASK & WORK ANALYSIS

7120. McCormick, Ernest J., Jeanneret, Paul R., & Mechem, Robert C. (Purdue U., Research Foundation) **The development and background of the Position Analysis Questionnaire (PAQ).** *Occupational Research Center Report*, Purdue U., 1969(Jun), No. 5, 25 p.—Describes the development of the Position Analysis Questionnaire (PAQ), Form A, from earlier job analysis instruments, and the more recent development of a modified version of the PAQ, Form B. Form A includes 189 job elements characterizing work activities of a behavioral nature and various aspects of the context within which human work is performed. The job elements of the PAQ have been used (a) as the basis for deriving various sets of job dimensions, (b) for exploratory studies dealing with the potential use of the PAQ as the basis for developing synthetically-derived job attribute requirements, and (c) for job evaluation purposes. Form B is essentially a refinement of Form A,

with some moderate changes, and includes 194 items. Copies of both forms are included.—*Journal abstract.*

7121. Stríženec, Michal. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Attempts to work out a more realistic model of an operator's thinking activity.** *Studia Psychologica*, 1970, Vol. 12(2), 164-165.

7122. Stríženec, Michal. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Prediction of parameter changes in a simulated control system: I.** *Studia Psychologica*, 1970, Vol. 12(3), 214-226.—Discusses recent research into the operator's activity in industrial production at various levels of automation. Recent investigations are described of an operator's thinking which has formed the basis for a model to study prediction of parameter changes of the regulation process (involving a determination of an unknown arithmetic progression). Results are presented of psychodiagnostic tests with 22 undergraduates and 38 apprentices on a model panel. (Czech & Russian summaries)—*Journal abstract.*

PERFORMANCE & JOB SATISFACTION

7123. Alfarhan, Kassim M. (U. Wisconsin) **An analysis of the relationships between job performance of Iraqi agricultural agents and selected background and psychological factors.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 599-600.

7124. Clayton, Howard. (U. Oklahoma, School of Library Science) **Femininity and job satisfaction among male library students at one Midwestern university.** *College & Research Libraries*, 1970(Nov), Vol. 31(6), 388-398.—Reports that 35 male library science students at a Midwestern university had mean scores on the CPI Femininity scale that were significantly greater than norms established by unselected samples of American men. Data also indicate that approximately 1/3 of Ss had been dissatisfied with a full-time job, or occupation, prior to entering library school. A statistically significant inverse correlation was found to exist between the amount of satisfaction Ss experienced in such work and their score on the CPI Femininity Scale.—*Journal summary.*

7125. Dachler, Hans P. (U. Illinois) **The effects of performance feedback on attribution of causality for performance and satisfaction.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 941-942.

7126. Henderson, Thomas H. (U. Wisconsin) **Factors associated with job performance of agricultural extension workers in Jamaica, West Indies.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 603.

7127. Hubner, Walter F. (U. Wisconsin) **Individual need satisfaction in work and non-work: A comparative study of the effects of the technology and organization of work.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 942.

7128. Hulbert, James. (Washington U.) **The job satisfaction of salesmen: A cross-cultural study.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 516-517.

7129. Ilgen, Daniel R. (U. Illinois) **Satisfaction with performance as a function of the initial level of expected performance and the deviation from expectation.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 942-943.

7130. Karson, Samuel & O'Dell, Jerry W. (Eastern Michigan U.) **Performance ratings and personality factors in radar controllers.** *FAA Office of Aviation Medicine Report*, 1970(Sep), No. 70-14, 4 p.—Computed a correlation matrix on 19 variables (primary factors in the 16 PF, a motivational distortion score, and 2 parts of an official FAA employee appraisal record) for 264 radar controllers. Criterion variables (performance appraisals) were not related to the personality measures.—*W. E. Collins.*

7131. Klein, Stuart M. & Ritti, R. R. (U. Kentucky) **Work pressure, supervisory behavior and employee attitudes: A factor analysis.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 153-167.—A factor analysis of 55 items in an employee attitude questionnaire administered to 1500 production workers yielded 7 factors. The intercorrelations among the factors are interpreted in terms of work pressures and managerial power. (19 ref.)—*A. S. Thompson.*

7132. Latham, G. P. **An analysis of critical behaviors of pulpwood producers reported by foresters and dealers.** Atlanta, Ga.: American Pulpwood Assn., Harvesting Research Project, 1970. v, 26 p.—A job analysis of the independent pulpwood producer was conducted by means of the critical incident technique for the purpose of developing performance criteria. Critical incidents collected from company foresters were compared with those obtained from pulpwood dealers. Results indicate that there were both qualitative and quantitative differences in the critical behaviors reported by the 2 populations. A questionnaire designed to measure the relevance of the critical behaviors to the producer's job success was analyzed by means of a 2-way multivariate analysis of variance. Results indicate that there were no significant differences in the relevance of the criteria in 10 Southern states, but that there was a significant interaction between occupation and criteria. Foresters considered 2 criteria to be significantly more relevant than did pulpwood dealers.—*Author abstract.*

7133. Owens, A. G. (1st Psychology Research Unit, Albert Park, Victoria, Australia) **Job satisfaction and re-engagement among Australian Regular Army soldiers.** *Australian Journal of Psychology*, 1969(Aug), Vol. 21(2), 137-144.—296 Australian Regular Army soldiers, whose current term of service was due to expire within 2 mo. completed a questionnaire shown to measure overall satisfaction with Army life. Results were analyzed in relation to assessed reengagement intention. It was found that although there was a positive relationship of satisfaction to reengagement intention, the proportion of dissatisfied Ss intending discharge was greater than the proportion of satisfied Ss intending reengagement. A replication, 9 mo. later, with 418 Ss, produced similar results, although some shrinkage occurred in the relationships of satisfaction to actual subsequent reengagement. An explanation of the findings is offered in terms of the attractiveness of alternative employment.—*Journal abstract.*

7134. Payne, Roy. (London Graduate School of Business Studies, England) **Factor analysis of a Maslow-type Need Satisfaction Questionnaire.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 251-268.—A factor analysis of scores on the Need Satisfaction Questionnaire administered to a group of female operators as an unskilled job yielded only 2 general factors—general need satisfaction and general job valence. A similar study using management students

yielded similar results. The lack of specific factors cast doubt on the usefulness of the Need Satisfaction Questionnaire in measuring the needs in the Maslow hierarchy. (32 ref.)—A. S. Thompson.

7135. Prien, Erich P. (Memphis State U.) **Measuring performance criteria of bank tellers.** *Journal of Industrial Psychology*, 1970(Mar), Vol. 5(1), 29-36.—Compares objective and subjective criteria of job performance of 45 bank tellers, and provides "patterns of validity coefficients for individual test/criterion combinations." Judgments of effectiveness are primarily related to ability measures. The only significant personal characteristics are revealed in the Gordon Personal Profile Scales of Responsibility and Emotional Stability.—S. Appelle.

7136. Roach, Darrell E. & Wherry, Robert J. **Performance dimensions of multi-line insurance agents.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 239-250.—36 variables relating to the performance of multiline insurance agents were subjected to a modified centroid factor analysis followed by hierarchical rotation. 13 factors emerged, including 7 tertiary level factors. The general, 2 secondary and 5 tertiary level factors described degrees of specialization ranging from the all around salesman, who is a high producer in all lines, to those who excel only in 1 product line. A 3rd secondary level factor and its 2 tertiary level factors describe agents with long service and with income from renewal commissions. The remaining secondary level factors describe agents who emphasize repeat sales and those who write marginal insurance risk customers.—A. S. Thompson.

7137. Šipos, Ivan & Kollárik, Tibor. (Slovak Academy of Sciences, Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Effect of long-term stress on employment stability.** *Studia Psychologica*, 1970, Vol. 12(2), 162-164.

7138. Soliman, Hanafi M. (U. Illinois) **The motivation-hygiene theory of job attitudes: An empirical investigation, and an attempt to reconcile both the one and the two-factor theories of job attitudes.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 943.

7139. Sukhareva, A. I. (Inst. of General & Educational Psychology, Moscow, USSR) **O psikhologicheskikh proyavleniyakh osnovnykh svoystv nervnoy sistemy v trudovoy deyatelnosti.** [Psychological manifestations of the basic properties of the nervous system in work activity.] *Voprosy Psikhologii*, 1970(Jul), Vol. 16(4), 35-46.—9 16- and 17-yr-old technical school students were studied over a 2-yr period in order to relate typological and work productivity characteristics. Time studies of drilling and turning operations were made twice each year. The straight-line equation was used to approximate the work curve. Alpha-blocking time and RT curves to light in dark-adapted Ss were used as indices of the strength of the nervous system and were correlated with work curve data. Results showed that work curves reflect individual typological differences. For instance, at the beginning of the training period "weak" Ss were inferior to "strong" Ss in terms of work efficiency (Coefficient a) but better in terms of rate of efficiency gain (Coefficient b). At the end of the training period "weak" Ss were superior on both indices. (English summary)—L. Zusne.

7140. Wollack, Stephen. (Bowling Green State U.)

The effects of work rate upon job satisfaction. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 944.

7141. Wood, Donald A. & LeBold, William K. (Indiana U.) **The multivariate nature of professional job satisfaction.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 173-189.—An overall job satisfaction index and 34 questionnaire items were evaluated by a national sample of over 3000 engineering graduates. Factor analysis suggested that job satisfaction is multidimensional. A general job characteristic factor and a specific factor, professional challenge, were most related to overall job satisfaction. The curvilinear nature of job values is examined, and alternative techniques of multivariate analysis are suggested. (22 ref.)—A. S. Thompson.

MANAGEMENT & ORGANIZATION

7142. Davies, Evan; Wyndham, John, & Binks, Noel. (U. New South Wales, Sydney, Australia) **Psychological changes in sensitivity training.** *Australian Psychologist*, 1969(Mar), Vol. 3(3), 171-176.—Studied the effects of sensitivity training on some aspects of motivation, attitudes to managerial style, and changes in group dynamics in 46 senior managers. Changes were noted in the motivational strength of social assertiveness, in the degree of conflict associated with career motivation, in managerial attitudes to authoritarianism, and democratic cooperative styles. Group variations in intimacy and participation also manifested themselves.—*Journal abstract.*

7143. Finkle, Robert B. & Jones, William S. **Assessing corporate talent: A key to managerial manpower planning.** New York, N.Y.: Wiley-Interscience, 1970. ix, 248 p. \$9.95.

7144. Fleishman, Edwin A. & Simmons, J. (American Inst. for Research, Washington, D.C.) **Relationship between leadership patterns and effectiveness ratings among Israeli foremen.** *Personnel Psychology*, 1970(Sum), Vol. 23(2), 169-172.—A Hebrew version of the Supervisory Behavior Description was administered to 318 Israeli foremen. The results relating to ratings of foremen performance confirmed the general desirability of both high consideration and high structure.—A. S. Thompson.

7145. Flory, Charles D. (Ed.) (Rohrer, Hibler, & Replogle, New York, N.Y.) **Managing through insight.** New York, N.Y.: World Publishing, 1968. xviii, 261 p. \$5.95.

7146. Greene, Charles N. (Ohio State U.) **The development of role consensus and its effect on evaluation of performance and satisfaction within the managerial dyad.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 514.

7147. Kingdon, Donald R. (U. California, Los Angeles) **The management of complexity in a matrix organization: A socio-technical approach to changing organizational behavior.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 517-518.

7148. Ronan, W. W. (Georgia Inst. of Technology) **Evaluation of three criteria of management performance.** *Journal of Industrial Psychology*, 1970(Mar), Vol. 5(1), 18-28.—Evaluates the effectiveness of several criteria of management performance in terms of their predictability and intercorrelations. Management personnel (N = 100) were rated twice a year with forms

—i.e., the 11-item Corporate Ratings form, and a 23-item descriptive phrase, forced choice form—in a formal, continuing program of management evaluation. It is concluded “that criteria presumably measuring the same performances and performers show quite low intercorrelations,” and “attempts to predict performance of management personnel are likely to have limited success if the group is heterogeneous as to age and education.” (18 ref.)—S. Appelle.

7149. Taylor, James C. (U. Michigan) **The conditioning effects of technology on organizational behavior in planned social change.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 943-944.

SPECIAL ENVIRONMENTS

7150. Bucove, Arnold D. & Maioriello, Richard P. **Symptoms without illness: Fear of flying among fighter pilots.** *Psychiatric Quarterly*, 1970(Jan), Vol. 44(1), 125-142.—Presents the case histories of 6 out of 7 fliers who were afraid to fly their aircraft and had somatic complaints. Somatic complaints were acceptable in the fighter pilot milieu, but fear of flying and psychiatric complaints were not acceptable in the pilot milieu. Somatic complaints were not accepted by the pilots' physicians but a fear of flying was. In the course of therapy the pilots changed from somatic symptoms to a recognition of their underlying fear of flying. The symptoms had been communications that the pilots did not want to fly jet fighters anymore. (15 ref.)—*Journal summary*.

7151. Capel, W. C., Youngblood, David, & Stewart, G. T. (Tulane U., School of Public Health & Tropical Medicine) **Note on stress, anxiety and related defenses in a controlled situation.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 351-355.—Placed 4 highly trained, experienced aquanauts in a situation with hazardous but familiar dangers. Although accustomed to psychological tests, they had never been tested with the Institute for Personality and Ability Testing 8-Parallel Form Anxiety Battery which was given 15 min. prior to the beginning of the dive. Another form of the test with a high correlation value was given 30 min. after the 48-hr dive. Anxiety levels prior to the experiment were abnormally low as compared to the general population, indicating the presence of a defense mechanism controlling anxiety. After the dive, anxiety levels returned or began to return to, points approximating those of the general population.—*Journal abstract*.

7152. Cram, John M. (U. British Columbia, Vancouver, Canada) **Perceived need satisfactions of workers in isolated environments.** *Dissertation Abstracts International*, 1970(Jul), Vol. 31(1-B), 430-431.

7153. Hasbrook, A. Howard & Rasmussen, Paul G. (FAA, Civil Aeromedical Inst., Physiology Lab., Oklahoma City, Okla.) **Pilot heart rate during in-flight simulated instrument approaches in a general aviation aircraft.** *FAA Office of Aviation Medicine Report*, 1970(Apr), No. 70-7, 10 p.—Studied stress responses in 8 highly experienced pilots during simulated in-flight instrument approaches in a single-engine aircraft. Heart rate increased significantly from pre-approach base lines during each of 10 approaches per pilot, although the overall mean heart rate decreased across successive approaches.—W. E. Collins.

ADVERTISING & CONSUMER PSYCHOLOGY

7154. Dascher, Paul E. (Pennsylvania State U.) **The behavioral impact and implications of varying approaches to market segment reporting: An empirical study.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 507.

ENGINEERING PSYCHOLOGY

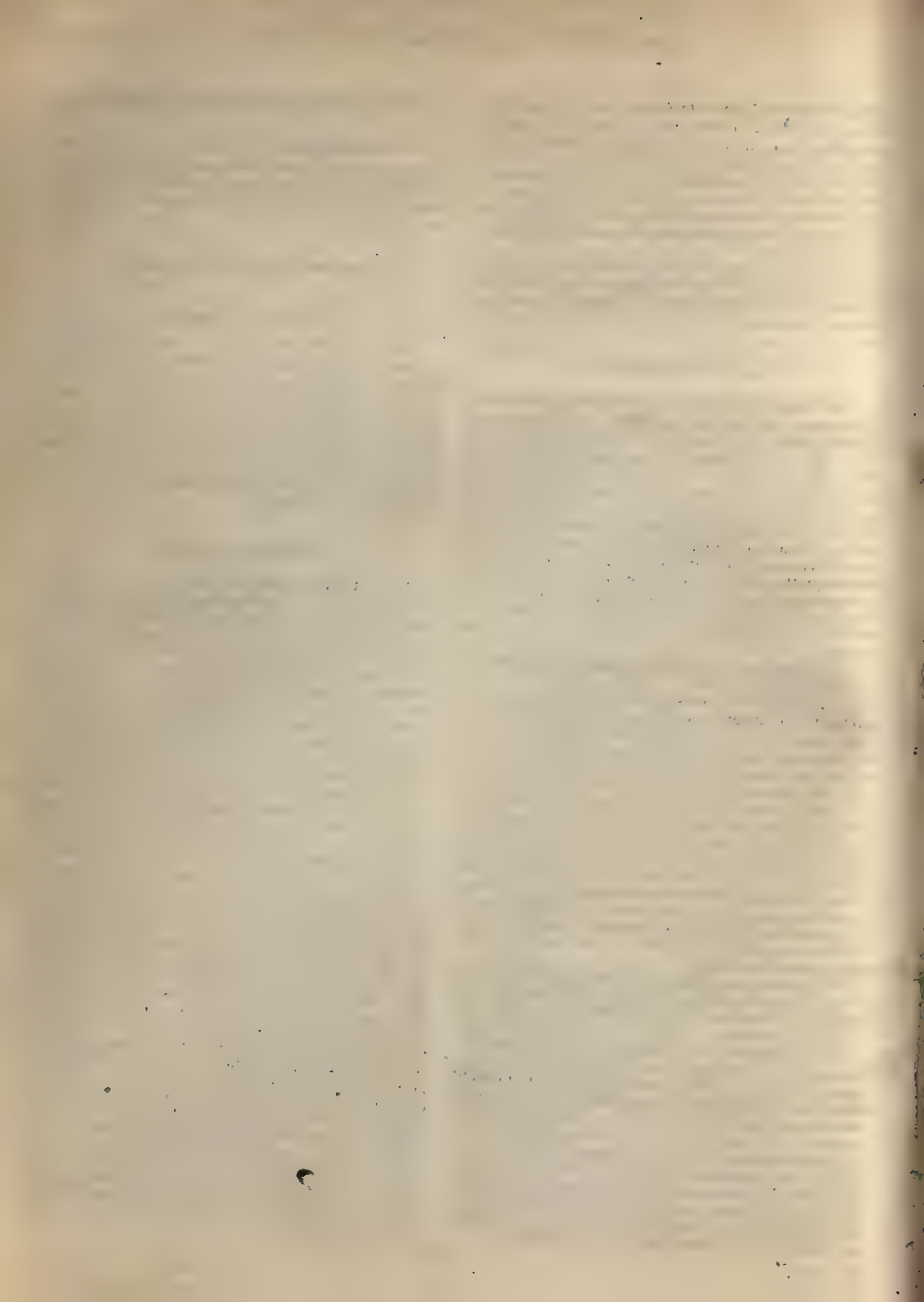
Displays & Controls

7155. Easterby, R. S. (U. Aston, Birmingham, England) **The perception of symbols for machine displays.** *Ergonomics*, 1970(Jan), Vol. 13(1), 149-158.—Discusses the role of pattern perception theory based on the Gestalt view of perception in relation to the practical design of symbols for machine displays. Experimental studies of discrimination and apprehension of meaning of symbols are reviewed, and perceptual principles important to symbol design are summarized. (20 ref.)—*Journal abstract*.

DRIVING & SAFETY

7156. Harano, Richard M. (Dept. of Motor Vehicles, Sacramento, Calif.) **Relationship of field dependence and motor-vehicle-accident involvement.** *Perceptual & Motor Skills*, 1970(Aug), Vol. 31(1), 272-274.—Administered 8 cards from Witkins Embedded-Figures Test to a group of 28 accident and 27 accident-free drivers to evaluate the relationship between field dependence and motor-vehicle-accident involvement. Multiple regression results indicate that field dependence was significantly related to accident involvement. Results suggest that measures of perceptual style such as field dependence may hold promise for future research in traffic safety.

7157. Nicholl, Armand M. (Harvard Medical School, Boston, Mass.) **The motorcycle syndrome.** *American Journal of Psychiatry*, 1970(May), Vol. 126(11), 1588-1595.—Presents findings of an indepth study of 9 accident-prone motorcyclists which outline this previous undescribed syndrome. An attempt is made to explain the psychological causes of the rapidly rising rate of motorcycle accidents and deaths. The characteristics of the motorcycle syndrome as derived from the study of the 9 motorcyclists (all of whom were college students and had had more than 1 serious motorcycle accident) are as follows: (a) unusual preoccupation with motorcycle (dreams, fantasies, and free association with various aspects of cycling); (b) a history of accident-proneness extending to childhood years; (c) persistent fear of bodily injury (expressly fear of castration); (d) conflict-ridden relationship with father and strong identification with mother (father viewed as formidable competitor); (e) extreme passivity and inability to compete; (f) defective self-image; (g) poor impulse control; (h) fear of and counterphobic involvement with aggressive girls; and (i) concern with impotence and intense fear of homosexuality. Treatment involved 2-3 sessions/wk for 6 mo.-3 yr. bringing about the gradual decathexis of the motorcycle. All 9 of the patients were successfully treated. (31 ref.)—P. R. Shibelski.



Brief Subject Index

This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

- Ability (see also Childhood/Ability in)
5438, 5554, 5854, 6341, 6630, 6954, 7115
- Ability/Verbal (SEE Ability, Verbal Behavior)
- Abnormal Behavior (SEE Behavior Disorder, Mental Disorder, Neurosis, Psychosis, specific abnormalities)
- Abnormal Psychology (SEE Clinical Psychology, Psychopathology)
- Abortion
6160, 6161
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Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

PA is computer-printed and because of necessary production procedures there is a possibility that on occasion the abstracts representing articles from a single issue of a primary journal may appear in several issues of PA, e.g., an issue of the *Journal of Psychology* may include 20 relevant articles; abstracts for 17 of these articles may appear in the May issue of PA, the other 3, in the June issue.

The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.).—(10) *Journal abstract.*

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., [Parapsychology].

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA—*Psychological Abstracts*.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

5a—PA—*Psychological Abstracts*.

5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement (e.g., in. = inch, wk. = week, hr. = hour, etc.):

AA = Alcoholics Anonymous
AC = alternating current
ACTH = adrenocorticotrophic hormone
AM = ante meridiem
amp. = ampere

bpm = beats per minute

C = centigrade
¢ = cents
CA = chronological age
cc = cubic centimeter
CFR = conditioned emotional response
CFP = critical flicker frequency
CNS = central nervous system
cps = cycles per second
CR = conditioned response (or reflex)
CRF = continuous reinforcement
CRT = cathode ray tube
CS = conditioned stimulus
CVC = consonant-vowel-consonant

db. = decibel
DC = direct current
DL = differential limen
DNA = deoxyribonucleic acid
DRL = differential reinforcement of low rates

E = experimenter
ECS = electroconvulsive shock
EEG = electroencephalogram (or -graphy)
EKG = electrocardiogram
EMG = electromyogram
ESP = extrasensory perception
Exp. = experiment

F = Fahrenheit
ft-c = foot-candle
ft-l. = foot-lambert

g = gravity
gm. = gram(s)
GPA = grade-point average
GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
im = intramuscularly
ip = intraperitoneally
IQ(s) = intelligence quotient(s)
ITI = intertrial interval
iv = intravenously

kc. = kilocycle
kg. = kilogram
kg/m = kilogram per meter
kHz. = kilo-Hertz

LD = lethal dose
LSD = lysergic acid diethylamide

m. = meter
M = mean
M = mole or molar
ma. = milliamperes
MA = mental age
MAO = monoaminooxidase
mL. = milliliter
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)

N = number
NREM = nonrapid eye movement

O = observer

p = probability
% = percent

PM = post meridiem
pps = pulses per second
PRE = partial reinforcement effect
PSE = point of subjective equality
psi = pounds per sq. in.

r = product-moment correlation
r = roentgen
REM = rapid eye movement
rms = root mean square
RNA = ribonucleic acid
rpm = revolutions per minute
RT = reaction time

S = subject
SEU = subjectively expected utility
SPL = sound pressure level

TV = television

UCR = unconditioned response
UCS = unconditioned stimulus
UHF = ultrahigh frequency

V = volt
VHF = very high frequency
vs. = versus

YMCA = Young Men's Christian Association
YWCA = Young Women's Christian Association

Test abbreviations include:

California E Scale (Ethnocentrism)
California F Scale (Fascism)
CMA scale = Children's Manifest Anxiety scale
CPI = California Psychological Inventory
CTMM = California Test of Mental Maturity
EPPS = Edwards Personal Preference Schedule
MA scale = (Taylor) Manifest Anxiety scale
MMPI = Minnesota Multiphasic Personality Inventory
MPI = Maudsley Personality Inventory
16 PF = Cattell's 16 Personality Factor Questionnaire
SVIB = Strong Vocational Interest Blank
TAT = Thematic Apperception Test
WAIS = Wechsler Adult Intelligence Scale
WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
Assoc. = associates
Co. = company
Coll. = college
Corp. = corporation
Dept. = department
Div. = division
Inst. = institute
Hosp. = hospital
Lab. = laboratory
Inc. = incorporated
U. = university

Ave. = avenue
Bldg. = building
Blvd. = boulevard
Ct. = court
Dr. = drive
Ft. = fort
Mt. = mount
Pkwy. = parkway
Pl. = place
PO = post office
Rd. = road
St. = street
N, S, E, W = North, South, East, West
U.S. = United States
USSR = Union of Soviet Socialist Republic

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ERRATA

With the January 1971 issue of *Psychological Abstracts*, a new production procedure was instituted. As with any new system, it was not possible to anticipate all problems. The following corrects errors which occurred in the January-April issues.

In PA, Vol. 45:713, the author should have been listed as: **Braun, John R.**

In PA, Vol. 45:2555, the journal information should have been listed as: *Nervenarzt*, 1968(Oct), Vol. 39(10), 468-473.

In PA, Vol. 45:2723, the correct journal title is: *Ricerca Scientifica*.

In PA, Vol. 45:3191, the journal information should have been listed as: *Ergonomics*, 1969(Nov), Vol. 12(6), 903-911.

In PA, Vol. 45:3894, the correct journal title is: *Monographs for the Society for Research in Child Development*.

In PA, Vol. 45:4426, the author is: **Arce, Luis.**

In PA, Vol. 45:4584, the journal title should have been listed as: *Comprehensive Psychiatry*.

In PA, Vol. 45:5092, the author is: **Lindell, E.**

In PA, Vol. 45:5137, the author is: **Haggard, Donald F.**

In PA, Vol. 45:5979, the correct journal title is: *American Journal of Psychology*.

In PA, Vol. 45:6400, 6640, 6649, and 6739, the journal information should have been listed as: Vol. 73(3, Pt. 1).

GENERAL

7158. **Kirshenblat, Ya. D.** *Praktikum po endokrinologii*. [Practicum on endocrinology.] Moscow, USSR: Vysshaya Shkola, 1969. 256 p.—Presents a manual, which contains guides to surgical and experimental procedures involving the nervous system and neurohormones of insects.—*I. D. London.*

7159. **Craik, Kenneth H., et al.** (U. California, Berkeley) *New directions in psychology: IV*. New York, N.Y.: Holt, Rinehart, & Winston, 1970. viii, 382 p. \$3.95(paper).

OBITUARIES

7160. **Arlo, Jacob A. Heinz Hartmann 1894-1970.** *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 620-621.—Obituary.—*J. Z. Elias.*

HISTORY

7161. **Carini, Louis.** (Bennington Coll., Div. of Social Sciences) *A reassessment of Max Wertheimer's contribution to psychological theory.* *Acta Psychologica*, Amsterdam, 1970(Aug), Vol. 32(4), 377-385.—*M.* Wertheimer founded Gestalt psychology on a physiological principle later to be called isomorphism, and in doing so he reformulated the nature of explanation of perceptual phenomena. That this explanation applies to

all perceptual phenomena is shown by an examination of D. W. Hamlyn's mistaken notions that veridical perception is a valid concept and that veridical perception cannot be given a psychological explanation of a scientific kind. The view of W. M. O'Neil and A. A. Landauer that Wertheimer's contribution is more a polemical rallying point than a theoretical turning point is examined and criticized as misunderstanding the axiomatic nature of Wertheimer's explanation for all percepts, and for inadvertently interposing their own elementaristic theory in its stead. The elementaristic theory cannot, however, explain phi-phenomena, while the axiom of isomorphism, by deduction, can explain them. It is held, finally, that by explaining all perceptual phenomena axiomatically, Wertheimer has given a Copernican twist to the understanding of perception.—*Journal abstract.*

7162. **Košćo, Jozef.** (Comenius U., Bratislava, Czechoslovakia) *Zdroje vývinu európskeho psychologického myslenia a rané kresťanstvo*. [Sources of the development of European psychological thought and early Christianity.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 137-159.—Presents an analysis of the development, character, and function of Christianity with regard to its influence on theoretical problems of European psychology. It is believed that the revival of the early Christian ideal of man supports the formation of the interests and sensibility to man's problems, his individuality, and social and metaphysical determination. (Russian & German summaries) (25 ref.)—*English summary.*

7163. **Mischel, Theodore.** (U. Illinois) *Wundt and the conceptual foundations of psychology.* *Philosophy & Phenomenological Research*, 1970(Sep), Vol. 31(1), 1-26. Examines Wundt's conception of psychology in its historical context in an effort to understand psychology's previous attempt at a "science of mind." The fact that psychologists are now very much interested in "awareness," "conscious, volitional control," "expectancy and value theory," etc., suggests that psychology may be in the process of again becoming the study of "mind." (58 ref.)—*L. J. Cantoni.*

7164. **Morrison, James C.** (U. Toronto, Ontario, Canada) *Husserl and Brentano on intentionality.* *Philosophy & Phenomenological Research*, 1970(Sep), Vol. 31(1), 27-46. Endeavors to show that Husserl's phenomenological views are very different from and far more developed than Brentano's. Discussed are (a) Brentano's attempt to distinguish mental and physical phenomena in which he introduces the notion of "intentional inexistence," and (b) Husserl's views both on the general problem of mental vs. physical phenomena and on the more specific one of intentionality. (82 ref.)—*L. J. Cantoni.*

7165. **Munipov, V. M. V. M. Bekhterev.** Moscow, USSR: Meditsina, 1969. 56 p.—Recounts the life and work of Vladimir Mikhailovich Bekhterev (1857-1927),

noted for his contributions to Russian neuropathology, psychiatry, physiology, psychology, and related fields.—*I. D. London.*

7166. **Rumbaut, Ruben D.** (Veterans Administration Hosp., Topeka, Kan.) **A case of the two "Huartes": A historical confusion.** *Bulletin of the Menninger Clinic*, 1970(Sep), Vol. 34(5), 284-291.—Confusion in 2 names exists in the beginnings of psychiatry in Spain in the 16th century: Juan de Dios Huarte de San Juan (with variations) 1530-1591, Spanish, a physician and author of a treatise on modern psychology; and the other, Juan Ciudad Duarte (with variations) 1495-1550, Portuguese and founder of 2 hospitals, who was later made a saint by the Catholic church.—*J. Z. Elias.*

7167. **Rychlak, Joseph F.** (Purdue U.) **The human person in modern psychological science.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 233-241.—Reviews the history of science concerning 2 significant issues, both of which take root in Aristotle: (a) the distinction between dialectical and demonstrative reasoning; and (b) the theory of 4 causes in theoretical description. It is shown how the theories of modern natural science have come to restrict the description of human behavior to demonstrative conceptualizations, and to the use of material and efficient causation. Dialectical strategies and the formal-final causes are not considered appropriate theoretical devices in 20th century science. A call is made for the return to the latter constructs in distinguishing modern social from natural science.—*Journal summary.*

7168. **Zutt, J., et al. (Eds.) Karl Bonhoeffer: Zum hundertsten Geburtstag.** [Karl Bonhoeffer: On the occasion of his 100th birthday.] Berlin, W. Germany: Springer-Verlag, 1967. 148 p.—Presents the hitherto unpublished autobiography of the German psychiatrist, K. Bonhoeffer (1868-1949), containing much on the history of German psychiatry in the period 1892-1933. Also included are a necrology and a previously unpublished evaluation of the personality of Hitler.—*I. D. London.*

PHILOSOPHY

7169. **Ag, Atilla.** **Filosofskaya antropologiya Teiyara de Sharden.** [The philosophical anthropology of Teilhard de Chardin.] *Voprosy Filosofii*, 1970, Vol. 24(5), 175-179.—Presents a critical analysis of the philosophical views of T. de Chardin on the nature of man.—*I. D. London.*

7170. **Groeben, Norbert.** (Westfälischen Wilhelms-Universität Münster, W. Germany) **Wissenschaftstheorie zwischen Ideologie und Synthese: Eine kritische Stellungnahme zum Werk von K. Holzkamp: Wissenschaft als Handlung.** [Philosophy of science between ideology and synthesis: A critical view of the work of K. Holzkamp: Science as action.] *Psychologische Beiträge*, 1970, Vol. 12(2), 311-317.—Reviews Holzkamp's works and demonstrates inadequacies in the position of logical empiricism. Numerous examples of the use of inductive logic in scientific theory formation are cited, and criticized. A synthesis of a philosophy of science and a pragmatic relation between this philosophy of science and scientific methodology is suggested. (English & French summaries)—*B. A. Stanton.*

7171. **Prado, C. G.** (Queen's U., Kingston, Ontario, Canada) **A note on Armstrong and the cybernetic model.** *Philosophy & Phenomenological Research*,

1970(Jun), Vol. 30(4), 600-602.—Suggests that the cybernetic model is neither a useful way of thinking about minds nor a device for the hasty reduction of minds to brains. Asserts that D. M. Armstrong in his 1968 book, *A Materialist Theory of the Mind*, has delineated the real issue: Given causal relationships in behavior, how are we to understand such concepts as that of initiating action, of responsibility, of choice?—*L. J. Cantoni.*

7172. **Rauhala, Lauri.** (U. Turku, Finland) **Intentionality and the problem of the unconscious.** *Annales Universitatis Turkuensis, Series B*, 1969, Vol. 110, 222 p.—Investigates "fundamental problems of the unconscious through metascientific analysis... to discover a general philosophical foundation to coordinate the existing divergent approaches." An examination of the philosophical conceptions of man, a survey of the field prior to Freud and Jung, an analysis of depth-psychology, a discussion of the relationship of the analysis of meaning to the problem of the unconscious, and a presentation of the current views are included. The main emphasis is on the views of C. Jung. (10 p. ref.)—*G. Steele.*

7173. **Rauhala, Lauri.** (Merikatu 7. A. II, Helsinki, Finland) **Man: The philosophical conception and empirical study.** *Journal of Analytical Psychology*, 1970(Jul), Vol. 15(2), 148-154.—The philosophical concept of man, in the empirical sciences, has him existing on 4 levels: material, organic, mental, and spiritual. Only the physical analysis of man can clarify the kinds of empirical research necessary for studying the human being.—*P. Federman.*

7174. **Shawver, Lois & Docecki, Paul R.** (U. Houston) **A Wittgensteinian analysis of the role of self-reports in psychology.** *Psychological Record*, 1970(Sum), Vol. 20(3), 289-296.—Presents an argument to prove the usefulness of Wittgensteinian analysis in psychology. The self-report of anger was investigated, and it was determined that anger is a public condition rather than a private experience. It is suggested that Wittgensteinian analysis may uncover "undetected misconstruals of conventional language which lead to unprofitable (or untenable) conclusions....[and] diminish the disagreement and confusion which currently seems to hamper our efforts in solving these [clinical and experimental] problems."—*S. Knapp.*

7175. **Shotter, John.** (U. Nottingham, England) **The philosophy of psychology: The psychological foundations of psychology.** *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 207-212.—Philosophical activity is described as actually necessary in psychology and its exorcism, thoughtless. Questions are raised concerning the whole scientific approach currently adopted by psychologists and it is recommended that there must once again be a merger of philosophical and empirical activity. It is also recommended that a philosophy of psychology course be introduced into the academic curriculum.—*V. S. Sexton.*

7176. **Simon, Michael A.** (U. Connecticut) **Materialism, mental language, and mind-body identity.** *Philosophy & Phenomenological Research*, 1970(Jun), Vol. 30(4), 514-532.—Seeks to demonstrate a viable alternative to dualism's bifurcation of being. Believes that the dualist is correct in refusing to accept the thesis that mental events are the same things as brain processes. But a workable monism is preferable to any form of psychophysical dualism. Affirms that mental language is

an effective means of talking about the entities embraced by modern physical and biological science.—L. J. Cantoni.

7177. Van de Vate, Dwight. (Ed.) (U. Tennessee) **Persons, privacy, and feeling: Essays in the philosophy of mind.** Memphis, Tenn.: Memphis State U. Press, 1970. vii, 142 p.

PARAPSYCHOLOGY

THEORY & SYSTEMS

7178. Baird, John C. (Dartmouth Coll.) **A cognitive theory of psychophysics: II. Fechner's law and Stevens' law.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 89-102.—Describes the means by which a cognitive theory can encompass the main facts associated with Fechner's logarithmic law and Stevens' power law. It is proposed that Ss code information in such a way that a variety of psychophysical functions can be obtained with the same stimulus attributes. 4 terms must be defined in order to understand psychophysical equations. These terms are: (a) S's perceptual channel capacity, (b) S's cognitive channel capacity, (c) the E's measure of stimulus information, and (d) the context variables associated with the psychophysical procedure. (29 ref.)—*Journal abstract*.

7179. Bannister, D. (Bexley Hosp., Bexley, England) **Psychological theories as ways of relating to people.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 241-244.—Argues that psychological theories are not merely intellectual postulates about people but are stances toward them. On this basis the interpersonal implications of comparative psychology, physiological psychology, eclecticism, learning theory, and psychoanalytical theory are examined. The relationship between values and scientific assumptions in psychology is set out as it presents itself in "personal construct" theory.—*Journal summary*.

7180. Baran, Sybil & Severin, Frank. (National Inst. of Personnel Research, Johannesburg, South Africa) **Science and the study of man.** *Psychological Scene*, 1968(Sep1), Vol. 2, 17-27.

7181. Brandt, Lewis W. (U. Saskatchewan, Regina, Canada) **American psychology.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1091-1093.—Contents that American psychology is the result of American history and ideology. As a consequence it represents doing, trial and error, prediction, and control rather than reflection, reasoning, and understanding or, in Piagetian terms, concrete rather than formal operations. It aims at laws and order and cannot tolerate uncertainty and relativity. The contradictions of the American way of life are reflected in the insistence of psychology on consistency and parsimony and its lack of both. This lack appears most clearly in the failure of American psychology to be applicable to psychologists and in its consequent dichotomy between principles applicable to the functioning of Es and of their Ss. The American feeling of superiority is mirrored in psychology's disregard of non-English language research publications. By being to such an extent an American product American psychology fails, in Piagetian terms, to be relative and thereby objective.—*Author abstract*.

7182. Burton, Arthur. (Sacramento State Coll.) **The authentic person in existential psychology.** *Pastoral*

Psychology, 1969(Mar), Vol. 20(192), 17-26.—Summarizes 7 tenets of existential psychology and relates these to a concept of authenticity which is seen essentially as a condition of being. "To be is to be authentic."—O. Strunk.

7183. Cohen, John; Nuttin, Joseph, & Maslow, Abraham. (U. Manchester, England) **The psychology of man: Today.** *Psychological Scene*, 1968(Sep), Vol. 2, 5-16.

7184. Dreikurs, Rudolf. **The influence of individual psychology on the international scene.** *Individual Psychologist*, 1970(Nov), Vol. 7(2), 29-37.—Describes the current status of individual psychology in various countries throughout the world.—A. R. Howard.

7185. Ellner, Jack R. (New York U.) **A systems analysis approach to the comprehension of human behavior based on an analog-synolog informational theory: An exploratory study.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1382-1383.

7186. Kanizsa, Gaetano. (U. Trieste, Inst. of Psychology, Italy) **Amodale Ergänzung und "Erwartungsfehler" des Gestaltpsychologen.** [Amodal totalization and the "Gestalt-error."] *Psychologische Forschung*, 1970(Sep), Vol. 33(4), 325-344.—"The Gestalt-expectation-error consists in the surprise felt by a Gestalt oriented student of perception when a perceptual phenomenon does not correspond to the expectations raised by a schematic application of Gestalt laws. Some examples of such expectation-errors are presented and discussed. A few remarks on the conditions and the effects of 'amodal' completion phenomena are added."—R. Gunter.

7187. Keeney, Barnaby C. (National Endowment for the Humanities, Washington, D.C.) **The bridge of values.** *Science*, 1970(Jul), Vol. 169(3940), 26-28.—Discusses the relationship between the humanities and the sciences, suggesting that values are a part of the work of both and can provide a bridge between the 2 groups. The present troubled conditions in society and in the environment call for cooperation in strengthening the use of knowledge provided by both scientists and humanists.—P. McMillan.

7188. Kuz'mina, A. I. (Ed.) **Voprosy filosofii i sotsiologii.** [Problems of philosophy and sociology.] Leningrad, USSR: Leningrad U., 1969. 160 p.—Presents a collection of 32 articles, which constitute Issue 1 in this projected series.—I. D. London.

7189. Mair, J. M. (Middlesex Hosp., Medical School, London, England) **The person in psychology and psychotherapy: An introduction.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 197-205.—Outlines some differences and similarities between the processes of psychological experimentation and psychotherapy, and suggests how the experimentalist can complement the therapist. (15 ref.)—M. West.

7190. Masserman, Jules H. (Northwestern U., Medical School, Chicago, Ill.) **A planarian behaviorist's view of science and human behavior.** *Journal of Biological Psychology*, 1969(Dec), Vol. 11(2), 10-14.—Develops the thesis that "every man cherishes the same fundamental (Ur) values" which are defined as: (a) basic needs for health, skill, and longevity, or physical, "Ur-defense"; (b) desire for friendships and alliances to ameliorate loneliness and cement communal welfare, or social, "Ur-adaptation"; and (c) search for significance of existence in relation to some cosmic or religious system, or "Ur-seeking for transcendence." These 3

themes are developed contrapuntally by showing that: "the 'physical sciences' too have evolved from naive 'materialism' toward an acceptance of these humanistic values," and "the 'humanities'... can shave their own polyglot and protean concepts down toward more simple and generalized formulae, on the model of the now familiar $E=mc^2$." Based on this Ur-trilogy, some tentative predictions for the future are made.—*M. Maney.*

7191. Pribram, Karl H., Hebb, Donald, & Macdonald, Graham. (Stanford U., Neuropsychology Lab.) **The ghost in the machine.** *Psychological Scene*, 1968(Sep), Vol. 2, 28-43.

7192. Radonjić, Slavoljub. **Operacionalizam i bljeviorizam u psihologiji.** [Operationalism and behaviorism in psychology.] *Psihologija*, 1969(Sep), Vol. 2(2), 383-399.—Hypothesized that operationalism and behaviorism are not inseparably connected. To confirm this hypothesis, 2 analyses were performed. (a) It is shown how operationalist conceptions have changed with time so that they no longer support the traditional behavioristic and neobehavioristic methodological principles, or behaviorism in general. 2 important changes concern changed conceptions in: the place, significance, and function of operational definitions in science; and the introduction of mental and verbal operations. And (b) the manner of operational defining in the practice of behavioristic science is contradicted, e.g., "operations" in behavioristic operational definitions are not all physical, nor metrical. The consequences of the eventual rejection of behavioristic criterium for scientific objective observation on the manner of operational defining, and operational definitions given on the basis of confirmed introspective and phenomenological data are discussed. (26 ref.)—*English summary.*

7193. Rozhin, V. P. (Ed.) **Filosofskie i sotsiologicheskie issledovaniya.** [Philosophical and sociological studies.] Leningrad, USSR: Leningrad U., 1969. 233 p.—Presents a collection of 21 articles which constitute Issue 10 of *Uchenye Zapiski Kafedr Obshchestvennykh Nauk Vuzov Leningrada: Filosofiya* [Scientific Notes of the Social Science Departments of the Leningrad Institutions of Higher Learning: Philosophy].—*I. D. London.*

7194. Wike, Edward L. (U. Kansas) **Secondary reinforcement: Some research and theoretical issues.** *Nebraska Symposium on Motivation*, 1969, Vol. 17, 39-82.—Considers the connections between secondary reinforcement, fractional antedating goal reaction, and frustration from the theoretical viewpoints of Hull, Spence-Amsel, Sheffield, Mowrer, and Skinner. Also considered are the developments in secondary reinforcement research and theory. Several potential research directions are also suggested. The assumption that "stimuli paired with primary reinforcement can become functionally autonomous sources of reward" is believed false by the author. Comments by D. Bindra follow. (105 ref.)—*J. M. Roberts.*

EDUCATION & TRAINING

7195. Landsbaum, Jane B. & Powell, Barbara J. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **Financial provisions in APA-approved clinical internships.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1101-1102.

PROFESSIONAL DEVELOPMENTS

7196. Abramovitz, Arnold & Abramovitz, Carole M. (U. Cape Town, Rondebosch, South Africa) **Psychopathologies: Syndromes of an ailing profession.** *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 197-203.—Psychologists as a professional and academic group are seen as engaging in much more self-analysis and self-criticism than their colleagues in other disciplines. Their social perception, sources of anxiety, conflict, and disorganization are examined together with their current methods of dealing with anxiety and conflict. The consequences of these problems are discussed, and recommendations and prognosis are offered.

7197. American Psychological Association, Education Affairs Office. **APA Visiting Scientist Program: 1969-1970.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1105-1108.

7198. American Psychological Association, Educational Affairs Office. **APA Visiting Psychologist Program: 1969-1970.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1109-1112.

7199. Blau, Theodore H. **APA Commission on Accelerating Black Participation in Psychology.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1103-1104.

7200. Buzzard, R. B. & Werr, Patricia A. **Report on replies to the questionnaire on forming a division of occupational psychology and on professional registration.** *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 215-217.—Presents a summary of the main results of a questionnaire sent to members of the Occupational Psychology Section of the British Psychological Society concerning professional registration, divisional status and the publication of a professional directory.—*V. S. Sexton.*

7201. Fidell, L. S. (San Fernando Valley State Coll.) **Empirical verification of sex discrimination in hiring practices in psychology.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1094-1098.—1 of 2 survey forms was sent to 228 chairmen of graduate degree-granting university psychology departments in the United States. Each form consisted of 10 paragraphs describing the professional behavior of young psychologists. Respondents rated the desirability of each candidate and indicated at what level the candidate should be offered a position. The forms differed only in that feminine 1st names and pronouns were attached to 4 paragraphs on Form A and a different 4 paragraphs on Form B. 68% of the forms were returned. Women were offered lower levels of appointment than men for 7 of 8 paragraphs and were rated less desirable for 6 of 8 paragraphs.—*Author abstract.*

7202. Walker, Edward L. (U. Michigan, Psychological Lab.) **Relevant psychology is a snark.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1081-1086.—Psychologists may respond to pressing social problems by becoming: (a) an activist, likely to behave in an emotional, antiintellectual and counter-productive manner; (b) a social engineer; and (c) a basic research psychologist who may direct his efforts toward "relevant" social problems and thus avoid trivial research, without becoming too closely tied to immediate applied problems. Basic, and possibly fatal, flaws in our present governmental procedures and practices are pointed out,

and suggestions are made of directions of improvement.
—Author abstract.

INTERNATIONAL PSYCHOLOGY

7203. ———. **Proyecto de recomendaciones sobre la creación, la distribución y el empleo de tests psicológicos.** [Project to make recommendations on the creation, distribution and use of psychological tests.] *Revista de Psicología General y Aplicada*, 1970(Jan), Vol. 25(102), 109-111.—The International Association of Applied Psychology (AIPA) wants to protect the general public from the use of invalid tests, their interpretation by incompetent people, and their abusive use psychodagnostically. Accordingly, the AIPA recommends that national associations in each country set up a test commission charged with improving the quality of psychological tests presenting their abuse and coordinating research studies on tests with those from other countries. This project will be presented to the General Assembly of the AIPA in Liege, 1971.—D. H. Schuster.

7204. Dunn, S. S. (Monash U., Clayton, Victoria, Australia) **Qualifications of test users.** *Australian Psychologist*, 1968(Nov), Vol. 3(2), 76-80.—Discusses qualifications of test users in Australia, including educators, other professionals, and personnel officers in regard to the principles of professional conduct set out in the Code of Ethics of the Australian Psychological Society. The 1st 2 are seen as highly relevant: (a) the welfare of clients, students, research Ss, and the public must take precedence over the demands of one's employer, professional colleagues, or self interest; and (b) the welfare of the profession must be protected, and members, when acting in their professional capacity, are expected to ensure this. Because of test differences with respect to conditions for administration, and complexity and context of interpretation, judgment of user qualifications should not be based on the occupation of the applicant, but on his training and the test situation. Problems are discussed related to user qualifications within the framework of the 3 levels of Educational and Psychological Tests and Manuals used by the American Psychological Association, American Educational Research Association, and the National Council of Measurement in Education, serving as the basis of Australian Council for Educational Research policy.—T. N. Webster.

7205. Fox, Richard G. (U. Melbourne, Victoria, Australia) **Legal aspects of confidentiality.** *Australian Psychologist*, 1968(Nov), Vol. 3(2), 53-75.—Examines questions involving Australian psychologists and their clients concerning when a psychologist can legally be obliged to, or restrained from, divulging confidential information. The impact of professional ethics (as outlined in the April 1968 Code of Professional Conduct of the Australian Psychological Society), and other extralegal pressures on the principle of confidentiality are also explored. Australian law is seen as uncertain and poorly defined regarding disclosure of confidential information out of court and in court, i.e., professional privilege. In deciding "whether to divulge confidential information, the psychologist must not only consider the ethical standards of his profession and the demands of civil and criminal law," but also the standards of good citizenship which may "appear to clash with his strict ethical and legal obligations." It is suggested that each psychologist must balance these conflicting interests and

determine for himself which is to be given priority. Future possibilities of the law, acknowledging the psychologist's ethical principle of confidentiality by recognizing a claim for psychologist-client privilege, are discussed. (15 ref.)—T. N. Webster.

7206. Owens, A. G. **Salaried psychologists in full time employment undertaking part-time practice for a fee.** *Australian Psychologist*, 1968(Nov), Vol. 3(2), 81-88.—Presents views of the Committee on Ethical and Professional Standards of the Australian Psychological Society, including the committee's primary considerations that (a) the public must be protected from improper or substandard practice, and (b) the welfare and integrity of the profession must be ensured. Discusses arguments relating to public interest and the profession as a whole in terms of (a) professional competence; (b) rights of the client (including full-time employers) as affected by availability of qualified private practitioners; (c) the effect of part-time practitioners on the earnings of full-time practitioners; (d) differences in benefit to the profession of part-time work during the developmental, intermediate, and established stages of the profession; (e) unfair practices, i.e., fee undercutting and soliciting the clients of competitors; and (f) existing regulations of larger employing organizations concerning part-time work by their employees.—T. N. Webster.

GENERAL BOOKS & REFERENCE WORKS

7207. ———. **Nomina de instituciones con las que se mantiene intercambio.** [A list of institutions with which an exchange exists.] Montevideo, Uruguay: U. del Trabajo del Uruguay, 1969. v, 92 p.

7208. Itel'son, L. B. **Lektsii po obshchei psikhologii.** [Lectures on general psychology.] Vladimir, USSR: State Pedagogical Inst., 1970. 268 p.—Presents 12 lectures on the subject matter and methods of psychology, behavior, activity, the genesis of consciousness, and the functional and anatomophysiological mechanisms of the psyche. These lectures constitute the 1st part of the course.—I. D. London.

METHODOLOGY & RESEARCH TECHNOLOGY

7209. Blauberg, I. V., et al. (Eds.) **Problemy metodologii sistemnogo issledovaniya.** [Problems in the methodology of systems research.] Moscow, USSR: Mysl', 1970. 456 p.—Presents a collection of 17 articles on the systems approach in contemporary science, particularly in biology and cybernetics. Articles on the theory of complex systems and on the systems approach to the modeling of thought processes are included.—I. D. London.

7210. Mair, J. M. (Middlesex Hosp. Medical School, London, England) **Experimenting with individuals.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 245-256.—Argues that psychologists might profitably focus more attention on the study of individuals. A number of features of individuals which fit uneasily into the present physical science model of psychological investigation are outlined, and their implications considered. In addition to changes in methods made necessary by a more central concern with

individual experience and action, changes in aims in psychology may also be needed. An alternative framework for general psychological inquiry is outlined. This alternative, termed a conversational model, accommodates these changed aims and overcomes various problems noted in traditional modes of experimentation. Within this approach it is clearly necessary to experiment with rather than on individuals.—*Journal summary.*

7211. Marks, Edmond. (Pennsylvania State U.) **Some results relating to the choice of an experimental unit in multivariate research.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 507-520.—Discusses several analytic expressions in terms of differences which are to be expected between results obtained from applying the same multivariate analysis to data based on different experimental units. The 2 units considered are the individual observation and the group as a unit, i.e., some function, typically the mean, of the individual observations within a group. It is demonstrated that certain statistical properties of the class of design matrices where this choice of units arises lead to substantial differences in the results and interpretations of multivariate analyses. This development provides a partial mathematical account for such observed differences as are frequently encountered in practice.—*Journal abstract.*

7212. Schroeder, Stephen R. (U. North Carolina) **Usage of stereotypy as a descriptive term.** *Psychological Record*, 1970(Sum), Vol. 20(3), 337-342.—Indicates in a brief review of the literature in psychology that the term "stereotypy" has many usages and contexts. A scheme is suggested to reduce confusion between stereotypy and related terms. (26 ref.)—*Journal abstract.*

7213. Sodeur, Wolfgang. (U. Cologne, Inst. of Sociology, W. Germany) **Specialized data archives as instruments of theory testing: With examples drawn from small-group leadership studies.** *Social Science Information*, 1969(Oct), Vol. 8(5), 119-125.—Discusses problems of the use of accumulated research data, using the area of "leadership" as an example, in order to (a) make comparable the results of different studies, (b) integrate knowledge and construct complex theories, and (c) provide a means for testing such theories. Studies of leadership are cited as illustrations and constitute "a multidimensional model, where numerous conditioners and several leadership components either additively or interactionally influence the satisfaction of followers." To provide a more accurate analysis of such a model, it is suggested that specialized data archives be developed which would anticipate future requirements by including a wider set of potentially relevant variables. It is also suggested that future retrieval systems should be equipped to permit secondary analysis on sets of variables rather than on single variables. (16 ref.)—*P. McMillan.*

MODELS & MATHEMATICAL MODELS

7214. Brudnyi, A. A. (Ed.) **Problema model v filosofii i estestvoznani.** [The problem of the model in philosophy and natural science.] Frunze, USSR: Ilim, 1969 91 p.—Presents a collection of 5 articles, concerning the methodological problems in bionics and information theory, and the modeling of the interconnection between language and thought. 1 article deals with the "reliability of psycholinguistic modeling of semantics."—*I. D. London.*

7215. Wagschal, Peter H. (U. Massachusetts, School of Education) **Psychology and model-building: The orienting response.** *Journal of Biological Psychology*, 1969(Sep), Vol. 11(1), 25-31.—Reviews research on the orienting response as an illustrative example of the "unimaginative model building that cripples psychology," and "of the possibilities inherent in imaginative model building." Brief indications of the kinds of research that have been and are being done to investigate the usefulness of the computer-cognitive-man model and suggestions for further extending the model are included as examples of possible lines for research. It is concluded that without "some model of cognitive processes that dares to suggest underlying mechanisms and is abstract enough to be applicable to a wide range of psychological processes, research is doomed to be stultifyingly unproductive and non-cumulative."—*M. Maney.*

MATHEMATICS & STATISTICS

7216. Artem'eva, E. Yu. **Sbornik zadach po teorii veroyatnostei i matematicheskoi statistike dlya psikhologov.** [Collection of problems in probability theory and mathematical statistics.] Moscow, USSR: Moscow U., 1969. 92 p.—Contains 163 problems for use in the course on the "application of mathematical methods in psychology," given at the Moscow State University.—*I. D. London.*

7217. Delvaux, Jean P. (U. Lovanium, Lab. of Psychometry, Kinshasa, Congo) **Calcul simplifié de la corrélation entre deux variables: Estimation rapide du coefficient de corrélation de Bravais-Pearson à partir d'un test de contingence entre deux séries de données paires.** [Simplified calculation of the correlation between two variables: Rapid estimation of Bravais-Pearson correlation coefficients in reference to a test of contingency between two series of given pairs.] *Revue de Psychologie et de Sciences de l'Education*, 1970, Vol. 5(3), 302-308.—Presents a method particularly easy to handle in determining the degree of statistical dependence of 2 variables. This procedure is suitable to any kind of distribution the investigator may be confronted with, and especially to item analysis performed on a restricted number of data ($N < 400$). Spitz' logarithmic test is applied to data distributed over a contingency table. The χ^2 test is then transformed into coefficient of contingency which after correction for grouping error, is equivalent to Bravais-Pearson r . (Dutch summary)—*English summary.*

7218. Games, Paul A. (Pennsylvania State U.) **Inverse relation between the risks of Type I and Type II errors and suggestions for the unequal n case in multiple comparisons.** *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 97-102.—Criticizes L. Petrinovitch and C. D. Hardyck's (see PA, Vol. 43:7531) recommendations. It is shown that for 2 mean contrasts, the techniques they studied are applications of the same statistic; only different critical values for significance and/or the use of sequential procedures distinguish the tests. Their results mainly reflect the usual relationship that a conservative criterion that protects against a Type I error has a larger risk of Type II error than a less conservative criterion. Petrinovitch and Hardyck's recommendation of the usage of only the Scheffé test and Tukey Wholly Significant Difference test is only an arbitrary preference for conservative tests. Their conclusions on the effects of unequal variances and unequal

ns are disputed; an alternative technique for the unequal n case is proposed. (21 ref.)—*Journal abstract.*

7219. Lunney, Gerald H. (Long Island U., C. W. Post Center) **Using analysis of variance with a dichotomous dependent variable: An empirical study.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 263-269.—Determined if analysis of variance techniques are appropriate when the dependent variable has a dichotomous 0-1 distribution. Several 1-, 2-, and 3-way analysis of variance configurations were investigated with regard to both the size of the Type I error and the power. Findings show the analysis of variance to be an appropriate statistical technique for analyzing dichotomous data in fixed effects models where cell frequencies are equal under the following conditions: (a) the proportion of responses in the smaller response category is equal to or greater than .2 and there are at least 20° of freedom for error, or (b) the proportion of responses in the smaller response category is less than .2 and there are at least 40° of freedom for error.—*Journal abstract.*

7220. Parker, S. R. (Government Social Survey Dept., London, England) **Correlational analysis of data obtained from a survey of shop stewards.** *Human Relations*, 1970(Aug), Vol. 23(4), 345-359.—Compared the relative advantages of the McQuitty elementary linkage analysis with factor analysis and principal component analysis. The 3 forms of correlational analysis were applied to data from 994 shop stewards. 3 variables were established: militancy, activism, and satisfaction. Factor analysis gave the most satisfactory explanation of the relationships between variables, but the McQuitty technique was useful in imposing a preliminary structure to reduce the number of variables in the analysis. Principal component analysis confirmed the existence of the attitude dimension revealed by factor analysis. Usefulness of combining these techniques is discussed.—*W. W. Meissner.*

7221. Schönemann, Peter H. (Purdue U.) **A note on Gulliksen's least squares solution for incomplete data.** *British Journal of Mathematical & Statistical Psychology*, 1970(May), Vol. 23(1), 69-71.—Gives a sufficient condition that scale values obtained with H. Gulliksen's (see PA, Vol. 31:4030) incomplete data solution is unique up to an additive constant.—*Journal abstract.*

7222. Yang, Kuo-shu. **Suppressor variables revisited.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 68-79.—Proposes a scheme for classifying suppressor variables, within which mathematical models are described and statistical conditions derived for distinguishing among several kinds of suppressors. General criticisms are made with respect to the inadequacies of the previous use of the suppression technique. (23 ref.)—*Journal abstract.*

Factor Analysis

7223. Horst, Paul. (U. Washington) **Generalized factor analysis: I. Rationale.** Seattle, Wash.: U. Washington, 1969. 88 p.

7224. Schneewind, Klaus A. & Cattell, Raymond B. (Psychological Inst. of the University, Erlangen, W. Germany) **Zum Problem der Faktoridentifikation: Verteilungen und Vertrauensintervalle von Kongruenzkoeffizienten für Persönlichkeitsfaktoren im Bereich objektiv-analytischer Tests.** [A contribution

to the problem of factor identification: Distribution and confidence intervals of congruence coefficients for personality factors as far as objective-analytical tests are concerned.] *Psychologische Beiträge*, 1970, Vol. 12(2), 214-226.—On the basis of 10 factor-analytical investigations (objective-analytical tests) distributions and confidence limits of factor congruence coefficients were determined. The confidence intervals were calculated for 5 overlapping levels and for 5 different significance levels. Obviously there is a difference between empirical congruence coefficients and the corresponding theoretical correlation distributions. In factor analytical replication investigations the confidence intervals of congruence coefficients represent a good basis for factor identification. (32 ref.)—*English abstract.*

COMPUTERS & PROGRAMING

7225. Amosov, N. M. **Iakusstvennyi razum.** [Artificial intelligence.] Kiev, USSR: Naukova Dumka, 1969. 156 p.—Discusses the hypothetical principles in support of the concept of an artificial brain, and the cybernetic creation of artificial intelligence.—*I. D. London.*

7226. Apter, Michael. (University Coll. of South Wales, Cardiff, England) **The computer simulation of behaviour.** London, England: Hutchison U. Library, 1970. 180 p. £1.75(cloth), £.75(paper).

7227. Berg, A. I. & Kol'man, E. (Eds.) **Kibernetika ozhidaemaya i kibernetika neozhidaemaya.** [Cybernetics: Expected and unexpected.] Moscow, USSR: Nauka, 1968. 312 p.—Presents a collection of 29 articles, illuminating from various viewpoints a number of the moot, unresolved problems of cybernetics.—*I. D. London.*

7228. Fischer, Gerhard H. & Scheiblechner, Hartmann. (U. Vienna, Psychology Inst., Austria) **Algorithmen und Programme für das probabilistische Testmodell von Rasch.** [Algorithms and programs for the probabilistic test model of Rasch.] *Psychologische Beiträge*, 1970, Vol. 12(1), 23-51.—Developed 2 procedures for parameter estimation of G. Rasch's 1-dimensional test model. Both procedures were applied to empirical and simulated data. Satisfactory convergence and precision of estimation were achieved. A test was developed to find out whether the model is useful in the case of a special set of data. All procedures were programed in FORTRAN IV. Program descriptions and lists of programs and subprograms are included.—*English summary.*

7229. Gloye, Eugene E. & Marcus, Rudolph J. (Office of Naval Research, Pasadena, Calif.) **Drug effect prediction by computer.** *Science*, 1970(Jul), Vol. 169(3940), 89-91.—The mass of information available about effects of chemical substances (drugs) on behavioral, biochemical, and physiological systems of living organisms is so extensive as to defy traditional methods of analysis. A procedure that provides automated, computerized searches for patterns among these effects has been developed and applied to a data base constructed of medical and chemical information from *The Merck Index*. A promising result is the development of new hypotheses about mechanisms of drug action. Examples of the use of the procedure are included.—*Journal abstract.*

7230. Tsetlin, M. L. **Issledovaniya po teorii avtomatov i modelirovaniyu biologicheskikh sistem.** [Studies in the theory of automata and in the modeling of

biological systems.] Moscow, USSR: Nauka, 1969. 316 p. Moscow, USSR: Nauka, 1969. 316 p.—Republishes the major works of Mikhail L'vovich Tsetlin (1924-1966), known for his contributions to the field of cybernetics.—I. D. London.

TESTING

7231. Abidin, Richard R. (U. Virginia) **KTSA interscorer reliability for children's protocols.** *International Journal of Symbolology*, 1970(Apr), Vol. 1(3), 37-39.—Compared the Kahn Test of Symbol Arrangement interjudge agreement between scores at 4 different levels of training. Using the 9 scoring categories, correlations and % agreement were obtained for the overall number element, and for the scoring on the symbolization, like and dislike, and reason for arrangement portions of the test. Correlations ranged from a high of .96 for the N E scores to a low of .45 between 1 pair of raters. Percentage agreement figures ranged from 87-67%.—*Journal abstract.*

7232. Doll, Richard E. (U.S. Naval Aerospace Medical Inst., Pensacola, Fla.) **Item susceptibility to attempted faking as related to item characteristic and adopted fake set.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 9-16.—Certain research indicates that faking in real life consists more of a subtle slanting of responses than 1 of uninhibited dissimulation which is the fake set more commonly used in research addressed to the problem of faking. Item susceptibility to attempted faking is investigated as related to 2 item characteristics: objective vs. subjective and continuous vs. noncontinuous. 300 Aviation Officer Candidates served as Ss. 2 subtle fake sets and 1 unsubtle fake set were used. Findings demonstrate certain differences in the kinds of items that are susceptible to attempted faking as a function of differences in adopted fake sets. (17 ref.)—*Journal summary.*

7233. Gardner, P. L. (Monash U., Clayton, Victoria, Australia) **Test length and the standard error of measurement.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 271-273.—Shows how relationships may be derived from the defining formulas of reliability and standard error of measurement, if certain simple assumptions about values of test statistics are made. F. M. Lord has shown empirically that the standard error of a test was equal to $.43\sqrt{n}$ if the reliability of the test was computed by the Kuder-Richardson (KR) 20 formula. If the KR-21 formula was used, the standard error was equal to $.48\sqrt{n}$.—*Journal abstract.*

7234. Hogan, Thomas P. (Harcourt Brace Jovanovich Inc., New York, N.Y.) **Using old socioeconomic data for defining norm groups.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 229-232.—Obtained correlations between 1950 and 1960 census data for 3 socioeconomic variables for a sample of 200 communities. The socioeconomic data for 1950 and 1960 correlated approximately .90, indicating a high degree of relative stability. It is concluded that old socioeconomic data are useful for defining norm samples.—*Journal abstract.*

7235. Kelly, William L. (Georgetown U.) **Normative data on the Group-KTSA.** *International Journal of Symbolology*, 1970(Apr), Vol. 1(3), 41-50.—Presents means, standard deviations, t statistics, and the symbol pattern for 4 groups of undergraduates and 2 groups of black high school students participating in a college

orientation program. Consistency of symbol patterns over groups, consistency of retest behavior with 1 group, and sex differences warrant further research with the Group Kahn Test of Symbol Arrangement as a quantitative assessment instrument of symbolic behavior.—*Journal abstract.*

7236. Ramey, Madelaine M. (U. California, Berkeley) **Two probability models for multiple choice ability tests.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 901.

7237. Ramsey, H. Rudy. **The semiautomated test system: A tool for standardized performance testing.** *USN AMI Army-Navy Joint Report*, 1969(Nov), No. 1092, 14 p.—Developed a Semiautomated Test System (SATS), incorporating programable digital logic modules for control, to allow an experimental psychologist, unassisted and with a minimum of special training, to set up and modify tests or experiments. The structure of the SATS is described and an example is presented to clarify the operations involved in its use.—*Journal abstract.*

7238. Shoemaker, David M. (Southwest Regional Lab. for Educational Research & Development, Inglewood, Calif.) **Item-examinee sampling procedures and associated standard errors in estimating test parameters.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 255-262.—Estimated selected parameters for a negatively skewed and a normally distributed normative distribution in a post mortem item-examinee sampling investigation. Manipulated systematically were number of subtests, number of items/subtest, and number of examinees responding to each subtest. Each item-examinee sampling procedure was replicated 5 times. Defining 1 observation as the score received by 1 examinee on 1 item, the results of this investigation support the conclusion that, in estimating parameters by item-examinee sampling, the variable of importance is not the item-examinee sampling procedure, but is instead the number of observations obtained by that procedure. Degree of skewness in the normative distribution and failure to distribute all items among subtests were found to be relatively unimportant variables.—*Journal abstract.*

7239. Terry, Roger L. & Isaacson, Randall. (Hanover Coll.) **Item failure and performance on subsequent items of an achievement test.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 29-32.—Tested the hypotheses (a) that failure of a test item increases test anxiety which in turn leads to error perseveration, and (b) that the detrimental effects of failure are greater for highly anxious students generated confirming results. 31 undergraduates served as Ss. 16 Ss received at random Form A of an 80-item multiple choice exam, and 15 Ss received Form B. Ss, especially more anxious ones, were more likely to miss a test item when it immediately followed an inevitably failed question than when it preceded that question.—*Author abstract.*

Construction & Validation

7240. Allegro, J. T., Bagchus, P. M., & Hofstee, W. K. **Konstruktie van een gedwongen keuze-leiderschapsschaal (LOS).** [Construction of a forced-choice leadership attitude scale (LOS).] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jul), Vol. 25(7), 451-463.—A forced-choice leadership scale was developed to avoid the ceiling effect found in the customary Likert-type scales. Earlier American and

Dutch studies of leadership identified the factors of original consideration (SE), initiating structure (I), and individual prominence (IP). 18 pairs of items were constructed for each of the paired factors, a total of 108 test items. Ss were 171 noncommissioned officers. The paired items were factor analyzed by the principal axes and varimax rotation methods. The factor analysis did not yield any results that could be interpreted. Criteria rotation yielded 2 factors capable of interpretation. Factor I was characterized by items identified by SE paired with T or IP, interpreted as "soft" or "hard" leadership. Factor II consisted of T items paired with IP items. The scale incorporating Factor I has a retest r of .75. The scale incorporating Factor II was rejected because of the low r . It is concluded that the use of the forced-choice technique does not reveal the factor pattern as clearly as would have been found by the use of the Likert-type scales. (English abstract) (16 ref.)—A. J. Ter Keurst.

7241. Hanna, Gerald S. & Roscoe, John T. (Kansas State U.) **Comparing validity of chance level and higher test scores.** *California Journal of Educational Research*, 1970(May), Vol. 21(3), 127-131.—Presents a technique for quantifying and comparing the validity of scores of different levels and employs it to investigate the relationship between multiple-choice and completion geometry test scores. An 18-item, 22-min geometry completion test was given in 11 high schools. A parallel 4-option, multiple-choice test was given. All tests were scored for the number right. The regression equation based on the total group was used to estimate each S's completion score from his multiple-choice score. Chance level multiple-choice scores appeared to be at least as valid as higher level scores in estimating completion scores by means of the total group regression equations. Findings are consistent with earlier evidence that chance level scores possess validity.—H. J. McWhinnie.

7242. Jones, Marshall B. (Pennsylvania State U., Hershey) **Heritability as a criterion in the construction of psychological tests.** *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 92-96.—Many psychologists now and in the past have argued for the heritability of intelligence and many other test variations. However, no psychological test has been constructed using heritability as a criterion and twins as Ss. A twin method for maximizing heritability in the construction of a psychological test is described and illustrated. The heritability criterion in relation to other criteria, and the range of test situations in which the twin method may be used appropriately are discussed.—*Journal abstract*.

7243. Roid, Gale H. (U. Oregon) **Branching methods for constructing psychological test scales.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1571.

7244. Wofford, J. C. & Willoughby, T. L. (U. Texas, Arlington) **The effects of test construction variables upon test reliability and validity.** *California Journal of Educational Research*, 1969(May), Vol. 20(3), 96-106.—Investigated factors critical in test construction and evaluation such as: item difficulty, test length, size of upper and lower criterion groups, item selection, and confidence levels. 200 undergraduates completed a 150-item questionnaire regarding their study habits. This provided the data for a variety of item analyses. Results indicate that: (a) the difficulty levels obtained by the use of the 27% extreme group size correlates with those obtained by the use of the total group; (b) difficulty

levels and test lengths did not significantly influence the concurrent validity; and (c) item-total score analysis provided tests of higher internal consistency than did item-discrimination analysis.—H. J. McWhinnie.

EXPERIMENTATION & OBSERVATION

7245. Evans, Glen T. (Ontario Inst. for Studies in Education, Toronto, Canada) **Application of a model of categorizing behavior.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 489-505.—Proposes a model for latent partition analysis and describes 2 applications to data arising from sorting tasks. The model is based on a possible strategy which Ss might use in sorting a large number of stimuli. The 1st application is concerned with a judgmental classification of semantic differential scales in contrast to the usual type of analysis based on responding with the scales to a particular concepts. A study with 800 6th-10th graders is described. The 2nd application is concerned with the classification by 71 undergraduates of a selection of student behaviors.—*Journal abstract*.

7246. King, David J. (State University Coll. New York, Oswego) **The subject pool.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1179-1181.—Examines the participation of college students as Ss in experiments, and discusses the value of a voluntary system. Under this specific set of procedures, few students requested not to serve as Ss. Those serving had a positive attitude which was strongly related to whether or not an explanation of the study had been presented.—*Author abstract*.

7247. Lumpkin, Martin. (Texas Tech U.) **Walden I and II: A plea for renewed balance in the psychological pursuit of science.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1087-1090.—Using the symbols Walden I (Thoreau) and Walden II (Skinner), the 2 poles of the scientific process—uncontrolled observation and controlled evaluation of events—are discussed. These separate-and-united poles are both necessary to the pursuit of psychological science, despite the danger of imbalance in current insistence on methodological priority. This neglect of the place of uncontrolled naturalistic observation has several dangers: the transformation of psychological science into a frozen technology and the neglect of the practitioners' unique scientific position for free and unrestrained observation. A plea is made to renew the balance of this science by recognizing the value of uncontrolled observation in relation to controlled experimental evaluation.—*Author abstract*.

7248. Rabbot, B. S. **Éksperimental'nye metody v sotsial'nom poznanii.** [Experimental methods in social knowledge.] *Voprosy Filosofii*, 1970, Vol. 24(3), 40-49.—Discusses the implications of experimentation in the social sciences which make it so different from that in the natural sciences. Man is deeply involved in this experimentation and for this reason becomes deeply engaged in its application and responsible for its consequences. Objectivity, hence, takes on a meaning for the social sciences different from that accepted in the physical sciences.—I. D. London.

7249. Rubin, Zick & Moore, James C. (Harvard U.) **Assessment of subjects' suspicions.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 163-170.—Assessed 142 male undergraduates, suspicions about a deceptive experiment by means of both an open-ended questionnaire and an intensive individual

interview, which lasted about 2 hr. $\frac{1}{2}$ of the Ss reported their recollections of the experimental procedures, and $\frac{1}{2}$ reported their impressions. The latter instructions provided a somewhat better approximation to the criterion measure of suspicion derived from detailed coding of the tape-recorded interviews. The extent of a S's suspicion was directly related to his self-esteem, the extent of his training in psychology, and his resistance to influence in the experiment. Also, the behavior of highly suspicious Ss was found to be related to their level of authoritarianism. Suspicious Ss with high scores on the California F scale tended to yield to the demand characteristics of the experiment, while suspicious Ss with low scores on the F scale were more likely to react against the perceived demands, (28 ref.)—*Journal abstract*.

7250. Vandament, William E., Burright, Richard G., Fessenden, Rollin R., & Barker, William H. (State U. New York, Binghamton) **Tables of event sequences for sequential analyses of data in psychological experiments containing two-class events.** *Behavior Research Methods & Instrumentation*, 1970(Nov), Vol. 2(6), 290-296.—Presents tables of sequences of 2-class events for use in programming psychological experiments in which behavior on trial n may be a function of the events of trials $n-1$, $n-2$, and/or $n-3$. Various factors related to schedule generation are discussed, e.g., restrictions on trial-block length which accompany sequential balance, interrelationships of trial blocks in the multiblock experiment, relationships between run length and r -tuple occurrences, and alternation behavior. Following a consideration of various methods of schedule generation for the 2-class experiment, it is concluded that no method can result in schedules that possess all properties considered desirable in psychological experiments. However, the present sequences allow for sequential balance and analysis, and thus should prove useful in producing schedules in some contexts that are standard regarding sequential influences.—*Journal abstract*.

APPARATUS

7251. Brůšek, Jan. **Automatický blikáč.** [An automatic flasher.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(2), 171-177.

7252. Delbarre, B., Dumas, G., & Guionniere, M. (Pfizer-Clin Lab., Amboise, France) **An automated open field method.** *Psychopharmacologia*, 1970, Vol. 18(2), 227-230.—A new automated apparatus for recording movement and rearing of rats in the open-field method was produced using electronic techniques. The equipment permits the evaluation of depressant and excitatory actions of drugs on the CNS.—*Journal abstract*.

7253. Krausman, David. (Johns Hopkins U., Medical School) **A constant-current AC shock generator.** *Conditional Reflex*, 1970(Apr), Vol. 5(2), 126-129.

7254. Munro, D. (University Coll., Salisbury, Rhodesia) **An inexpensive automatic material reward dispenser for use with children.** *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 194.—Describes the mechanism and operation of an inexpensive device which can deliver small rewards such as sweets and peanuts in material reward experiments.—V. S. Sexton.

7255. Reus, James F., Carroll, Joseph, & Gantt, W. Horsley. (Veterans Administration Hosp., Perry Point,

Md.) **Automatic recorder manipulator.** *Conditional Reflex*, 1970(Jan), Vol. 5(1), 62.

7256. Rosen, Paul; Levine, Michael W., Rossetto, Michelangelo, & Abramov, Israel. (Rockefeller U.) **A system for controlling the light output of a monochromator by any simple function and for temporally modulating the intensity.** *Behavior Research Methods & Instrumentation*, 1970(Nov), Vol. 2(6), 297-300.—Describes an apparatus that controls the output of a monochromator so that the energies in each waveband can be equated according to any desired function. A photocell monitors the light from the monochromator and provides a feedback to the power supply driving the lamp. A function generator is mechanically linked to the monochromator's wavelength drive and provides the function for correcting the output spectrum. Once set, the light output remains constant even if the bulb ages or is replaced. If desired, a sinusoidal ripple of variable frequency and amplitude can be imposed on the mean intensity of the light.—*Journal abstract*.

7257. Schultz, Ronald. (San Jose State Coll.) **An apparatus modification for the study of wild and laboratory animals.** *Psychological Record*, 1970(Sum), Vol. 20(3), 385-386.—Describes an inexpensive modification which eliminates any effect introduced by the visual presence of the E for simple mazes, runways, open-fields, and observation boxes. This modification is particularly useful when wild animals are used.—*Journal abstract*.

7258. Tkhorzhevskii, V. V. **Metodika uslovnore-flektornogo izucheniya levo-pravostoronnei orientatsii.** [Method for the conditioned response of levo-dextrolateral orientation.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 892-894.—Presents details for the construction of an apparatus, intended to determine whether small animals can be trained to exhibit true laterally oriented CRs, indicating the possession of a left-right orientation as found in man. Use of the apparatus is explained and indices for evaluation of the experimental data are suggested. Experiments with white mice confirm the existence of a left-right orientation in Ss.—I. D. London.

7259. Utyamyshev, R. I. **Radioelektronnaya apparatura dlya issledovaniya fiziologicheskikh protsessov.** [Radioelectronic apparatus for research into physiological processes.] Moscow, USSR: Energiya, 1969. 348 p.—Presents a technical treatise on the construction of apparatus for (a) recording biopotentials; (b) the study of the cardiovascular system, hemodynamic processes, higher nervous activity, parameters of the autonomic component, functions of external respiration, and electric resistance of the skin; and (c) the problems of electroplethysmography and impedance pneumography.—I. D. London.

EXPERIMENTAL PSYCHOLOGY

7260. Ayoub, M. A., Ayoub, M. M., & Ramsey, J. D. (Texas Tech U.) **A stereometric system for measuring human motion.** *Human Factors*, 1970(Dec), Vol. 12(6), 523-535.

7261. Teghtsoonian, Robert. (Smith Coll.) **On the exponents in Stevens' law and the constant in Ekman's law.** *Psychological Review*, 1971(Jan), Vol. 78(1), 71-80.—It follows from S. S. Stevens' psychophysical power law, $\psi = \alpha\phi^n$, that the exponent $n = \log$

$R_s/\log R_s$ where R_s is the ratio of the greatest to the least stimulus intensity and R_r is the ratio of corresponding sensory magnitudes. Data from 21 experiments by Stevens show a correlation (Pearson r) of $-.935$ between $\log R_s$ and $1/n$, implying that $\log R_s$ is nearly constant. On this basis it is proposed that a single scale of sensory magnitude serves a wide variety of perceptual continua, and that variation in power law exponents is primarily due to variation in dynamic ranges. The hypothesis that there is just 1 scale of sensory magnitude suggests that there may be just 1 value for subjective resolving power. When Weber fractions are transformed to their subjective counterparts by the psychophysical power law, the result for 9 different continua is nearly constant at about .03. (38 ref.)—*Journal abstract*.

7262. Wittersheim, Gérard. (Bioclimatic Study Center, Strasbourg, France) **Le concept d'incertitude en psychologie.** [The concept of uncertainty in psychology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 44-49.—Reviews studies in experimental psychology on the relation between degree of uncertainty and certain variables of behavior. Only in recent years has progress been made in the problem of complex decision making, involving a multitude of variables in analysis of a situation: C. E. Shannon and W. Keable's development of their information theory as applied to telecommunications; and K. E. Hick's completion of J. Merkel's studies by new experiments leading to establishment of the Hick ratio. The basic concepts of the information theory are presented, along with a discussion of the Hick ratio, Shannon ratio, uncertainty in detection (search), begun with radar operators during World War II and continuing in research with the Tanner-Swets model. The information theory and the statistical theory of detection are now developing into a unit theory; the decision theory, based on more dynamic models with still more abstract structures, may be irksome for nonmathematician psychologists, but can be an important aid in reducing their own uncertainty as to how man thinks, reasons, decides, and acts. (19 ref.)—*T. N. Webster*.

PERCEPTION

7263. Baumstiler, Y. **Peut-on parler de décision dans la perception?** [How one regards decision in perception.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 56-62.—Examines the threshold concept (as understood in psychology and psychophysics), discussing several models of the threshold theory, among them the Tanner-Swets statistical decision-making theory of visual detection, which enables the resolution of certain criticisms of, and the integration of certain phenomena lacking in the threshold theory itself, notably the idea that the S actively intervenes in perception by establishing a criterion which is a function of the utility attached to different issues. 2 major objections to the Tanner-Swets theory are the impossibility of considering a response as independent of the response preceding it, and the difficulty in determining whether or not it is possible to attach a utility to each issue.—*T. N. Webster*.

7264. Huang, Shu-Jen. (National Taiwan U., Taipei) **A historical review of perceptual defense.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 53-61.—Traces the history of perceptual defense back to perception and sensation. More than 300 articles have appeared in the literature since the formulation of the concept of perceptual defense. The change of interest in

the investigation has shifted from the dynamic aspect to perceptual behavior and emphasizes the role of individual differences in personality. Other trends of verbal behavioristic interest have concentrated on the problem of word frequency and response bias. In view of the amount of experimentation conducted, the advance of perceptual defense is impressive and the concept remains an intellectual challenge to the field of verbal learning. (29 ref.)—*Journal abstract*.

7265. Järvinen, J. (Ed.) **Contemporary research in psychology of perception.** Porvoo, Finland: WSOY, 1969. 212 p. 45 MK.

7266. Teghtsoonian, Robert & Teghtsoonian, Martha. (Smith Coll.) **Two varieties of perceived length.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 389-392.—Describes 3 experiments with 46 female undergraduates investigating the effect of the mode of stimulation on the perception of length. Results indicate that when Ss judged the apparent lengths of blocks presented either visually or proprioceptively (between thumb and finger of 1 hand), visual length was proportional to block length, whereas proprioceptive length was an accelerating function of block length. When both visual and proprioceptive stimulation occurred simultaneously (Ss both saw and felt a block), the visual input was preemptive. (23 ref.)—*Journal abstract*.

7267. von Wright, J. M. (U. Turku, Finland) **A cross-modal effect in the retention of velocity.** In J. Järvinen (Ed.), "Contemporary research in psychology of perception." (See PA, Vol. 45:Issue 5) 203-207.—Reports results showing that the reproduction from memory of the velocity of visually and of kinesthetically perceived movement is significantly influenced by interpolated movement-stimulation in either modality as well as by interpolated tactually perceived movement. For visual velocity the intramodal effects were greater than the cross-modal ones.—*Author abstract*.

Illusion

7268. Bergman, Lasse. (U. Stockholm, Psychological Lab., Sweden) **On Usnadze's volume illusion.** *Psychologische Forschung*, 1970(Sep), Vol. 33(4), 310-324.—"Contrary to what was expected, Ss overestimated the volume in heavier objects, when making estimations with no visual cues available (a 'positive volume illusion'). This finding contradicts the result of Usnadze. He found that the heavier of 2 spheres equal in volume was perceived as the smaller by most Ss with their eyes closed. The stimuli used were spheres and cylinders of different weights and volumes. In 4 experiments the Ss reported their volume ratings with the help of 2 direct scaling methods, magnitude estimation or ratio estimation. Lifting stimuli with 1 sphere in each hand gave, as a result, a difference between hands. This difference was interpreted to imply that the Ss did not just follow a strategy to give higher volume estimates to heavier objects. The positive volume illusion phenomenon that appeared in all 4 experiments was affected by such sources of variation as time (trial number), and size-weight interaction, defined as a stimulus context variable. Neither a strategy which assumes that the Ss judge density instead of volume, nor any other size-weight interaction model is effective in explaining the volume illusion. The search for such a model was suggested as a line for future research."—*R. Gunter*.

7269. de Vicente, María L. **El efecto de la auto-**

corrección en la ilusión de Müller-Lyer. [The effect of self-correction in the Müller-Lyer illusion.] *Revista Interamericana de Psicología*, 1970(Mar), Vol. 4(1), 1-11.—Examined the effects of error reporting on practice effects. Each of 28 male and female psychology undergraduates was exposed to the following conditions: (a) blindfolded and asked to draw a 3-in line 25 times, without error feedback on line estimation; (b) 7 days later blindfolded and asked to draw a 3-in line 25 times with line error estimation reported verbally after each trial. Results indicate all Ss did better when errors were reported after each trial than when errors were not reported at all. Data were analyzed with the *t* test and found to be statistically significant at the .01 level of confidence with 7 degrees of freedom. Results also support Thorndike's laws of use and effect. (English & Portuguese summaries)—*H. Lohn*.

7270. Fisher, Gerald H. (U. Newcastle upon Tyne, England) **An experimental and theoretical appraisal of the perspective and size-constancy theories of illusions.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 631-652.—Asserts that the perspective and size-constancy theories of illusions imply that illusory distortions arise as a consequence of mistaken perceptual impressions of depth. Predictions from these theories are tested in 6 experiments and several ancillary studies. They show that although differences in apparent distance may be sufficient for the appearance of illusions their presence is not a necessary condition. Detailed theoretical implications of results are discussed. (36 ref.)—*Journal abstract*.

7271. Fulgosi, Ante. **Stereoskopsko inspitivanje geometrijskih optičkih iluzija u tački superpozicije stereograma.** [Stereoscopic investigation of geometrical optical illusions by superimposed stereograms.] *Psihologija*, 1969(Sep), Vol. 2(2), 432-435.—Classified all geometrical optical illusions on the basis of phenomenological appearance as illusions of size or as illusions of line deformities or displacement. It was hypothesized that each group of illusions was based on a different bodily mechanism: illusions of size being provoked by central factors, illusions of line deformities or displacement being produced by dynamic interactions in the retina. 5 illusions of size and 5 illusions of deformities or displacement were presented to 21 Ss in ordinary and stereoscopic viewing. Results confirm the hypothesis. All illusions of size were present in stereoscopic viewing, but all illusions of deformities or displacement disappeared. Factors of retinal rivalry and suppression were controlled.—*English summary*.

7272. Kolehmainen, Kyösti & Cronhjort, Ritva. (U. Turku, Inst. of Psychology, Finland) **Apparent properties of inspection figures as determiners of figural after-effects.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 103-108.—Studied figural aftereffects (FAE) using the Hering, the Ehrenstein, and the Orbisson illusion patterns in 2 ways. 106 undergraduates served as Ss. In 1 condition, the total pattern was used as inspection figure (IF), and that part of the pattern in which the illusion normally appears, as test figure (TF). The resulting FAE was in a direction opposite to that of the illusion. In the 2nd condition, the illusion producing part of the total pattern served as IF, and the illusion suffering part as TF. This produced an aftereffect, the direction of which was the same as that of the illusion. (28 ref.)—*Journal abstract*.

7273. Pressey, A. W. (U. Manitoba, Winnipeg,

Canada) **The assimilation theory applied to a modification of the Müller-Lyer illusion.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 411-412.—Applied the assimilation theory of illusions, which utilizes the principle that large magnitudes in a series are underestimated and small magnitudes are overestimated, to a modification of the Müller-Lyer illusion. A close link was shown to exist between the Müller-Lyer illusion, a modification of the Müller-Lyer illusion, and the Sander parallelogram. A new illusory target is predicted.—*Journal abstract*.

Time

7274. Govinda, Anagarika. **The mystery of time.** *Main Currents in Modern Thought*, 1970(Sep), Vol. 27(1), 18-23.—"The experience of time is due to movement plus memory." The less we move, either "inwardly or outwardly," the more we are aware of time. Time awareness, which is associated with the "movement of the mind," develops later than space awareness, which is associated with the movement of the body. A speculative treatment of the subject, with roots in Buddhism, is given.—*H. Ruja*.

7275. Svenson, Ola. (U. Stockholm, Psychological Lab., Sweden) **Scaling velocity and space from time estimates.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 115-123.—A model described by the relation, relative estimated time = (subjective space)/(subjective velocity), is applied on time estimates collected in 3 experiments with moving spots indicating the time intervals which were estimated. The model is found to account satisfactorily for the data, thus permitting derivations of subjective scales of velocity and space.—*Journal abstract*.

7276. Vroom, P. A. (State U., Utrecht, Netherlands) **Division and retention of psychological time.** *Acta Psychologica, Amsterdam*, 1970(Aug), Vol. 32(4), 366-376.—Examines the experience of duration as a sensory-physiological process. A time base producing internal time signals that serve to code external time has previously been proposed. Coding takes place by dividing time into elements with a duration of about 100 msec. each. Evidence for this basic unit is reviewed with regard to the applied statistical techniques. An experiment indicates that some demonstrations of the time quantum rest upon less suitable mathematical operations. Another experiment contributes to discussions around the storage mechanism for single intervals.—*Journal abstract*.

VISION

7277. Baker, C. H. (Defense Research Establishment, Toronto, Ontario, Canada) **A study of the Sherrington effect.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 406-410.—In studies of binocular fusion of flicker, C. S. Sherrington found a very small difference between CFFs when the eyes were synchronously or alternately stimulated by 2 binocularly fused test patches. It was concluded that the phenomena of alliance and antagonism which had been demonstrated in the motor system did not obtain in the sensory (visual) system. Later studies found the Sherrington effect to be slightly larger than Sherrington reported, which has been held as evidence of a definite, though small, degree of binocular interaction. In the present study, with 24 trained Os, the

Sherrington effect was found to be about 5 times greater than previously reported.—*Journal abstract.*

7278. Lewis, Mark F. & Mertens, Henry W. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) **Two-flash thresholds as a function of comparison stimulus duration.** *FAA Office of Aviation Medicine Report*, 1970(Sep), No. 70-15, 4 p.—2-flash thresholds were an increasing function of comparison stimulus duration (3–22 msec.), with increased luminance (1–3 log mL.) heightening the effect.—*W. E. Collins.*

7279. Rvachëv, V. P. **Vvedenie v biofizicheskuyu fotometriyu.** [Introduction to biophysical photometry.] Lvov, USSR: Lvov U., 1966. 379 p.—Presents a systematic exposition, including the elements of the biophysics of vision.—*I. D. London.*

7280. Zacks, James L. (U. Pennsylvania) **Temporal summation phenomena at threshold: Their relation to visual mechanisms.** *Science*, 1970(Oct), Vol. 170(3954), 197–199.—Determined threshold energies for brief flashes as a function of their duration to ascertain the maximum duration for which the flash intensity and duration could be varied reciprocally without affecting detectability (the Bunsen-Roscoe effect). A pair of threshold-level flashes, for which reciprocity obtained in the determination of threshold, were shown to be discriminable from each other at several imperfectly detectable energy levels. Thus equal detectability of flashes of equal energy does not imply identical neural responses to such stimuli. It is suggested that the summation reflects primarily the operation of the detection mechanism rather than of the peripheral visual mechanism.—*Journal abstract.*

Perception

7281. Collyer, Stanley C. & Bevan, William. (Johns Hopkins U.) **Objective measurement of dominance control in binocular rivalry.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 437–439.—6 male undergraduates attempted to identify stimuli superimposed on either of 2 dichoptically viewed rivalry patterns. Ability to influence dominance switches was confirmed with this objective procedure, by reason of a decreased error rate (a) with 3-sec advance knowledge as to which pattern would receive a test stimulus, and (b) with knowledge that an 83% majority of all stimuli would be presented in a given field. However, even when test stimuli were self-initiated, dominant-field and suppressed-field scores were not close to the error rates predicted on the basis of monocular levels and of random guessing, respectively, indicating either misjudgments of pattern dominance or, more likely, a failure of the dominant field to totally suppress its opponent.—*Journal abstract.*

7282. Colquhoun, W. Peter & Edwards, Robert S. (Medical Research Council, Applied Psychology Unit, Cambridge, England) **Practice effects on a visual vigilance task with and without search.** *Human Factors*, 1970(Dec), Vol. 12(6), 537–545.—Studied changes in performance at a visual vigilance task over 8 40-min sessions in 3 groups of 8 male adults. The task was to inspect a series of displays of small disks for the occasional presence of a disk of slightly greater area than the others. For 1 group (search), each display consisted of a row of 6 disks. For 1 of the 2 no-search groups, the display contained 2 adjacent disks, 1 of which served as a reference standard; for the other group this reference disk was absent. Substantial improvement in overall

detection rate occurred in all 3 groups. Analysis indicates that in each case this improvement was due to a genuine increase in discriminatory efficiency and not to any change in response criterion. Neither search nor the presence or absence of a reference standard appeared to affect the degree of improvement observed to any marked extent. Within-session decrement was observed only in the search group; this decrement was found to result from a change in response criterion, and not from any alteration either in discriminatory efficiency or search strategy. (23 ref.)—*Journal abstract.*

7283. Dick, A. O. & Dick, S. O. (Lake Forest Coll.) **An analysis of hierarchical processing in visual perception.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 203–211.—Perception is viewed as a process in which attributes of a stimulus are analyzed in step-wise fashion. 2 experiments with 19 undergraduates, were carried out in which the attributes of spatial location and identity were examined for 2 types of materials. Results indicate that identification of letters requires more stimulus energy than identification of lines. There were no differences between identification of lines, localization of lines, or localization of letters. In general, results support a hierarchical processing hypothesis. (French summary)—*Journal abstract.*

7284. Foley, Joan E. (U. Toronto, Ontario, Canada) **Prism adaptation with simultaneous receipt of normal input.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 393–395.—In an experiment with 160 17–40 yr. old university and high school students, a 20-diopter vertically-displacing prism was worn on 1 eye in conjunction with plane glass on the other. 5 groups of Ss differed in the density of a neutral filter worn over 1 eye. No aftereffect could be measured in either eye in any condition where the luminance of the normal field was equal to or greater than that of the prism field. It is concluded that as the luminance of the normal field is decreased below that of the prism field, the magnitude of aftereffect increases and is measurable in each eye.—*Journal abstract.*

7285. Gibson, James J. (Cornell U., Graduate Research Lab.) **On theories for visual space perception: A reply to Johansson.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 75–79.—Responds to G. Johansson's (see PA, Vol. 45:Issue 4) criticism that J. J. Gibson's "theory of stimulus information goes to an extreme and does not recognize the contribution of the organism to perception." It is argued that it is impossible to weigh the subjectivity of perception, and that Gibson's theory of available stimulus information outside the eyes of an O and explored by him avoids both nativism and empiricism. It is further suggested that Johansson, in calling Gibson's theory a "locomotor theory of space perception," fails to understand that Gibson's theory "goes hand in hand with a theory of proprioception" and that "a perceiver picks up information about the layout of the environment directly, and does so the more readily when the object moves or when he himself moves."—*M. Maney.*

7286. Johansson, Gunnar. (U. Uppsala, Sweden) **On theories for visual space perception: A letter to Gibson.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 67–74.—As part of a discussion on J. J. Gibson's book, *The Senses Considered as Perceptual Systems*, his construct "ecological optics" is analyzed in 2 ways: from a systematical viewpoint, and from the viewpoint of the validity of the application of the basic rules in his theory

for space perception. The main point of controversy concerns the role of the organism. Gibson's theory is characterized as belonging to the empiristic type, and a deviating theory is outlined and characterized as a pure nativistic 1, concerned with the primary biological programming of the visual system. It is argued that research based on the latter theory avoids both an "appeal to subjectivity in the basic functions of the visual apparatus" and "an unstructured belief in stimulus information."—*M. Maney.*

7287. **Kinchla, R. A. & Allan, Lorraine G.** (Princeton U.) **Visual movement perception: A comparison of sensitivity to vertical and horizontal movement.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 399-405.—Utilized a psychophysical model providing separate measures of judgmental standards and sensitivity to compare 5 Os' visual sensitivity for vertical and horizontal movement. Analysis indicates no consistent difference in sensitivity; those asymmetries that did exist appeared to be due to idiosyncratic judgmental standards.—*Journal abstract.*

7288. **Krueger, Lester E.** (City Coll., City U. New York) **Visual comparison in a redundant display.** *Cognitive Psychology*, 1970(Oct), Vol. 1(4), 341-357.—Ss saw a target letter centered immediately above a 6-letter word or nonword (scrambled collection of letters), and indicated whether the word or nonword contained the target. Ss responded faster for words than nonwords. The time savings for words persisted when a replica of the target letter was placed adjacent to each letter in the 6-letter item—but only when the item was arrayed horizontally, and not when it was arrayed vertically. Similar time savings for words were obtained when, instead of presenting the target letter and 6-letter item simultaneously (visual comparison), the target letter was shown immediately before (visual search) or immediately after (memory search) the 6-letter item.—*Journal abstract.*

7289. **Leibovich, Nora B. & Paolera, Mercédès B.** (U. Buenos Aires, School of Philosophy & Literature, Argentina) **Recherche sur la perception de la couleur et de la post-image en relation avec des images significatives.** [Research on the perception of color and post-image in relation to significant images.] *Annales Médico-Psychologiques*, 1970(May), Vol. 1(5), 735-741.—Recent theory states that the less ambiguous visual perceptual material is, the less will be the influence of past experience on its interpretation. Since most experiments testing this hypothesis have used direct vision, the present series employs the interpretation of colored afterimages as dependent variable. Stimuli were selected to include color as a significant identifying element for the afterimage, e.g., yellow for canary, or to be arbitrary and without meaning. In no instance was any reliable difference found. The physiological levels needed for identification of the afterimages were not modified by the meaningfulness of their color.—*H. E. King.*

7290. **Lin, Pi-Fong.** (National Taiwan U., Taipei) **S-R contingency and visual-detection threshold.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 112-120.—Compared the SR contingent method and the SR noncontingent method in measuring the detection threshold of visual sense modality. It was hypothesized that (a) the detection threshold obtained by the SR contingency method would be more stable than that obtained by the SR noncontingent method, and (b) that stimulus with short duration is superior to stimulus with

long duration in determining detection threshold. Results, with 45 undergraduates, do not support either hypothesis and indicate no significant differences between methods in either case.—*Journal abstract.*

7291. **MacKinnon, G. E., Forde, J., & Piggins, D. J.** (U. Waterloo, Ontario, Canada) **Stabilized images, steadily fixated figures, and prolonged after-images.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 184-195.—3 Ss, with normal visual fields, viewed an outline figure of a square as a stabilized image, a steadily fixated figure, and a prolonged afterimage. Ss recorded quantitatively the fading and regeneration of the sides of the figure. The fragmentation of perception that occurred under the 3 viewing conditions was highly similar. Results support the idea that a single mechanism in the CNS underlies fragmentation. (French summary)—*Journal abstract.*

7292. **Mikhailenko, V. E. & Kovalëv, S. N.** (Construction Engineering Inst., Kiev, USSR) **Rezultaty éksperimentov po issledovaniiyu izobrazheniya kak istochnika informatsii.** [Results of experiments in the study of images as information source.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 147-153.—Presents some results of 2 pedagogical experiments in a higher school on the perception of the images of geometric figures, produced by 1 or 2 orthogonal projections.—*I. D. London.*

7293. **Olson, Ronald E.** (Illinois Inst. of Technology) **Test line detection as a function of adapting line orientation.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 936-937.

7294. **Squillace, Anthony S. & Bien, Ann R.** (North American Rockwell Corp., Autonetics Div., Anaheim, Calif.) **The functional relation between alignment accuracy and vertical separation of alignment marks.** *Human Factors*, 1970(Dec), Vol. 12(6), 599-604.—Determined the functional relation between alignment error (horizontal offset of 2 alignment marks) and the vertical separation distance of the alignment marks when alignment is attempted. This relation was studied with 4 types of alignment marks and 2 extreme levels of ambient illumination. Ss were 10 male undergraduates with 20/20 vision. The vertical separations ranged from .05-3.2 in. A significant interaction was found between vertical separation distance and alignment mark design: designs which provided vernier cues were the most effective at greater vertical separation distances. The relation between alignment error and vertical separation can be described by a 3rd-order polynomial.—*Journal abstract.*

7295. **Uttal, William R., Bunnell, Lynne M., & Corwin, Stuart.** (U. Michigan) **On the detectability of straight lines in visual noise: An extension of French's paradigm into the millisecond domain.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 385-388.—Investigated the effects of 4 experimental parameters on the tachistoscopic detectability of dotted lines in a noisy background consisting of dynamic patterns of identical dots. Ss were 4 experimentally naive undergraduates. Line characteristics explored included dot spacing, dot numerosity, and line orientation. Dot spacing was the most powerful parameter in determining the masking effect: the closer the dots, the more easily the line was detected. Increasing the number of dots was also effective, but only up to 5 dots. The orientation of the line, however, did not alter its detectability. Increasing the density of the visual masking noise monotonically

reduced the detectability of the line. These studies are an extension of R. S. French's (see PA, Vol. 28:3772, and 8399) work, differing mainly in the fact that stimulus material was presented tachistoscopically rather than in a mode that allowed prolonged (up to 5 sec.) examination of the figures. A comparison of results indicates similar cognitive mechanisms operating in the msec. domain and in the longer exposures. This suggests that simple neurological models, utilizing the concept of feature filters or detectors, may be being prematurely applied to relatively complex perceptual processes. (18 ref.)—*Journal abstract.*

7296. Webb, Robert C. (Tufts U.) **An analytic study of the effect of task difficulty level on backward masking.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1577.

7297. Welch, Robert B. & Rhoades, Robert W. (U. Kansas) **The manipulation of informational feedback and its effects upon prism adaptation.** *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 415-428.—Supplied 88 volunteers, primarily college students, in 4 groups, with varying amounts and types of information regarding the nature of their visual fields, which in 3 cases were laterally displaced by means of a 20-diopter wedge prism. Ss who experienced (a) target-pointing error, (b) proprioception-vision discrepancy, and (c) reafference-reafference discrepancy during the prism-exposure period (target group) adapted more than Ss exposed to only the latter 2 sources of information (no-target group). This difference in adaptation was seen in both negative aftereffect (NA) and proprioceptive shift (PS). In a 3rd condition (no-error group) Ss were induced to experience their target pointing as accurate, while at the same time being exposed to discrepancies between proprioception and vision and between "old" and "new" reafference. This experimental condition resulted in 0 NA but a significant PS. In a 4th condition (no-prism group), in which target-pointing errors were experienced but the 2 sensory discrepancies did not exist, a significant NA resulted, but no PS. Because NA and PS were not highly correlated with each other and were differentially affected by the experimental manipulations, it is suggested that they represent qualitatively different forms of adaptation. (French summary) (44 ref.)—*Journal abstract.*

Size & Distance & Depth Perception

7298. Carlson, V. R. & Tassone, E. P. (National Inst. of Mental Health, Lab. of Psychology, Bethesda, Md.) **Familiar versus unfamiliar size: A theoretical derivation and test.** *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 109-115.—Questions on theoretical grounds the result recently reported by H. W. Leibowitz and L. O. Harvey (see PA, Vol. 43:12118), that at appreciable distances an unfamiliar object is judged larger than a familiar object in both apparent and objective size. The prediction was derived on the basis of the perspective attitude that an object of familiar size might be seen as more distant, equal, or smaller in apparent size, and equal or larger in objective size. 88 undergraduates made size and distance judgments comparing a girl wearing a white lab coat and standing 183 m. from S, with a fluorescent-red or flat-white board of the same height and at the same distance. Results indicate that the girl was seen to be more distant, shorter

in apparent height, and equal or taller in objective height, in agreement with the perspective attitude but not with size-distance invariance. It is argued that both processes may have been operating simultaneously.—*Journal abstract.*

7299. Gärling, Tommy. (U. Stockholm, Psychological Lab., Sweden) **Studies in visual perception of architectural spaces and rooms: III. A relation between judged depth and size of space.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 124-131.—Tested the hypothesis that perceived size of space depends on perceived depth, by deriving a relation between judged depth and size of space. External spaces were judged by 24 undergraduates from color photographs by the magnitude estimation method. It was found that judged depth is a power function of physical depth and judged size of space a power function of physical size (rectangular area) or of judged depth times perceived width. Results indicate deviations from the derived relation and some explanations for these are discussed. Further research is needed to verify the proposed hypothesis.—*Journal abstract.*

7300. Kimura, Doreen. (U. Western Ontario, London, Canada) **Spatial localization in left and right visual fields.** *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 445-458.—Presented a series of single dots tachistoscopically in either the left or the right visual field, Ss task being to locate the dot on a spatial map depicting all of the lot locations presented. 7 experiments were carried out with 232 right-handed male and female undergraduates. For men, localization of the dot was more accurate in the left than in the right visual field, under all testing conditions. Women showed the left-field superiority under some testing conditions; under others they showed no difference between fields. There was no sex difference in over-all accuracy of performance, and simple detection of a dot was not more accurate in 1 field than another for either sex. Results are discussed in terms of a probable "spatial coordinate" system in the right hemisphere of the brain. (French summary) (15 ref.)—*Journal abstract.*

Color Vision

7301. Allen, Eugene. (Lehigh U.) **Metamerism: A study in dimension.** *Color Engineering*, 1968(Nov), Vol. 6(6), 38-43.—Metamerism, a basic principle of color vision theory, is allegorically explained by the "Spectros," an enlightened people who have spectroradiometers instead of cones in the retinas of their eyes.—*Journal abstract.*

7302. Boynton, Robert M. (U. Rochester) **Mechanisms of color vision.** *Color Engineering*, 1968(Sep), Vol. 6(5), 43-48.—Describes some of the recent advances in the understanding of color vision that have occurred through the application of new techniques which allow a more direct examination of the S than was previously possible. References are given to allow exploration of the S in more depth. (18 ref.)—*Journal abstract.*

7303. Chen, Yih-wen. (Indiana U.) **Visual discrimination of color normals and color deficient.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1559-1560.

7304. Jacobson, J. Zachary & MacKinnon, G. E. (U. Waterloo, Ontario, Canada) **Coloured Mach bands.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 56-65.—Opponent-process theory of color vision pre-

dicts that a saturation gradient in the distal stimulus should produce a subjective enhancement of saturation at the edge of the gradient (colored Mach band). 2 experiments with 4 graduate students investigated this prediction. Results demonstrate a colored Mach band where there were 2 inducing step-wise saturation gradients bordering a region of the distal stimulus. Data support the opponent-process theory. (French summary) (27 ref.)—*Journal abstract*.

7305. May, James G. (U. Houston) **Electrophysiological and psychological measures of spectral sensitivity obtained with an alternating barred pattern.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1567.

7306. Stone, Leroy A. & Coles, Gary J. (U. North Dakota) **Dimensions of color vision revisited.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 79-87.—Used a new and improved similarity-analysis multidimensional scaling method to reanalyze judgmental data from 2 investigations which involved stimuli (colored lights) that had color hue differences. The multidimensional scaling results resemble the fundamental curves specified by an opponent-process theory of color vision. (16 ref.)—*Author abstract*.

Form & Pattern Discrimination

7307. Frederickson, Edward W. (Baylor U.) **Shape perception judgments as a function of stimulus orientation, stimulus background and perceptual style.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1578-1579.

7308. Grove, Michael S. & Eisenman, Russell. (Temple U.) **Complexity-simplicity, symmetry-asymmetry, and sociometric choice.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 427-429.—Studied the interrelationships associated with shape preference. 30 undergraduates made complexity-simplicity and symmetry-asymmetry choices, and also made and predicted sociometric choices of others. Ss who preferred complexity tended to choose Ss who preferred symmetry, which was interpreted as complementary choice. Other findings suggest that complexity and asymmetry are not identical, although there is some relationship between the 2. (15 ref.)—*Journal abstract*.

Eye Movement

Brightness & Contrast Discrimination

7309. Allport, D. A. (U. Reading, England) **Temporal summation and phenomenal simultaneity: Experiments with the radius display.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 686-701.—Explores the phenomenon of subjective simultaneity between multiple successive positions of a target, which consisted here of an illuminated radial line in both stepwise and continuous rotation around a fixation point. In 4 experiments with 12, 11, 15, and 11 undergraduate and graduate students, respectively, the span of phenomenal simultaneity (M) was measured under varying intensities of target and surround, and with 2 different estimation procedures. M was found to change as a power function of target intensity, with an exponent of $-.13$ or $-.16$, for both stroboscopic and continuous illumination of the target. Variation of

surround intensity affected M only for 9 Ss in Exp. III. For these Ss M varied inversely with $\log I$ of the surround; for the remaining 6 Ss, M remained approximately constant over a range of 5 log units of I. Auditory noise tended slightly to decrease M in the former group and to increase it in the latter. Under simultaneous continuous and stroboscopic illumination of the target a paradoxical, single-valued M was obtained (Exp. IV). Higher values of M were found when Ss attempted to estimate the number of apparently simultaneous radii (Exp. I). The function relating M to target intensity closely parallels that for the critical duration of temporal brightness summation. The possibility that both measures reflect the same underlying process is discussed. (22 ref.)—*Journal abstract*.

AUDITION

Perception

7310. Brown, John & Routh, David A. (U. Bristol, England) **Recognition assessed by d' and by a non-parametric alternative (the A-index) as a function of the number of choices.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 707-719.—Freedom from restrictive assumptions and ease of psychological interpretation are 2 basic criteria for a satisfactory measure of recognition performance. The A-index comes close to fulfilling these criteria. It is based on the proportion of wrong choices rejected in a multichoice test as revealed by the number of choices required to select the correct choice. It can be transformed into the d' measure of signal detection theory (SDT) if the standard assumptions of this theory hold, but not in general. 2 experiments on the recognition of words-in-noise are described. In Exp. I with 7 20-30 yr. old Ss, there were 3, 5, 8, or 16 choices. They were typed on a card which was displayed to the listener during the presentation of a word. On both measures 5-, 8-, and 16-choice recognition did not differ significantly, while 3-choice recognition was slightly, but significantly, superior. Exp. II with 8 undergraduates concerned the effect of delaying the display of the card until 2 sec. after presentation. No evidence for an effect was obtained. In both experiments, there is suggestive but not conclusive evidence that the d' measure tended to overestimate recognition efficiency. (20 ref.)—*Journal abstract*.

7311. Bryden, M. P. (U. Waterloo, Ontario, Canada) **Binaural competition and division of attention as determinants of the laterality effect in dichotic listening.** *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 101-113.—In the normal dichotic listening procedure, there is competition between 2 inputs arriving simultaneously. Also, S must attend to both ears at the same time. In a series of 4 experiments, with over 80 undergraduates, these 2 factors were manipulated independently to assess their relative contributions to the laterality effect. In the 1st 3 experiments, conditions were employed in which the input was always monaurally presented, but the S did not know in advance where the material would arrive. In Exp. IV, the preinstruction condition provided a situation in which the S could direct his attention to a single channel. Results indicate that competition is both necessary and sufficient for a right-ear superiority to be observed. The necessity of attending to 2 channels at the same time does not seem

to influence the laterality effect in any way. (French summary)—*Journal abstract*.

7312. Canah, Julius A. (Veterans Administration Hosp., Atlanta, Ga.) **Binaural masking of a tone by a tone plus noise.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 476-479.—Hypothesized that the release from masking observed when noise is masking a tone signal would be affected by the addition of a tone masker. If the level of the tone masker is increased to a high enough value, there should be no release from masking. Results of the study with 3 normal hearing Ss show that a pure-tone masker does reduce the size of the magnitude of the release from masking as a function of the level of the masking tone, but not to 0 as was predicted. The effect was found to be differential with respect to the phase of the tone masker and is explained in terms of the interaural correlation of the total masker waveform. Some evidence is presented that indicates release from masking occurs when a tone is used to mask another tone.—*Journal abstract*.

7313. Corcoran, D. W., Dennett, J. L., & Carpenter, A. (Cambridge U., Medical Research Council, England) **Cooperation of listener and computer in a recognition task: Effects of listener reliability.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 480-488.—Investigated (a) the influence of a computer display on the ability of listeners to recognize complex sounds, (b) what effect variations in audio signal-to-noise (S/N) ratio would have on combined performance, and (c) the strategy used by the listener to combine the computer with audio evidence. 33 Naval Ratings were tested over 12 1½-hr sessions. Listening performance, computer performance, and listener-plus-computer performance (C and Li) were assessed. It was found: (a) that the computer display was effective in producing better recognition; (b) that the higher the S/N ratio, the greater C and Li performance; (c) that the lower the S/N ratio, the greater the utilization of the computer information; (d) that the utilization of the computer evidence did not improve with training; and (e) that a relatively simple additive model described the method by which Ss combined the 2 sources of evidence.—*Journal abstract*.

7314. Gol'dburt, S. N. & Loginova, M. P. (Leningrad State U., USSR) **Zavisimost' absolyutnoi otsenki vysoty tona ot ego dlitel'nosti i mikrointervala mezhdu nim i vtorym tonom.** [Absolute judgment of pitch of tone as a function of its duration and the microinterval between it and a second tone.] *Nervnaya Sistema*, 1968, No. 9, 133-140.—Ss were 2 women with a "fine musical ear." 3 series of experiments investigated absolute judgment of pitch of tone (over ranges from 200-600 cps and from 200-3000 cps) as a function of: (a) its duration when presented in isolation; (b) the microinterval (20, 50, and 260 msec.) between it and a 2nd tone (of same duration, but 100 cps higher), given 7 gradations of pitch over the range; and (c) similarly, but given 6 gradations of pitch. In judging the 7 categories of pitch over a range of frequencies for the first of a pair of tones, separated by a 20- or 50-sec interval, the number correctly identified was distinctly less than in the case of a single tone. In the case of a range including 6 categories of pitch, the same decline of correct identification was observed, but to a lesser extent. In both instances the effect was greater for the middle tones of the utilized range.—I. D. London.

7315. Massaro, Dominic W. (U. Wisconsin) **Effect of**

masking tone duration on preperceptual auditory images. *Journal of Experimental Psychology*, 1971(Jan), Vol. 87(1), 146-148.—3 paid undergraduates identified the pitch of a 20-msec test tone as high or low. The test tone was followed by a masking tone after a variable silent intertone interval. Pitch identification performance improved with increases in the silent intertone interval indicating that an auditory image remains for processing after a short tone is presented. Presentation of the masking tone precludes perceptual processing of the auditory image of the test tone. Results also indicate that the interference produced by the masking tone was independent of its duration. This supports the hypothesis that the onset of the masking tone interferes with or overwrites the auditory image of the test tone directly.—*Journal abstract*.

7316. Moore, Thomas J. & Welsh, John R. (Aerospace Medical Research Lab., Wright-Patterson Air Force Base, O.) **Forward and backward enhancement of sensitivity in the auditory system.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 534-539.—Investigated enhanced sensitivity of the auditory system dependent upon exposure to short (1-msec) acoustic stimuli, using 5 male undergraduates. When the dichotic condition was investigated, little or no enhancement was found. When the monotic condition was employed, there was evidence for both forward and backward enhancement. Backward enhancement occurred only when the stimulating click was just above threshold—3-db sensation level (SL). Forward enhancement was present to some extent for all intensities of stimulation (3-, 10-, 20-, 40-db SL) employed.—*Journal abstract*.

7317. Nielsen, Donald W., Fraser, Winifred D., & Elliott, Donald N. (U. Florida) **Frequency discrimination in the adapted ear.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 540-545.—Investigated the effects of adaptation on monotic and dichotic frequency-DL and on pitch shift. 5 female and 1 male experimentally naive undergraduates were tested under normal and adapted conditions at 2 frequencies—250 and 1000 Hz., 2 intensities—40-db sensation level (SL), and with 2 modes of presentation—monotic and dichotic. Frequency-DL and constant-error (CE) measures were calculated. Frequency-DL analysis showed significant results for the main effects of frequency, adaptation, and mode of presentation. Results of the CE analysis showed no statistical significance. (24 ref.)—*Journal abstract*.

7318. Tominaga, Yoshio. (Inst. for Science of Labour, Lab. of Hygiene, Tokyo, Japan) [The choice reaction time in response to the direction of tonal signals under noise: The effect of the use of earplugs.] *Journal of Science of Labour*, 1969(Oct), Vol. 45(10), 594-604.—As an indicator of detectability or discriminability of the tonal signal, the choice reaction time (CRT) in response to the direction of the warble tone emitted from one of the speakers located in the directions 45° right and left in front of the S was examined under broad band noise emphasized at low frequencies. Results indicate that the CRT depends approximately on the sensation level of the signal or signal to noise ratio. The CRT was also affected by the stimulus series. In an experimental block in which both the signal level and the noise level were constant, the CRT was relatively short. When both levels were randomly varied, longer CRT was obtained and the CRT for signals of the same sensation level tended to

vary depending on the received level of the signal. CRT for 40-db signal and 20-db noise (critical band level) was longer than that for 60-db signal and 40-db noise. If the experimental results are considered in relation to workers listening to tonal signals in plant with constant noise, it is suggested that frequent wearing and removing of ear plugs may give unfavorable effect upon detection of auditory signals although constant use of ear plugs does not. (16 ref.)—*English abstract.*

Speech Discrimination

7319. Bertelson, Paul & Tisseyre, Françoise. (Free U., Brussels, Belgium) **Perceiving the sequence of speech and non-speech stimuli.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 653-662.—28, 16, and 16 undergraduates in 3 experiments estimated on which syllable of a spoken sentence a click was superimposed. Exp. I confirms P. Ladefoged and D. E. Broadbent's (see PA, Vol. 35:1628) finding of a systematic tendency to prepose the click (negative displacement), but shows also that the tendency is decreased when prior knowledge of the sentence is provided. Exp. II shows that acoustic prior knowledge is not necessary to produce the decrease and that it occurs also with textual prior knowledge. Exp. III shows that the negative displacement is not eliminated by short-term practice on the task, as J. Fodor and T. G. Bever (see PA, Vol. 40:1532) contended. The effect of prior knowledge is inconsistent with the explanation of negative displacement in terms of attention demands suggested by Ladefoged and Broadbent. It is argued that this explanation was unnecessary, and that negative displacement can be expected in a system which analyzes speech by discrete units. (15 ref.)—*Journal abstract.*

Audiometry

7320. Dininny, Donald H. (Ohio U.) **A psycho-acoustic study of difference limens for white noise stimuli.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1584.

CHEMICAL SENSES

7321. Bourgeois, A. E. & Bourgeois, Joann O. (Texas A & M U.) **Theories of olfaction: A review.** *Revista Interamericana de Psicologia*, 1970(Mar), Vol. 4(1), 19-31.—Discusses olfactory stimulus parameters, sensory physiology, and various systems of odor classification, e.g., those of Henning, Zwaardemaker, or Crocker and Henderson. The major theories of olfaction described include the radiation theory of Teudt; the electromagnetic vibrational theories of Beck and Miles, Dyson, and Heyninx; the mechanical theory of Banerji; the stimulus pattern theory of Adrian; the chemical theories of Haagen-Smit or Mullins; the steric theory of Troland; the phase boundary theory of Kremer; the enzyme theory of Lauffer; and the stereochemical theory of Amoore. Current research in this area is also presented. (Spanish & Portuguese summaries) (25 ref.)—*Journal abstract.*

SOMESTHESIA

7322. Dworkin, Samuel F. (New York U.) **Pain responsivity and its relationship to situational con-**

text and body-concept. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1533.

7323. Gescheider, George A., Herman, Daniel D., & Phillips, Jeffrey N. (Hamilton Coll.) **Criterion shifts in the measurement of tactile masking.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 433-436.—Determined the effects of method of threshold measurement on the amount of threshold shift produced by a masking stimulus. 4 experiments were made with 13 undergraduates and faculty members. The amount of contralateral tactile masking of the fingertip was found to be much greater when thresholds were measured by the Békésy tracking method than when measured by a forced-choice method. When the Békésy tracking procedure was modified, so that each observation interval containing a brief stimulus was followed almost immediately by a 2nd observation interval not containing a stimulus, the amount of masking was substantially reduced for both contralateral tactile masking and auditory-tactile masking and corresponded almost exactly with the amount of masking measured by the forced-choice method. No such reduction in the amount of masking was obtained by using this procedure to measure ipsilateral tactile or auditory masking.—*Journal abstract.*

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

7324. Baekeland, Frederick. (State U. New York, Downstate Medical Center, Brooklyn) **Correlates of home dream recall: I. REM sleep in the laboratory as a predictor of home dream recall.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 209-214.—Studied REM frequency (density) and time during the 1st 6 hr. of uninterrupted sleep in relation to various measures of home dream recall in 41 normal young adult male Ss. The incidence of detailed dream reports was significantly positively related to REM density. Vague and no-content dream reports, however, were negligibly related to REM density. Similar relationships were found between dream reporting and REM time. It is suggested that detailed dream reports tend to come from end-of-the-night awakenings from REM periods with much eye movement activity, while vague and no-content reports are derived either from NREM awakenings or from REM period awakenings occurring earlier in the night and from which the S returns to sleep. A questionnaire estimate of dream recall, completed by Ss before the experiment, proved to be a fair predictor of later detailed dream recall as measured by a sleep log kept for 14 consecutive days and was thought to sample the delayed recall of vivid dreams from end-of-the-night REM periods with high REM densities. (27 ref.)—*Journal abstract.*

7325. Castle, Peter W. (Brandeis U.) **The significance of thought and action in dreaming: A theoretical analysis.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1516.

7326. Ellman, Steven J. (New York U.) **The experimental modification of two aspects of the REM sleep cycle.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1561-1562.

7327. Evans, Frederick J., et al. (Inst. of the

Pennsylvania Hosp., Unit for Experimental Psychiatry, Philadelphia) **Verbally induced behavioral responses during sleep.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 171-187.—Elicited motor responses from 19 Ss, sleeping in a laboratory for 2 nights. Some Ss responded behaviorally, while remaining asleep, to verbal suggestions administered previously during Stage-1 sleep. Many responses were obtained without eliciting alpha activity during the suggestion, after the cue word was administered, or before and after the response. When a successful response occurred, alpha frequency was not significantly different from the slowed frequency occurring spontaneously during Stage-1 sleep. The average response latency was 32 sec., and this increased as the temporal dissociation between the administration of the suggestion and the cue word increased. After awakening, S did not remember the verbally presented material, or responding to it, and did not respond to the cue word. When S returned to sleep the next night, or even 5 mo. later, the mere repetition of the relevant cue word (without repetition of the suggestion itself) was sufficient to elicit the appropriate response. It is concluded that a S is capable of some interaction with his environment while he is asleep. (29 ref.)—*Journal abstract*.

7328. Grosser, George S. & Siegal, Andrew W. (American International Coll.) **Emergence of a tonic-phasic model for sleep and dreaming: Behavioral and physiological observations.** *Psychological Bulletin*, 1971(Jan), Vol. 75(1), 60-72.—Presents the early evidence for, and later evidence against, theories which consider waking, sleep, and dreaming as discrete states. The newer tonic-phasic model proposed by G. Moruzzi is reviewed. Support for it is drawn from research on the behavior of the CNS, autonomic nervous system, musculature, and mentation as observed during the various stages of sleep. The neurophysiological basis of tonic-phasic events is summarized. The advantages of the tonic-phasic model over a 3-state model are that only the former can accommodate both (a) the heterogeneity of Stage-REM events, and (b) the continuity of certain phenomena throughout all sleep stages. It is concluded that, while the older model was valuable in generating research and methodological innovations, these very developments have made it obsolete. The tonic-phasic model is better suited to the present state of knowledge, and promises to be a valuable guide for further research. (88 ref.)—*Journal abstract*.

7329. Lowy, Frederick H. (Allan Memorial Inst., Montreal, Quebec, Canada) **Recent sleep and dream research: Clinical implications.** *Canadian Medical Association Journal*, 1970(May), Vol. 102(10), 1069-1077.—Summarizes major findings from studies of the physiology, neurophysiology, biochemistry, and psychology of sleep and dreaming. The relevant work in specific sleep disorders and in certain medical and neurological illnesses is critically reviewed, and pathogenetic mechanisms in several sleep disorders are discussed. (66 ref.)—*Journal summary*.

7330. Naitoh, Paul & Townsend, Richard E. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **The role of sleep deprivation research in human factors.** *Human Factors*, 1970(Dec), Vol. 12(6), 575-585.—Reviews data from 4 independent research institutes to illustrate the effect of sleep loss on task performance. Data are presented relating to the prevention of sleep loss, and to the detection and

minimization of sleep loss effects when they occur. (24 ref.)—*Journal abstract*.

7331. Salamy, Joseph G. (U. Oklahoma) **An investigation into the motivational properties of REM sleep.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 901-902.

HYPNOSIS & SUGGESTIBILITY

7332. Gibbons, Don. (West Georgia Coll.) **Directed-experience hypnosis.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 101-103.—Relates the experience of induction to the nature of hypnotic behavior.—M. V. Kline.

7333. Krippner, Stanley. (Maimonides Medical Center, William C. Menninger Dream Lab., Brooklyn, N.Y.) **Hypnosis and psychedelia.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(2), 58-68.—Psychedelic states and hypnotic states are not discrete entities. Psychedelic experiences can be reproduced by hypnotic induction.—M. V. Kline.

7334. O'Connell, Donald N., Shor, Ronald E., & Orne, Martin T. (Massachusetts Mental Health Center, Boston) **Hypnotic age regression: An empirical and methodological analysis.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 2), 32 p.—Made a repetition, with additional control groups, of R. Reiff and M. Scheerer's (see PA, Vol. 35:931) study of hypermnnesia through reinstatement of prior cognitive modes of functioning during hypnotic age regression to ages 10, 7, and 4. Only partial replication of the original findings was obtained. Tests amenable to the influence of E expectation and demand characteristics showed the least replication. Tests resistant to such influences replicated well. No evidence of hypermnnesia was found. Comparisons with other control (or quasicontrol) groups show: (a) equal performance of cryptosimulating Ss in the absence of hypnosis, (b) evidence for confounding in the original study of treatment and design effects, (c) moderate effect of presence or absence of role support in a quasiparticipant group, and (d) fairly good behavioral validity in direct comparisons with children. Evidence for transcendence during hypnosis of waking role-playing behavior was lacking, although striking subjective alterations were present in hypnosis. Methodological implications of these findings are stressed. (52 ref.)—*Journal abstract*.

7335. Spanos, Nicholas P. & Chaves, John F. (Boston U.) **Hypnosis research: A methodological critique of experiments generated by two alternative paradigms.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 108-127.—Examines 2 alternative paradigms in the area of experimental hypnosis. 1 paradigm revolves around the hypothetical construct hypnotic state of trance; the other, rejects the utility of this construct.—M. V. Kline.

7336. Thomas, K. **Praxis der Selbsthypnose des autogenen Trainings.** [Practice in self-hypnosis, utilizing autogenic training.] Stuttgart, W. Germany: Georg Thieme, 1967. 90 p.—Presents a manual of exercises for self-hypnosis, following the prescriptions of I. H. Schultz, with a Freudian orientation.—I. D. London.

7337. Weitzenhoffer, André M. & Sakata, Kenneth. (Veterans Administration Hosp., Oklahoma City, Okla.) **Role of visual fixation in the production of hypnotic behavior.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 104-107.—Visual fixation was

found to be of limited significance in the production of hypnotic behavior.—*M. V. Kline.*

MOTIVATION & EMOTION

7338. Arnold, Wilhelm. Ein vorläufig-theoretisches Motivationsmodell more psycho-physico. [A preliminary (more psycho-physical) theory of motivation.] *Psychologische Beiträge*, 1970, Vol. 12(2), 167-172. —Examines the following correlates of motivation behavior: emotional relaxation, drive strength, and drive inhibition. It is proposed that motivational drive strength is directly proportional to emotional relaxation and indirectly proportional to drive inhibition. A model is demonstrated which is purported to be a more comprehensive approach to motivation than the "functional formula" proposed by K. Lewin and J. Atkinson. (French & English summaries)—*B. A. Stanton.*

7339. Honhart, Barbara B. (U. Iowa) An investigation of catharsis: Overt aggression and heart rate as functions of retaliation and arousal and opportunity for aggression. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1539.

7340. Melamed, Barbara G. (U. Wisconsin) The habituation of psychophysiological responses to tones, and to illicited fear stimuli under varying conditions of instructional set. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 918-919.

7341. Peterson, Rolf A. (U. Iowa) Aggression as a function of threatened retaliation and aggression level of target and aggressor. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1548.

7342. Quarter, Jack & Marcus, Allan. (Ontario Inst. for Studies in Education, Toronto, Canada) Drive level and audience effect: A test of Zajonc's theory. *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 99-105.—Tested R. B. Zajonc's theory that the presence of an audience during a digit span test causes an increment in drive level and a concomitant impairment of performance. 68 8th graders were employed in a 2 × 2 design, with drive level as inferred from test anxiety scores and presence of an audience as independent variables. Although audience effect was significant, the interaction between drive level and audience present-absence did not materialize as predicted. It was posited that affiliative anxiety rather than test anxiety was contributing to a drive increment in the audience present condition. Data were reanalyzed after substituting birth order, a correlate of affiliative anxiety, for test anxiety as an independent variable. The interaction was then obtained and reached significance. (18 ref.) —*Author abstract.*

7343. Schmeck, Ronald R. (Ohio U.) Frustration and task performance: An amplification of behavior theory. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1523-1524.

7344. Seaton, Richard W. & Peryam, David R. (U. British Columbia, Vancouver, Canada) Hunger, food preference, and consumption. *Human Factors*, 1970(Dec), Vol. 12(6), 515-522.

ATTENTION & EXPECTANCY & SET

7345. Davenport, W. G. (U. Newcastle, New South Wales, Australia) Vigilance for simultaneous auditory and cutaneous signals. *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 93-100.—Required 16 un-

dergraduates in a vigilance situation, to perform 3 separate 40-min watches: auditory (A), vibratory-cutaneous (C), and simultaneous auditory-cutaneous (AC), to ascertain whether an improved correct detection rate might be obtained by increasing the number of display channels to a single O. Results show that the AC channel had a significantly higher correct detection rate than either the A or C channels alone, and the A channel was significantly superior to the C channel. Also there was a significant decrement in the frequency of correct detections over time for the A and C channels alone, and, in each case, a significant increase in Ss' thresholds taken before and after the 40-min watch period. There was an insignificant increase for the AC channel. Paralleling these changes were large increases over time in Ss' criterion (β) for the A and C channels, and a small increase for the AC channel. The auditory and vibratory-cutaneous senses appear to be interdependent; perhaps there is an important relationship between change of Ss' threshold and criterion (β). (French summary)—*Journal abstract.*

7346. Eisler, Hannes & Knöppel, Jan. (U. Stockholm, Psychological Lab., Sweden) Relative attention in judgments of heterogeneous similarity. *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 520-526.—Repeated R. N. Shepard's (see PA, Vol. 39:3334) study on similarity of stimuli with clearly discernible dimensions. Some modifications were made, the most important being that the 42 Os made numerical similarity estimates of the stimulus pairs. The overall outcome did not deviate much from Shepard's findings. By using quantitative estimates and choosing stimulus series so that the 2 dimensions were negatively correlated, data for each O could be analyzed separately with a partial correlation technique. It was found that the more an O attended to 1 dimension, the less he attended to the other. The shifts in attention seemed to be random rather than regular. Consequently, the meaningfulness of a contention like Shepard's as to the nonexistence of a metric is questioned.—*Journal abstract.*

7347. Ellis, Jerry G. (U. Oregon) Attentional requirements of movement control. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1517.

7348. Fidell, Sanford A. (U. Michigan) Sensory function in multimodal signal detection. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 928.

7349. Milman, Oscar. Influencia de la actitud en la percepción. [Influence of attitude upon perception.] *Revista de Psicología General y Aplicada*, 1970(Jan), Vol. 25(102), 15-30.—Investigated the influence of set upon the perceiving and reading of alphameric characters. The attitude or set was induced by verbal instruction by manipulating the relative frequency of letters to non-letters and by the type of questions asked in a postperception interview. It is concluded that attitude or set does influence the relative number of nonletters perceived or read as letters.—*D. H. Schuster.*

7350. Smith, Jesse. (Cornell U.) The influence of stimulus variations on attention and eye movements. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1573-1574.

7351. Wheeler, Daniel D. (U. Michigan) Processes in the visual recognition of words. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 940.

MOTOR PERFORMANCE

7352. Caldwell, Lee S. (U.S. Army Medical Research

Lab., Experimental Psychology Div., Ft. Knox, Ky.) **Decrement and recovery with repetitive maximal muscular exertions.** *Human Factors*, 1970(Dec), Vol. 12(6), 547-552.—60 adult males exerted 10 successive maximum pulls of 12½-sec duration on an isometric dynamometer handle. All trials in a series were separated by a constant duration ITI of 12½, 25, 50, 100, or 200 sec. For all ITIs there was a rapid initial reduction in output followed by an essentially linear decline. The effect of the ITIs on the within-trial decrements were quite small with a difference of less than 2% of maximum between the means for the shortest and longest intervals. For the longer rest conditions there was a reduction in the within-trial decrement over trials. For shorter ITIs, recovery tended to increase with successive rests, but for longer intervals there was a tendency for recovery to decrease with repeated rests. The amount of strength recovery with rest was influenced not only by the length of rest but also by the degree to which the response was degraded by prior performance.—*Journal abstract.*

REACTION TIME

7353. **Bandžejová, Mária.** (Comenius U., Bratislava, Czechoslovakia) **Reakčný čas (= RC) v závislosti od polohy a vzdialenosti podnetov v zrakovom poli.** [Effect of the position and distance of stimuli in the visual field on reaction time.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 89-109.—Presented stimuli on a hemisphere in horizontal direction, to the right of the fixation point, and in 4 distances, 10, 30, 50, and 70°, to study its effect on RT. Conclusions show: (1) RT lengthened as the stimulus moved outward from the center of the visual field; and (2) RT depended on the position of the negative stimulus. In the center, stimulus exerted a retarding influence on RT length in peripheral areas of the visual field, and in the periphery, it exerted a positive influence. (Russian & German summaries)—*English summary.*

7354. **Johnson, Edgar M.** (Tufts U.) **Dual-task performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1519-1520.

7355. **Micko, H. C.** (U. Marburg, Psychology Inst., W. Germany) **Eine Verallgemeinerung des Messmodells von Rasch mit einer Anwendung auf die Psychophysik der Reaktionen.** [A generalization of the metric model of Rasch and its application to the psychophysics of reactions.] *Psychologische Beiträge*, 1970, Vol. 12(1), 4-22.—Enlarged the logistic metric model of G. Rasch to N parameters that may be related to situations, persons or reactions. A model of 3 parameters is applied to the measurement of RT. (15 ref.)—*English summary.*

7356. **Osipova, O. V.** (Leningrad State U., USSR) **O znachenii veroyatnosti razdrzhitel' formirovani dvigatel'nogo stereotipa.** [On the significance of stimulus-probability in formation of a motor stereotype.] *Nervnaya Sistema*, 1968, No. 9, 114-119.—4 adults were Ss in a study of some aspects of motor RT as a function of probability of presentation of conditioned signals (finger pressing for red light, but not for green light). Random series of 100 signals were utilized with the ratio of positive to inhibitory stimuli as follows: 9:1, 8:2, and 6:4. The formation and transformation of the dynamic stereotype reflect the statistical features of the distribution of the positive and inhibitory signals applied.

Motor RT was a function not only of the absolute magnitudes, but also of the relative differences in the probability of the applied signals as compared with the preceding conditions of the experiment.—*I. D. London.*

7357. **Remington, Robert J.** (IBM Corp., Research Triangle Park, N.C.) **Analysis of sequential effects for a four-choice reaction time experiment.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 17-27.—Presents an experiment consisting of 3 experimental conditions: a 4-choice condition in which the stimulus events were equiprobable, a 4-choice condition in which 1 of the stimulus events appeared with a probability .40 while each of the other stimulus events appeared with a probability of .20. 3 female and 2 male 15-28 yr. olds served as Ss. Results reveal new information regarding the nature of the "repetition effect," i.e., the observed faster RT to repeated signals than for changed signals. Findings indicate that an adequate model of choice RT must account for sequential effects of a higher order than the popular 2nd-order repetition effect. A detailed analysis of the data clearly demonstrates the inappropriateness of a number of simplifying assumptions which have been made in previous studies of sequential effects in choice RT data.—*Author abstract.*

LEARNING

7358. **Abrams, Alvin J.** (U.S. Naval Personnel Research Activity, San Diego, Calif.) **An evaluation of self-pacing in an auditory identification learning task.** *Canadian Journal of Psychology*, 1969(Oct), Vol. 23(5), 366-383.—Investigated a method of pacing in auditory identification learning in an experiment with 127 naval service school students. Traditionally, an instructor paces the learner by controlling the stimulus presentation during learning. The W. N. Dember and R. W. Earl theory and other research suggest that a learner might effectively pace himself, provided he has access to stimuli of appropriate complexity levels. An attempt was made to contrast these 2 positions and a condition in which there was no pacing and all training was on the criterion task. Major results were: (a) self-pacing was less efficient, but not less effective, than proficiency-pacing (traditional); (b) both pacing techniques were more effective than unpaced training on the criterion task; and (c) despite attempts to meet the restrictions of the Dember and Earl theory in designing the self-paced condition, the stimulus selection behavior of Ss in that condition was not mediated by stimulus complexity alone. The applicability of the Dember and Earl theory to complex learning situations is questioned. (French summary) (19 ref.)—*Journal abstract.*

7359. **Anderson, Richard C.** (U. Illinois) **Control of student mediating processes during verbal learning and instruction.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 349-369.—Examines the thesis that the activities the student engages in when confronted with instructional tasks are of crucial importance in determining what he will learn. This thesis is discussed under several headings: attention, the attentional analysis of instructional procedures, cue encoding and associative linkage, and implications for instruction of the research on mediating process. It is concluded that several lines of evidence indicate that learning is facilitated when the task requires meaningful processing. (4 p. ref.)—*P. D. Leedy.*

7360. **Bahrack, Harry P.** (Ohio Wesleyan U.) **Dis-**

criminative and associative aspects of retroactive inhibition. *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 565-573.—Followed original learning of paired drawings of meaningful objects or of modified Chinese characters by interpolated learning in which details of drawings were changed in 1 of 2 degrees with or without rearrangement of the original pairings. 5 groups of 10 undergraduates each were tested for accuracy of identification of the original drawings and for associative matching of the original pairs. Identification errors were attributed jointly to confusion between original and interpolated drawings, and to unlearning of those features of original drawings which were in conflict with comparable features of interpolated drawings. Rearrangement of pairs during interpolated learning produced associative interference on the matching test, and additional discriminatory interference on the identification test. Effects of associative and discriminative interference on individual drawings were uncorrelated for meaningful material and only slightly correlated for meaningless material.—*Journal abstract.*

7361. Brehmer, Berndt & Lindberg, Lars-Ake. (U. Umeå, Sweden) **The relation between cue dependency and cue validity in single-cue probability learning with scaled cue and criterion variables.** *Organizational Behavior & Human Performance*, 1970(Nov), Vol. 5(6), 542-554.—Found that the relative consistency of the inference behavior of 54 undergraduates was the same for the 3 levels of cue validity .45, .70, and .90, but that Ss made more extreme inferences at lower levels of validity than at higher levels. This result indicates that the inverse relation between departure from matching and cue validity, usually found in single-cue probability learning experiments, can be explained in terms of extremeness of inferences. Since similar relations between extremeness and validity of information have been found in Bayesian studies of inference behavior, results also suggest that the correlational and Bayesian approaches may be more closely related than has, so far, been assumed.—*Journal abstract.*

7362. Burns, Richard W. & Brooks, Gary D. (U. Texas, El Paso) **What are educational processes?** *Science Teacher*, 1970(Feb), Vol. 37(2), 27-28.—Defines processes as learned, transformational entities used in learning and problem solving regardless of the methods used and subject matter being considered. Using 1 or more processes in any order to solve a problem results in a strategy. Whether strategies are or are not direct educational goals depends on their variety and uniqueness to the individual learner who applies them. The need for more research to validate processes and to define their total role in learning is stressed.—*Journal summary.*

7363. Diespecker, D. D. (Wollongong University Coll., New South Wales, Australia) **Vibrotactile learning and the locus dimension.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 574-582. 40 18-32 yr. old males, each of whom was randomly allocated to 1 of 4 experimental groups, learned a 26-element vibrotactile code. Each group used either 3, 4, 5, or 6 vibrators. As predicted, the performance of each group improved in the order 3-, 4-, 5-, and 6-vibrators. Although there were no significant differences between the groups there was a highly significant learning effect over 10 trials. Error analyses show that duration errors were the most frequent type of error and that intensity errors were the least frequent. It

is suggested that both the types of errors and the optimum number of loci which can be separately stimulated in this type of experiment will depend upon the spacing and arrangement of signal elements.—*Journal abstract.*

7364. Fago, George C. (U. Pittsburgh) **Facilitated discrimination learning as effected by response-contingent neutral and aversive stimuli.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1562-1563.

7365. Frase, Lawrence T. (Bell Telephone Lab., Murray Hill, N.J.) **Boundary conditions for mathemagenic behavior.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 337-347.—3 characteristics of questions affect learning: (a) their position in a text, (b) the contiguity of questions and related content, and (c) the type of question. Under some conditions rearranging the information in a text may alter the behaviors in which a reader engages and consequently what he remembers. The data reviewed in this paper suggest that mathemagenic behaviors can be usefully viewed as components of an adaptive system in which these behaviors are modified by characteristics of 2 kinds of inputs: (a) those that occur prior to encounters with the text, and (b) those that are characteristic of the text. Control of both of these classes of verbal events provides access to important mathemagenic behaviors. (1 p. ref.)—*P. D. Leedy.*

7366. Kumar, Santosh. (U. Southern California) **Personality variables and intellectual abilities as determinants of concept learning.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1521.

7367. Lepine, Dominique, et al. (Centre National de la Recherche Scientifique, Experimental & Comparative Psychology Lab., Paris, France) **Information positive et information négative dans l'apprentissage de concepts unidimensionnels simples.** [Positive information and negative information in simple unidimensional concept learning.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 50-55.—Examined the hypothesis that Ss utilize negative information less well than positive information. 24 Ss were tested in a situation in which all instances, positive or negative, transmitted the same quantity of information, with the task consisting of a series of 24 problems involving identification of a concept chosen by the E. The 4 types of problems, in blocks of 2, were ++, +-, -+, and --, with red and black as modalities, the information transmitted by the positive and negative instances defined by reference to a specific ensemble of hypotheses the Ss could make concerning the object to be identified. The 1st instance made possible a reduction of hypotheses from 8-4, the 2nd from 4-1. Analysis of variance of results show that the -- condition resulted in the poorest performance, while ++ resulted in the best. Ss identified the pertinent attribute in block 1 when it was the only 1 that changed (confirming Huttenlocher's hypothesis), and tended to memorize the 1st instance. Ss learned to better utilize information relative to the 2nd instance (Block 2) when it was positive; the -- condition, being the only 1 in which the correct modality was never presented, explains the fact that the 3 other conditions gave rise to approximately equal levels of success.—*T. N. Webster.*

7368. Maley, Roger F. (U. West Virginia) **The effect of certain imitative cues upon the learning of response patterns.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 33-44.—Investigated the extent to

which an S's performance on problem-solving tasks is a function of the accuracy of a model's performance on the same tasks, by using models whose responses were programed and whose level of correctness was varied. Ss were 105 undergraduates. Results indicate that (a) at certain levels of correctness there were distinct performance decrements, (b) interference was maximal when the association was only slightly above chance, and (c) interference was related to tendencies to engage in blind imitation of the model. It was also found that the influence which the success of a model has on an S is generalizable to new situations, even if the S did poorly on the 1st task because the model's behavior was confusing.—*Journal summary.*

7369. Pollio, Howard R. & Reinhart, Daniel. (U. Tennessee) **Rules and counting behavior.** *Cognitive Psychology*, 1970(Oct), Vol. 1(4), 388-402.—2 different experiments were run to determine how college students learn to count in nonbase₁₀ number systems. Results indicate the Ss can and do acquire this ability inductively with the characteristics of this acquisition strongly determined by the formal properties of the system. In addition to knowing how to count, Ss who learned these systems subsequently were able to do novel tasks requiring manipulation of the new system. These results were interpreted to mean that successful nonbase₁₀ counting requires the adult S first to discover the pool of acceptable numerical elements and then to formulate a rule enabling him to produce the uniquely acceptable sequence of numbers required by the base system presently under consideration.—*Journal abstract.*

7370. Roberts, Dennis M., King, F. J., & Kropp, Russell P. (Ontario Inst. for Studies in Education, Toronto, Canada) **An empirical investigation of Ferguson's theory of human abilities.** *Canadian Journal of Psychology*, 1969(Aug), Vol. 23(2), 254-267.—Investigated 4 derivations of G. Ferguson's (see PA, Vol. 29:2097, and 32:1283) theory of human abilities: (a) abilities exert themselves differentially in different learning situations; (b) abilities are differentially related to performance at different stages of practice; (c) sufficient practice on a given task may develop into an ability to perform that type of task; (d) an aptitude developed from practice on 1 type of task may transfer to different tasks. 137 10th grade students, in 2 groups, from 2 advanced, 2 average, and 2 low-ability classes, were given 2 different types of vocabulary learning materials. Each group received 1 set of the same type of material/day for 15 days. A battery of ability tests was given at the beginning of the study, results of which were correlated with 2 criterion measures obtained on each of the 15 days. The 2 instructional methods showed different patterns of correlations with abilities over stages of practice and differential transfer. Evidence also shows differential learning-how-to-learn effects and an increasing trend of task-specific variance over practice trials. (French summary) (18 ref.)—*Journal abstract.*

7371. Rothkopf, Ernst Z. (Bell Telephone Lab., Murray Hill, N.J.) **The concept of mathemagenic activities.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 325-336.—Mathemagenic behaviors are those which give birth to learning. Mathemagenic activities take the form of 1 of 3 classes of activity: orientation, object acquisition, and translation and processing. Classes I and II are of a gross, molar character and are directly observable. Class III generally refers to reading.

The reading process is generally divided into translation, segmentation, and processing. Man's understanding of the human learning process is extremely embryonic. The mathemagenic emphasis should be on the student so that he may be encouraged to achieve instructional goals with his present resources.—P. D. Leedy.

7372. Samuels, S. Jay. (U. Minnesota) **Effects of pictures on learning to read, comprehension, and attitudes.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 397-407.—The bulk of the research findings on the effect of pictures on acquisition of a sight vocabulary was that pictures interfere with learning to read. There was an almost unanimous agreement that pictures, when used as adjuncts to the printed text, do not facilitate comprehension. But in the few studies done on attitudes, the consensus was that pictures can influence attitudes. Much research still needs to be done in the area of the effects of pictures on learning to read. (2 p. ref.)—P. D. Leedy.

7373. Schnaitter, Roger H. (U. Minnesota) **Perceptual contrast in operant behavior.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1572.

Conditioning

7374. Dunham, Philip J. (Dalhousie U., Halifax, Nova Scotia, Canada) **Punishment: Method and theory.** *Psychological Review*, 1971(Jan), Vol. 78(1), 58-70.—Outlines a methodological framework for the analysis of punishment. The methodology, a multiple-response base-line procedure, serves 2 purposes. It raises a number of new questions about the properties of punishment, and permits the examination of some untested assumptions found in traditional punishment theory. Initial evidence obtained with the multiple-response methodology questions the validity of traditional theoretical assumptions and suggests 2 simple rules for predicting the properties of various punishment operations. (23 ref.)—*Journal abstract.*

7375. Gantt, W. Horsley. (Pavlovian Lab., Perry Point, Md.) **Mechanisms of behavior.** *Conditional Reflex*, 1970(Jul), Vol. 5(3), 171-179.—Reviews the major principles that have emerged from years of research at the Pavlovian Laboratory, 1st located at the Johns Hopkins Medical School and later at Perry Point. The principles identified were (a) the role of peripheral and central sites of action in the formation of CRs, (b) the conditionability of different physiologic systems leading to the concepts of schizokinesis, (c) developing interactions of stored foci of excitation leading to the concept of autokinesis, and (d) organ responsibility as a factor underlying the formation of CR. It is noted that this scientific approach remains inadequate to explain important aspects of information from the internal sense organs, i.e., a person's subjective life. (15 ref.)—P. McMillan.

7376. Hearst, Elliot; Besley, Serena, & Farthing, G. William. (U. Missouri) **Inhibition and the stimulus control of operant behavior.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 2), 373-409.—Reviews and evaluates a variety of methods, definitions, and theoretical notions that have been used in the study of inhibitory stimulus control. Preliminary data from several new operant methods are also described. It is proposed that future workers distinguish clearly between 2 forms of inhibitory control: (a) the learned power of a specific stimulus to reduce

behavior, and (b) a dimensional effect, in which responding increases as values progressively more distant from the value of that specific stimulus along some dimension are presented (generalization gradient). Conclusions from several important recent studies are shown to be strongly dependent on the individual Es criterion for deciding when a stimulus is inhibitory. (135 ref.)—*Journal abstract*.

7377. Lodwig, Ann K. (U. California, Los Angeles) **Experimental manipulation of the orienting reflex during semantic conditioning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 933.

7378. O'Gorman, J. G. (U. Queensland, St. Lucia, Brisbane, Australia) **Overextinction of the orienting reaction.** *Conditional Reflex*, 1970(Jan), Vol. 5(1), 27-35.—Examined E. N. Sokolov's report of return of the orienting reaction (OR) to repeated stimulus presentations following habituation in 18 male undergraduates using the GSR component of the OR and an auditory stimulus of 60-db intensity and 1000 cps. Both group and individual S data analysis indicate a return of the OR which habituated quickly. The number of stimulus presentations to the OR return point showed an inverse relationship to rate of initial OR habituation for individual Ss. (25 ref.)—*Journal abstract*.

7379. Staddon, J. E. & Simmelhag, Virginia L. (Duke U.) **The "supersitiation" experiment: A reexamination of its implications for the principles of adaptive behavior.** *Psychological Review*, 1970(Jan), Vol. 78(1), 3-43.—Replication and extension of Skinner's "supersitiation" experiment showed the development of 2 kinds of behavior at asymptote: (a) interim activities, related to adjunctive behavior, which occurred just after food delivery; and (b) the terminal response, a discriminated operant, which occurred toward the end of the interval and continued until food delivery. These data suggest a view of operant conditioning (the terminal response) in terms of 2 sets of principles: principles of behavioral variation that describe the origins of behavior appropriate to a situation, in advance of reinforcement; and principles of reinforcement that describe the selective elimination of behavior so produced. This approach was supported by (a) an account of the parallels between the law of effect and evolution by means of natural selection; (b) its ability to elucidate persistent problems in learning, e.g., continuity vs. noncontinuity, variability associated with extinction, the relationship between classical and instrumental conditioning, the controversy between behaviorist and cognitive approaches to learning; and (c) its ability to deal with a number of recent anomalies in the learning literature (instinctive drift, auto-shaping, and auto-maintenance). The interim activities are interpreted in terms of interactions among motivational systems, and this view is supported by a review of the literature on adjunctive behavior and by comparison with similar phenomena in ethology (displacement, redirection, and vacuum activities). The proposed theoretical scheme represents a shift away from hypothetical laws of learning toward an interpretation of behavioral change in terms of interaction and competition among tendencies to action according to principles evolved in phylogeny. (4 p. ref.)—*Journal abstract*.

7380. Suboski, Milton D. & Khosla, Sudarshan. (Queen's U., Kingston, Ontario, Canada) **UCS intensity and instructional set in classical eyelid conditioning: Discrimination conditioning and signal-**

detection analysis. *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 389-401.—Conducted discrimination eyelid conditioning at 2 UCS intensities under inhibitory, neutral, and facilitatory instructional sets, in a experiment involving 144 undergraduates in 6 groups. Instructional set yielded receiver operating characteristic curves that were reasonably straight lines on a normal deviate plot. The tentative conclusion from signal-detection theory of an equal discriminability function across instructional sets was contrasted with 4 indices of discrimination, indicating significant but mutually contradictory changes in discrimination as a function of instructional set. Discrimination differences were produced by UCS intensity, particularly under the neutral instructions. (French summary) (16 ref.)—*Journal abstract*.

Verbal Learning

7381. Bewley, William L. (U. Wisconsin) **The effect of locus and degree of associative disruption on the acquisition of a serial list.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 924.

7382. Bolt, Martin. (Michigan State U.) **Imagery in associative learning and memory.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1558.

7383. Delprato, Dennis J. & Garskof, Bertram E. (Eastern Michigan U.) **Specific associative unlearning in the AB-CD paradigm.** *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 402-409.—Since previous experiments have yielded conflicting results as to whether or not specific associative unlearning occurs in the different stimuli-different responses (AB-CD) paradigm, 2 experiments were directed at this problem. In Exp. I, with 96 undergraduates who were naive to verbal learning experiments, the response-form class of AB-CD lists was varied; no evidence of associative unlearning was found in any condition. In Exp. II, with 100 Ss, significant unlearning was found with similar and identical stimuli in both lists, but not when nonsense syllables and numbers were used as stimuli in successive lists, or when minimally related nonsense syllables were used as stimulus terms in the 2 lists. J. B. McGovern's (see PA, Vol. 39:6813) analysis of unlearning was supported. (French summary)—*Journal abstract*.

7384. Keppel, Geoffrey & Zavortink, Bonnie. (U. California, Berkeley) **Retroactive inhibition for lists learned under interference conditions.** *Canadian Journal of Psychology*, 1969(Aug), Vol. 23(4), 245-253.—Determined whether a list of pairs acquired under conditions of interference is more susceptible to retroactive inhibition (RI) produced by additional interpolated interference than a list learned under noninterference conditions. The RI produced by groups differing in the type of prior learning administered, i.e., lists forming either an A-B, C-D, or an A-B, A-D relationship with the list being recalled, was compared. Results of modified-modified free recall test strongly support the susceptibility hypothesis. Data suggest (a) some evidence for proactive inhibition, but the demonstration was not reliable; and (b) that Ss who received nonspecific practice prior to their learning of 2 lists corresponding to an A-B, A-D paradigm showed less RI than Ss who had had no practice. (French summary)—*Journal abstract*.

7385. Lovelace, Eugene A. (U. Virginia) **Verbal-discrimination learning: Varied familiarization on correct and incorrect items.** *Canadian Journal of*

Psychology, 1969(Jun), Vol. 23(3), 227-232.—80 Ss in 4 groups were given 12 trials on a 30-pair verbal-discrimination (VD) list of very low-frequency words. The groups received different familiarization training prior to the VD task. Differential familiarization, given on correct and incorrect items, was initially beneficial, but more so when the correct item received the greater familiarization. More familiarization of incorrect than correct items resulted in a slower rate of improvement across trials than occurred when equal familiarization was given on correct and incorrect items, or when Ss received irrelevant familiarization. Equal familiarization of correct and incorrect items led to faster VD acquisition than irrelevant familiarization. (French summary)—*Journal abstract*.

Verbal Paired Associate Learning

7386. Butollo, W. H. (Graz U., Psychology Inst., Austria) *Untersuchung zur Invarianz der faktoriellem Determination von Lernverläufen*. [Investigation concerning the invariance of factor determination of learning processes.] *Psychologische Beiträge*, 1970, Vol. 12(1), 52-64.—Examines the problem of whether or not a change of factorial determination of responses takes place in the course of learning by means of the logistic test model. The comparison of parameters of repetitions in a paired associative learning experiment—estimated on the basis of the results of 1 group of fast and another of slow learning persons—resulted in extremely good conformity. This result could not be found by comparing individual parameters estimated on the basis of performances at different stages of a learning task. The position of interpolated list and test trials with respect to the original list is also discussed.—*English summary*.

7387. Chuang, Chong-jen. [Effects of associative strength and grade level in verbal paired-associate learning.] *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 121-124.

7388. Jacobus, Kenneth A. & Love, Craig T. (U. Kentucky) A further test of Johnson's "chunk-code" notion. *Journal of Psychology*, 1971(Jan), Vol. 77(1), 33-37.—Tested a response coding model by N. F. Johnson using a retroactive inhibition technique. 20 undergraduates learned 2 paired-associate (PA) lists. In each list the stimuli were single digits and each response contained 3 consonants. Each PA in original learning list was nearly identical to a PA in the interpolated learning list. As predicted, Ss produced more complete errors and errors on the middle response letters than did 20 controls.—*Author abstract*.

7389. McCormack, P. D., Clemence, G. D., & Moore, T. E. (Carleton U., Ottawa, Ontario, Canada) Monitoring eye movements under conditions of associative matching, response production, and stimulus and response production. *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 147-155.—Monitored eye movements in each of 3 studies with 20, 19, and 18 undergraduates, respectively, while Ss were given 8 study trials on a 7-item paired-associate list. Ss were then subjected to a single test trial of associative matching (Exp. I), response production (Exp. III) or stimulus and response production (Exp. IV). A 4th study with 42 Ss, (Exp. II), without eye movement monitoring, involved 3 groups of Ss given either 2, 4, or 6 study trials followed by a single test trial of associative matching. Results, with the exception of Exp. I, were generally

consistent with a 2-stage notion of verbal paired-associate learning. (French summary)—*Journal abstract*.

7390. Park, Tschang-Zin & Metzger, Wolfgang. (U. Münster, Psychology Inst., W. Germany) *Die Rolle des Zusammenpassens im assoziativen Lernen bei semantischer Sättigung*. [The role of fitting in associative learning and the significance of semantic satiation.] *Psychologische Beiträge*, 1970, Vol. 12(1), 115-126.—Investigated the effect of satiation upon fitting in paired associative learning. 8 pairs of a Korean adjective were used as the stimulus term, and a German word (a translation of the adjective) as the response term. In 4 of them the meaning of the German word fitted well with the sound of the Korean adjective, but less well in the other 4 pairs. Prior to anticipation learning of the pairs, an experimental group repeated the pairs rapidly, each stimulus term together with its response term. A control group was satiated with 8 other pairs of nouns not used in learning. It was found that (a) in the overall effect satiation procedure reduced the rate of learning; (b) fitting was a significant factor, the well fitting pairs being learned and recovering from satiation more rapidly than the less fitting ones. Results are interpreted in terms of organization theory. (16 ref.)—*English summary*.

7391. Patterson, Wilma L. (Michigan State U.) *Imagery characteristics as related to picture-word stimulus variables and presentation rates in paired-associate learning*. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1569.

7392. Richardson, Jack. (State U. New York, Binghamton) *Cue effectiveness and abstraction in paired-associate learning*. *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 73-91.—Based on the assumption that stimulus selection in paired-associate learning is the result of an active organized process, a methodological analysis and review of the studies of stimulus selection are presented. Some suggestions are made for further studies of stimulus selection. (64 ref.)—*Journal abstract*.

7393. Riegle, Earl M. (U. Minnesota) *Some perceptual characteristics of phrase structure rule learning*. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1570-1571.

7394. Tragash, Harold J. (New York U.) *Paired-associate learning as a function of transfer of learning strategies*. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1576.

7395. Walker, Howard J. (Pennsylvania State U.) *The interaction of imagery, associative overlap, and category membership in multi-trial free recall*. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 905-906.

7396. Yuille, John C., Paivio, Allan, & Lambert, Wallace E. (U. British Columbia, Vancouver, Canada) *Noun and adjective imagery and order in paired-associate learning by French and English subjects*. *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 459-466.—Varied rated noun imagery (I), rated adjective I, and noun-adjective order in a paired-associate (PA) learning task. 98 10th graders learned 2 PA lists, 1 with noun-adjective (N-A) pairs and 1 with adjective-noun (A-N) pairs. Within each list rated I of both nouns and adjectives was varied factorially. Both English- and French-speaking Ss learned the lists in their own languages. Results support the predictions from an hypothesis based on mediating imagery. N-A recall was superior to A-N recall for all combinations of word I, except when nouns were low and adjectives high in I. In

the latter case, A-N recall was higher. This pattern was the same for both English- and French-speaking Ss. Results are interpreted as further evidence of the important role played by imagery in verbal learning. (French summary)—*Journal abstract*.

Reinforcement

7397. Alfano, Anthony J. (Florida State U.) **Behavioral contrast: An analysis of the effect of shift in reinforcement magnitude on human concurrent performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1556.

7398. Cannon, Dale S. (U. Utah) **Human signal detection of fixed-ratio reinforcement schedules.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1530.

7399. Pihl, Robert O. & Greenspoon, Joel. (McGill U., Montreal, Quebec, Canada) **The effect of amount of reinforcement on the formation of the reinforcing value of a verbal stimulus.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 219-226.—50 student nurses served in a 3-phase experiment involving (a) presentation of 1¢, 2¢, a nickel, or a dime, contingent on correct answers on a paired-associate task; (b) 30 pairings of these amounts with a nonsense syllable; or (c) the presentation of the nonsense syllable contingent on correct answers on a 2nd paired-associate task. Results indicate that amount of reinforcement can be a significant variable in establishing the relative reinforcement value of a verbal stimulus.—*Journal abstract*.

MEMORY

7400. Atwood, George E. (U. Oregon) **Experimental studies of mnemonic visualization.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1556.

7401. Baddeley, A. D., Hatter, J. E., Scott, Denise, & Snashall, Aileen. (U. Sussex, Brighton, England) **Memory and time of day.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 605-609.—38 Ss performed a memory task on 2 occasions, 1 in the morning and the other in the afternoon. The task comprised 2 components, 1 involved immediate recall of sequences of 9 digits, the other involved the repeated item technique devised by D. O. Hebb, in which 1 9-digit sequence is surreptitiously repeated, each repetition being separated by 2 nonrepeated sequences. Performance on the immediate memory task was better in the morning than the afternoon. The repeated item was recalled more accurately than nonrepeated items, but this effect was not influenced by time of day. An explanation in terms of the relationship between arousal and memory reported by L. J. Kleinsmith and S. Kaplan is suggested. (17 ref.)—*Journal abstract*.

7402. Chase, William G. (U. Wisconsin) **Parameters of visual and memory search.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 926.

7403. Coltheart, Max & Geffen, Gina. (U. Waterloo, Ontario, Canada) **Grammar and memory: I. Phonological similarity and proactive interference.** *Cognitive Psychology*, 1970(Aug), Vol. 1(3), 215-224.—3 2-phoneme nonsense syllables were presented on each of 5 trials of a memory experiment. The items presented on Trial 5 possessed a phonological feature absent from all items presented on earlier trials. Accuracy of recall declined monotonically through the 1st 4 trials and

improved considerably on the 5th trial, i.e., there was a buildup and release of proactive interference. These effects are discussed in terms of the view that the memory trace for a verbal item consists of an array of syntactic, semantic, and phonological features, the particular classes of features present in the trace depending upon the particular nature of the verbal material presented. (26 ref.)—*Journal abstract*.

7404. Eiles, Richard R. (Arizona State U.) **Effects of mediational and motivational instructions on forward and backward recall of concrete paired-associate nouns.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1534-1535.

7405. Fisher, Dennis F. (U.S. Army, Aberdeen Proving Ground, Md.) **Effects of delay interval on word recall and clustering.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 67-77.—Examined the effects of delay interval (1 hr., 2 hr., 5 hr., 24 hr., and 1 wk.) upon word recall and clustering. Results indicate that the amount recalled and number of clusters used decreased with increases in the delay interval. However, word frequency, degree of clustering and cluster size were unaffected. The effects of list type (random or categorized) and sorting technique (free or constrained) were also examined. Results indicate that learning the categorized list and using the free-sort technique leads to increases in amount recalled and clustering.—*Author abstract*.

7406. Gruneberg, Michael M., Colwill, S. J., Winrow, P., & Woods, R. W. (University Coll. of Swansea, Wales) **Acoustic confusion in long term memory: An extension of previous findings.** *Acta Psychologica, Amsterdam*, 1970(Aug), Vol. 32(4), 394-398.—Considers further evidence for the existence of acoustic confusion in long-term memory. 20 nonsense CVC trigrams were presented at a rate of 1 every 4 sec. to 25 undergraduates. After 2 successive presentations of this list there was a 10-12 hr. gap. Ss were then given a test list, which consisted of items acoustically related, acoustically unrelated, and identical to items on the presentation list and were asked to indicate which items appeared on the original presentation list. False positive inclusion errors occurred to a significantly greater degree among items acoustically related to items on the presentation list, indicating acoustic confusion in long-term memory.—*Journal abstract*.

7407. Howe, Michael J. (U. Alberta, Edmonton, Canada) **The psychology of human memory: Recent progress.** *Science Teacher*, 1970(Feb), Vol. 37(2), 15-18.—Investigates the concept of memory, identifying memory as: (a) a useful label denoting the function of certain cerebral mechanisms for encoding, retaining, and retrieving information; (b) a way of using "several characteristics of perceived materials... as a basis for coding and storage"; and (c) a process of categorical organization. Memory is affected by the complexity and meaningfulness of the information and by the person's frame of reference. Mnemonics is discussed as a useful means of organizing meaningless material. New material is meaningful when it can be integrated into or connected to the existing structure. A case of a man whose memory "operated on principles similar to those encountered in mnemonic devices" is presented.—G. Steele.

7408. Johnson, John T. & Sowles, Cathie N. (Memphis State U.) **Proactive and retroactive inhibition as a function of intelligence.** *American Journal*

of *Mental Deficiency*, 1970(Sep), Vol. 75(2), 130-134. —Examined proactive and retroactive interference as a function of intelligence. 20 Ss of similar CA were drawn from each of 3 levels of intelligence (60-80, 90-110, and 120-140). Each S learned an original list of 8 pairs of familiar nouns, an interpolated list, and then relearned the original list. In original learning, the low-IQ group took significantly longer to reach criterion than the average- and high-IQ groups, which did not differ. There were no differences between the groups in proactive interference, but some evidence was found to suggest relatively greater retroactive interference in the average-IQ group. It is concluded that little evidence was provided to support the theory of an inhibition deficit in retarded individuals. (15 ref.)—*Journal abstract*.

7409. Matlin, Margaret A. (U. Michigan) **Response competition as a mediating factor in the frequency-affect relationship.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 934.

7410. Meshorer, David P. (Florida State U.) **Field approach and stress as factors in the organization of memory.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1544-1545.

7411. Meyer, David E. (Bell Telephone Lab., Murray Hill, N.J.) **On the representation and retrieval of stored semantic information.** *Cognitive Psychology*, 1970(Aug), Vol. 1(3), 242-299.—RT was measured for true-false decisions about 2 kinds of logical assertions, "all S are P" and "some S are P." Set relations and sizes of the semantic categories S and P were varied. Decisions about "all S are P" were faster when S and P were disjoint than when S and P intersected. For S and P disjoint decision time increased if P-size increased. For S is a P-subset decision time increased if P-size increased and S-size decreased. These data permit rejection of 5 1-stage retrieval models (e.g., compare S-exemplar to P-exemplar, compare S-attributes to P-attributes, etc.). A 2-stage model is suggested: decide if S and P are related, then decide if S is a subset of P. Decisions about "some S are P" support the 2-stage model. For S and P disjoint decisions were as fast as for "all S are P," but if S intersected P then decisions about "some S are P" were faster. Data suggest Stage 1 involves self-terminating comparisons of name of "S" to name of categories intersecting "P." Subtracting decision time for "some S are P" from "all S are P" suggests that Stage 2 involves self-terminating comparisons of P-attributes to S-attributes. The models suggests that at least 2 types of information about semantic categories are stored in memory, name of the categories they intersect and representations of their attributes. It is suggested that stored category names are organized in an intersections file based on amount of category overlap (e.g., "substance" is more distant from "stone" than is "solid"). Accessing attributes of intersecting categories seems to require a prerequisite search of category names. (17 ref.)—H. W. Hamilton.

7412. Morris, Richard J. (Arizona State U.) **The locus and intensity of auditory stimuli on the retention of verbal material.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1545-1546.

7413. Sardello, Robert J. & O'Shea, Michael. (Duquesne U.) **A descriptive study of the emphasis-congruence hypothesis in recall.** *Acta Psychologica, Amsterdam*, 1970(Aug), Vol. 32(4), 386-393.—G. D. Yonge and J. M. Sassenrath's (see PA, Vol. 44:9685) description of the experience of Ss who were required to

recall a list of verbal items as a test of the emphasis-congruence hypothesis in recall. An examination of such an explication furthers the position of Yonge and Sassenrath that in this task, Ss structure their experience relating their own personal histories to the structure of the task and materials. In addition, results indicate that when an E attempts to describe the meaning of an experimental experience he does so in light of his knowledge of all the experimental conditions. Deriving the descriptions from the Ss allows the experience to unfold in a manner more closely congruent with what an S experiences, which can then be dialogued with the E's theoretical stance.—*Journal abstract*.

7414. Stewart, Manard R. (U. Oregon) **Memory and absolute judgment.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1575.

7415. Wearing, Alexander J. (U. Illinois) **Memory for sentences.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 906.

7416. Yang, Kuo-shu. (U. Illinois) **Cognitive dissonance and recall of interrupted and completed tasks.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1527.

Short Term & Immediate Memory

7417. Merikle, P. M. (U. Waterloo, Ontario, Canada) **Presentation rate and order of approximation to English as determinants of short-term memory.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 196-202.—Presented sequentially, to 30 undergraduates, 28 sequences of 10 letters representing 0- and 2nd-order approximations to English at presentation rates of 3 letters/sec, 2 letters/sec, and 1 letter/sec. Groups of 10 Ss received each rate of presentation. In agreement with previous studies, the increased time for input processing available at the slower presentation rates produced greater differentiation in the immediate recall of 0- and 2nd-order approximations. Additional analyses suggest that the increased differentiation was attributable to both a greater increase in the efficiency of processing order information and more rapid processing of individual letters in the 2nd-order approximations. (French summary)—*Journal abstract*.

7418. Miller, Laurence; Adams, William; Deffenbacher, Jerry, & Hall, Larry. (Western Washington State Coll.) **The effect of instructional set and intertrial activity on retention in a short-term memory task.** *Psychological Record*, 1970(Sum), Vol. 20(3), 373-384.—Investigated the effects of ITI activity and instructional set on recall of consonant trigram stimuli in a short-term memory task. 48 undergraduates either: (a) sat silently during the ITI, (b) overtly rehearsed the prior item during the ITI, (c) overtly rehearsed the prior item under a set that they were to recall all items, (d) were given the set and engaged in a neutral counting activity during the ITI, (e) counted during the ITI with no set. Overt rehearsal and set, singly and together, depressed recall over a 3- and 18-sec retention interval and largely eliminated differences in recall between the two intervals. Counting during the ITI depressed recall of the initial and middle items. It is suggested that Ss in a short-term memory experiment engage in task-related activity during the ITI.—*Journal abstract*.

7419. Waugh, Nancy C. (Harvard Medical School, Boston, Mass.) **Repetition as a possible source of "isolation" in free recall.** *Canadian Journal of Psy-*

chology, 1969(Aug), Vol. 23(4), 285-291.—Ss listened to lists in which 1 or more items were repeated in immediate succession to determine whether an item is better retained when it is embedded in a series of unique items, or of items repeated at longer lags, than when it occurs within a series of items that are also presented twice in a row. Data indicate that it is not. It is concluded that repetition does not normally function as a significant source of "isolation" in tests of free recall. (French summary)—*Journal abstract*.

THINKING

7420. Bratko, A. A., Volkov, P. P., Kochergin, A. N., & Tsaregorodtsev, G. I. *Modelirovanie psikhicheskoi deyatel'nosti*. [The modeling of psychic activity.] Moscow, USSR: Mysl', 1969. 384 p.—Considers (a) theoretical problems in modeling psychic activity; (b) modeling of the basic forms of psychic activity—cognitive processes, goal directed activity, personality parameters (emotions, motivation); and (c) modeling of various disorders of psychic activity (pathological processes, psychopathological syndromes).—I. D. London.

7421. Du Charme, Wesley M. (U. Michigan) **A response bias explanation of conservative human inference**. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 927.

7422. Garner, W. R. & Felfoldy, Gary L. (Yale U.) **Integrity of stimulus dimensions in various types of information processing**. *Cognitive Psychology*, 1970(Aug), Vol. 1(3), 225-241.—7 experiments were run in which speed of sorting decks of stimulus cards was measured. Stimuli were constructed from 2 dichotomous dimensions, used either alone, correlated, or orthogonally. Sorting was always into 2 categories defined by the levels of 1 dimension. The experiments differed in the nature of the stimulus dimensions. Value and chroma of single Munsell chips and the horizontal and vertical positions of a dot gave results which show facilitation with correlated stimulus dimensions and interference with orthogonal dimensions. Such dimensions, which also produce a Euclidean metric in direct stimulus scaling, are termed integral. Value and chroma of separate Munsell chips, as well as size of circle and angle of diameter, gave results which show little or no facilitation or interference. Such dimensions, which also produce a city-block metric in direct stimulus scaling, are termed nonintegral. (22 ref.)—*Journal abstract*.

7423. Handel, Stephen J. (Johns Hopkins U.) **Classification and similarity of multidimensional stimuli**. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1565.

7424. Nathan, Shifra L. (New York U.) **Effects of verbal and pictorial stimulation on developmental and stylistic aspects of cognitive response**. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1547.

7425. Price, Alan D. (City Coll., City U. New York) **Creative thinking, problem solving, and heart rate variability: A psychophysiological approach to the study of cognitive processes**. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1522-1523.

7426. Shor, Ronald E. (U. New Hampshire) **The processing of conceptual information on spatial directions from pictorial and linguistic symbols**. *Acta Psychologica*, Amsterdam, 1970(Aug), Vol. 32(4), 346-365.—Analyzed the processing of spatial information by

30 undergraduates when expressed in pictorial and linguistic (verbal) symbolic representations. Outline drawings of arrows pointing in the directions of up, down, right, and left were compounded with the word names for these directions printed within the arrows. A set of predictions were confirmed including: (a) that it takes more time to name the arrow directions than to read the words, and (b) that an interference phenomenon can be produced using mismatched spatial symbols similar to the color-word interference phenomenon of the Stroop test. A number of lines of further investigation are presented. (30 ref.)—*Journal abstract*.

7427. Wetherick, N. E. (U. Bradford, England) **On the representativeness of some experiments in cognition**. *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 213-214.—Critically examines the nature of tasks in some experiments in cognition. Differences in Ss' performance on "brain-twister" tasks vs. performance on tasks more representative of thinking or problem-solving required in everyday life are discussed.—V. S. Sexton.

Problem Solving

7428. Dewing, Kathleen & Battye, Gregory. (U. Western Australia, Nedlands) **Attention deployment and nonverbal fluency**. *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 214-218.—Examined the utilization of incidental cues in problem solving as a function of both nonverbal and verbal fluency, following the experimental procedure described by G. A. Mendelsohn and B. B. Griswold (see PA, Vol. 39:740 and Vol. 40:12919). 30 anagram problems were given to 91 undergraduates drawn from the upper and lower 25% on verbal and nonverbal fluency tests. Immediately before the anagram task, Ss learned a 25-word list, while another list was played on a tape recorder. 10 of the anagram solutions appeared in the memorized list (focal incidental cues) and 10 in the interference list (peripheral incidental cues). High scorers on the nonverbal fluency tests made significantly more use of the focal cues than low scorers. High scorers on the verbal tests also utilized more focal incidental cues than low scorers, but the difference between groups was not significant. Neither high nor low scorers utilized the peripheral cues. There was no difference between high and low groups in rote recall of the memorized list. Results provide at least partial support for a relationship between attention deployment and 1 important aspect of creativity, and indicate that the Mendelsohn findings of greater use of incidental verbal cues by high Remote Associates Test scorers was not a result of their higher vocabulary level. (25 ref.)—*Journal abstract*.

7429. Jones, Sheila. (University Coll., London, England) **Visual and verbal processes in problem-solving**. *Cognitive Psychology*, 1970(Aug), Vol. 1(3), 201-214.—Investigated the relationship between the spatial assignments used by Ss in solving linear syllogisms and the lexical marking of the comparative adjectives used in the premises. This relationship was used to test predictions from 2 different theories about the relative difficulty of various types of linear syllogism. One theory is based on "spatial paralogic," and the other concerns the deep structure analysis of language processing. The comparisons favored the latter theory. However, it is suggested that certain experimental conditions may have favored the use of verbal rather

than visual processes in problem solution.—*Journal abstract.*

7430. Vakhner, E. E. (Tartu U., USSR) **Programma "labirint" i sposoby ee primeneniya.** [The "labyrinth" program and methods for its utilization.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 94-99.—Proposes a model for the thinking process utilized in solving mathematical problems, wherein the process is viewed as essentially passage through a labyrinth. Special means to direct this process is elaborated in the form of a set of cards with border perforations.—*I. D. London.*

Concepts

7431. Davis, J. Kent & Klausmeier, Herbert J. (Purdue U.) **Cognitive style and concept identification as a function of complexity and training procedures.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 423-430.—In 2 factorially designed experiments, 170 12th grade males learned a concept-identification task. Exp. I varied cognitive style (high, medium, and low analytic) and complexity (1, 3, or 5 bits of irrelevant information). As hypothesized, an S's cognitive style was found to influence his concept-identification performance. Ss identified as analytic on the Hidden Figures Test experienced little difficulty in identifying concepts, while low-analytic Ss experienced considerable difficulty. Ss falling in the middle of the Hidden Figures Test distribution performed at an intermediate level of performance. Also the hypothesized Cognitive Style \times Complexity interaction was not supported. Exp. II varied cognitive style (high and low analytic) and training conditions (verbalization and prompting). As in Exp. I, Ss identified as high analytic solved the concept-identification problem with greater ease than did the low-analytic Ss. Furthermore it was found that the prompt-only and the verbal-only training conditions resulted in significantly better concept identification than the no training control condition. (22 ref.)—*Journal abstract.*

7432. Kornreich, L. Berell. (U. Wisconsin, Milwaukee) **Training and transfer of a strategy for solving concept identification problems.** *Psychonomic Monograph Supplements*, 1970, Vol. 3(12), 129-135.—Assessed the effect of various training procedures on transfer performance in 5 experiments with 270 undergraduates. 111 Ss did not acquire a focusing strategy during practice phases, and were eliminated from the experiments at that point. It was found that, in terms of the number of problems solved, neither stimulus nor structural changes in the problems from training to transfer produced a decrement in performance. When a response change was required, however, an asymmetrical effect was found. This is explained in terms of an asymmetry in the response strategies acquired by the different groups. A structural analysis of the changes that did not produce decrements in performance reveal that the rules of operation for S were not changed, whereas when the rules were changed, a decrement did occur. Similarity in methodology and findings between this research and the classic work on learning sets is noted.—*Journal abstract.*

DECISION & CHOICE BEHAVIOR

7433. Audley, R. J. (University Coll., London, England) **Choosing.** *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 177-191.—Presents the

broad outlines of the psychology of choosing. Attention is also directed to important problems still requiring solution. It is stated that unless a thorough understanding of man's choice processes is developed, it will be impossible to develop a technology of decision-making adequate to cope with the growing complexity of modern environment.—*V. S. Sexton.*

7434. Getty, David J. (U. Pennsylvania) **The choice partial reinforcement effect: Experiments and a stochastic learning model.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1563-1564.

7435. Rodrigues, Aroldo. (Pontifical Catholic U., Rio de Janeiro, Brazil) **Motivational forces of cognitive dissonance and psychological reactance.** *International Journal of Psychology*, 1970, Vol. 5(2), 89-98.—40 high school Ss, voluntarily participating in a purported essay-writing contest, experienced choice with partial restriction of freedom, no choice with partial restriction of freedom, or no choice and no restriction of freedom with respect to essay topics. Results support what dissonance theory would predict: ratings of attraction of chosen and rejected alternatives spread apart following the decision process and show a tendency to increase the chosen or imposed rating of attraction. Under conditions of no choice and partial restriction of freedom, results yield some support for psychological reactance, conceived as a motivational state directed toward re-establishing free behaviors eliminated or threatened with elimination. (French abstract)—*S. E. Gavin.*

PHYSIOLOGICAL PSYCHOLOGY

7436. Avakyan, N. G. (House of Sanitary Education, Erevan, USSR) **K kritike fiziologicheskogo idealizma i agnostitsizma.** [A criticism of physiological idealism and agnosticism.] *Eksperimental'nyy i Klinikaniy Bzhshkovi'yan Handes*, 1970, Vol. 10(1), 100-106.—Presents a historical survey of physiological idealism and agnosticism, followed by a discussion of N. E. Vvedenski's theory of parabiosis which is held to undermine the basis of such views. As regards the idealistic formulation, "all or none," it can be said that it is not a general biological law, but represents a special case of a "general parabiosis reaction."—*I. D. London.*

7437. Bindra, Dalbir. (McGill U., Montreal, Quebec, Canada) **The interrelated mechanisms of reinforcement and motivation, and the nature of their influence on response.** *Nebraska Symposium on Motivation*, 1969, Vol. 17, 1-33.—Examined 3 groups of questions concerning reinforcement, motivation, and response determination in order to establish the hypothesis that "the principle of reinforcement is a special case of the more fundamental principle of motivation." Recent studies on intracranial stimulation suggest that the same neural systems (brain sites) underlie reinforcement and motivation. "Central motive states" are created by both reinforcing events and motivating events to selectively influence subsequent behavior. Comments by E. L. Wike follow. (47 ref.)—*J. M. Roberts.*

7438. Chernigovskii, V. N. V. I. **Lenin i razvitiye fiziologii v SSSR.** [V. I. Lenin and the development of physiology in the USSR.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 457-465.—Discusses (a) the influence of Lenin's work, *Materialism and Empiriocriticism* (1909), on later developments in Russian and Soviet physiology, and (b) the physiolog-

ically related views of the various authors cited in that work. The greatest influence has been in the physiology of higher nervous activity and that of the sensory organs.—*I. D. London.*

7439. Ferrari, Eugenio. (U. Messina, Clinic for Nervous & Mental Diseases, Italy) **Fattori biologici dell'aggressività.** [Biological factors of aggressiveness.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 460-485.—Reviews the relationships between aggressive behavior and endogenous endocrine glands, thyroid, sexual hormones, testosterone and progesterone, and other hormones. Exogenous factors like ecology, nutrition, and pharmacological functions are also reviewed.—*L. L'Abate.*

7440. Furedy, John J. (U. Toronto, Ontario, Canada) **Electrodermal and plethysmographic OR components: Repetition of and change from USC-CS trials with surrogate UCS.** *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 127-135.—For 40 undergraduates a tone and a light were repeatedly paired (P) in the same order (e.g., tone-light) for 15 trials, after which the 2nd member of the pair (e.g., light) was presented alone as the change trial. For another 40 Ss the repetition consisted of 15 single (S) tone (or light) presentations followed by the light (or tone) as the change trial. The duration of both stimuli was .3 sec., the interstimulus interval (on P trials) was .75 sec., and the mean ITI approximated 45 sec. The GSR and digital-blood-volume-pulse change (VPC) were recorded. The GSR habituated reliable and at the same rate to both repeated patterns over Trials 1-15, but the VPC did not habituate to either pattern. Change from both S and P repetition produced response increases, but the increase under the P condition was not so pronounced as to inspire confidence in explanations of UCS-CS conditioning in terms of orienting reaction reinstatement to change. (French summary)—*Journal abstract.*

7441. Garg, Mithlesh. (K.L.D.A.V. Coll., Meerut U., Roorki, India) **Combined effect of drug and drive on the consolidation process.** *Psychopharmacologia*, 1970, Vol. 18(2), 172-179.—Maudslay strain rats were trained in the Hebb-William's maze under 3 levels of food deprivation, 22, 25, and 7 h (drives) for 10 consecutive days. After each daily trial the experimental Ss of the 3 drives were injected with 1 mg/kg dose of picrotoxin, and controls were administered distilled water. Picrotoxin increased the efficiency of learning at all levels of drive, and higher drive levels resulted in greater performance. The reactive strain performed better in the maze learning than the nonreactive.—*Journal abstract.*

7442. Germana, Joseph. (Virginia Polytechnic Inst.) **Biological differentiation: Implications for models of nervous control.** *Conditional Reflex*, 1970(Apr), Vol. 5(2), 119-125.—Existing models of physiologic and behavioral function and the nervous control of these events may bear reexamination on the basis of evidence for a process of differentiation in transduction processes. Biological differentiation provides a basic and intrinsic mechanism through which single neural, receptor, and effector mechanisms can modify the nature of their responses. (22 ref.)—*Journal abstract.*

7443. Grigor'ev, N. R. (Hygiene-Medical Inst., Leningrad, USSR) **Labil'nost' propriotseptivnoi resuletsionoi dugi razlichnykh myshts v normal'nykh usloviyakh i pri izmenenii funktsional'noi nagruzki.** [Lability of the proprioceptive reflex arc of different muscles under normal conditions and during alteration of functional work load.] *Fiziologicheskii Zhurnal SSSR*,

1969(Nov), Vol. 55(11), 1348-1353.—Used prepared rabbits with intact CNS to determine the lability of the proprioceptive reflex arc of several muscles of the ankle joint in the hind legs. Each muscle was put under constant tension (150-200 g) and subjected to rhythmic mechanical distension through a vibrator (amplitude: .6-1.5 mm.; gradually increasing frequency of 20 to 100-160 cps). The lability involved in postural and phasic activity, is not uniform and is a function of the concrete conditions of muscle functioning. An isotonic regime of activity led to a decrease in the lability of the proprioceptive reflex arcs—a decrease which was expressed in muscles carrying out phasic contractions. A short-term increase in the functional work load increased the lability of the muscles' proprioceptive reflex arcs. The lability of the proprioceptive reflex arc of the phasic and tonic muscles is not strictly constant and may increase or decrease, depending on the new form of activity. The changes in lability are important for the adaptation of the neuromuscular system to new conditions of activity. (English summary) (15 ref.)—*I. D. London*

7444. Hicks, Ronald G. (Plymouth State Home & Training School, Sensory Assessment Lab., Northville, Mich.) **Experimenter effects on the physiological experiment.** *Psychophysiology*, 1970(Jul), Vol. 7(1), 10-17.—Determines the effects of S expectancies as inadvertently influenced by the investigator in a perceptual-physiological experiment, even to the point where the principal investigator's choice of an experimentally naive assistant still reflects his expectancies. 18 adult males were randomly assigned to 1 of 3 different naive Es: (a) an automated procedure, (b) a reserved female, and (c) a sociable female. All Ss were tachistoscopically presented with 76 4-letter words which included both socially acceptable and taboo words. The Ss' physiological responses were monitored during the entire experiment. The words were grouped according to their social desirability and were analyzed by a trend analysis of variance. Results demonstrate that both the Ss' physiological responsivity and his reporting of socially acceptable and taboo words are dependent upon the E.—*Journal abstract.*

7445. Khavkina, N. N. & Zharova, L. T. (Leningrad State U., USSR) **K voprosu o vzaimodeistvii simmetrichnykh dvigatel'nykh tsentrov v usloviyakh posledovatel'nykh innervatsii v protsesse uprazhneniya.** [On the interaction of symmetrical motor centers under conditions of successive innervation in the process of exercise.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1358-1363.—9 Ss participated in an EMG and ergographic study to determine the significance of the nonequivalence of the symmetrical motor centers during their interaction under conditions of "successive innervation" in the process of establishing a simple motor act. 3 variants of the experiment were utilized with the same finding: in spite of the structural simplicity of the motor act (flexing movement of the hand to the point of fatigue), its formation is dependent on functional asymmetry—right-handedness. With artificial fixation on the dominant role of the left hand or the equality of both hands, a negative result ensued. In Variant I, with the right hand dominant, the influence of successive periods of sinistral activity (trace proprioceptive stimulation) on the course of formation of the dextral motor act was studied. In Variant II manual roles were reversed. And in Variant III equal attention was given to both hands.—*I. D. London.*

7446. Laborit, H., Baron, C., & Weber, B. (Boucicaut

Hosp., Paris, France) **Traitement du choc hémorragique expérimental dit "irréversible": Rôle des groupes SH et de la restauration des réserves intraparticulaires en catécholamines: III. Etude stéréotaxique des stimulations cérébrales.** [The treatment of experimental hemorrhagic shock called "irreversible": The role of SH groups and of the restoration of intraparticulate reserves of catecholamines: III. Stereotaxic investigation of cerebral stimulation.] *Agressologie*, 1969(May), Vol. 10(3), 205-215.—Presents a stereotaxic investigation of the effects of electrical stimulation on various regions of the brain. Estimations were gathered prior to and after hemorrhagic shock and after treatment with iv administration of tyrosine, chlorpromazine, and SH groups (dichlorhydrate of methyl-isothiouril-4-thiazole). Results show that hemorrhagic shock effects the following in the rabbit: (a) suppression of cortical desynchronization, (b) suppression of afterdischarges which follow stimulation of the dorsal hippocampus, and (c) suppression of induced hypertension. The iv administration of tyrosine, especially in combination with chlorpromazine, is seen to restore (within 30-60 min.) normal reactions to induced electrical stimulation. In conclusion, the use of tyrosine as an antidepressant (alone or in combination with tranquilizers) is discussed. (German, English, & Spanish summaries)—*P. R. Shibelski.*

7447. **Landsberg, O. K., Morozova, M. M., & Khavkina, N. N.** (Leningrad State U., USSR) **Fiziologicheskaya kharakteristika dinamiki rabotosposobnosti cheloveka a proizvodstvennykh usloviyakh.** [Physiological characteristics of the dynamics of human efficiency under industrial conditions.] *Nervnaya Sistema*, 1968, No. 9, 109-113.—Ss were 12 female ratio assemblers. The following indices were used: chronoreflexometry, reaction to a moving object, hand tremor, pulse rate, blood pressure, and capacity of the visual analyzer (tests with Landolt's rings), with measurement carried out before and after the workday as well as before and after the mealtime break. Many deficiencies in work regime are disclosed. Corrective recommendations are suggested.—*I. D. London.*

7448. **Lange, K. A.** (USSR Academy of Sciences, Leningrad) **V. I. Lenin i organizatsiya fiziologicheskoi nauki v SSSR.** [V. I. Lenin and the organization of physiological science in the USSR.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 496-509.—Presents a historical survey of the organization and developing directions of physiological and related research in the Soviet Union from 1917 to the present.—*I. D. London.*

7449. **Makarov, P. O. (Ed.)** **Primenenie matematicheskikh metodov v biologii.** [Application of mathematical methods in biology.] Leningrad, USSR: Leningrad U., 1969. 173 p.—Presents a collection of 33 articles on the biophysics of the sensory organs, the biophysics of the nervous system, biometry, and general problems in biophysics. The collection constitutes Issue 4 in this series.—*I. D. London.*

7450. **Medvedev, V. I. & Zagryadskii, V. P.** (Kirov Military-Medical Academy, Leningrad, USSR) **Znachenie Idei V. I. Lenina v sovremennoi fiziologii truda.** [Significance of V. I. Lenin's ideas in the contemporary physiology of work.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 510-513.—Discusses the continuing importance and relevance of Lenin's ideas for the development of an effective physiology of work.—*I. D. London.*

7451. **Pero, Carmelo.** (U. Catania, Clinic for Mental

& Nervous Diseases, Italy) **Le basi anatomo-fisiologiche dell'aggressività.** [The anatomic-physiological basis of aggressiveness.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 433-459.—Reviews experimental localizations of aggressive behavior in thalamus, hypothalamus, and reticular formation, and reactions from electrical stimulation of anterior, hippocampus, and neocortex. The phase of attack or escape in aggressive behavior finds its beginning base mainly in the posterior hypothalamus and in the mesencephalon, especially in the central gray area.—*L. L'Abate.*

7452. **Pike, M. C.** (Radcliffe Infirmary, Oxford, England) **A note on Kimball's paper "Models for the estimation of competing risks from grouped data."** *Biometrics*, 1970(Sep), Vol. 26(3), 579-581.—With several competing causes of death, 2 models have been used to calculate the probability of death from a given cause, in a specified time interval, when a competing cause is eliminated. The apparently anomalous results from the commonly used model are due to the continuous nature of the model, which makes it more biologically reasonable than the model proposed by Kimball.—*R. L. McCornack.*

7453. **Randolph, Mary.** (National Inst. of Mental Health, Lab. of Psychology, Bethesda, Md.) **Role of light and circadian rhythms in the nocturnal behavior of Galago crassicaudatus.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 115-122.—Designed a series of 5 experiments to examine the nocturnal behavior of 6 wild-caught male-female pairs of Galago crassicaudatus in terms of the concepts of light-related behavior from the psychological literature and concepts of circadian rhythms from the biological literature. Results suggest that an adequate characterization of nocturnal behavior in the galago must consider illumination preferences, the direct consequences of light on ongoing behavior, and circadian variations in activity level. Results show that although each of these factors has a measurable effect on behavior, the nocturnal pattern is dependent on complex interactions between all factors. The immediate effects of light intensity are influenced by prevailing activity level; this level, in turn, is dependent upon where the S is within its daily behavioral cycle; and the cycle itself is synchronized with a circadian illumination schedule. (17 ref.)—*Journal abstract.*

7454. **Snook, Stover H.** (Tufts U.) **The effects of age and physique on physical work capacity.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1574.

7455. **Suzdal'skaya, I. P.** (Leningrad State U., USSR) **O dal'neishem razvitii teorii paranevroza.** [On future development of paraneurotic theory.] *Nervnaya Sistema*, 1968, No. 9, 5-12.—Presents a survey of the research related to paraneurotic theory since the death of its originator, D. N. Nosonov. Nosonov had gathered considerable evidence demonstrating a similarity between the physicochemical changes encountered in reversible lesion of cells and those in excitation through adequate stimulation. The data of this research confirm the "correctness of the basic propositions of the protein theory of excitation and lesion."—*I. D. London.*

7456. **Uhrbrock, Richard S.** (Ohio U.) **Laterality of champion athletes.** *Journal of Motor Behavior*, 1970, Vol. 2(4), 285-291.—Compared laterality questionnaire responses of 144 nationally known male champion athletes and 160 university upperclassmen. For each of 19 significant handedness and footedness items (in a list of 150) the percentage of "right" responses of champions

was less than that of students whose interest in athletics was assumed to be nominal. Difference between mean Index of Dominance score of champions (+.420) and that of students (+.477) was not significant.—*Journal abstract.*

7457. Vesely, Karel. **The contribution of pediatric gynecology to pediatric endocrinology.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 188-192.—Discusses the collaboration of pediatric endocrinology with pediatric gynecology. The necessity for a dynamic observation of the development of woman from birth until middle age is emphasized. The development should be based on knowledge from both branches of the family.—E. B. Jaffa.

7458. Vossen, J. M. (U. Nijmegen, Netherlands) **Nieuweheid.** [Novelty.] *Gawein*, 1969(Oct), Vol. 18(1), 41-65.—Reviews behavioral and electrophysiological studies of exploratory behavior, the orienting reflex, and the role of the reticular formation. (40 ref.)—S. G. Vandenberg.

7459. Windle, William F. (New York U., Medical School, Inst. of Rehabilitation Medicine) **Brain damage by asphyxia at birth.** *Scientific American*, 1969(Oct), Vol. 221(4), 76-84.—Conducted a study of more than 500 fetal and newborn rhesus monkeys (*Macaca mulatta*), about 1/5 of whom were asphyxiated during birth, to determine the effects of varying lengths of asphyxiation on subsequent behavior and development. Periods of asphyxiation induced in Ss ranged from 4-21 min. or more. Some Ss died soon after birth and were studied by neuropathological means; others were still living more than 10 yr. later. Briefly asphyxiated Ss with minimal brain damage in time lost their signs of neurological deficit. Adjustment of other Ss with varying degrees of damage from asphyxiation reached a level after 3 or 4 yr., with residual impairments being inadequate manual dexterity and reduced spontaneous activity. The relation of these findings to human infants who survive asphyxia neonatorum is discussed.—P. McMillan.

7460. Wright, Merle L. **The hypnotic state and related physiological effects.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(2), 46-55.—Some physiological effects related to hypnosis are indicated. They are approached by recording subjective phenomena as reported by the patient by enumerating observable phenomena and by including measurable phenomena.—M. V. Kline.

7461. Zimkin, N. V. (Ed.) **Fiziologicheskoe obosnovanie trenirovki.** [The physiological foundations of training.] Moscow, USSR: Fizkul'tura i Sport, 1969. 192 p.—Presents a collection of 34 articles, constituting Issue 2 of *Problemy Fiziologii Sporta* [Problems in the Physiology of Athletics]. A number of the articles report on the findings of research on the nervous system, analyzers, and the motor apparatus under conditions simulating athletic training and performance.—I. D. London.

NEUROLOGY

7462. Asratyan, E. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **K mekhanizmu obrazovaniya uslovnogo refleksa.** [On the mechanism of conditioned response formation.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 741-751.—Presents a summarized exposition of the

factual data, developed out of the research on the mechanism of CR formation, as well as theorization on the subject.—I. D. London.

7463. Belenkov, N. Yu. (Kirov Medical Inst., Gorki, USSR) **Starye i novye problemy vzaimootnosheni kory i podkorkovykh obrazovani.** [Old and new problems of the interrelationships between the cortex and subcortical formations.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 752-767.—Presents an analysis based on the data of the literature and the author's own research on the morphophysiological organization of higher nervous activity. Injury to any part of a cerebral system leads for a certain time to cessation of its function. The system as a whole is rendered inactive. Not only does exclusion of the cortex and its parts disturb the unity of the system, but exclusion also of the subcortical centers leads to various kinds of disturbance. Cessation or change of function of 1 system is reflected in the activity of other cerebral systems. However, the changes in its activity are not irreversible. The reliability of a system is attributed to the highly developed properties of the brain with respect to transformation of its morphophysiological organization, leading to considerable compensation of excluded parts.—I. D. London.

7464. Beshalova, M. A. (Leningrad State U., USSR) **Sfingozin tserebrozidov golovno mozga.** [The sphingosine of the brain cerebroside.] *Nervnaya Sistema*, 1968, No. 9, 41-46.—2 wk. to 6 mo. old rats were used to study the rate of the metabolism of the sphingosine (sphingomyelin) and cerebroside of the brain, utilizing radioactive acetate (acetate-2-¹⁴C). The concentration of cerebroside in the brain increased with age. The rate of incorporation of radioactive carbon into cerebroside and sphingosine of the brain was maximum 2 hr. after administration of the acetate. The rate of synthesis of sphingosine exceeded that of the cerebroside.—I. D. London.

7465. Bodrova, N. V. & Krayukhin, B. V. Akademik Aleksandr Vasil'evich Leontovich. [Academician Aleksandr Vasil'evich Leontovich.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1425-1426.—Recalls the life and work of A. V. Leontovich, noted for his contributions to neurophysiology and neurohistology, on the occasion of his 100th birthday.—I. D. London.

7466. Bogach, P. G. & Karevina, T. G. **O roli bludnogo tela i ego vzaimootnosheni s gipotalamicheskim tsentrom pit'ya v regulatsii potrebleniya vody u sobak.** [On the role of globus pallidus and its interrelationships with the hypothalamic drinking center in regulation of water intake in dogs.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 15-21.—Electrical stimulation of the hypothalamic drinking center and of the pallidal region was employed in Ss with stomach fistulae along with electrolytic extirpation of the pallidal structures. Electrical stimulation of globus pallidus caused almost the same increase in water intake as stimulation of the hypothalamic drinking center. However, stimulation of globus pallidus did not elicit water intake in Ss not suffering water deprivation, whereas stimulation of the hypothalamic drinking center did this. Simultaneous stimulation of globus pallidus and the midlateral hypothalamus produced a greater increase in drinking excitability than stimulation of globus pallidus alone. Bilateral extirpation of the pallidal structures led to a great decrease in drinking excitability, but complete adipsia was not observed. Stimulation of

the hypothalamic drinking center in this condition produced an increase in water intake, but this increase was significantly less than that in the case of intact pallidal structures. Injection of novocaine into the pallidal region produced a transient decrease in water intake. Stimulation of the midlateral hypothalamus after novocainization of the pallidal structures produced a great increase in drinking excitability. These data provide evidence for the importance of the pallidal region in regulating water consumption. However, the basic mechanisms for regulating water consumption are localized in the hypothalamus which, together with other cerebral structures, regulates water consumption.—*I. D. London.*

7467. Denis'evskii, A. V. & Karpezo, N. A. (Kiev U., USSR) *Vliyaniye glubokogo okhlazhdeniya na neurosekretnuyu sistemu i gipofizarno-tireoidnyi kompleks zarodysha kurltsy.* [Influence of deep cooling on the neurosecretory system and hypophyseal-thyroid complex of the chick embryo.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 106-116.—41 17-day chick embryos were used to study the neurosecretory system, adeno-hypophysis, and thyroid gland after cooling to 30° and 16° C. The cells of the hypothalamic supraoptical nucleus lost their activity after cooling, the average diameter of the cellular nucleus diminished and neurosecretory granules accumulated in the supraoptico-hypophyseal tract and partly in the neurohypophysis. The cells of the paraventricular nucleus did not undergo discernible changes, and the average diameter of the cellular nucleus remained the same. In the adeno-hypophysis, activation of the thyrotrophic cells could be observed. After lowering the temperature to 30° C, there was an accumulation of secretory granules in these cells. After lowering to 16° C, their mass removal. The functional activity of the thyroid gland increased immediately after cooling. The character of the observed changes indicated the high degree of differentiation within the hypophyseal-thyroid system in the 17-day chick embryo. The state of the paraventricular nucleus after cooling demonstrated its lower level of reactivity as compared to that of the supraoptic nucleus, eminentia mediana, and neurohypophysis.—*I. D. London.*

7468. Dimond, Stuart. (University Coll., Cardiff, Wales) *Hemispheric refractoriness and control of reaction time.* *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 610-617.—Describes 2 experiments with 10 right-handed undergraduates which assess the relative efficiency of the hemispheres and their relationship in performance on complex RT tasks. A divided visual field method was used to direct signals to the temporal or nasal retina of each eye thus passing information to separate hemispheres. A comparison of the separate RTs was used to assess the relative efficiency of each hemisphere but significant differences were not observed. This suggests that each may be the equal of the other in organizing simple responses. A method was used to examine more complex RT by presenting the S with 2 simultaneous signals for response. When pairs of signals are directed to separate hemispheres, RTs are at their lowest value. When signals are directed to separate hemispheres through the same eye, a significant increase in RT occurs. A source of mutual interference appears to exist at the level of the eye. RTs are extended to their greatest value, however, when both signals are directed to the same hemisphere. This block to function has been described as hemispheric re-

fractoriness and is different for the 2 hemispheres. While each show a distinct block to function the extent of this is greater in the right or minor hemisphere than it is in the left or major hemisphere.—*Journal abstract.*

7469. Flerov, M. A. (Leningrad State U., USSR) *Nekotorye dannye o glitseridakh golovnogo mozga.* [Some data on glycerides of the brain.] *Nervnaya Sistema*, 1968, No. 9, 53-57.—Presents a chromatographic study of the concentration and rate of metabolism of the mono-, di-, and triglycerides in the rat brain. Concentration increased in the sequence given. 15-30 min. after administration of acetate-2-C¹⁴, the metabolic rate ("specific activity") of these glycerides fell off in the direction of the sequence: di-, mono-, triglycerides.—*I. D. London.*

7470. Golikov, N. V. (Leningrad State U., USSR) *Teoriya otrazheniya i mekhanizmy nervnoi deyatel'nosti.* [Reflection theory and the mechanisms of nervous activity.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 466-473.—Presents an analysis of the mechanisms of nervous activity, seen as fundamentally involved in "reflection processes" mirroring an objective world. "Only on the gnoseological plane does the opposition of matter and consciousness have an absolute significance."—*I. D. London.*

7471. Kosenko, A. F. (Kiev U., USSR) *O roli gipotalamusa v patogeneze yazvennoi bolezni zheludka i dvenadtsatipervoi kishki.* [On the role of the hypothalamus in the pathogenesis of gastric and duodenal ulcers.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 39-46.—Results from using dogs indicate that a number of factors operate to affect the pathogenesis of gastric ulcers resulting from lesion and stimulation of the hypothalamus. Lesion of tuber cinereum and stimulation of the anterior hypothalamus brought on the secretion of actively acid gastric juice with the subsequent development of gastric erosion and ulcers. It is assumed that lesion of tuber cinereum or stimulation of the anterior hypothalamus disturbs the usual balance between the sympathetic and parasympathetic centers of the hypothalamus, due to an acute decline in the function of the latter on stimulation.—*I. D. London.*

7472. Kots, Ya. M. (Central Inst. of Physical Culture, Moscow, USSR) *Issledovanie uchastiya gamma-petli v organizatsii proizvol'nogo dvizheniya.* [Study of the participation of the gamma-loop in the organization of voluntary movement.] *Zhurnal Vyssshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 862-869.—Used 8 Ss to study (a) the role of the gamma system in the voluntary movement of lifting of heel from floor, and (b) the participation of the gamma loop in the origin of the spinal priming effect in voluntary activation of the alpha motoneurons. The temporal course of change in reflex excitability of the spinal motoneurons throughout the latent period of voluntary movement under normal conditions was compared with disruption of gamma-loop function by means of ischemic ligaturing of the limb. The latent period for the appearance of motor myograms under normal conditions was also compared with ischemic "deafferentiation," in order to determine gamma loop participation in voluntary activation of the alpha motoneurons. The reflex H-response and the peripheral M-response of the gastrocnemius muscles were recorded. Ischemic ligaturing of the lower extremity led to the early block of conduction in the low threshold afferent fibers of the H reflex, with relative retention of conduction along the efferent motor fibers. The steady

growth of reflex excitability of the spinal motoneurons throughout the last 60 msec. of the latent period of voluntary movement was not disturbed by ischemic "deafferentation." The latent period for the appearance of the myogram of voluntary movement in ischemic "deafferentation" is not different from what is observed under normal conditions. Gamma-loop involvement is not necessary for initial voluntary activation of the spinal alpha motoneurons.—*I. D. London.*

7473. Kováč, Damián & Horkovič, Gabriel. (Inst. of Experimental Psychology, Bratislava, Czechoslovakia) **Laterálna preferencia: Súčasný stav a perspektívy.** [Lateral preference: Present day state and perspectives.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 19-59.—Studied the most important aspects of lateral phenomena from an interdisciplinary scientific viewpoint emphasizing psychology and neurophysiology. Synthesis lead to formulation of hypotheses concerning (a) competitive character of pair functions as a phylogenetic and ontogenetic agent, (b) progressive status of lateral preference in the hierarchy of functions, (c) integrating activity of the dominant functional region, and (d) functional character of the acquisition of lateral dominance. (Russian & German summaries) (65 ref.)—*English summary.*

7474. Makarov, P. O., Lonskii, A. V., & Tuchkov, B. S. (Leningrad State U., USSR) **Vliyaniye ul'trazvuka na elektronnomikroskopicheskuyu kartinu nerva lyagushki.** [Influence of ultrasound on the electron microscopic picture of frog nerve.] *Nervnaya Sistema*, 1968, No. 9, 127-132.—Frog sciatic nerves were subjected to ultrasonic action in a study showing that, even with maximal elimination of the heat factor, when ultrasonic action produces slight physiological changes, neural ultrastructure also undergoes change.—*I. D. London.*

7475. Makashvili, G. A. **O nekotorykh strukturnykh osobennostyakh neironov otdel'nykh sloev vos'mogo i chetvertogo polei kory bol'shikh polusharii golovnogo mozga cheloveka v protsesse stareniya.** [On some structural features of the neurons in the different layers of the eighth and fourth fields of the human cerebral cortex in the process of aging.] Tbilisi, USSR: Sabchota Sakartvelo, 1969. 52 p.—Presents the results of biometric, cytochemical, and cytophotometric studies of 45 cadavers of 31-105 yr. olds, 4 hr. after sudden death from severe injuries. The morphological changes to be observed in the neurons of several parts of the cerebral cortex in the process of aging are delineated.—*I. D. London.*

7476. Meyer, John R. (U. Iowa) **Modification of nerve conduction by selected environmental factors.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1605-1606.

7477. Popovichenko, N. V. & Kozitskaya, L. S. (Bogomolets Inst. of Physiology, Kiev, USSR) **Sutochnyi ritm aktivnosti neurosekretornykh elementov gipotalamo-gipofizarnoi neurosekretornoï sistemy u krysa-samtsov s audigennoi "reflektornoi" epilepsiei.** [Diurnal rhythm of the activity of the neurosecretory elements of the hypothalamo-hypophyseal neurosecretory system in male rats with audiogenic "reflex" epilepsy.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 96-105.—Studied cerebral materials derived from 28 Ss. A diurnal rhythm was discerned in the activity of the hypothalamo-hypo-

physeal neurosecretory system. However, differences in the rhythm of activity were detected for the supraoptic and paraventricular nuclei. During the day, processes involving the synthesis and increased outflow of neurosecretory substances predominated in the former nucleus. In the latter, processes involving their storage predominated, while those involving their secretion were inhibited. In the neurosecretory cells of the supraoptic nucleus, the processes of synthesis and secretion were moderately expressed in the morning hours; in the evening hours their intensity abated somewhat. In the neurosecretory cells of the paraventricular nucleus the processes of secretion were more strongly expressed in the morning; in the evening, those of synthesis and storage of the neurosecretory substances. It is suggested that, in the evening hours, there occurs in the eminentia mediana the greatest activation of the processes secreting the neurohormones which are contained in the neurosecretory substances; while in the morning and especially during the day these processes are inhibited.—*I. D. London.*

7478. Prokhorova, M. I. (Leningrad State U., USSR) **Energeticheskii obmen v golovnom mozga i nervnyi impuls.** [The nerve impulse and energy exchange in the brain.] *Nervnaya Sistema*, 1968, No. 9, 13-23.—Presents data on the energy-bearing substances of the brain, and the connection of Na-ionic transport with energy exchange of the brain and the specific adenosine triphosphatase (ATP-ase) involved, in order to determine to what degree energy formed in the brain is utilized for the nerve impulse and especially in the restoration period. Among the findings: The nonuniform distribution of Na- and K-ions in nerve tissue is in a state of "militant readiness," exhibiting a dynamic equilibrium which can be instantly changed and as quickly restored.—*I. D. London.*

7479. Rüdiger, W. & Seyer, Gisela. (Humboldt U., Berlin, E. Germany) **Thermosensitive bar-pressing behavior of the rat with unilateral lesion in the hypothalamus and during cortical spreading depression.** *Acta Biologica Experimentalis*, 1968, Vol. 28(4), 375-382.—Investigated the influence of cortical spreading depression (SD) on the excitability of hypothalamic areas in 10 male Wistar rats with unilateral lesions in the area preoptica and the nucleus lateralis anterior. An instrumental (operant) CS, i.e., thermal reward (radiant heat) in a cold environment, was used to produce an instrumental CR (lever pressing for radiant heat) which could easily be quantitatively evaluated. When the cortical SD was produced in the hemisphere contralateral to the lesion in the hypothalamus, the lever pressing rates became higher than in the other possible combinations of cortical SD with hypothalamic or extrahypothalamic lesions. Results are discussed in terms of the drive theory of instrumental responding. (17 ref.)—*Journal summary.*

7480. Samsonova, V. G., Chilingaryan, L. I., & Mosidze, V. M. **Mezhdunarodnyi kongress po vysshei nervnoi deyatel'nosti.** [1st International Congress on Higher Nervous Activity.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 900-904.—Presents an account of the 1968 Congress held in Milan, Italy. Summaries are provided of a number of the papers which were mainly devoted to the "physiology and pathology of the human brain" (basic principles, nervous and psychiatric disorders, psychopharmacology, psychotherapy).—*I. D. London.*

7481. Sheliya, L. G. **Prikladnaya anatomiya nervov venechnykh arterii.** [Applied anatomy of the nerves of the coronary arteries.] Tbilisi, USSR: Metsniereba, 1969. 108 p.—Presents the results of studies on the origins, routes, and topography of the nerves forming the coronal plexus, and their relation to the coronary arteries.—I. D. London.

7482. Sitnikova, M. I. (Leningrad State U., USSR) **Vliyanie simpaticheskoi nervnoi sistemy na pessimum miyonevral'nogo sinapsa.** [Influence of the sympathetic nervous system on the pessimum of the myoneural synapse.] *Nervnaya Sistema*, 1968, No. 9, 77-80.—Thalamic deafferented frog preparations were used to study the "subordinating influences of the sympathetic nervous system on pessimal inhibition" of the myoneural synapse (sciatic nerve-gastrocnemius muscle). The data support the view that (a) in the pessimal state adaptive-trophic influences on the myoneural synapse are mediated through sympathetic pathways, and (b) pessimal inhibition, developing in the myoneural synapse, exhibits a parabolic nature.—I. D. London.

7483. Sokolova, G. P. & Zolotova, L. A. (Leningrad State U., USSR) **Zhirnye kisloty gangliozidov golovnogogo mozga.** [Fatty acids of the cerebral gangliosides.] *Nervnaya Sistema*, 1968, No. 9, 35-40.—Reports results of a study of the composition and concentration of fatty acids in fractions of cerebral gangliosides, isolated from rat and bull brains by means of fine-layered chromatography. Up to 10 different fatty acids are disclosed. Stearic acid constituted about 80% of the fatty acids.—I. D. London.

7484. Vilkova, V. A. (Leningrad State U., USSR) **Uchastie atsetata v sinteze glikogena.** [Participation of acetate in glycogen synthesis.] *Nervnaya Sistema*, 1968, No. 9, 24-27.—Studied (a) the rate of synthesis of glycogen from acetic acid in the hemispheres of the rat brain at different intervals of time after injection with acetate- $1-C^{14}$, and (b) the influence of insulin on this rate. The data indicate considerable participation of acetic acid in the biosynthesis of glycogen in hemispheric tissue. Insulin exerted a highly retardant effect thereon.—I. D. London.

7485. Zernicki, B. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Reflex as the unit of neuro-behavioral activity: A theoretical multidisciplinary approach to the reflex activity in higher animals.** *Acta Biologicae Experimentalis*, 1968, Vol. 28(4), 291-315.—Presents a general theory of reflex activity. The term reflex is used in its broad meaning, denoting both neural and effector responses to a currently acting stimulus. 2 kinds of reflexive central processes are discussed in detail: those which are manifested by psychic responses, and those which produce durable central changes. It is assumed that in a given reflex the effector responses usually consist of 3 elements: specific, orienting, and arousal response. An attempt is made to classify the reflexes. With regard to neuropsychic and behavioral criteria, the reflexes are divided into 5 groups: nonneuropsychic reflexes, targeting reflexes, neuropsychic simple feedback reflexes, consummatory reflexes, and preparatory reflexes. The control of the acquisitive reflexes by hunger and satiation defensive reflexes is also discussed. (45 ref.)—*Journal summary.*

7486. Zilov, V. G. (Sechenov Medical Inst., Moscow, USSR) **Vzaimodeistvie korkovykh i gipotalamicheskikh vliyanii na odinochnykh neuronakh retikulyarnoi**

formatsii srednego mozga. [Interaction of cortical and hypothalamic influences on single neurons of the mesencephalic reticular formation.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1326-1333.—Used 32 cats to determine (a) the degree to which superior divisions of the CNS exert control over single reticular neurons of the midbrain as compared to that exerted by the hypothalamus, and (b) which component in the combined corticohypothalamic complex of influences will be the dominant 1. It is shown that these reticular neurons have the ability to effectuate a convergence of diverse influences. However, 20% of them failed to respond to any of the stimuli applied, e.g., electrostimulation of the cerebral cortex. The non-reacting reticular neurons were characterized by either a high discharge frequency or the exceptionally regular character of their activity. The mesencephalic reticular neurons which react to stimulation were primarily excited by corticofugal impulses from the 1st sensorimotor area, and were inhibited under influences from the lateral sections of the posterior hypothalamus. The dominating role in the combined corticohypothalamic complex of influences on the reticular neurons belongs to the hypothalamus. (English summary) (28 ref.)—I. D. London.

Neuroanatomy

7487. Airapet'yants, E. Sh. & Sotnichenko, T. S. **Limbika.** [The limbic system.] Leningrad, USSR: Nauka, 1967. 118 p.—Presents a monograph on limbic structure and function, based on the literature and the authors' own research. An analysis of the connections of the limbic cortex with subcortical and other cortical structures is emphasized. A special appendix containing summaries of papers on the limbic system, read at the 23rd International Physiological Congress in Japan is included.—I. D. London.

7488. Boiko, E. I. **Mozg i psikhika.** [Brain and psyche.] Moscow, USSR: Prosveshchenie, 1969. 192 p.—Examines the principal data on the structure and activity of the human brain, treated from the standpoint of contemporary physiology of higher nervous activity, psychology, and cybernetics.—I. D. London.

7489. Gerke, P. Ya. **Problemy funktsionalnoi morfologii.** [Problems of functional morphology.] Riga, USSR: Zinatne, 1969. 296 p.—Presents a collection of 22 articles, a number of which are devoted to the ontogenesis and structure of nerve cells. The collection constitutes Issue 4 in this series.—I. D. London.

7490. Peck, Jeffrey W. & Novin, Donald. (U. Pennsylvania) **Evidence that osmoreceptors mediating drinking in rabbits are in the lateral preoptic area.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 134-147.—Hypertonic saline and sucrose, but not urea, induced drinking when injected (2 μ l. in 1 min.) directly into the lateral preoptic area (LPO) near the anterior commissure of New Zealand albino rabbits. In contrast, local cellular dehydration was not a stimulus in the dorsal (DHA) and lateral hypothalamus (LHA) where hypertonic saline nonspecifically excited neurons to induce drinking or eating. Ss, allowed isotonic saline and water, chose water immediately following either iv injections of hypertonic saline or intracranial injections into LPO, but not following injections into DHA or LHA. Electrolytic lesions, including the osmosensitive portion of LPO,

abolished the drinking that normally follows iv injections of hypertonic saline although ad-lib water intake was normal and not dependent upon the intake of dry food. (32 ref.)—*Journal abstract.*

7491. Wall, Patrick D. (University Coll., London, England) **The sensory and motor role of impulses travelling in the dorsal columns towards cerebral cortex.** *Brain*, 1970, Vol. 93(3), 505-524.—Animals with dorsal-column section can perform discriminations requiring detailed cutaneous sensory analysis, contrary to the classical hypothesis concerning its function. The effects of such section upon attentive and orienting responses to cutaneous stimuli were examined in 1 human patient and a series of rats. It is suggested that these tracts are essential only for discriminations in which active exploration of stimuli by motor movement or sequential analysis is required.—*W. A. Wilson.*

LESIONS

7492. Aronova, Z. A. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) **Vliyaniye odnostoronnego uslovnogo tormoza na dvigatel'nye refleksy, obrazovannyye na propriotseptivnoe razdrzhenie polovin yazyka.** [Influence of unilateral conditioned inhibition on motor reflexes, formed in response to proprioceptive stimulation of lingual halves.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 879-881.—Employed 2 dogs with split, exteriorized tongues in an attempt to (a) elaborate conditioned inhibition (CI) of a unilateral motor reflex, and (b) determine its influence on homo- and contralateral positive reflexes. Motor-defensive CRs were elaborated: the UCS employed was an electric shock of the forepaw; the CS employed was pressure on the lingual $\frac{1}{2}$, and shaking movements at the rate of 1/sec for 5 sec., 2 of which overlapped the UCS. Light flashes at the rate of 1/sec served as the accessory agent of CI, preceding lingual stimulation by 3 sec. Contrary to the findings of studies employing the secretory method, formation of the Stages 2-3 of CI observed depended on the typological features of the nervous system of the Ss. It is shown that the subsequent influence of unilateral CI on homolateral CRs displayed a phasic oscillatory character—something not observed in studies on unilateral CI of the secretory reflex.—*I. D. London.*

7493. Drazdovich, I. I. & Gordienko, V. M. (Research Inst. of Endocrinology & Metabolism, Kiev, USSR) **Sostoyaniye neurosekretornykh kletok suprapoticheskogo yadra posle adenektomii morskikh svinok.** [State of the neurosecretory cells of the supraoptic nucleus in adrenalectomized guinea pigs.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 117-124.—24 Ss were used to study the state of the hypothalamo-hypophyseal system after adrenalectomy. Bilateral adrenalectomy increased the functional activity of the neurosecretory neurons of the hypothalamic supraoptic nucleus. Along the hypothalamo-hypophyseal tract and in the neurohypophysis a decrease in neurosecretion, due to its release into the blood, was noted. The observed increase in neurosecretory activity of the anterior hypothalamic cells provided evidence for their participation in the regulation of adrenal glandular function.—*I. D. London.*

7494. Grigor'eva, G. I., Simanovskii, L. N., & Tarakanova, O. I. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Vliyaniye**

tireoidektomii na prispособitel'nye reaktsii zhivotnykh pri dlitel'nom deistvii gipoksii. [Influence of thyroidectomy on adaptive reactions of animals during the prolonged action of hypoxia.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1406-1410.—Used intact and thyroidectomized rats to determine whether active adaptive reactions in the brain and other tissues appear during acclimatization to high altitude (3200 m) over a 30-day period. Thyroidectomy resulted in retardation of the rate of glycolysis in cerebral tissue. Acclimatization accelerated the glycolytic rate, but not as markedly as in the intact S. (English summary)—*I. D. London.*

7495. Seggie, Jo. (Clarke Inst. of Psychiatry, Neuroendocrine Research Section, Ontario, Canada) **Effect of adrenalectomy or gonadectomy on affective behavior changes following septal lesions in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 11-19.—Performed adrenalectomy or gonadectomy in conjunction with a septal lesion in order to test the hypothesis that changes in affective behavior following a septal lesion in the rat (septal syndrome) result from altered brain function due to hyperfunction of the adrenal cortex and/or gonads. Ss were 10 male Wistar rats. Neither adrenalectomy nor gonadectomy was found to alter the characteristic appearance or duration of the septal syndrome, even when manipulations were performed to maximize the behavior changes observed following septal lesions. Results are discussed in terms of the ability of the Ss to cope with stress. It is concluded that although adrenal hypertrophy frequently follows septal damage, intactness of the adrenal glands or testes is not necessary for manifestation of the septal syndrome. (24 ref.)—*Journal abstract.*

7496. Sherman, Samuel M. (U. Pennsylvania) **Mechanisms of interocular transfer in the cat.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1025.

7497. Spigelman, M. N. (U. Winnipeg, Manitoba, Canada) **Effects of age at onset and length of blindness on auditory spatial learning in the rat.** *Canadian Journal of Psychology*, 1969(Aug), Vol. 23(4), 292-298.—64 albino rats which had been peripherally blinded by enucleation shortly after birth performed significantly poorer on an auditory-spatial learning task than those blinded in a similar manner at 50, 100, or 150 days of age. Results indicate that age at onset of blindness exerts greater influence on adult spatial learning ability than does its duration, since the late-blind superiority is retained regardless of the duration of visual loss. The mechanisms underlying these effects are discussed. (French summary)—*Journal abstract.*

7498. Trahiotis, Constantine & Elliott, Donald N. (Indiana U., Center for Neural Science) **Behavioral investigation of some possible effects of sectioning the crossed olivocochlear bundle.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 592-596.—Investigated the functions of the crossed olivocochlear bundle (COCB) in such measures as absolute thresholds in quiet, effective masking over differing noise levels and frequencies, and temporary threshold shifts (TTS). 6 cats with their right cochleas destroyed were given avoidance training with stimuli varied in octave steps from 125-16,000 Hz. After COCB transection of 3 Ss, it was found that (a) absolute thresholds were unchanged, (b) amount of masking at

1000 Hz. and 2000 Hz. increased (though the shift was not statistically significant with the small number of Ss tested), and (c) TTS did not differ greatly for the transected Ss. (20 ref.)—*Journal abstract.*

7499. Zefirov, L. N. (Medical Inst., Kazan, USSR) **O vliyaniya udaleniya podzheludochnoi zhelezy i vvedeniya atsetilkholina na elektricheskuyu aktivnost' myshitsy i funktsiyu mioneural'nogo soedineniya.** [On the influence of pancreatectomy and of acetylcholine administration on the electrical activity of the muscle and on the functions of the myoneural juncture.] *Fiziologicheskii Zhurnal SSSR*, 1966(Feb), Vol. 52(2), 137-144.—Utilized frog gastrocnemius muscle preparations to study the functions of the myoneural juncture, and the interaction of the impulses following pancreatectomy and subsequent acetylcholine administration. It is shown that prior pancreatectomy and the emergent acetylcholine deficit in the organism evoked (a) some increase in amplitude, (b) a slowing of muscle action currents, (c) the lengthening of absolute refractoriness of the myoneural juncture, and (d) an increase in time of transmission of excitation from the nerve to the muscle. The systematic administration of acetylcholine into the pancreatectomized S exerted a counterinfluence. The character of the interaction of the impulses in the myoneural juncture was changed following pancreatectomy. Sharp weakening and disappearance of manifestations of summation were observed, e.g., (a) increase in amplitude of the following action potential, (b) decrease in its duration, (c) quickening of time of transmission of excitation from nerve to muscle, and (d) acceleration of pessimal development. Data cannot be handled within the framework of the mediator theory of transmission of excitation from nerve to muscle and make it possible to view acetylcholine as a trophic factor.—*I. D. London.*

Brain Lesions

7500. Andreev, L. N. (Inst. of the Brain, Moscow, USSR) **Ob uchashtii khvostatykh yader v uslovno-reflektornoi deyateli'nosti sobak.** [On caudate nuclear participation in the conditioned response activity of dogs.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 809-815.—Studied (a) the specific nature of the changes in several forms of CRs (classical salivary, defensive local motor, simple running) in 1 S, resulting from partial extirpation of the caudate nuclei, and (b) the participation of the caudate nuclei in the activity of the motor analyzer. The CRs were elaborated, utilizing either immediate reinforcement or delay of reinforcement of up to 60 sec. In 5 Ss 2 different forms of CRs were represented, and partial extirpation was undertaken after their stabilization. Following the extirpation, retention of the CRs and different changes in their various forms were observed: (a) decrease in the magnitude and latency of the secretory conditioned reaction, (b) weakening of the defensive local motor reaction with lengthening of the latent period, and (c) decrease in the latent period of simple running without change in speed. Data are evidence for the fact that injury of the caudate nuclei appears in the many structural links which service each form of the CR. However, the resultant changes in these structural links are of different kinds and oppositely directed even in the same constellation. It is suggested that the role of the caudate nuclei in the CR is nonspecific and is suggestive

of the adaptive trophic function of the sympathetic nervous system in their influence on the functional state of the linking structures and in priming them for response.—*I. D. London.*

7501. Blass, Elliott M. (Johns Hopkins U.) **Effects of frontal-pole-area ablation on temperature regulation in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 233-239.—Adult female Sherman rats with ablation of the frontal-pole area (including the preoptic nuclei) were hyperthermic at room temperature. They remained hyperthermic at low ambient temperatures by working for more exogenous heat than normal Ss, and at high ambient temperatures by working for less exogenous coolant and spreading less saliva than normal Ss. Findings imply an elevation of a central reference temperature as the basis of the systematic adjustments in temperature regulation following frontal-pole-area ablation, and stress the synergistic action of physiological and behavioral systems in the maintenance of core temperature. (19 ref.)—*Journal abstract.*

7502. Blum, B., Kauli, N., Liban, E., & Levy, P. (Tel-Aviv U., Israel) **Paroxysms of T-wave alterations in the ECG in experimental epilepsy due to foci in the pseudosylvian gyrus.** *Life Sciences*, 1970(Feb), Vol. 9(4, Pt. 1), 219-225.—Epileptogenic lesions were placed in the temporal lobe side of the cat's pseudosylvian gyrus, a region which has been regarded as the homologue in this species of the primate insula. Seizures were observed in the Ss which included EKG alterations and uniquely consisted of T wave inversions and equivalent signs such as ST-segment depression or ST-segment elevation. Admitting other possible explanations, it was proposed, on the basis of their similarity to EKG disturbances observed in ischemic heart disease, that they were the result of neuronogenic or neurohumorally induced currents of injury in the heart muscle, due to pathologic CNS activity. A relationship of these phenomena to the psychosomatic factors in ischemic disease was suggested. Attention was drawn to the possibility that similar cardiac involvements may occur also in clinical epilepsy due to foci in homologous areas. (16 ref.)—*Journal summary.*

7503. Butters, Nelson & Pandya, Deepak. (Veterans Administration Hosp., Boston, Mass.) **Retention of delayed-alternation: Effect of selective lesions of sulcus principalis.** *Science*, 1969(Sep), Vol. 165(3899), 1271-1273.—Tested 12 rhesus monkeys with bilateral lesions of the anterior, middle, or posterior thirds of the principal sulcus, the periacuate prefrontal region, or of the inferior parietal lobule for retention of spatial delayed-alternation. Lesions limited to the middle 1/4 of sulcus principalis resulted in failure to relearn delayed-alternation within 1000 trials; lesions elsewhere had little effect.—*Journal abstract.*

7504. Dalby, David A. (Ohio State U.) **Effect of septal lesions on the acquisition of two types of active avoidance behavior in rats.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 926.

7505. Darian, David K. (St. Norbert Coll.) **The effects of septal, thalamic, and tegmental lesions on general activity in the hooded rat.** *Canadian Journal of Psychology*, 1969(Oct), Vol. 23(5), 303-314.—Compared 19 male hooded rats with either septal, medial thalamic, or tegmental reticular formation lesions on 3 measures of spontaneous activity (a brief test in a novel maze and 7-day tests in running wheels or photocell cages). Wheel

running was depressed by all the lesions (especially septal and tegmental), whereas cage activity and locomotion in the maze were unaffected. Septal-damaged Ss groomed more than all other groups and reared less than 7 controls in the maze. Rearing in the maze and running in the wheels were positively correlated and both were negatively correlated with grooming in the maze. Results are discussed in terms of competing-response classes and 1-factor hypothesis of the neural control of spontaneous behavior. (French summary) (23 ref.)—*Journal abstract*.

7506. Egorova, M. P. (Leningrad State U., USSR) **Nekotorye formy prostranstvennogo analiza i polianalizatornaya konvergentsiya v kore mozga u obez'yan.** [Some forms of spatial analysis and polyanalyzer convergence in the monkey cerebral cortex.] *Nervnaya Sistema*, 1968, No. 9, 99-102.—3 rhesus monkeys were used to study (a) the complex forms of spatial analysis after stepwise extirpation of the dorsolateral surface of the frontal cortex, Cortical Field 6 in the precentral gyrus, and Cortical Fields 1-3 in the postcentral gyrus (making use of motor-alimentary CRs to visual and auditory stimuli), and (b) the evoked electrical responses in these structures to heteromodal stimuli. Complex forms of visual and auditory spatial analysis were not affected after bilateral extirpation of the frontal cortex of Field 6 of gyr. precentralis and Fields 1-3 of gyr. postcentralis. Evoked potentials of short latency in response to photic, acoustic, and electrocutaneous stimulation were recorded from the surface of the frontal cortex and from the gigantopyramidal fields.—*I. D. London*.

7507. Harvey, John A. & Lints, Carlton E. (U. Iowa) **Lesions in the medial forebrain bundle: Relationship between pain sensitivity and telencephalic content of serotonin.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 28-36.—Lesions in the medial forebrain bundle (MFB) or injection of p-chlorophenylalanine decreased brain content of serotonin and decreased jump thresholds in 54 male albino Holtzman rats. The effects of lesion and drug were not additive indicating that a common system was being affected by both procedures. Injection of 75 mg/kg DL-5-hydroxytryptophan into Ss with lesions returned both the jump threshold and serotonin content to normal values. The correlation between jump threshold and telencephalic serotonin was +.80. Brainstem serotonin was not related to jump threshold. Decreases in jump threshold were interpreted as indicating an increased pain sensitivity. It is concluded that this behavioral effect of the MFB lesion is secondary to the effects of the lesion on serotonin content of the telencephalon. (18 ref.)—*Journal abstract*.

7508. Killackey, H., Snyder, M., & Diamond, I. T. (Duke U.) **Function of striate and temporal cortex in the tree shrew.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 2), 29 p.—Studied striate and "temporal" areas of the cortex by the ablation method in 2 experiments. After complete removal of the striate cortex, 2 1-yr-old tree shrews were capable of relearning a series of discrimination reversal tasks in which the stimuli pairs were black-white, blue-red, and horizontal-vertical stripes. However, the same lesion in 3 additional Ss made the task of discriminating triangles embedded within an annulus difficult if not impossible. In contrast, temporal area lesions in 6 Ss permanently abolished the ability to form a reversal learning set and resulted in retarded learning of habits based on pattern

discrimination. This dissociation of syndromes implies that the 2 cortical areas receive visual impulses from independent thalamic sources. (21 ref.)—*Journal abstract*.

7509. Novikov, V. G., Rudneva, L. M., & Drozdovich, I. I. (Kiev U., USSR) **Funktsional'noe sostoyanie karkovogo veshchestva nadpocheknikov u pekinskiikh utok pri elektroliticheskom povrezhdenii sredinnogo vozvyseniya.** [Functional state of the adrenal cortex of Peking ducks with electrolytic lesion of the eminentia mediana.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 125-133.—Reports on the changes observed in the microscopic structure of the adrenals after electrolytic extirpation of the eminentia mediana in 15-day-old ducks. The data indicate that the hormonal functions of the adrenal cortex in birds do not depend on the hypothalamus as much as do the generative and hormonal functions of the gonads.—*I. D. London*.

7510. Parsons, Virginia M. (U. Iowa) **Long-term rhythms in grooming behavior, food intake, body weight, adrenaline, and noradrenaline in cats with lateral midbrain lesions.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1568-1569.

7511. Winans, Sarah S. (Cornell U., Medical School) **The discrimination of stimuli equated for luminous flux by striate decorticate cats.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1027.

7512. Winans, Sarah S. (U. Michigan, Medical School) **Visual cues used by normal and visual-decorticate cats to discriminate figures of equal luminous flux.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 167-178.—3 unoperated adult cats and 9 cats with Cortical Areas 17, 18, and most of 19 removed made equal numbers of errors in learning to discriminate between erect and inverted transilluminated triangles of equal flux. Both groups subsequently discriminated between erect and inverted triangles of unequal sizes, in outline and partial form, and between triangles presented at a distance such that they fell wholly within the Ss' visual fields. However, both groups failed when triangles appeared in novel positions and when figure-ground brightness relationships were reversed. These findings and responses on test trials with triangles of unequal sizes and in novel positions suggest that regional flux differences within the stimuli had been significant cues for both groups of Ss on the original discrimination. (17 ref.)—*Journal abstract*.

Brain Hypothalamic & Hippocampal Lesions

7513. Ferguson, Norman B. & Keesey, Richard E. (U. Wisconsin) **Comparison of ventromedial hypothalamic lesion effects upon feeding and lateral hypothalamic self-stimulation in the female rat.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 263-271.—Observed both lateral hypothalamic (LH) self-stimulation and feeding in 29 female Holtzman rats following placement of electrolytic lesions in the ventromedial hypothalamus (VMH). The increased food intake resulting from VMH destruction persisted for several wk., reaching its highest level 4-11 days postlesion. LH self-stimulation rates, in agreement with previous reports, increased immediately following lesioning; however, by 24 hr. postlesion, responding had returned to or below control levels. The degree of hyperphagia and rate of LH self-stimulation were found to be negatively

correlated ($r = -.53$) across a 6-day postlesion test period. This lack of correspondence between the effects of VMH lesions upon feeding and LH self-stimulation is inconsistent with the position that VMH hyperphagia results from enhanced sensitivity of an LH feeding-reward system. It is suggested that hypothalamic hyperphagia be viewed as behavior appropriate to increasing the level of body weight to an elevated regulation set-point.—*Journal abstract.*

7514. Grossman, Sebastian P. & Grossman, Lore. (U. Chicago) Food and water intake in rats with parasagittal knife cuts medial or lateral to the lateral hypothalamus. *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 148-156.—Parasagittal knife cuts lateral to the hypothalamus, which did not directly damage cellular components of the hypothalamus or of that portion of the globus pallidus which is lateral to it, produced transient aphagia and adipsia in 33 female albino Sprague-Dawley rats. All Ss eventually recovered some regulatory abilities with respect to food intake, but did not regulate water intake when food deprived. Similar cuts along the lateral border of the hypothalamus produced long-term aphagia and adipsia. Most of these Ss did not recover any regulatory ability with respect to either food or water intake within the 80 days of postsurgical observation. Parasagittal cuts through the medial 3rd of the lateral hypothalamus produced transient aphagia and adipsia followed by a return of adequate regulation of food and water intake on a diet of powdered food. When offered a preferred pellet diet, these Ss overate. They showed further signs of "finickiness" when diets adulterated with dextrose or quinine were offered. The S's ability to regulate water intake in the absence of food remained disturbed.—*Journal abstract.*

7515. Pigareva, M. L. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) Vliyaniye razrusheniya gippokampa na uslovnoreflektornoe perekiyucheniye u belykh kryss. [Influence of hippocampal extirpation on conditioned response switchover in white rats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 801-808.—Studied motor alimentary and electrodefensive CRs, elaborated to the same stimulus (bell), at different times of the day and change in general illumination taking on the role of switchover signal (morning utilized for elaboration of the motor alimentary CR, evening for that of the electrodefensive CR). After hippocampal extirpation there was a significant increase in the number of intersignal reactions and in spontaneous running. It was possible to elaborate the switchover of heterogeneous CRs in hippocampectomized Ss in 3-5 days. However, switchover can be elaborated in intact Ss either not at all or only after 13-20 experimental sessions. Hippocampal extirpation exerted no essential influence on elaborated and stabilized CR switchover. Hippocampal extirpation in the presence of (a) disturbed CR activity; (b) a neurotic state, induced by the elaboration of switchover; or (c) unstabilized switchover led to normalization of CR activity.—*I. D. London.*

7516. Sclafani, Anthony & Grossman, Sebastian P. (U. Chicago) Reactivity of hyperphagic and normal rats to quinine and electric shock. *Journal of Comparative & Physiological Psychology*, 1970(Jan), Vol. 74(1, Pt. 1), 157-166.—Lesions of the ventromedial hypothalamus of 25 female Sprague-Dawley rats which resulted in hyperphagia and obesity also produced a passive-

avoidance deficit, i.e., increased the number of punished drinking responses. The passive-avoidance deficit appeared to be related to increased appetitive drive since it was not apparent when the water intake of the lesioned Ss was equated to that of controls. Results of other experiments demonstrate that hyperphagic Ss overreact to quinine adulteration of their ad-lib water but react normally to the addition of mild electric shock to their water supply. This differential reactivity to quinine and electric shock has implications concerning hypothalamic finickiness which are discussed. (24 ref.)—*Journal abstract.*

BRAIN STIMULATION

7517. Urey, Harold C. (Lunar Science Inst., Houston, Tex.) Reticular stimulation and chlorpromazine: An animal model for schizophrenic overarousal. *Science*, 1969(Sep), Vol. 165(3899), 1273-1275.—Developed a model to test the hypothesis that certain schizophrenic patients are in a state of continual central excitation and that improvement in these patients after treatment with chlorpromazine is a result of the action of the drug in reducing this excitation. 6 male albino Holtzman rats were electrically stimulated in the mesencephalic reticular formation while performing a simple attention task. Stimulation or treatment with chlorpromazine impaired the performance of the Ss; however, the 2 treatments together resulted in performance indistinguishable from that seen after injections of saline alone.—*Journal abstract.*

Chemical Stimulation

7518. Bogach, P. G. & Tyshkevich, B. A. (Kiev U., USSR) Vliyaniye pryamogo vvedeniya adrenalina i atsetilkholina v gipotalamicheskuuyu oblast' na priem pishchi u sobak. [The effect of direct injection of adrenaline and acetylcholine into the hypothalamic region on food intake in dogs.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 3-14.—The injection of adrenaline (adrenergic) and acetylcholine (cholinergic) solutions into the lateral and ventromedial hypothalamus and in the 3rd ventricle of 6 dogs was made through canulae, implanted from the basal side of the brain. Direct local adrenergic stimulation of the lateral hypothalamus increased food intake and decreased time of eating; injection into the ventromedial hypothalamus decreased food intake and increased time of eating. Direct cholinergic stimulation of the lateral hypothalamus decreased food intake; local injection into the ventromedial hypothalamus increased it. The influence on food intake by direct adrenergic and cholinergic chemical stimulation of the hypothalamus was of short duration and continued for 30-40 min., both in hungry and partially fed Ss. The normal daily quantity of food eaten was restored to normal level 24 hr. after adrenaline or acetylcholine injections as a result of alimentary compensation during the final 4-6 hr.—*I. D. London.*

7519. Danilova, R. A. (Moscow State U., USSR) Vliyaniye razrusheniya ribonukleinoi kisloty gippokampa na tsepnye uslovnye refleksy kryss. [Influence of neutralization of hippocampal ribonucleic acid on chain conditioned reflexes in rats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 427-431.—30 white rats, with an elaborated 3-component chain CR with alimentary reinforcement, were used to

study the influence of RNA, injected cannularly into the hippocampus and several areas of the neocortex, on chain CRs (red light → leap to shelf 3, metronomic clicks (60/min) → leap to Shelf 2, white light → leap to Shelf 1). RNA injected into the dorsal region of the hippocampus (50-400 microgm.) produced complete or partial inhibition of the chain CR. Restoration of the CR occurred after different intervals of times, depending on RNA dosage and degree of its stabilization. An analogous effect was observed with injection of RNA into the temporal area of the cortex. With RNA injection into the motor and visual cortical zones, CRs were disturbed. Alimentary excitability and motor activity in rats were not changed. The data suggest that a definite level of RNA is necessary in the hippocampus for the normal reproduction of elaborated CRs.—*I. D. London.*

7520. Howard, R. Lee & Meyer, Donald R. (Ohio State U.) **Motivational control of retrograde amnesia in rats: A replication and extension.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 37-40.—Trained 72 male and female Long-Evans hooded rats on a series of 3 2-choice discrimination problems. The study replicated M. J. Robbins and D. R. Meyer's (see PA, Vol. 44:11961) study which concluded that retrograde amnesia for long-term habits can be produced by single ECS treatments and are under motivational control. The 1st and 3rd problems of a given series were learned under similar incentive/motivational conditions, while the 2nd problem was learned under a different incentive/motivational condition. When they had mastered their 3rd problem, experimental Ss were given a single ECS. This produced amnesia for the 1st but not the 2nd habit. Control Ss subjected to sham ECS procedures showed excellent retention of both habits. Running-time data indicate that the effect is uninterpretable in terms of ECS merely serving as a punishment.—*Journal abstract.*

7521. Koval', L. A. (Kiev U., USSR) **Vliyaniye vvedeniya adrenalina, atsetilkholina i pituitrina v gipotalamus na motoriku zheludочно-kishechnogo trakta i reflektornye vzaimodeystviya mezhdu razlichnymi ego otdelami.** [Influence of adrenaline, acetylcholine and pituitrine injections into the hypothalamus on the motor behavior of the gastrointestinal tract and on the reflex interactions between its different parts.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 29-38.—Ss were dogs with gastric and small intestinal fistulae. Acetylcholine, adrenaline, and pituitrine, administered through canulae implanted into the hypothalamus, produced a biphasic action on small intestinal activity. Stomach motility underwent no change after their administration in the rest period. The injection of all 3 agents into the hypothalamus produced certain changes in the gastric and small intestinal reflex reactions to eating and stimulation of the gastric and rectal mechanoreceptors. The effects of hypothalamic stimulation and of reflex reaction, if in the same direction, reinforced each other. If the effects of hypothalamic stimulation and reflex reactions were oppositely directed, their combined action produced a mutual weakening of effects.—*I. D. London.*

7522 Margules, D. L. (Wyeth Lab., Philadelphia, Pa.) **Noradrenergic synapses for the suppression of feeding behavior.** *Life Sciences*, 1969(Jul), Vol. 8(13, Pt. 1), 693-704. Direct application of 1-norepinephrine hydrochloride crystals to the perifornical region of the medial forebrain bundle suppressed milk-licking behav-

ior in 7 albino Charles River rats. The noradrenergic blocker, phentolamine hydrochloride, removed the suppressant effects of satiation on this behavior. Results, in conjunction with results of lesion and histochemical fluorescent studies, suggest that satiation for food is mediated by collaterals of ventromedial hypothalamic cells that form noradrenergic synapses on the medial forebrain bundle and in other brain regions. (31 ref.)—*Journal summary.*

7523. Sideroff, S., Schneiderman, N., & Powell, D. A. (U. Miami) **Motivational properties of septal stimulation as the US in classical conditioning of heart rate in rabbits.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 1-10.—Examined heart-rate (HR) classical conditioning, shuttle-box training, and bar-press self-stimulation in male albino rabbits in 3 experiments as a function of 3 intensities of electrical stimulation of the septal region. In the HR classical conditioning experiment ($n = 24$), CRs failed to occur in a low-intensity group even though reliable UCRs were elicited. In 2 higher intensity groups HR CRs were decelerative. 12 Ss from Exp. 1 made approach responses to the lowest UCS intensity, but escape responses to higher intensities when tested in the shuttle box. In the self-stimulation experiment, 8 naive Ss bar pressed at all 3 intensities. At the 2 highest values, bar pressing was accompanied by attempted escape responses. It is concluded that HR classical conditioning to septal stimulation requires an aversive component to the UCS. (35 ref.)—*Journal abstract.*

7524. Singer, G. & Montgomery, R. B. (Macquarie U., School of Behavioural Sciences, North Ryde, New South Wales, Australia) **Functional relationships of brain circuits in control of drinking behavior.** *Life Sciences*, 1970(Jan), Vol. 9(2, Pt. 1), 91-97.—Examined the functional relationship between the amygdaloid and septal cholinergic circuits through injections via cannulae of carbachol, atropine, and placebo into male albino Wistar rats under food- and water-satiation conditions. Cholinergic stimulation of the lateral septal area increased water intake in the satiated rat and simultaneous cholinergic stimulation of the amygdaloid cortical nucleus augmented this increase. Simultaneous anticholinergic blockade with atropine in the amygdaloid cortical nucleus reduced drinking to control level. Cholinergic stimulation in the amygdaloid cortical nucleus and simultaneous stimulation with atropine of the septal area produced no response. It is concluded that the activity in the amygdaloid circuit is dependent on the level of activity in the septal circuit and once the amygdaloid circuit is activated by chemical stimulation it modulates the behavioral output of the septal circuit; this modulatory influence is seen as necessary for septal circuit output. The present findings lend support to an interacting neural circuit model for the control of drinking behavior.—*W. E. Wood.*

7525. Vasil'eva, L. A. & Samoilova, L. A. (Leningrad State U., USSR) **K voprosu o kortikal'nykh vliyaniyakh na sistemu slukhovogo analizatora.** [On cortical influences on the auditory analyzer system.] *Nervnaya Sistema*, 1968, No. 9, 93-98.—In rats under hexenal narcosis recordings were made of biopotentials from the frontal and auditory cortical zones, the mesencephalic rostral reticular formation, and the mesencephalic posterior colliculi. Application of strychnine to the auditory cortex produced an increase in the amplitude of the posterior collicular response to sound,

while its application to the frontal cortical areas produced an increase in the responses of the mesencephalic reticular formation to acoustic and photic stimuli and decreased the amplitude of spontaneous rhythm. The creation of spreading depression in the cortex by placing KCl on the motor zone produced a slight depression of spontaneous activity and did not change the character of the responses to sound and light from the reticular formation.—*I. D. London.*

Electrical Stimulation

7526. Barrett, Robert J., Hughes, Richard A., & Ray, Oakley S. (Veterans Administration Hosp., Psychology Research Lab., Nashville, Tenn.) **ECS disruption of time-dependent processes in discriminated-avoidance conditioning in rats: Incubation or consolidation?** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 319-324.—Used discriminated active avoidance in an automated Y maze to study ECS-induced disruption of retention in male inbred albino CDF strain rats. Results from Exp. I with 100 Ss show that ECS increased errors to criterion avoidance on Day 2 retest when given the following either 10, 15, or 20 training trials on Day 1, but not following 0, 5, or 30 trials. In Exp. II, 96 Ss were given 15 trials followed by either ECS or training to criterion 30 sec., $\frac{1}{2}$, 1, 3, 6, or 12 hr. later. ECS Ss were tested 24 hr. after treatment. The ECS given 30 sec., $\frac{1}{2}$, 1, or 3 hr. following training increased errors to criterion as compared to the 12 hr., no-ECS retest group. Results suggest that incubation of fear and memory consolidation are 2 time-dependent processes which occur following training in an aversively motivated task. Valid assessment of ECS-induced amnesia is possible only at posttraining intervals during which performance is not confounded by the presence of a CER. (28 ref.)—*Journal abstract.*

7527. Black, Manuel & Suboski, Milton D. (Queen's U., Kingston, Ontario, Canada) **Incubation and ECS-produced gradients in one-trial and multitrial discriminated-avoidance conditioning in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 325-330.—Exp. I with 100 male Long-Evans rats showed that in 1-trial discriminated-avoidance conditioning response latency incubated, i.e., changed as a function of postconditioning time, whereas response choice did not. Previous research had shown that retrograde interference produced by ECS in the same task was temporally graded for latency and ungraded for choice when ECS followed learning by more than 1 min. Multitrial discriminated avoidance in Exp. II with 107 Ss yielded parallel incubation and ECS-produced gradients for both response latency and choice. Results support the hypothesis that ECS disrupts the incubation of freezing behavior rather than temporally prolonged memory consolidation. (15 ref.)—*Journal abstract.*

7528. Cruce, Judith A. (New York U.) **The maintenance of electrical self-stimulation of the brain by external reinforcement.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1561.

7529. Danelia, D. S. & Mestvirishvili, L. P. (Inst. of Clinical & Experimental Neurology, Tbilisi, USSR) **Vliyaniye aktivatsii retikulyarnoi formatsii srednego mozga na sodurozhnyuyu aktivnost'. [Influence of activation of the mesencephalic reticular formation on convulsive activity.] Fiziologicheskii Zhurnal SSSR,**

1969(Nov), Vol. 55(11), 1334-1341.—Used 20 unanesthetized cats under curarization in a microelectrode study of the neurons of the posterior sigmoid gyrus, and an EEG study of various regions of the cerebral cortex and subcortical structures. Convulsive activity was elicited by low-frequency electrostimulation of the specific thalamic nuclei (n. ventralis posterolateralis and geniculatum mediale); EEG desynchronization by high frequency stimulation of the mesencephalic reticular formation (MRF) or the nonspecific thalamic nucleus (n. centralis medialis). Activation of the MRF and of the diffuse thalamic system facilitated the triggering of convulsive activity, which was generated by stimulation of the specific thalamic nucleus. In raising the general level of excitability, nonspecific impulsation increased the synchronous action of cortical neurons in response to excitation following an oligosynaptic pathway. Stimulation of the MRF against a background of generalized clonic seizure did not alter the picture of convulsive discharges. In the tonic phase of epileptic discharges, the MRF produced a transition to the clonic phase, and in focal convulsions a transition to their generalization. (English summary)—*I. D. London.*

7530. Glagolev, V. P. (Kiev U., USSR) **Izmenenie sostava limfy i krovi pri razdrazhenii gipotalamusa. [Changes in the composition of the lymph and blood under hypothalamic stimulation.] Problemy Fiziologii Gipotalamusa**, 1969, No. 3, 67-74. 47 nembutilized dogs were used to study the concentration of sugar, sodium and potassium in the lymph and blood before and after stimulation of different regions of the hypothalamus. An increase in sugar occurred under stimulation of the anterior and lateral hypothalamus by a weak electric current; for Na and K, a decrease. Stimulation of the mammillary bodies and the tuber cinereum produced different changes in Na and K concentration. These changes in chemical structure developed in the lymph and blood simultaneously and were brought about with pancreatic and suprarenal participation.—*I. D. London.*

7531. Goldrich, S. G., Pond, F. J., Livezey, P., & Schwartzbaum, J. S. (Ohio State U.) **Electrically-induced afterdischarges in the inferotemporal cortex of monkeys: Effects on visual discrimination and discrimination-reversal performance.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 417-429. Afterdischarges induced bilaterally in inferotemporal (IT) cortex, as monitored by EEG recording, impaired subsequent performance of 9 feral monkeys on perceptually difficult visual discriminations of dimensionalized stimuli during the period of abnormal IT EEG activity. The defect seemed to relate to control levels of performance and varied somewhat in persistence. Such seizures also markedly impaired reversals of a visual pattern discrimination. Based on information about propagation patterns of the afterdischarges, it is suggested that afterdischarges induced in IT cortex produce some form of visual perceptual or attentional disorder and an associative disorder in the encoding of visual stimuli with respect to reward contingencies. (French & German summaries) (28 ref.)—*Journal abstract.*

7532. Gromova, E. A. & Gil'man, I. M. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Stranitel'nyi analiz voshkodyashchikh vliyaniy razlichnykh oblastei gipotalamusa na koru golovnogo mozga i povedeniye nenarkotizirovannykh koshek. [Comparative analysis of ascending influences**

of different hypothalamic regions on the cerebral cortex and the behavior of unanesthetized cats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 870-875.—Attempted to determine the influence on the EEG of electrical stimulation of various regions of the hypothalamus. It was found that high-frequency stimulation (100-300 cps) of these regions was accompanied by desynchronization of electrical activity of the brain; while low-frequency stimulation (4-6 cps) yields a synchronizing effect. Subsequent electrocoagulation of these regions of the hypothalamus elicited a synchronization of EEG rhythms which is similar in character and degree. It is concluded that the posterior hypothalamic structures exert a continuous tonic action on the cerebral cortex and possibly variously affecting influences.—I. D. London.

7533. Khasabov, G. A. (Inst. of Experimental Pathology & Therapy, Sukhumi, USSR) *Sudorozhnye razryady pri povtornykh razdrazheniyakh kory y obez'yan*. [Convulsive discharges on repeated stimulation of the simian cortex.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1318-1325.—Used 8 alert rhesus monkeys with chronically implanted electrodes to study the temporal and electrophysiological characteristics of convulsive attacks, elicited repeatedly by threshold and suprathreshold electrical stimulation of cortical structures (9 points of stimulation in the prefrontal and 2 in the motor region). 3 successive phases were distinguished in the prefrontal or motor cortical convulsive discharge: high voltage waves with a frequency of 4-9 oscillations/sec, polymorphic convulsive activity, and convulsive complexes. The duration of the convulsive discharge was shortened with threshold electrostimulation, repeated after 15 min. With supra-threshold stimulation, repeated after 15 min., the duration of the convulsive discharge was significantly prolonged. (English summary) (20 ref.).—I. D. London.

7534. Lindholm, Ernest P. (U. Wisconsin) *An investigation of intracranial stimulation conditions leading to a facilitation of brightness discrimination learning in rats*. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 932-933.

7535. Makarchenko, A. F., Roitrub, B. A., & Cherchenko, A. P. (Bogomolets Inst. of Physiology, Kiev, USSR) *Makrostrukturnye izmeneniya belkov syvorotki krovi pri elektricheskom razdrazhenii gipotalamusa v eksperimente*. [Macrostructural changes in the proteins of blood serum with electrical stimulation of the hypothalamus in experiments.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 75-81.—See 4 dogs.—I. D. London.

7536. Pavlygina, R. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *Vzaimootnosheniye neapsalicheskoi talamicheskoi i zritel'noi sistem*. [Interrelationship between the nonspecific thalamic and the visual systems.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 319-327. Used 25 cats to study the interaction between the recruitment reaction and evoked potentials in response to light on simultaneous presentation of rhythmic electrical and photic stimulation. Stimulation of the medial thalamic nuclei, evoking the recruitment reaction in the cerebral cortex, was combined with light flashes, rhythmically and temporally presented so as to coincide with the electrical stimulation applied. Investigation of the recruitment reaction in the motor cortex, on stimulation of different medial nuclei of the thalamus

and of various levels of the same nucleus, disclosed a fine morphophysiological differentiation in the "so-called nonspecific system of the thalamus." Both the evoked responses to light and the recruitment reaction were changed on simultaneous stimulation of the specific visual system and the nonspecific thalamic system. The amplitude of the initial negative deviation of the primary response to light increased slightly, while the amplitude of secondary negative oscillations, following immediately upon the beginning positive-negative response, increased substantially. The recruitment reaction, on simultaneous presentation of stimulation, did not undergo substantial change, but right after the usual response to each stimulation of the thalamus a large slow negative deviation appeared. Data on the CR change produced in cortical evoked potentials, following joint stimulation of short duration, indicate the necessary participation of a cortical inhibitory process "in [CR] closure of this type."—I. D. London.

7537. Ponomarenko, L. N. (Kiev U., USSR) *Vliyaniye razdrazheniya gipotalamusa na sodержaniye atsetilkholina v krovi u sobak*. [Influence of hypothalamic stimulation on acetylcholine content in dog blood.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 90-96.—Studied the effect of unilateral stimulation of the hypothalamic paraventricular nuclei on free and total acetylcholine content in the peripheral and jugular blood. The findings are detailed.—I. D. London.

7538. Rabinovich, M. Ya. & Kopytova, F. V. (Inst. of the Brain, Moscow, USSR) *Effekty sochetaniya polarizatsii dvigatel'noi zony kory s deistviem zvukovykh stimulov*. [Effects of combining polarization of the cortical motor zone with the action of acoustic stimuli.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 768-777.—Recorded the activity of 108 cortical motor neurons in 14 alert rabbits, before and during anodic polarization of the cortical motor surface and after cessation of the polarizing current, in a study of the responses of the cells to 2 acoustic stimuli with different frequencies. 1 frequency ("positive") was repeatedly applied (20-25 presentations) during polarization, and the other ("negative") 1-2 times (occasionally 3 times). In 82 neurons spontaneous activity was modified under the action of the polarizing current. Out of 51 cells, earlier responding during polarization to the 2 stimuli, 24 neurons reacted, after cessation of the polarizing current, to only the positive stimulus. 22 cells exhibited after-actional responses to both positive and negative stimuli. 3 neurons displayed a paradoxical reaction and responded to stimuli of negative significance, while failing to react to positive stimuli. A number of neurons retained, in polarization-afteraction, differentiated responses to positive and negative stimuli for periods of up to 20-30 min. It is suggested that there is a connection between the traces of 1 stimulus (polarization) and those of another stimulus (sound)—traces which are later restored by the action of only a sensory stimulus. Similar "intertwining" of traces indicates the existence of probability-mechanisms for cellular transition from polysensory activity to special reactions to stimuli of signal significance. The effects of pairing polarization with the action of sensory stimuli may be viewed as 1 of the varieties of "reflexes to state."—I. D. London.

7539. Reitz, Sandra L. & Gerbrandt, Lauren K. (American Inst. for Research, Palo Alto, Calif.) *Pre- and posttrial temporal lobe seizures in monkeys and memory consolidation*. *Journal of Comparative &*

Physiological Psychology, 1971(Feb), Vol. 74(2), 179-184.—Compared learning in 4 unstimulated rhesus monkeys with that in 3 Ss receiving pre- or posttrial stimulation. Results show that stimulation applied to the inferotemporal cortex produces an afterdischarge which temporarily disrupts visual discrimination learning, but only when this afterdischarge occurs during the appearance of the discriminanda. There is no impairment when it occurs just after the response. Results conflict with the hypothesis that inferotemporal cortex is involved in consolidation of visual information, in mediating information transfer from a temporary to a more durable state, suggesting, instead, that this area is effective during reception of the stimuli, affecting the way in which the visual world is perceived and, hence, what is stored and can be recognized.—*Journal abstract.*

7540. Ryabinina, M. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Neironnaya aktivnost' senzomotornoi kory krolka pri razdrzhenii retikulyarnoi formatii srednego mozga.** [Neuronal activity of the rabbit sensorimotor cortex with stimulation of the mesencephalic reticular formation.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 846-852.—Utilized extracellular microelectrode recordings of 166 neurons in the sensorimotor cortex of alert rabbits to study the dynamics of neuronal activity in the sensorimotor cortex over a definite time period, following the application of single electrical stimulation to the mesencephalic reticular formation (MRF). Since the stimulating agent led to a motor reaction, attention was directed to a comparison between time of increase in cortical neuronal activity and time of appearance of the motor reaction, in order to decide whether "closure" of the effector path from the reticular formation occurred through the cortex or whether it involved only the subcortical motor centers. The activity of a considerable number of the sensorimotor cells changed upon stimulation of the MRF with single electrical stimuli. Stimulation of the MRF resulted in the activation of spontaneous impulse activity in a great number of the cells (43.9%), while a smaller number underwent inhibition (15.7%). In most cases impulsation increased 20-40 msec. after stimulation was applied. The greatest increase in spontaneous cellular activity resulting from stimulation of the MRF, occurred in the 3rd cortical layer. Stimulation of the MRF evoked a motor reaction with a latent period of 8-9 msec. Since no increase in neuronal activity in the sensorimotor cortex preceded movement, it is concluded, on the basis also of other findings, that the motor reaction is the result of subcortical motor mechanisms.—*I. D. London.*

7541. Smirnova, L. A. (Kiev U., USSR) **Vliyaniye razdrzheniya perednego gipotalamusa na nekotorye fiziko-khimicheskie svoystva krovi u sobak.** [Influence of anterior hypothalamic stimulation on some physicochemical properties of dog blood.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 82-89.—Ss were nembutalized dogs in a study which shows that electrical stimulation of the anterior hypothalamus brings about, in most cases, an increase in the viscosity of the blood, its specific gravity, and hematocrit value.—*I. D. London.*

7542. Smith, Dennison A. (U. Massachusetts) **Stimulation of lateral hypothalamus: A motor response pattern.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1573.

7543. Sokur, V. D. (Pedagogical Inst., Uman', USSR)

Vliyaniye razdrzheniya gipotalamusa i struktur limbicheskoi sistemy na motornuyu deyatel'nost' zheludochno-kishechnogo trakta u melkikh zhvachnykh zhivotnykh. [Influence of stimulation of the hypothalamus and the structures of the limbic system on motor activity of the gastrointestinal tract in small ruminant animals.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 22-28. Ss were 14 sheep and goats with ruminal, reticular, abomasal, small and large intestinal fistulae. Multipolar electrodes were inserted in the hypothalamic region, the anterior gyrus cinguli, amygdaloid nuclei, and hippocampus. Electrical stimulation of these structures produced changes in the motor activity of the gastrointestinal tract. The character, latent period, and duration of these changes were a function of the strength of electric current and the functional state of the gastrointestinal tract. Changes in motor activity were accompanied by definite behavior reactions.—*I. D. London.*

7544. Tsybenko, V. A. (Kiev U., USSR) **Vliyaniye razdrzheniya gipotalamusa na davlenie v zheludochkakh serdtsa.** [Influence of hypothalamic stimulation on pressure in the ventricles of the heart.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 58-66. Stimulation of the lateral hypothalamus in 18 nembutalized dogs brought about, in most cases, a rise of pressure in the right ventricle by 42% and a simultaneous decline of pressure in the left ventricle by 23%. The oppositely directed changes in pressure in the ventricles of the heart did not depend on respiration, since they were retained under artificial respiration, but were connected with the different vasomotor reactions occurring in systemic and pulmonary circulation.—*I. D. London.*

7545. Ungerleider, Leslie G. & Coons, Edgar E. (New York U.) **A behavioral measure of homosynaptic and heterosynaptic temporal summation in the self-stimulation system of rats.** *Science*, 1970(Aug), Vol. 169(3947), 785-787. Bilateral stimulation of the medial forebrain bundle with pulses of varying interpulse intervals elicited a pattern of self-stimulation behavior in 4 Sprague-Dawley rats indicative of temporal synaptic summation: the shorter the interval the greater the response. In contrast, the effectiveness of unilateral stimulation at very short intervals was limited by neuronal refractory periods. Results support the notion that there is convergence of the medial forebrain bundle self-stimulation system from the 2 sides of the brain and suggest ways of studying the degree of convergence. They also suggest a technique for behaviorally comparing heterosynaptic and homosynaptic mechanisms of summation. (15 ref.)—*Journal abstract.*

ELECTRICAL ACTIVITY

7546. Aĭrapetyan, A. A. & Vaganyan, L. G. (Orbeli Inst. of Physiology, Erevan, USSR) **O nekotorykh osobennostyakh neuronoi aktivnosti v mozghechkovo-talamo-korkovoi regul'yatornoi sisteme.** [On several features of neuronal activity in the cerebello-thalamo-cortical regulatory system.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 527-534. Immobilized cats were used in a study, utilizing extracellular microelectrode recordings, of (a) the responses of individual neurons of the nonspecific thalamic nuclei (CM and VA) to electrical stimulation of the central cerebellar nuclei (dentate, intermediate, fastigiate), and (b) the reaction of

neuronal elements of the sensorimotor cortex to stimulation of the middle thalamic center (CM). It is shown that, if inhibitory influences are clearly prevalent in the CM neurons, then facilitating effects are to be found primarily in the VA, especially in response to neocerebellar stimulation. In a few instances, low-frequency stimulation of cerebellar nuclei exerted a synchronizing influence on the spontaneous activity of the nonspecific thalamic neurons. Following low-frequency stimulation of the CM, synchronization of neuronal activity attained a considerable height in the sensorimotor cortex. Inhibitory processes played an especially important role in the reactions of the neurons in the cerebello-(nonspecific)-thalamo-cortical regulatory system—reactions which in a number of cases exhibited a rather complex character.—*I. D. London.*

7547. **Artem'eva, E. N.** (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Krosskorrelyatsionnyi analiz élektromiogramm pri dinamicheskoi rabote.** [Cross-correlational analysis of electromyograms in dynamic activity.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1364-1368. —Used 13 athletes and 10 untrained Ss to determine (a) the degree the patterns of the temporal relationships for the excitatory process are retained in analogous variants involving dynamic activity, and (b) whether they undergo change as the result of training. The temporal relationships were investigated between motor unit discharges in m. biceps brachii and m. triceps brachii during rhythmic extension of the forearm, using cross-correlational analysis of the EMGs. It is shown that in dynamic activity with voluntary strain on both muscle-antagonists any correlation obtained between the discharges of motor units is either absent or weakly expressed. In an activity where only 1 of the muscles underwent voluntary strain, involuntary activity was observed in the antagonist. Between the electrical activity of the agonist and antagonist a considerable correlation was revealed. In athletes, with voluntary strain on 1 of the muscles, the correlation obtained between discharges of the motor units of the muscle antagonists was expressed significantly weaker than in the untrained Ss. (English summary)—*I. D. London.*

7548. **Baranov-Krylov, I. N.** (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **O testirovani sostoyaniya vozбудimosti spinal'nykh tsentrov pary antagonisticheskikh myshts.** [On testing the excitatory state of the spinal centers of a pair of antagonistic muscles.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 889-891. —Presents an EMG study to determine the momentary excitability of the motoneuronal pool of the muscle antagonists: m. soleus and m. tibialis ant., by simultaneous elicitation of the flexor and extensor reflexes (H_1 and H_2 , respectively) of the leg. 1 stimulating electrode was placed in the middle of the patellar pit and the other, to the side of the patellar pit. Data, procured on the H_1 responses, show that H_1 characterized the excitatory state of the flexor motoneuronal pool; while H_2 characterized that of the extensor. The various properties of these responses and the "priming" which occurs before voluntary activation of the flexor constitute evidence for the independent character of the regulatory processes for the agonist and antagonist.—*I. D. London.*

7549. **Beijk, J.** (U. Amsterdam, Psychological Lab., Netherlands) **De "galvanic skin response," principles en scoring.** [The "galvanic skin response," principles of

scoring.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jul), Vol. 25(7), 441-450. —The investigation of arousal theories includes the study of the GSR. It has been demonstrated that a linear function can be established between the electrical "conductance" and the number of sweat glands stimulated. The difference between "resistance change" and "change in conductance" as measures of sweat-gland activity is indicated. Since "resistance change" in the skin is generally in an inverse relationship to the amount of voltage, it would assist the standardization of GSR studies to use the "change in conductance" as a measure of the activity of the sweat glands. A description is also provided of the most efficient application of the electrodes. (English summary)—*A. J. Ter Keurst.*

7550. **Buerger, A. A.** (Harvard U.) **A possible biological analogue of the reinforcement control device in self-organizing systems.** *Conditional Reflex*, 1970(Jan), Vol. 5(1), 52-61. —Virtually all self-organizing systems proposed as models for learning require a reinforcement control device. The biological analog of this device has never been clear. Slow (DC) changes in the cortical potential may be correlates of a biological analog of reinforcement control devices. Frequent pairings of novel stimuli with other stimuli eliciting specific responses produce a slow shift and oscillation in the cortical potential. This DC shift and oscillation occurs 1st in the sensory, and then in the motor cortex involved; it may be associated with the decreases or increases which occur in the threshold of cells in these cortical areas. (34 ref.)—*Journal abstract.*

7551. **Clemente, Carmine D.** (U. California, Medical School, Los Angeles) **Comments on the brain as an effector organ for the study of conditional reflexes.** *Conditional Reflex*, 1970(Jul), Vol. 5(3), 153-155. —Briefly discusses findings concerning the conditioning of: low-voltage, fast rhythms associated with behavioral wakefulness and REM sleep, and slow, higher-voltage brain waves associated with slow-wave sleep and internal inhibition. It is concluded that the conditional reflex should also be explored at the neuronal membrane level, and that "the performance of a conditional response or its suppression, mediated through motor horn cells, should be measurable at the membrane level in those final common pathway motoneurons." It is suggested that more study be devoted to "the sequential events in the establishment of a conditional response at this microneurophysiological level."—*M. Maney.*

7552. **Dallos, Peter; Schoeny, Z. G., & Cheatham, M. A.** (Northwestern U., Auditory Research Lab.) **Cochlear summing potentials: Composition.** *Science*, 1970(Nov), Vol. 170(3958), 641-644. —In an experiment with 39 guinea pigs the potential difference across the cochlear partition and the overall potential level of a given cochlear cross section were measured as functions of stimulus parameters and spatial location. Results confirm that the potential difference is negative in the vicinity of greatest excitation, and it was discovered that in the same region the overall potential level is positive.—*Journal abstract.*

7553. **Danilov, G. E.** (Medical Inst., Izhevsk, USSR) **Bioélektricheskaya aktivnost' golovnogo mozga pri khronicheskikh notsitseptivnykh (bolevykh) razdrazheniyakh.** [Cerebral bioelectrical activity following chronic nociceptive (painful) stimulation.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1444-1449. —Studied the influence of protracted painful

stimulation on the bioelectrical activity of several cerebral structures. Ss were 8 rabbits with electrodes implanted in the sensorimotor cortical area, specific and nonspecific structures of the thalamus, anterior and posterior sections of the hypothalamus, and the mesencephalic reticular formation (MRF). A chronic nociceptive focus was formed by 2 roughened ligatures, applied to the middle third of the sciatic nerve, which were tightened and sutured to the muscles in opposite directions. Protracted painful stimulation led to phasic changes in the bioelectrical activity of the sensorimotor cortical area, thalamus, and the MRF, and depression of hypothalamic activity. In the course of 10-16 days following the creation of the focus of nociceptive stimulation, the electrical activity of the foregoing structures was depressed; but afterwards for 1.5-2 mo. variations in electrical activity occurred from experiment to experiment. Asymmetrical changes and high-amplitude slow rhythm (2-3 cps) appeared in the sensorimotor cortical area; in the thalamus and the MRF regular and irregular rhythm alternated. 2.5-3 mo. after creation of the focus of nociceptive stimulation, a gradual leveling of the observed effects occurred. (English summary) (30 ref.)—*I. D. London.*

7554. Doroshenko, V. A. (Leningrad State U., USSR) **Universal'nyi magnitnyi samopisets dlya elektrofiziologicheskikh issledovanii.** [Universal magnetic recorder for electrophysiological research.] *Nervnaya Sistema*, 1968, No. 9, 177-180.—Describes a 4-channel device for recording bioelectrical signals onto ordinary magnetic tape, utilizing "broad-impulse modulation of the recorded signals."—*I. D. London.*

7555. Dumbai, V. N., Chebkasov, S. A., & Podladchikova, L. N. (State U., Rostov-on-Don, USSR) **O funktsional'noi role sistemy A-neuronov v zritel'noi kore.** [On the functional role of the A-neuronal system in the visual cortex.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1313-1317.—Used urethanized guinea pigs in an electrocorticographic study of the significance of the role of A neurons in the visual analyzer system through registration of their activity in response to (a) retinal stimulation by means of diffuse light, (b) electrostimulation of the medial nonspecific nuclei of the thalamus, and (c) microelectrode polarization. A neurons constituted 58% of the neurons observed. Subthreshold impulses, occurring from diffuse illumination, did not reach the A neurons of the visual cortex. Given polarization, the presence of a photic reaction in the few cases that do occur can be explained by reference to the heterogeneity of the A neuronal system. It is shown that, against a background of thalamic stimulation, A neurons displayed no reaction to diffuse illumination. It is hypothesized that the "A neurons are an internally heterogeneous group of highly specialized elements which do not participate directly in the analysis of information arriving in the cortex following retinal stimulation by means of diffuse light, but only note its presence through a change of interrelationships." (English summary) (20 ref.)—*I. D. London.*

7556. Efremova, T. M. & Trush, V. D. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Issledovanie chastotnykh spektrov elektrokortikogram pri posloinom otvedenii ot zritel'noi kory krolika v otvet na deistvie ritmicheskogo svetovogo razdrazhatelya.** [Study of frequency spectra of electrocorticograms in recordings by layer from the rabbit

visual cortex in response to the action of a rhythmic photic stimulus.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 839-845.—Utilized over 400 electrocorticographic (ECG) power spectra, supplied by microelectrode recordings from 5-6 different layers of the visual cortex in 7 unanesthetized rabbits. Light flashes lasting 3 or 5/sec for 30-40 sec. at intervals of 5-30 min. were presented. Computation of the ECG power spectra was handled as a Fourier transformation of the correlation function with the aid of the weighted Hamming function. Upper and lower layers of the cortex reacted the same way to the application of a rhythmic photic stimulus: rhythmic assimilation (driving response) appeared immediately when the light was switched on, was manifested within a strictly narrow band, and was maximally expressed in the 1st 10 sec. of its appearance. The fundamental harmonic is maximally expressed; while the higher harmonics generally possess an amplitude, diminished by many times. At the level of 900-1000 microns, there were significant differences in rhythmic assimilation. In most cases, immediately on termination of stimulation, the power spectrum returned to what it was initially. In 13 of 40 cases, traces of the stimulation were retained in all the levels under study for 10-30 sec. When the frequency of rhythmic stimulation was changed during the action of the stimulus, ECG assimilation of the new rhythm was rendered more difficult, possessed a longer latent period, and was less expressed.—*I. D. London.*

7557. Evdokimov, S. A., Zubilov, Yu. N., Saf'yants, V. L., & Syta, Yu. M. (Pavlov Inst. of Physiology, Leningrad, USSR) **Tormozhenie reflektornykh reaktsii na urovne segmentarnykh vstavochnykh neuronov.** [Inhibition of reflex reactions on the level of segmental internuncial neurons.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1342-1347.—Used narcotized cats under curarization in a microelectrode study which recorded: (a) the action potentials of single internuncial neurons of the posterior horn, intramedial region, and ventral horn of the lumbar division of the spinal cord; (b) the potentials of the dorsal surface of the spinal cord; and (c) the reflex discharges of the anterior roots. Reflex stimulation was channeled through the posterior roots of the appropriate segments, or the nerves of the hind legs. With activation of high threshold muscle and skin afferent fibers, the rhythmic reflex discharge in the segmental internuncial neurons was accompanied by lengthy (50-100 msec.) inhibition of the following reflex responses. This inhibition was sustained and deepened with iv injection of strychnine in doses of .08-.20 mg/kg, sufficient for complete suppression of motoneuronal inhibitory postsynaptic potential. Lengthy inhibition was 1 of the mechanisms underlying inhibition of the temporally close polysynaptic reflex reactions, including the contralateral inhibition of the flexor reflex. It is suggested that postexcitatory inhibition in the internuncial neurons (a) enables the detection of the functionally most significant signal from a multiple scatter of arriving impulses, and (b) promotes the formation of a "discrete packet" of impulses for the "transmission of information" to neurons of the following series. (17 ref.)—*I. D. London.*

7558. Fedotova, L. A. (Kirov Medical Inst., Gorki, USSR) **Elektricheskie proyavleniya deyatel'nosti mozga koshki pri perekhode ot bodrstvovaniya ko snu.** [Electrical manifestations of cerebral activity in the cat during transition from the waking state to sleep.]

Zhurnal Vyssheĭ Nervnoi Deyatel'nosti, 1969, Vol. 19(3), 537-539.—Studied the emergence and development of slow ("sleepy") electrical activity in different cortical and subcortical structures of the brain observed in falling asleep. 2 Ss had chronically implanted electrodes in the motor and auditory cortical areas, mediodorsal and centrolateral thalamic nuclei, anterior and posterior hypothalamic regions, and the pontine reticular nucleus. The data suggest that (a) sleep inhibition begins to develop from the subcortical structures with subsequent irradiation to the cerebral cortex, and (b) the cerebral cortex regulates the actional inclusion of the subcortical mechanisms involved in falling asleep and awakening.—*I. D. London.*

7559. Gulyaev, P. I., Zabolot, V. I., & Shlippenbakh, N. Ya. (Leningrad State U., USSR) **Elektroauragrammy cheloveka i zhivotnykh.** [Human and animal electroauragrams.] *Nervnaya Sistema*, 1968, No. 9, 159-171.—Reviews data on the existence and properties of "electrical fields [auras] which arise in space (air) around living objects," where by the term, field, is meant an "external electrical field, formed in space (air) around an object (nerve, muscle, heart) owing to the difference in potentials between excited and unexcited parts on the surface of this object." Data on the following are presented: (a) electrical fields surrounding isolated frog n. ischiadicus and isolated frog nerve-muscle preparation (n. ischiadicus-m. gastroneurii) and frog heart in open rib cage; (b) electric fields, arising around man as a result of heart and muscle activity; (c) low-frequency electrical fields, arising due to movements of insects, birds, and animals. The existence of electromagnetic low-frequency fields around living objects is established. Recordings and measurements of these weak fields are possible through measurement of the electrical component of the adjacent field in the air through the use of contemporary high-impedance quick-acting electrometric amplifiers. Both physiological and physical factors may be involved in the formation of the electrical aura: bioelectrical activity of living tissues, and mechanical oscillations of charged body parts. The activity of living beings is held manifested also in the form of electromagnetic fields generated by them—fields which are spatially propagated far beyond the geometric boundaries of their body.—*I. D. London.*

7560. Kogan, A. B., Efimov, V. N., & Sokolov, P. T. (State U., Rostov-on-Don, USSR) **Analiz dinamiki funktsionirovaniya neirona po zapisi impul'snoi aktivnosti.** [Analysis of the dynamics of neuronal functioning, using impulse-activity recordings.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 514-517.—Presents a mathematical analysis in which impulse activity is viewed as a continuous process, reflecting the functional dynamics of the neuron. A method is proposed for establishing a generalized function of the neuronal state, making use of output impulse current. At the basis of the method lies the construction of a "frequency-gram"—a part-continuous function of time, the values of which at every point are equal to the inverse magnitude of the interimpulse interval.—*I. D. London.*

7561. Kogan, A. B. & Pavlovskaya, N. I. (State U., Rostov-on-Don, USSR) **O perestroikakh aktivnosti neironov zritel'noi kory pri desinkhronizatsii elektrokortikogrammy.** [On readjustment of neuronal activity in the visual cortex of the rabbit during electrocorticographic desynchronization.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1429-1435.—Ss were

freely moving rabbits with chronically implanted surface electrodes in the motor and visual cortical areas and 2 microelectrodes in the visual area. Electrocorticographic (ECoG) desynchronization was evoked by sensorimotor stimulation (jerking of the paw by a string every 3-5 min.). 410 spontaneously reacting neurons in the visual cortex were recorded and analyzed (250 in the intact visual cortex; 160 in the subsected). 90% of the recorded neurons displayed continuous spontaneous activity and were uniformly distributed in all cortical layers; 10% were discharged by impulse bundles and were located mainly in the deep layers of the cortex. ECoG desynchronization was accompanied by primarily continuous spontaneous reactions of the neurons which have a frequency of succession within the limits of 4-17 impulses/sec and are of both excitatory and inhibitory character in the ratio, respectively, of 2:1. Neurons in the middle cortical layers reacted mainly with excitation, while those in the deep layers with inhibition. Visual cortical subsection did not abolish the propagation of ECoG desynchronization to the subsected cortical area, but it did depress selectively both spontaneous and evoked impulse activity in layers IV and V, while relatively enhancing neuronal activity in the upper layers. The statistical characteristics of the interconnection of the reactional impulse activity of simultaneously recorded neurons did not undergo any essential change after subsection of the visual area—evidence for the significance of the intracortical systems of communication for securing the functional organization of cortical neurons within "working assemblages." (English summary) (21 ref.)—*I. D. London.*

7562. Kopylov, A. G. (Leningrad State U., USSR) **Izmeneniya spontannykh potentsialov neironov bryukhonogikh molliuskov pod vliyaniem depolyarizuyushchego toka.** [Changes in spontaneous potentials of neurons of gastropods under the influence of depolarizing current.] *Nervnaya Sistema*, 1968, No. 9, 81-86.—Snails (*Planorbis corneus* and *Tritonia diomedea*) were used in an intracellular microelectrode study of (a) the spontaneous potentials which arise under the influence of direct transmembrane polarization by means of steady current of different strengths, and (b) the modifications induced in all components of neuronal spontaneous potentials through slow alteration of membrane potential within wide ranges, making use of intracellular depolarization of the neurons by means of steady current. The data are held to confirm Vvedenskiĭ's views concerning the "close genetic connection between local and propagating excitation."—*I. D. London.*

7563. Kotlyar, B. I. & Eroshenko, T. M. (Moscow State U., USSR) **Uslovnoreflektornye perestroiki aktivnosti glyukoretseptorov gipotalamusa.** [Conditioned response reorganization of the activity of the hypothalamic glucoreceptors.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 882-885.—Recorded the activity of 32 neurons from the ventromedial nucleus (VMN) of the rabbit hypothalamus, 14 from the lateral hypothalamus (LH), and 7 from the paraventricular nucleus—the latter serving as controls—in response to sound, light, electrocutaneous stimulation, and intracarotid injections of glucose (4.5% isotonic solution). Since the VMN and LH neurons are specifically sensitive to changes in the concentration of glucose in the blood, recordings were made of the activity of 12 neuronal glucose receptors undergoing functional reorganization

in connection with CR activity. Findings are presented. It is shown that the CR reorganization of VMN and LH neurons attained reinforcement earlier than cortical neurons. The "plasticity" of the glucose receptors appeared to make them suitable for the study of the formation of the conditioned connection at the neuronal level.—*I. D. London.*

7564. Kuntsova, M. Ya. *Izmenenie potentsiala pokoya i kallinoi kontraktury myshtsy kleshni rechnogo raka pri motornoi i tormoznoi denervatsii.* [Change in resting potential and in potassium-contraction of the crayfish claw-muscle following motor and inhibitory denervation.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1471-1480.—Studied the relationship between (a) polarization level of the fibers in m. adductor and m. abductor of the giant claw of the crayfish *Astacus astacus* L., and (b) the ability of the muscles to develop K-contraction following selective motor and inhibitory denervation of the muscles. After section of the motor and inhibitory nerves, recordings were made of resting potential of the muscle fibers in the claw dactylopodite at various intervals of time thereafter. Parallel recordings were made of K-contraction of m. adductor under isotonic conditions with an increase of K^+ in physiological solution (isoosmotic medium). Following selective motor denervation and intact inhibitory innervation, a phasic development of postoperative changes in resting potential occurred that correlate with alteration of K-contraction. In Phase I (1st-7th day), decrease in resting potential and K-contraction was observed. In Phase II (8th-12th day), against a background of moderate depolarization, K-contraction either increased (22 mM of K^+) or decreased (43 mM of K^+). In Phase III (13th-17th day), with intensification of depolarization and diminution of resting potential, a stable hypersensitivity of the muscle to K^+ developed with the appearance of rhythmic activity. In Phase IV (18th-21st day), resting potential fell to 10-12 mv. (15%), while sensitivity of the muscle to K^+ was maximally raised. In the transitional periods between phases, fluctuations were recorded in depolarization level which were connected with reverse, hyperpolarization changes in resting potential. With selective inhibitory denervation and intact motor innervation, resting potential and K-contraction of m. adductor were significantly reduced. In m. abductor, resting potential changed phasically, with a predominance of hyperpolarization changes at the 5th-16th day of denervation. (English summary) (34 ref.)—*I. D. London.*

7565. Kupperman, Roman. (State U. Utrecht, Netherlands) **ON and OFF responses as measured in the cochlea of the guinea pig.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 518-524.—Investigated the "off" response in comparison to the "on" response as a function of several parameters in order to study the neural behavior of the guinea pig cochlea to repetitive tone bursts of different frequencies, starting and ending with several kinds of acoustical transients. In adult guinea pigs it was found that the off response behaved in a way other than the on response when the frequency of the tone burst was varied and the acoustical transient at both ends of the tone burst was kept constant. It appears that the off response is reduced as compared to the on response in the frequency area between 5000 and 9000 Hz. Outside this frequency band, the off response is of the same magnitude as the on response. It is suggested that, in that particular frequency

band, the cochlea of the guinea pig is most sensitive while most of the neural elements appear to be in a refractory state as a consequence of the tonal stimulation.—*Journal abstract.*

7566. Matyushkin, D. P. & Drabkina, T. M. (Leningrad State U., USSR) **Elektrofiziologicheskaya kharakteristika svoistv tonicheskikh volokon vneshnikh glaznykh myshts.** [Electrophysiological characteristics of the properties of tonic fibers in the external ocular muscles.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 563-569.—Presents an intracellular microelectrode study of the properties of more than 100 tonic muscle fibers (slow fibers constantly participant in tonus) of m. obliquus superior in the external ocular musculature of the rabbit. Membrane resting potential of the tonic, multiply innervated fibers of m. obliquus superior came up, on the average, to 32 mV.; the amplitudes of postsynaptic potentials, creating tonus, to about 11 mV. Times of $1/2$ -life of postsynaptic potentials varied from 1.4-8.5 msec. in various fibers (in synaptic regions). In many cases, 2 kinds of postsynaptic potentials emerged in the same tonic fiber (in adjacent synapses)—faster (spike-like) and slower potentials. Groups of gamma-motoneurons, innervating the same tonic fiber, most often functioned in a display of independent rhythms. It is thus shown that many tonic fibers of the oculomotor apparatus include in themselves "heterogeneous and relatively independent compact motor neurons," i.e., neurons somewhat differing with respect to velocity and somewhat independent in rhythm of activity. (English summary) (18 ref.)—*I. D. London.*

7567. Meliya, A. S. (Inst. of Physiology, Tbilisi, USSR) **Vliyanie prodol'no deistviyushchei vibratsii raznykh parametrov na retseptory myshts.** [Influence on muscle receptors of parametrically different, longitudinally acting vibrations.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 589-596.—Studied the character of afferent impulsion from the receptors of isolated frog toe muscles, subjected to the action of parametrically different vibrations (sinusoidal and rectangular vibrations of various frequencies and amplitudes), in order to investigate the influence on CNS activity of vibration acting on different parts of the torso or the whole organism. Vibration, acting on the muscle, produced various response reactions by the muscle receptors (the reactions being a function of magnitude of initial stretching of the muscle): the greater the magnitude of the initial stretching of the muscle, the lower the amplitudinal thresholds of vibration, and the greater the frequency and number of discharges. It is suggested that, when the extremities are subjected to the action of vibration, impulsion, arriving in the CNS, is of varied character, being a function of muscle tension and of the parameters of vibration. Judging by the number and frequency of impulses, the most effective vibrations, as regards action on the brain, are those of comparatively moderate frequency (from 4-5 to 20-30/sec). It is also concluded that the number and frequency of discharges is, to a considerable degree, determined by the property of muscle tissues to conduct mechanical vibration. (English summary)—*I. D. London.*

7568. Meshcherskii, R. M. (Inst. of Higher Nervous Activity & Neuropsychology, Moscow, USSR) **Korotkolatentnye otvety retikulyarnogo yadra talamusa koshki na vspyshku sveta.** [Short-latency responses of the reticular nucleus of the cat thalamus to a light flash.] *Fiziologicheskii Zhurnal SSSR*, 1966(Feb),

Vol. 52(2), 125-130.—A bright light flash (50 microsec.) produced in the thalamic reticular nucleus 2 types of responses which preceded the response of the visual tract. 12 nembutalized cats served as Ss. The 1st type of pretract responses occurred independently of the lateral geniculate body responses, had a latent period of 7-12 msec., and had a positive-negative phasic sequence. The 2nd type of pretract responses represented the initial component of the lateral geniculate body responses or of visual radiation occurring several msec. earlier than the response of the visual tract. Responses of the 2nd type were recorded from those parts of the reticular nucleus which directly adjoin the lateral geniculate body. It is suggested that the pretract responses of the thalamus are an electrotonic expression of the dipole oscillations of the retinal ganglionic cells, emerging as the result of their inhibition during the development of Wave a in the electroretinograph. Similar electrotonic influences may transmit to the central divisions of the brain information about the imminent arrival of an afferent volley. A corresponding adjustment of the specific projection pathways of the analyzer may be brought about by means of a corticofugal system of connections.—I. D. London.

7569. Mortenson, Frederic J. (U. Michigan) **Determinants of electric discharge rate in *Gymnotus carapo*, the banded knifefish.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 935.

7570. Petrusinskii, V. V. (Leningrad State U., USSR) **Blonicheskii metod obnaruzheniya slabyykh bio-élektricheskikh reaktssii.** [Bionic method for detecting weak bioelectric reactions.] *Nervnaya Sistema*, 1968, No. 9, 181-184.—2 Ss (1 serving as an "adapter") participated in a comparative study of the effectiveness of detecting an emotionally significant stimulus by making use of the integral parameters of electrophysiological functions of an untrained S and those of an adapter previously subjected to training under hypnosis. The experiments demonstrate the possibility of raising the reliability of detecting weak bioelectrical reactions when a "specially trained operator [adapter] is utilized in the capacity of a bionic recognition-device."—I. D. London.

7571. Phillips, M. Ian & Olds, James. (California Inst. of Technology) **Unit activity: Motivation-dependent responses from midbrain neurons.** *Science*, 1969(Sep), Vol. 165(3899), 1269-1271.—Single neurons in the midbrain tegmentum of rats showed clear discriminatory responses to tones announcing either food or water or no reinforcement. Ss were required to press a single lever and remain motionless for 2 sec. during which time unit activity from several brain sites was recorded. One of the tones, randomly designated, was sounded halfway through this period. Manipulation of drive states revealed that the highest activity was associated with tones announcing the reinforcement for which the S was most strongly motivated. Thus, from a hungry S sustained or increased firing rates were elicited by a "food" tone and differentially lowered rates by the other tones.—*Journal abstract.*

7572. Pisani, D., Nigro, A., & Schillaci, A. (U. Messina, Italy) **Durata della contrazione elettrica sotto azione della musica.** [Variation of duration of the electric contraction by music.] *Rivista di Neurobiologia*, 1969(Jan), Vol. 15(1), 209-221.—On the basis of neurocybernetic concept, investigations were conducted to study the action of music on the duration of the electrical muscle contraction of adolescents performing

voluntary movements. It is observed that the slow music reduces the duration of the electrical contraction, while the "allegro" music increases electrical contraction. The significance and mechanism of this action are discussed.

—*English summary.*

7573. Requin, J. & Granjon, M. (Inst. of Neurophysiology & Psychophysiology, Marseille, France) **Relation entre le niveau d'excitabilité médullaire et la probabilité conditionnelle d'apparition du signal d'exécution pendant la période préparatoire à une réponse motrice.** [Relation between levels of medullary excitability and the conditioned probability of the appearance of a signal of performance during the preparatory period to a motor response.] *Canadian Journal of Psychology*, 1969(Oct), Vol. 23(5), 347-365.—Many experimental facts confirm the hypothesis that the relation between the duration of the preparatory period, and the performance level obtained in an RT situation, partly depends on the conditional probability of the response signal. This study shows that the effects of such a variable appear in physiological changes accompanying the preparatory sets, especially the excitability of the spinal motor structures. The level of spinal excitability has been tested by the monosynaptic reflexes method, with Ss placed in a simple RT situation, during the period separating the preparatory from the response signal, or the preparatory signal from the preceding response. In both procedures the interval explored was systematically varied and the time uncertainty concerning the moment of occurrence of the awaited signal was rendered independent of the duration of the interval by the use of a periodic stimulus acting as a time mark. A positive relation was observed between the duration of the variable interval and the amplitude of the spinal reflexes. It was identical in the 2 procedures when exploration concerned a muscle which was not involved in carrying out the response. The development of the spinal excitability level for the muscle involved in carrying out the response differs according to the meaning of the awaited signal: it grows during the interval between the trials. Results show the double aspect of the preparatory phenomena, of activating and generalized nature and, of lowering and focused nature. The hypothesis is confirmed in both cases. (20 ref.) —*English summary.*

7574. Shabonov, A. I. (Leningrad State U., USSR) **Vliyaniye myshechnogo utomleniya na élektricheski vyzvannyye otvety spinnoy mozga cheloveka.** [Influence of muscular fatigue on electrically evoked responses in the human spinal cord.] *Nervnaya Sistema*, 1968, No. 9, 120-126.—5 25-30 yr. old Ss were used to study the influence of voluntary exercise of the ulnar flexor of the weighted right hand (3 kg., 80 flexions/min) on the characteristics of the F response. Investigation of the late response (in the evoked EMG and identified with the F response), resulting from stimulation of the ulnar nerve, shows, on the basis of recordings from the ulnar flexor of the hand after unaccustomed muscular activity until stopping, that the F response disappeared immediately after the muscular performance. The character of F response restoration was not the same for all Ss. The M response remained relatively constant. It is suggested that the disappearance of the F response was due to a change in the activity of the muscle receptors.

—I. D. London.

7575. Shul'gina, G. I. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) **Reaktssii**

neironov kory golovnogo mozga krolika na rannei stadii vyrabotki oboronitel'nogo uslovnogo refleksa na ritmicheskii svet. [Reactions of neurons in the rabbit cerebral cortex in the early stage of elaborating a defensive conditioned response to rhythmic light.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 778-787.—Recorded the reactions of 16 cortical motor neurons and 11 cortical sensorimotor neurons in alert mobile rabbits to study (a) the early formation of a new CR system of neurons, and (b) the relationship of the inhibitory and excitatory processes in the elaboration of conditioned connection. The DCS was rhythmic flashes of light (1 or 3/sec), and the UCS was isochronic suprathreshold electrodermal stimulation of the extremity. The relative degree of the activation and inhibitory phases in the reactions to unreinforced flashes was dissimilar in different neurons of the visual cortex and in single neurons could undergo modification depending on the number of repetitions in series. In most neurons of the visual and sensorimotor cortex, linkage of electrodermal stimulation of the extremity to the light flash either did not change the reaction to light or produced weakening of its inhibitory and enhancement of its excitatory components. The reactions of single neurons in the visual and sensorimotor cortex to rhythmic light after its pairing with electrodermal stimulation of the limb changed in the direction of increase in the similarity of responses to paired stimuli.—I. D. London.

7576. Timko, N. A. (Inst. of Gerontology, Kiev, USSR) *Vozrastnye izmeneniya skorosti provedeniya vzbuzhdeniya po motornym voloknam perifericheskikh nervov*. [Age-specific changes in the conduction velocity of excitation along motor fibers of the peripheral nerves.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 552-557.—83 Ss in 3 age groups (18-32, 60-74, and 75-89 yr.) were studied to determine (a) the maximal conduction velocity of excitation in the ulnar and peroneal nerves, (b) the amplitude and duration of action potential of the abductor muscle of the little finger and the short extensor of the toes, and (c) residual conduction time. An attempt was made to determine whether the changes in all these parameters with age follow the same pattern, and whether the degree of these age-specific changes is the same in the upper and lower extremities. It was found that maximal conduction velocity of excitation was lower in the distal part of the ulnar nerve than in the proximal for all age groups. Conduction velocity of excitation diminished with age to a greater degree in the peroneal nerve than in the ulnar. There were age-specific differences in residual time in the upper and lower extremities. Age-specific changes in amplitude of muscle action potential was expressed in greater degree in the lower extremity than in the upper. Duration of muscle action potential increased with age only in the lower extremity. (English summary) (33 ref.)—I. D. London.

7577. Ungiadze, A. A. & Oniani, T. N. (Inst. of Physiology, Tbilisi, USSR) *O dinamike fonovoi elektricheskoi aktivnosti dorsal'nogo i ventral'nogo otdelov gippokampa koshki*. [On the dynamics of spontaneous electrical activity in the dorsal and ventral regions of the cat hippocampus.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 535-542.—Cats were employed in a study of the changes in the electrical activity of the dorsal and ventral regions of the hippocampus (especially theta activity) during various

kinds of conditioned and unconditioned motivated behavior (alimentary-motor CRs) and also in response to electrical stimulation of the different hypothalamic nuclei. Under the influence of an acoustic UCS, eliciting an orienting reaction without emotional coloration, desynchronization and inhibition of all the slow EEG rhythms were observed in both the dorsal and ventral regions of the hippocampus. Conditioned acoustic stimulation brought about intensification of theta rhythm in both the dorsal and ventral regions of the hippocampus. Theta rhythm displayed a parallel development in the 2 regions during the paradoxal stage of sleep. A sharp intensification of theta rhythm in the 2 regions was observed under the influence of electrical stimulation of the lateral parts of the hypothalamus, eliciting the activation of alimentary behavior. Stimulation of the hypothalamic ventromedial nucleus, producing inhibition of alimentary behavior, simultaneously brought about an intensification of delta rhythm in the dorsal and ventral regions of the hippocampus. Intensification of theta rhythm in motivated behavior was not recorded in all layers of the hippocampus. It was evidently connected with activation of the cellular layer. This probably explains the absence of theta rhythm in the ventral region of the hippocampus. (English summary) (32 ref.)—I. D. London.

7578. Val'tsev, V. B. & Lalayan, A. A. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *K voprosu o mekhanizmax funktsional'noi perestroiki v raznykh zven'yakh zritel'nogo analizatora v usloviyakh dlitel'noi svetovoi stimulyatsii*. [On the mechanisms of functional reorganization in various links of the visual analyzer when photic stimulation is lengthy.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 853-861.—Used 14 narcotized cats in a comparative study of the temporal and amplitudinal characteristics of the off response in the optic tract, lateral geniculate body (LGB), and visual cortex. A range of intensities was chosen in which retinal reactions were a linear function of the logarithm of signal intensity. Under nonbrief photic stimulation, along with an increase in excitation in the upper visual analyzer due to the elimination of retinal inhibitory effects, centrifugal inhibitory influences were probably exerted on processes in the LGB from the cortex. After nonbrief photic stimulation (.5, 1.2, 5 sec.) evoked potential was found to be a linear function of the logarithm of brightness of the preceding illumination in the optic tract and a nonlinear inverse tending function in the LGB and visual cortex. The absence of similar differences with brief illumination indicates that the processes characterize the specific way in which the different levels of the visual system function when nonbrief photic stimulation is applied. The cortex is capable of changing the temporal characteristics of evoked potential over a considerably greater range in comparison with the LGB; as a result of which the rate and time of development of evoked potential in the cortex may lag behind and run ahead of evoked potential in the LGB, and the relationship of the processes in the LGB and the visual cortex may undergo sharp change. It is suggested that this cortical property may depend on processes in the dendrites, and the participation of the thalamic reticular formation. It is also suggested that, with nonbrief photic stimulation, there are some processes, connected with the generation of the primary response in the LGB, which are evidently not connected

with the transmission of information to the visual cortex.—I. D. London.

7579. Vasil'eva, V. K. (Leningrad State U., USSR) **Elektrotonicheskie izmeneniya v kozhe i myshitse.** [Electrotonic changes in skin and muscle.] *Nervnaya Sistema*, 1968, No. 9, 151-158.—Data are adduced which demonstrate the similarity of the polarization-depolarization effects developing in skin, nerve, and muscle tissues. These constitute evidence for the generality of nonspecific electrotonic effects in different living tissues.—I. D. London.

7580. Veselkin, N. P. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Elektrotonicheskie reaktsii v srednem, prodolgovatom i spinnom mozgu minogi pri zritel'noi stimulyatsii.** [Electrical reactions in the midbrain, medulla oblongata and spinal cord of the lamprey to visual stimulation.] *Fiziologicheskii Zhurnal SSSR*, 1966(Feb), Vol. 52(2), 131-136.—38 river lampreys (*Lampetra fluviatilis*) served as Ss and 50-microsec light flashes were utilized. Sufficiently intense visual stimulation evoked in Ss an efferent motor volley, which was propagated along mesencephalo- or bulbospinal pathways. The components of the tectal mesencephalic response are divided into 2 groups: (a) those resulting from the activity of retinal elements, reacting to the light coming on; and (b) those from the activity of elements, reacting to its being turned off.—I. D. London.

7581. Voronin, L. L. & Solntseva, E. I. (Inst. of the Brain, Moscow, USSR) **Sledovye efekty posle polarizatsii otdel'nykh neuronov kory: Vnutrikletochnoe otvedenie.** [Trace effects after polarization of single cortical neurons: Intracellular recording.] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 828-838.—Utilized intracellular recordings of 18 neurons plus "partially intracellular" recordings of 61 neurons in the sensorimotor cortex of nonanesthetized rabbits in a study of the trace effects on frequency, arising after switching off the polarizing current passed through the recording microelectrode. Slow adaptive changes in discharge frequency were observed due to the action of electric current. After switching off a depolarizing current, inhibitory aftereffects occurred in all intracellularly recorded neurons, while activating aftereffects occurred following a hyperpolarizing current. The duration of trace effects increased in duration and strength of current and attained 10 sec. for intracellular recordings. In the case of intracellular recordings no substantial changes were noted in average level of membrane potential in the afteraction. In the case of "partially intracellular" recordings, changes in recorded steady potential were noted, following the switch off of polarizing current. However, these changes are the result of displacements of the cellular membrane relative to the microelectrode, and not to true changes in membrane potential. No substantial changes in spontaneous synaptic "bombardment" or in postsynaptic potentials were found. In most cells during inhibitory afteraction large depolarizing oscillations were observed which produced no spike discharges.—I. D. London.

7582. Zarkeshv, E. G. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) **Metodika vnekletochnoi registratsii neuronnoi aktivnosti v kore golovnogo mozga v usloviyakh khronicheskogo eksperimenta pri svobodnom nefiksirovannom sostoyanii zhivotnogo.** [Method for extracellular registration of neuronal activity in the cerebral cortex under conditions

of chronic experiment with the animal in a free nonfixated state.] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 895-898.—Presents details concerning the modification and operation of microelectrode apparatus, in order to record the spike activity of cortical neurons in freely moving cats under conditions of chronic experiment. Experiments show that recording time for single neurons is 15-45 min.—I. D. London.

7583. Zilov, V. G. (1st Medical Inst., Moscow, USSR) **Vzaimodeistvie korkovykh i retikulyarnykh vliyaniĭ na neuronakh lateral'nogo gipotalamusa.** [Interaction of cortical and reticular influences on the lateral hypothalamic neurons.] *Fiziologicheskii Zhurnal SSSR*, 1969(Dec), Vol. 55(12), 1436-1443.—In view of the important role which the cortical level and parts of the mesencephalic reticular formation (MRF) play in cerebral integrative activity, 20 cats under chloralose narcosis were studied to determine the influences exerted by these structures on the activity of 290 neurons in the lateral sections of the hypothalamus, involved in the formation of emotional and motivational states in the organism. Changes in cellular activity were investigated through electrostimulation of the 1st sensorimotor area and the MRF. In order to study the convergence of different excitatory influences in the hypothalamic neurons, stimulation of the sciatic nerve was employed along with light and sound. 75% of the neurons displayed a low level of spontaneous activity (up to 5 impulses/sec). Changes in cellular activity under the action of diverse stimulation provide evidence for the great ability of hypothalamic neurons to handle the convergence of influences, as seen by the fact that only 10% of the neurons, investigated to establish convergence, failed to respond to any of the presented stimuli. Lateral hypothalamic neurons, responding to stimulation, were inhibited by corticofugal impulses from the 1st sensorimotor area and the MRF. Definite confirmation of the dominating influence of either the cortex or the MRF was not possible. Cortical influence was predominant in 28.7% of the neurons; MRF influence (chiefly inhibitory in character) in 32.5%; in the remaining 38.8%, joint corticoreticular action exerted a "resultant influence," distinct from the effects observed on isolated stimulation of the cerebral cortex or the MRF—I that is mainly excitatory. (English summary) (21 ref.)—I. D. London.

Electroencephalography & Evoked Potentials

7584. Alekseev, M. A. & Dobronravova, I. S. (Inst. of Higher Nervous Activity & Neuropsychology, Moscow, USSR) **Generalizovannye reaktsii vysshikh otdelov mozga cheloveka pri vyrabotke sistemy posledovatel'nykh dvigatel'nykh reaktsii.** [Generalized reactions of the higher divisions of the human brain during elaboration of a system of sequential motor reactions.] *Zhurnal Vysheĭ Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 816-827.—Presents an EEG study of a temporal and rhythmic sequential system of conditioned connections widely represented in human motor activity. Repetition of a simple movement in connection with the rhythmic repetition of an external signal (a model with 2 interacting CRs: 1 to an external stimulus; the other to the time of its application) was employed. EEG recordings were made of the acoustic and motor regions of the contralateral hemisphere with respect to the hand, for which a motor reaction (CS: click in 1 ear; CR: key-pressing producing a click in the other ear) was

elaborated along with a GSR for the other hand. It is found that extinction of the GSR is associated more with the formation of a stable system of sequential connections. On the contrary, the emergence of a GSR was connected with the instability of a system in its formative period either during its restoration, if it was disturbed, or as a result of weakness of the systemic processes. The GSR reflects primarily changes in the dominating conditioned connection in the system. Correction of slight changes in the system may not be accompanied by a GSR.—*I. D. London.*

7585. **Giannitrapani, Duilio.** (Michael Reese Hosp., Psychiatric & Psychosomatic Inst., Chicago, Ill.) **EEG changes under differing auditory stimulations.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 445-453.—Investigated amplitude changes and phase angle relationships between 16 brain areas for frequencies from 1-33 cps. Ss were 32 11-14 yr. old right-handed boys. Besides 2 resting control periods, 3 auditory conditions were used, 1 unpatterned (white noise), a musical excerpt, and a story. The 3 conditions showed similarities in the patterning of EEG data and distinctive features characteristic of each condition. Similarities consisted of amplitude changes primarily in the prefrontal-to-occipital and homologous temporal comparisons. The noise condition was characterized by left temporal increase in beta activity and anterior leading of alpha in the left prefrontal-to-occipital comparison. Music was characterized by the smallest change in amplitude from resting, bilaterally symmetrical leading in the prefrontal-to-occipital comparisons, and anterior leading in the left central-to-occipital comparison. Voice was characterized by a bilateral increase of beta activity in the temporal areas and posterior leading of alpha in the left prefrontal-to-occipital comparison. Both the music and voice test conditions showed a decrease in the left leading activity characteristic of the resting condition in this right-handed group, but in slightly different beta frequency bands. Findings indicate both the specificity and the generality of the mediation of auditory processes in the human brain. (15 ref.)—*Journal summary.*

7586. **Itil, T. M.** (U. Missouri, Medical School, St. Louis) **Digital computer analysis of the electroencephalogram during rapid eye movement sleep state in man.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 201-208.—Investigated whether the scalp-recorded EEG pattern of REM sleep (paradoxical sleep) can be discriminated from the drowsiness state and awakening state. Visually identified, artifact-free, digital computer-analyzed EEG samples of these 3 stages were compared for each of 7 volunteers and for the entire group. Statistical evaluation (analysis of variance and discriminant function) of the quantitative EEG measures demonstrated that the REM period is characterized by a low voltage EEG with less alpha activity and more slow and very fast activity than the awakening and the drowsiness states. Since these kinds of EEG alterations have been observed, particularly after anticholinergic hallucinogenic drugs, and since the increase of fast activity during anticholinergic drug-induced delirium is related to an increase of perceptual disturbances, a relationship between increased fast waves and an increase of mental activity during sleep (dream) has been postulated. (35 ref.)—*Journal abstract.*

7587. **Leutin, V. P.** (Leningrad State U., USSR) **Elektroentsefalograficheskoe issledovanie**

vzaimodeistviya sensorno razobshchennykh ispytuemykh metodom uslovykh refleksov. [Electroencephalographic study of the interaction of sensorially isolated Ss by conditioned response method.] *Nervnaya Sistema*, 1968, No. 9, 172-176.—2 Ss (a percipient and an inductor—each 21 yr. old) were isolated from each other in 2 soundproof rooms. For the inductor there was simultaneous light from 60-W bulb and electrocutaneous stimulation of fingers of the right hand for 10 sec.; for the percipient the procedure was the same except duration was for 5 sec. only and started 5 sec. later. CR procedures were then applied to determine whether "any information was transmitted from the inductor to the percipient" in the process of forming a "passive-defensive" CR. In the process, continuous recording of the percipient's EEG was undertaken together with registration of an actogram for determination of EEG artifacts. As the number of pairings for elaboration of the CR increased, the biphasic reaction in the percipient's EEG, following unconditioned stimulation of the inductor, developed more and more in the direction of significance, pointing to the formation of a conditioned connection. Control experiments, conducted in the absence of an inductor, disclosed no statistically significant changes in the percipient's EEG.—*I. D. London.*

7588. **Morgan, R. John.** (Iowa State U.) **Cross correlation of sensory stimuli and electroencephalogram.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 646.

7589. **Osterhammel, P., Terkildsen, K., & Arndal, P.** **Evoked responses to SISI stimuli: Contralateral masking effects.** *Acta Oto-Laryngologica*, 1969(Jun), Suppl. 263, 245-247.—In an experiment with 3 Ss, it was found that evoked cortical responses to Short Increment Sensitivity Index type stimuli at 20-db sensation level and increment magnitudes 2, 3, and 5 db. tended to be enhanced by the application of contralateral masking noise. With 5-db increments and the continuous tone at the threshold of hearing, the same masking noise caused the response to disappear. The enhancement of auditory discrimination at suprathreshold levels through application of contralateral masking and the central masking effect at the threshold are thought to be comparable to the so-called indirect adaptation mechanism of the eye, and an indication that the efferent innervation to the cochlea is important for the adaptation of the ear.—*Journal abstract.*

7590. **Rudell, Alan P.** (U. Iowa) **The operant conditioning of primary and secondary components in the visual evoked potential with measurement of collateral neural and behavioral activity.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1571-1572.

SENSORY PHYSIOLOGY

7591. **Blackwell, Roger D., Hensel, James S., & Sternthal, Brian.** (Ohio State U.) **Pupil dilation: What does it measure?** *Journal of Advertising Research*, 1970(Aug), Vol. 10(4), 15-18.—Pupil dilation is 1 of the objective measures adopted "as a useful predictor of human behavior without thoroughly investigating the technique" according to this evaluative review. There is "some doubt... as to what psychological processes... are being monitored by pupillary responses." The authors' current impression is that pupillary dilations

accompany any substantial increase in mental activity, regardless of the pleasantness of this activity."—J. C. Franklin.

7592. Bykov, K. A. & Funtikov, B. A. (Leningrad State U., USSR) *Issledovanie perekhodnykh protsessov v setchatke lyagushki*. [Study of transitory processes in frog retina.] *Nervnaya Sistema*, 1968, No. 9, 141-150.—Studied transitory processes in the beginning periods of dark and light adaptation, utilizing the immobilized whole eye of the frog and a 2-channel optic adequatometer, capable of changing by channel the duration and intensity of optic stimuli over a wide range and the interval between them. It is shown that under similar conditions of stimulation, "small resolving power of the retina" is due to the duration of the transitory processes and does not characterize the potentialities of the system. In order to assess the true resolving power, stimulation of different parts of the retina is necessary.—I. D. London.

7593. Collins, W. E. & Updegraff, B. P. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) *Possible interactions between gravi-receptors and semicircular canals in the habituation of vertical nystagmus in parrots*. *Acta Oto-laryngologica*, 1970(Apr), Vol. 69(4), 257-265.—Horizontal ocular nystagmus in 6 restrained African parrots was habituated in a directionally specific fashion by repeated angular accelerations. Substantial response recovery was evident following 2 wk. of rest. Vertical nystagmus was similarly habituated in 16 dwarf parrots who were positioned so that vertical semicircular canals were in the plane of rotation. By changing the position of these Ss 180° after the habituation trials, the same set of vertical canals could be stimulated but with the otoliths and other gravireceptors oriented differently. Habituation was relatively specific for the direction of nystagmus repeatedly elicited and for the head and body position maintained during habituation trials. A dynamic interaction between gravireceptors and the semicircular canals is suggested as a possible feature of nystagmic habituation. (French & German summaries) (20 ref.)—*Journal abstract*.

7594. Harutiunian-Kozak, Bella; Kozak, W., Dec, Krystyna, & Balcer, Elzbieta. (Nencki Inst. of Experimental Biology, Warsaw, Poland) *Responses of single cells in the superior colliculus of the cat to diffuse light and moving stimuli*. *Acta Biologicae Experimentalis*, 1968, Vol. 28(4), 317-331.—Studied responses of superior collicular cells in 35 cats to objects moving before the eyes and to changing illumination. Types of cells found included those which (a) reacted to changes of light intensity but not to moving objects, (b) responded to moving objects but not to changes in diffuse light, (c) were excited by a certain direction of movement and inhibited by the opposite, and (d) responded both to changing light intensity and to moving objects. The encoding of information in the directionally sensitive cells took place through (a) an increase of spike number during the optimal direction of movement and a decrease during the null direction, and (b) an occurrence of a brief burst of spikes during the optimal direction and an absence of such a burst during the null movement. (19 ref.)—*Journal summary*.

7595. Hilarides, Robert M. (U. Florida) *Some retinal response patterns in perception of apparent movement*. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1565-1566.

7596. Ivanitskii, A. & Shubina, N. *Fiziologicheskaya*

dvukhmernost' informatsii: Mekhanizmy i sledstviya. [Physiological bidimensionality of information: Mechanisms and consequences.] *Nauka i Zhizn'*, 1970, Vol. 37(1), 97-103.—Views sensory information, whether specific or nonspecific, in terms of its physical parameters, and in terms of its significance for the organism. The relative weights of these 2 forms of sensory information for an individual are considered of great importance and are discussed in relation to the character of the person, and the creative process.—I. D. London.

7597. Karlovich, Raymond S. & Luteran, Barry F. (U. Wisconsin) *Application of the TTS paradigm for assessing sound transmission in the auditory system during speech production*. *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 510-517.—Investigated the relations between speech production and sound transmission by employing a temporary threshold shift (TTS) paradigm. 10 males and 10 females were exposed to a 100-db SPL 1000-Hz fatigue stimulus for 3 min. During the exposure time, the Ss repeatedly produced a voiced vowel, a whispered vowel, or a nonvoiced articulatory gesture representing a vowel without whispering. Pre- and postexposure thresholds were tracked with a Békésy-type procedure for a stimulus 1/2 oct. above the fatigue frequency. TTS following voiced /a/ and /i/ vowel conditions was significantly less than that observed for corresponding whispered or nonvoiced conditions at each postexposure recovery time measured. The magnitude of these differences ranged from 9 db. at 10 sec. to 4 db. at 3 min. of recovery. Results strongly indicate that voiced vowel production impedes transmission, reducing the energy delivered to the cochlea from a 1000-Hz fatigue stimulus. 2 potential mechanisms are proposed to account for alteration in sound transmission during voiced vowel production: (a) possible middle-ear muscle contraction, and (b) alterations in the normal vibratory mode of the stapes caused by vertical vibrations of the skull during phonation.—*Journal abstract*.

7598. Lewis, Georgy W. (Washington State U.) *Linear and angular displacement effects on ultrasonic traces in the living primate eye*. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1100.

7599. Shostak, V. I. & Obukhova, E. A. (Kirov Military-Medical Academy, Leningrad, USSR) *Vliyanie intensivnoi dezadaptiruyushchei fotostimulyatsii na kharakter vosstanovleniya svetovoi chuvstvitel'nosti zritel'nogo analizatora cheloveka*. [Influence of intense disadapting photostimulation on the character of restoration of photic sensitivity of the human visual analyzer.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 558-562.—8-9 Ss participated in a study of the action of intense photic stimuli (250-1600 candle sec.) of brief duration (80-900 microsec.) on the degree of decrease and speed of restoration of photic sensitivity of the analyzer under conditions of complete dark adaptation. The determining factor in the action of such stimuli is their energy. However, with decrease in duration of the light flash, the character of the relationships underwent change. The law that the "identity of action of stimuli on the visual analyzer is the same, given fulfillment of the condition $I \cdot t = \text{const.}$ " holds within the bounds of the investigated parameters of the brief superintense photic stimuli, but with certain deviations in the beginning period of dark adaptation. Time of full restoration of photic sensitivity was not a function of intensity of the photic stimulus. The warp in

the curve of dark adaptation could not be completely explained by the transition from photopic to scotopic vision. (English summary) (24 ref.)—*I. D. London.*

7600. Steinberg, Roy H. **Rod and cone contributions to S-potentials from cat retina.** *USN AMI Army-Navy Joint Report*, 1969(Jun), No. 1071, 13 p.—Studied whether the rods contribute to stimulus (S)-potentials in the intact eye of the cat. S-potentials from luminosity units were evoked by small spots of monochromatic light in dark- and light-adapted retinas. The spectral sensitivity curve for dark-adapted S-potentials had its maximum at 500 nm., and the form of dark-adapted responses suggested that rods were excited. The spectral sensitivity curve for light-adapted S-potentials had its maximum at 560 nm., and response latencies even at threshold were faster than in dark adaptation. Individual S-potentials exhibited Purkinje shifts. It is concluded that rhodopsin rods contribute to S-potentials in the cat and that cones contribute to the same responses. (40 ref.)—*Journal abstract.*

7601. Steinberg, Roy H. **Rod-cone interaction in S-potentials from cat retina.** *USN AMI Army-Navy Joint Report*, 1969(Jun), No. 1072, 17 p.—Studied rod-cone interaction in cat stimulus-potentials by analyzing the effect of wavelength and intensity upon the form of dark-adapted responses. Flashes of white light and relatively monochromatic flashes produced responses that seemed to originate from the excitation of both receptor types. The rod response changed as a function of intensity. The cone response added to the changing rod response. Both ceilings were obscured by the apparent addition of the cone contribution. Cone and rod responses to brief orange and blue lights of moderate intensity, separated in time, added together across a complete range of intervals. (16 ref.)—*Journal abstract.*

7602. Steinberg, Roy H. **The rod after-effect in S-potentials from cat retina.** *USN AMI Army-Navy Joint Report*, 1969(Jun), No. 1075, 13 p.—Studied the relation of the rod aftereffect to percentage rhodopsin bleached in stimulus potentials from cat retina. At threshold, flashes which produced the rod aftereffect bleached only very small quantities of rhodopsin; and at a fixed flash duration, the duration of the aftereffect increased as a function of log intensity. The aftereffect's threshold occurred at about the intensity which saturated the maintained voltage. With flash intensity fixed and flash duration increased the duration of the aftereffect was a linear function of exposure time. The duration continued to increase after a 16-sec exposure, even though at least 99% of the rhodopsin was bleached. It is concluded that the aftereffect originates from something which accumulates after the maintained voltage in rod pathways reaches a ceiling. The accumulation can continue at a fixed rate irrespective of the bleaching rate. (15 ref.)—*Journal abstract.*

7603. Tonndorf, Juergen. (Columbia U.) **Nonlinearities in cochlear hydrodynamics.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 579-591.—Presents an account of findings with mechanical cochlear models in investigations of the role of hydrodynamics in nonlinear cochlear waves. Relevant principles of hydrodynamics are discussed and model findings indicated which "may explain a number of auditory and/or electrophysiological phenomena: (a) an amplitude-independent asymmetrical displacement that for appropriate signals leads to demodulation; and (b) an

amplitude-dependent event, Békésy's eddies, that leads to harmonic distortion." An attempt is made to correlate the findings with those obtained from different types of studies. (43 ref.)—*S. Knapp.*

7604. Zimkin, N. V. & Mozhukhin, A. S. (Kirov Military-Medical Academy, Leningrad, USSR) **Teoriya otrazheniya V. I. Lenina i fiziologiya organov chuvstv.** [V. I. Lenin's reflection theory and the physiology of sensory organs.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 490-495.—Presents an analysis of developments in the physiology of sensory organs which "completely confirm the reflection theory, formulated by V. I. Lenin on the basis of Marx' dialectical materialism."—*I. D. London.*

BIOCHEMISTRY

7605. Altschuler, Henry, et al. (Gerontological Research Inst., Philadelphia, Pa.) **Neurochemical changes in the brains of albino rats as related to aversive training.** *Journal of Biological Psychology*, 1969(Dec), Vol. 11(2), 33-38.—Describes research on the relationship between neurochemistry and learned behavior (aversive training) of albino rats. A donor-recipient transfer yielding positive results is described. Chemical analyses of the donor brains (total cerebral homogenate) indicate that with avoidance training, quantitative increases in RNA and protein were found, and significant correlations occurred between donor RNA, protein and total nitrogen, and recipient extinction learning. Using escape training, with a 2-hr posttraining sacrifice interval, significant increases in brain protein and significant decreases in nonprotein nitrogen were noted. Chemical analyses were performed on a total brain homogenate of the cerebrum, brainstem, and cerebellum. Age differences were found for RNA and significant correlations were found between the chemical constituents and extinction behavior for both young and aged Ss. (23 ref.)—*Journal abstract.*

7606. Azmitia, E. C., Algeri, S., & Costa, E. (Rockefeller U.) **In vivo conversion of ³H-L-tryptophan into ³H-serotonin in brain areas of adrenalectomized rats.** *Science*, 1970(Jul), Vol. 169(3941), 201-202.—Adrenalectomized male Sprague-Dawley rats 10 days before the in vivo conversion index was estimated of ³H-tryptophan into radioactive serotonin in brainstem and telencephalon. It was found that the conversion index in the brainstem of adrenalectomized Ss was smaller than in the same area of sham operated Ss. Conversely, the conversion index in the telencephalon was similar in the 2 groups. The serotonin concentrations were unchanged by adrenalectomy, which suggests that in brainstem the decrease of tryptophan hydroxylase is reflected by the conversion index estimation and not by measurement of serotonin steady-state concentrations. (18 ref.)—*Journal abstract.*

7607. Baumel, Irwin; DeFeo, John J., & Lal, Harbans. (U. Rhode Island) **Alterations in brain sensitivity and barbiturate metabolism unrelated to aggression in socially deprived mice.** *Psychopharmacologia*, 1970, Vol. 18(3), 320-324.—Swiss albino Charles River Farms random-bred mice deprived of social interactions showed increased resistance to hexobarbital narcosis. However, only isolated males developed aggressiveness. The more rapid disappearance of hexobarbital from the whole body of isolated Ss and the higher drug concentration at awakening indicate enhanced hepatic deg-

radation with a concomitant increase in CNS excitability. Development of aggressiveness in isolated male Ss did not correlate temporally with the reduced response to hexobarbital. Data suggest that alterations in barbiturate sensitivity and development of aggressiveness following social deprivation have different biological bases. (18 ref.)—*Journal abstract.*

7608. Cohen, Alan. (Foundation for Research on the Nervous System, Boston, Mass.) **Effects of whole brain homogenate on transfer of information in rats.** *Journal of Biological Psychology*, 1969(Dec), Vol. 11(2), 27-29.—Injected 13 male albino Charles River rats intracranially with whole brain homogenate from rats that were warned by a buzzer to avoid a bright light. Recipients of trained brain tissue exhibited the same avoidance response when subjected to the buzzer alone. Controls receiving untrained brain homogenate injections or no injections did not respond to the buzzer as frequently.—*Journal abstract.*

7609. D'Amato, Franco C. (Provincial Psychiatric Hosp., Naples, Italy) **Alcune considerazioni sul problema biochimico dell'aggressività.** [Some considerations on the biochemical problem of aggressiveness.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 486-494.—Reviews the role of cerebral lesions, painful stimulation, and isolation in aggression along with endocrinological and chemical aspects.—*L. L'Abate.*

7610. Danyasz, A., Buczko, Wl., & Wisniewski, K. (Medical School, Bialystok, Poland) **The influence of somatotropin on the chlorpromazine distribution in rat tissues.** *Agressologie*, 1969(Sep), Vol. 10(5), 391-397.—Experiments in vivo show that simultaneous administration of somatotropin (STH) and chlorpromazine enhances the accumulation of the latter in the liver and muscle tissues. 100 healthy and 20 hypophysectomized male Wistar rats served as Ss. In hypophysectomized Ss the level of chlorpromazine in the lung, brain, liver, and muscle was decreased. Administration of STH 15 min. prior to chlorpromazine, elevated 2-fold the drug level in the brain tissue. This effect was not observed in diabetic Ss. In the experiments in vitro STH increased the rate of chlorpromazine penetration into the liver slices. Transport effects of STH are attributed to its direct effect (liver, muscle) and upon its indirect action (brain). (French, German, Spanish & Russian summaries) (33 ref.)—*Journal abstract.*

7611. Fjerdingstad, E. J. (U. Tennessee Medical Units, Brain Research Inst., Memphis) **Memory transfer in goldfish.** *Journal of Biological Psychology*, 1969(Dec), Vol. 11(2), 20-25.—Trained goldfish to avoid shock in a water-filled shuttle box with light as the CS. RNA extracts prepared from such trained donors and injected intracranially into naive recipients caused Ss to respond significantly more often to unreinforced presentations of the stimulus light than did recipients of extract from naive brains.—*Journal abstract.*

7612. Gaito, John & Bonnet, Kenneth. (York U., Toronto, Ontario, Canada) **Quantitative versus qualitative RNA and protein changes in the brain during behavior.** *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 109-127.—Reviews research purporting to demonstrate the occurrence of quantitative or qualitative changes in RNA and/or protein during simple and complex behavior. Limitations in interpretation of research results and methodological problems are discussed. Much research indicates that quantitative changes do occur. Generally, increments tend to result with mild or

moderate stimulation; decrements, with drastic or prolonged stimulation. However, there is no conclusive evidence to indicate that qualitatively different RNA and/or protein species are synthesized during behavior. The necessity for research involving methods sensitive to the detection of qualitative changes is suggested. (4 p. ref.)—*Journal abstract.*

7613. Gantt, W. Horsley. (Veterans Administration Hosp., Pavlovian Lab., Perry Point, Md.) **Psychopharmacology and conditional reflexes.** *Conditional Reflex*, 1970(Apr), Vol. 5(2), 109-118.—Drugs may be used in several ways to investigate their role in behavior. The placebo effect is usually connected with the relation of the person to the drug. Using the drug as UCS, its action may help to analyze the role of peripheral vs. central stimuli in the formation of CRs. The effect of drugs which act solely at the peripheral nerve endings without the involvement of the CNS cannot become conditioned. The action of drugs on the CR compared with their action on the UCR explains some of their behavioral effects. Schizokinesis is often prominent in the action of drugs. Although a drug may increase the level of the heart rate, it can also diminish the reactivity shown in the CR. Meprobamate and mescaline affect differently the cardiac and the motor components of the CR, illustrating a schizokinesis. The type of individual is an important factor in the action of drugs; the same drug may have opposite effects on different individuals. This leads to the conclusion that a drug should fit the individual as well as the disease. Autokinesis is often seen in drug action. Therefore a single dose of some drugs, such as acetylcholine, epinephrine, or LSD, may permanently change the relationships between excitation and inhibition, in the direction of improvement or deterioration (positive or negative autokinesis). (22 ref.)—*Journal abstract.*

7614. Goldberg, M. E. & Salama, A. I. (Union Carbide Corp., Sterling Forest Research Center, Tuxedo, N.Y.) **Norepinephrine turnover and brain monoamine levels in aggressive mouse-killing rats.** *Biochemical Pharmacology*, 1969(Feb), Vol. 18(2), 532-534.—Reports findings concerning levels of brain serotonin and norepinephrine and the turnover rate of norepinephrine in mouse-killing, male, Long-Evans rats. Ss were maintained on a restricted food intake of 15 gm/day, and were housed individually. Ss were tested periodically for killer ("muricidal") behavior. 35 killer rats and 39 controls were selected from the colony and sacrificed 24 hr. later. Brain norepinephrine and serotonin levels were determined (Shore and Olin method), and norepinephrine turnover was calculated using the steady state concepts of Neff and Costa. Results fail to demonstrate significant differences of serotonin levels between killer rats and controls; however, there was a 25.5% increase in norepinephrine levels in killer rats.—*B. A. Stanton.*

7615. Golub, Arnold M., Epstein, Leon, & McConnell, James V. (U. Michigan, Mental Health Research Inst.) **The effects of peptides, RNA extracts, and whole brain homogenates on avoidance behavior in rats.** *Journal of Biological Psychology*, 1969(Sep), Vol. 11(1), 44-49.—Trained 23 naive male albino rats to avoid a black box. An equal number of donor rats served as quiet control Ss. Following training, all donor Ss were sacrificed and either total brain homogenates, RNA, or peptide fractions were prepared from their brains. Recipient Ss injected with material from the brains of trained, but not of untrained, donor Ss reversed their

natural preference for the dark. Results suggest that: (a) an effect of some sort does occur following the injection, into naive recipient animals, of material extracted from the brains of trained donor animals, and (b) at least in the black-white avoidance situation, total brain homogenates, and both RNA and peptide fractions from the brains of trained donor rats are all effective in mediating the effect. (16 ref.)—*Journal abstract*.

7616. Gorokhov, A. L. (Research Inst. of Physical Culture, Leningrad, USSR) *Vliyaniye myshechnoi deyatel'nosti na soderzhanie katekholaminov v tkanyakh belykh kryss*. [Influence of muscular activity on catecholamine content in the tissues of trained and untrained white rats.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1411-1415.—Studied the changes in the levels of adrenaline, noradrenaline, and the catecholamine metabolites in the organs of swimming Ss (intensity and duration varied). Change in catecholamine level in the brain was characteristic of the activity. Training increased catecholamine level in the brain. Muscular activity lessened sharp changes in cerebral catecholamine level in trained Ss. Where activity was greatly prolonged, cerebral catecholamine level was significantly higher in trained Ss. (English summary) (21 ref.)—*I. D. London*.

7617. Hanin, L., Massarelli, R., & Costa, E. (St. Elizabeths' Hosp., Washington, D.C.) *Acetylcholine concentrations in rat brain: Diurnal oscillation*. *Science*, 1970(Oct), Vol. 170(3955), 341-342.—Reports that a diurnal oscillation of acetylcholine concentrations in rat brain was demonstrated by gas chromatography in an experiment with male Sprague-Dawley rats. Peak concentrations occurred at 2 hr. of light, and a trough was seen at 6 hr. of darkness. This pattern was observed only in grouped Ss, and emerged after at least 18 days of prior conditioning in an environment with controlled light, humidity, and temperature.—*Journal abstract*.

7618. Iwata, Heitaroh; Shikimi, Tadahiho, & Oka, Taichi. (Osaka U., Toyonaka, Japan) *Pharmacological significances of peptidase and proteinase in the brain: I. Enzymatic inactivation of bradykinin in rat brain*. *Biochemical Pharmacology*, 1969(Jan), Vol. 18(1), 119-128.—Investigated the peptidase activity in rat brain using bradykinin as substrate. The nature and changes during convulsion in activity of the enzymes which inactivates bradykinin (kininase) were examined. The optimum conditions for the assay of kininase were pH 7.6 and about 45°. The kininase activity in the cerebellum was higher than that in the cerebral cortex or the brainstem. On subcellular fractionation, the highest kininase activity was observed in the supernatant, with lower activities in the microsomes, mitochondria, and nuclei. The effects of metal ions (zinc and cobalt ions) and N-ethylmaleimide on the brain kininase activity were different from those on enzyme in the plasma. The activity of the kininase in the cerebellar region increased during convulsions caused by penitrazol or picrotoxin, but not by strychnine and, of the subcellular fractions of the cerebellum of an S after penitrazol administration, the increase was only found in the nuclear fraction. Increased kininase activity in the cerebellar region induced by penitrazol, was only observed during convulsions and not in the preconvulsive or intermediate states. Results suggest that some alteration in the metabolism of brain protein may occur during convulsion.—*Journal abstract*.

7619. Kato, L., Gözsy, B., & Lemieux, Marcel. (U. Montreal, Inst. of Microbiology & Hygiene, Quebec,

Canada) *Conditioning of the microcirculation in the rat. Conditional Reflex*, 1970(Apr), Vol. 5(2), 90-96.—Administered a visual stimulus with ECS on 6 consecutive occasions to 70 Sprague-Dawley rats. It was noted that the light became an effective stimulus for the microcirculation system. Light alone was an indifferent stimulus to catecholamine release. The inhibition of the serotonin-induced vasodilatation by ECS (via catecholamine release) became conditioned to the visual CS. Since the net effect of extrinsic serotonin depends on free catecholamines at the vascular bed, the intensity of the serotonin-induced vascular response reflects alterations in the chemical balancing mechanism. This mechanism can be conditioned with the present technique. Results indicate that there is CNS mediation.—*Journal abstract*.

7620. Katz, Richard I. & Kopin, Irwin J. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) *Release of norepinephrine-³H and serotonin-³H evoked from brain slices by electrical-field stimulation: Calcium dependency and the effects of lithium, ouabain and tetrodotoxin*. *Biochemical Pharmacology*, 1969(Aug), Vol. 18(8), 1935-1939.—In an experiment with male Sprague-Dawley rats, it was found that slices of mammalian brain accumulated tritiated norepinephrine or serotonin when incubated in a medium with these compounds. Mild electrical stimulation of short duration induced a striking increase in the release of exogenous-labeled amine. Electrically stimulated release of norepinephrine-³H, but not of serotonin-³H, was calcium dependent. Stimulation-induced release of both monoamines was significantly diminished by the addition of ouabain, lithium, or tetrodotoxin to the perfusing medium. Elevated calcium concentration prevented lithium-induced inhibition of norepinephrine-³H release but had no effect on lithium inhibition of evoked release of serotonin-³H. Enhanced calcium levels did not reverse ouabain-induced inhibition of release of either monoamine. (22 ref.)—*Journal abstract*.

7621. Liang, C. C. & Quastel, J. H. (U. Hong Kong, China) *Uptake of acetylcholine in rat brain cortex slices*. *Biochemical Pharmacology*, 1969(May), Vol. 18(5), 1169-1185.—Acetylcholine was taken up against a concentration gradient by Wistar rat brain cortex slices, incubated aerobically in a physiological saline medium, in the presence of paraoxon. Optimal rates of acetylcholine uptake were obtained with slices 2-4 mm. thick, in the presence of glucose (> 3mM), in oxygen at 37° and in the presence of paraoxon (> 5μM) which completely inactivated the choline esterase. Little or no uptake apart from that due to passive diffusion occurred in the presence of eserine. It is evident that the uptake was carrier-mediated. The optimal pH for acetylcholine uptake was 8.3 and the amount of uptake in 1 hr., corrected for passive diffusion, was doubled on increasing the temperature of incubation from 17° to 27°. The rate of acetylcholine uptake, corrected for the passive diffusion rate, was approximately proportional to the respiratory rate (in the presence of oxygen or air or in the absence of glucose). It was inhibited by 2:4 dinitrophenol (10 μM) and by ouabain (10 μM), their inhibitions being independent of the acetylcholine concentration. The rate of uptake declined (from its optimal value) in the absence of potassium and calcium ions, or in the presence of relatively high concentrations of potassium chloride (> 50 mM), calcium chloride (8 mM), or magnesium sulfate (6 mM). It was also diminished, but not abolished, by the omission of sodium

ions from the medium. It is concluded that the rate of uptake of acetylcholine (apart from passive diffusion) in the brain slices was partly dependent on the operation of the sodium pump. The possible involvement of exchange diffusion in the process of uptake is discussed. (28 ref.)—*Journal abstract*.

7622. Shikimi, Tadahiro & Iwata, Heitaroh. (Osaka U., Faculty of Pharmaceutical Sciences, Japan) **Pharmacological significances of peptidase and proteinase in the brain: II. Purification and properties of a bradykinin inactivating enzyme from rat brain.** *Biochemical Pharmacology*, 1970(Apr), Vol. 19(4), 1399-1407.—The enzyme inactivating bradykinin (kininase) in the adult male Wistar rat brain was partially purified by ammonium sulfate fractionation and chromatography on Sephadex G-100, diethylaminoethyl cellulose and carboxymethyl cellulose. Enzyme activity was inhibited by chelating agents and increased by calcium. Ovomucoid trypsin inhibitor, tosylphenylalanine chloromethylketone and diisopropylfluorophosphate had no effect. Among the analgesic antipyretic drugs tested, acetylsalicylic acid and aminopyrine activated the enzyme slightly. (32 ref.)—*Journal abstract*.

7623. Spirtes, M. A. (Veterans Administration Hosp., Pittsburgh, Pa.) **Molecular species of chlorpromazine involved in drug binding and effect.** *Aggressologie*, 1968(Mar), Vol. 9(2), 189-192.—Measured the effect of 10⁻⁵ molar chlorpromazine (CPZ) on a control hemolysis of 20% when the surrounding media were at pH levels of 6, 7.3, 8, and 9. At the same time the total amount of chlorpromazine bound at each external pH level was measured by exposing the cells to the drug for 15-30 min., spinning the cells down and measuring the drug content in the supernatant. The erythrocytes were separated from the surrounding fluid in the absence of cell washing by the technique described. This separation was followed by the destruction of these cells with ultrasound and the collection of the resulting intracellular fluid which was analyzed for pH levels and ionic contents. In the absence or presence of hemolysis, at extracellular pH levels of 6, 7.3, 8, and 9, the intracellular pH values were 6.3, 7.3, 7.5, and 7.9. Since the pKa is 9.3, the percentage ionized and unionized CPZ could be calculated outside and inside the cells. Because of this high pKa, the percentage unionized drug was small (4%) except at the extracellular pH of 9 when it reached 33%. The total drug bound by the cells rose little, if at all, from the extracellular pH of 6-8. However, at pH 9 it almost doubled. The inhibitory effect of CPZ on the 20% hypotonic hemolysis was much better at intracellular pH 7.3 than at 6.3 (and peaked at pH 7.9) than at other intracellular pH levels. The intracellular ionized drug fraction was only 2% less at pH 7.9 than 7.5. A discussion of the molecular species necessary for CPZ binding and effect is presented.—*Journal abstract*.

7624. VanderWende, Christina & Johnson, Jeneene C. (Rutgers State U., Newark, N.J.) **Interaction of serotonin with the catecholamines: I. Inhibition of dopamine and norepinephrine oxidation.** *Biochemical Pharmacology*, 1970(Jun), Vol. 19(6), 1991-2000.—Serotonin proved to be an effective inhibitor of both the enzymatic and autoxidation of dopamine and norepinephrine. Kinetic studies of the inhibition of the enzymatic oxidation indicate that serotonin forms an inhibitor-substrate complex. Structure-activity relationships indicate that the ring hydroxyl group of serotonin and the 2 ring hydroxyl groups of the catecholamines are the

only requirements for interaction. The possibility that serotonin modulates the activities of the catecholamines on a purely molecular level through complex formation is discussed.—*Journal abstract*.

7625. VanderWende, Christina & Johnson, Jeneene C. (Rutgers State U., Newark, N.J.) **Interaction of serotonin with the catecholamines: II. Activation and inhibition of adrenochrome formation.** *Biochemical Pharmacology*, 1970(Jun), Vol. 19(6), 2001-2007.—Adrenochrome formation from epinephrine is either accelerated or inhibited by serotonin, the effect being dependent on the relative concentrations of the indoleamine compared to the catecholamine. The possibility that serotonin can regulate adrenochrome formation is discussed with respect to the postulations that these compounds may be involved in mental disease.—*Journal abstract*.

Hormones

7626. Brohult, Johan; Levi, Lennart, & Reichard, Hans. (Karolinska Sjukhuset, Stockholm, Sweden) **Urinary excretion of adrenal hormones in man: Effects of ethanol ingestion, and their modification by chlormethiazole.** *Acta Medica Scandinavica*, 1970, Vol. 188, 5-13.—A large single dose of ethanol (approximately 500-ml whiskey) was administered to 9 young, healthy, males. This stimulus provoked pronounced increases in adrenaline and noradrenaline excretion during and soon after the ethanol ingestion. Similarly, the hangover next morning was accompanied by marked increases in adrenaline and noradrenaline excretion levels, in addition to increased excretion rates of 17-hydroxycorticosteroids. In 5 Ss treated with .5-gm chlormethiazole, the catecholamine increases during the hangover period were significantly reduced. During the week following the ethanol ingestion, the increase in adrenal function tended to persist. Some theoretical and clinical implications of these findings are discussed and some indications in favor of a relationship between the emotional-behavioral and the physiological effects of ethanol ingestion are mentioned. (49 ref.)—*Journal abstract*.

7627. Eshchenko, N. D. & Putilina, F. E. (Leningrad State U., USSR) **Vliyaniye adrenalina i AKTG na obmen glyukozy v golovnom mozge.** [Influence of adrenaline and ACTH on glucose metabolism in the brain.] *Nervnaya Sistema*, 1968, No. 9, 28-34.—Reports results of a study of the metabolism of the energy substrate of the rat brain—glucose—both in the normal state and after the injection of adrenaline or ACTH.—*I. D. London*.

7628. Hardin, Carolyn M. (George Washington U.) **Some neurochemical and fluorescence histochemical correlates of the action of testosterone on developing rat brain.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1503-1504.

7629. Lisk, Robert D. **Mechanisms regulating sexual activity in mammals.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 220-228.—Investigated the role of progesterone in the rat and hamster. Results indicate that in the rat if estrogen remains below some critical level, progesterone adjusts the level of receptivity and determines the length of the receptive period. The role of progesterone is only facilitatory, i.e., if estrogen exceeds some critical level the progesterone mechanism is blocked and receptivity is maintained by estrogen alone.

In the hamster normal receptivity could never be induced by estrogen alone. Progesterone always eventually resulted in suppression of receptivity regardless of the quantity of estrogen employed. Timing and degree of sexual activity in the male and female rat are regulated by separate mechanisms of the CNS.—*E. B. Jaffa.*

7630. Prigoryan, V. Z. & Khudaverdyan, D. N. (Medical Inst., Erevan, USSR) *Vliyanie kastratsii i posleduyushchego vvedeniya testosteron-propionata na sudorozhnuyu gotovnost' zhivotnykh.* [Influence of castration and of subsequent administration of testosterone propionate on convulsive readiness in animals.] *Ek'sperimental' ev Klinikakan Bzhshkoy'tyan Handes*, 1970, Vol. 10(1), 11-17.—60 audiosensitive male rats and 7 male dogs, subjected to castration, were studied to determine whether sex glands are involved in convulsive readiness (seizures triggered in the former by loud electric bell; in the latter by injection of an ether-camphor mixture). The initial postcastration level of convulsive readiness appears to determine future effects. If the initial level is low, castration leads to enhancement of convulsive readiness; in the case of higher levels, future effects are contradictory with both enhancement and decline in evidence.—*I. D. London.*

7631. Sneddon, J. M. & Keen, P. (U. Bristol, Medical School, England) *The effect of noradrenaline on the incorporation of ^{32}P into brain phospholipids.* *Biochemical Pharmacology*, 1970(Apr), Vol. 19(4), 1297-1306.—Male Wistar rat brain homogenates incubated with noradrenaline for 5 min., showed reduced incorporation of ^{32}P into phospholipids. Subcellular fractionation studies indicated that this effect of noradrenaline occurred only in the synaptosomal fraction. Incubation with noradrenaline for 20-120 min. increased the incorporation of ^{32}P into phospholipids. This effect occurred in both the synaptosomal and mitochondrial fractions and was inhibited by the α -blocking drug thymoxamine. Noradrenaline did not significantly increase ^{32}P incorporation into phosphoproteins. Results are discussed in terms of a possible transmitter role for noradrenaline in the brain. (25 ref.)—*Journal abstract.*

7632. Verashchagin, S. M., Grachëv, I. I., & Chernyshëva, M. P. (Leningrad State U., USSR) *Izucheniye afferentnoi impul'satsii v nerve molochnoi zhelezy morskoi svinki.* [Study of afferent impulsion in the nerve of the guinea pig mammary gland.] *Nervnaya Sistema*, 1968, No. 9, 58-64.—Guinea pigs in various lactational stages were used to study the changes in electrical activity in the afferent fibers of the main nerve of the mammary gland under chemical and mechanical stimulation of the receptors of the organ during the various stages of the lactational process. Chemical stimulators were: the hypophyseal hormones, prolactin and oxytocin; acetylcholine; and adrenaline. The mechanical stimulator was the introduction of air into the nipple. Afferent impulsion exhibited potentials with an amplitude of 8-33 microV. and a frequency of 3-25 impulses/sec. In both respects the electrical activity of the lactating S exceeded that of the nonlactating. The hypophyseal hormones, when injected into the mammary gland, increased electrical activity in the afferent end of the main nerve. In the presence of little impulsion, the injection of acetylcholine and adrenaline increased electrical activity in the afferent end of the main nerve, but in the presence of enhanced impulsion, they decreased or suppressed entirely electrical activity in the

nerve. Stimulation of the mechanoreceptors in the glandular cavity produced a reaction whose magnitude depended on the following factors: functional state of the organ, tension in the walls of the cavity, amount of pressure, and rate of pressure-change.—*I. D. London.*

Drug Effects—Human

7633. Borgå, Olof; Azarnoff, Daniel L., Forshell, Gustaf P., & Sjöqvist, Folke. (Karolinska Inst., Stockholm, Sweden) *Plasma protein binding of tricyclic antidepressants in man.* *Biochemical Pharmacology*, 1969(Sep), Vol. 18(9), 2135-2143.—Studied the binding of various tricyclic antidepressants to human plasma and the effects of other drugs by an ultrafiltration technique utilizing labeled compounds. At a total concentration of .29 μM the percentage of unbound desmethylinipramine (DMI) was found to be 9.5 ± 1.4 in 41 Ss. The unbound fraction of DMI in plasma increased only twofold when the total concentration of the drug was increased 1000 times. The degree of binding over the entire range of therapeutic plasma drug concentration was relatively constant. The binding of various tricyclic antidepressants was compared at a drug concentration of 1.1 μM . The percentage of unbound drug was for nortriptyline (NT) $5.5 \pm .6$, for amitriptyline (AT) $3.6 \pm .8$, for imipramine (I) $4.2 \pm .8$, for protriptyline (PT) $8 \pm .6$ (tested at a concentration of 7.7 μM) and for Leo 640, an imipramine analog, $7 \pm .7$. The acetyl derivatives of DMI, NT, and PT were more bound than the parent compounds. The addition of NT, PT, or AT in a "therapeutic" concentration of 2 $\mu\text{g}/\text{ml}$ did not displace DMI, nor did chlorpromazine in supratherapeutic concentration. Diphenylhydantoin was found to displace DMI, NT, PT, AT, and particularly I.—*Journal abstract.*

7634. Chiles, W. Dean & Jennings, Alan E. (Civil Aeromedical Inst., Oklahoma City, Okla.) *Effects of alcohol on complex performance.* *Human Factors*, 1970(Dec), Vol. 12(6), 605-612.—Tested 9 male adults on a battery of tasks involving monitoring, 2-dimensional compensatory tracking, and mental arithmetic at 3 levels of work load. Ss ingested 2.5 ml. of 100-proof vodka/kg of body weight 2 hr. before testing; mean blood alcohol at the beginning of testing was approximately 100 mg%. Significant alcohol effects were found for 2 of the monitoring tasks and 3 of the 4 measures of tracking. There was a significant interaction between work load and alcohol in the case of 1 tracking measure.—*Journal abstract.*

7635. Davison, K., Duffy, J. P., & Osselson, J. W. (Newcastle General Hosp., England) *A comparison of sleep patterns in natural and mandrax- and tuinal-induced sleep.* *Canadian Medical Association Journal*, 1970(Mar), Vol. 102(5), 506-508.—Reports within-S comparison of the effects on the overnight sleep EEG of 1 tablet of mandrax (methaqualone base 250 mg. and diphenhydramine hydrochloride 25 mg.) and 200 mg. tuinal (equal parts of quinalbarbitone sodium and amylobarbitone sodium) in 14 17-37 yr. old normal Ss. Mandrax-induced sleep was not significantly different from natural sleep in the duration of light, moderate, deep and REM phases. Tuinal produced a significant reduction in REM sleep ($p < .01$) compared with natural sleep and with mandrax-induced sleep. (French summary)—*Journal abstract.*

7636. El-Zoghby, S. M., El-Shafai, A. K., Abdel-Tawab, G. A., & Kelada, F. S. (Medical Research Inst.,

Cancer Research Unit, Alexandria, Egypt) **Studies on the effect of reserpine therapy on the functional capacity of the tryptophan-niacin pathway in smoker and non-smoker males.** *Biochemical Pharmacology*, 1970(May), Vol. 19(5), 1661-1667.—Tested the functional capacity of the tryptophan-niacin pathway by analysis of 11 metabolites excreted in the urine of 14 smoker and 16 nonsmoker males after loading with L-tryptophan (2 gm.) with and without vitamin B₆ supplement (120 mg.). The excretion pattern was reinvestigated after depletion of the catecholamines by applying reserpine therapy to both groups. Results obtained were compatible with the suggestion that the modification of tryptophan metabolism by smoking may be through the catecholamines discharged by nicotine that man absorbs from smoking. Thereafter, the catecholamines react with the coenzyme (i.e., pyridoxal phosphate) to form inactive tetrahydroisoquinoline derivatives causing a rapid inactivation of the coenzyme, and thereby inhibit preferably the B₆-dependent quinolinic acid decarboxylase enzyme. It is striking, however, that this type of inhibition could not be completely overcome by a large dose of vitamin B₆ orally supplemented. It was only after reserpine therapy that both smokers and nonsmokers gave excretion patterns of tryptophan metabolites which were qualitatively and quantitatively similar. (25 ref.)

7637. Garcez de Sena, Plínio & Rizzo, Alfredo O. (Federal U., Neurology Clinic, Bahia, Brazil) **Aspecto eletroencefalográfico da indução do sono pela associação metahqualona and difenidramina.** [Electroencephalographic of sleep induction by the association of methaqualone and difenidramine.] *O Hospital*, 1969(Dec), Vol. 76(6), 2055-2057.—Monitored the EEG readings of 6 Ss in whom sleep was induced by a combination of methaqualone and difenidramine (M and D). Sleep induced by M and D was characterized by a large incidence of rapid rhythms and a tendency to return to a previous stage of sleep before waking.—P. Hertzberg.

7638. Grant, Ellen C. & Pryse-Davies, John. (Council for the Investigation of Fertility Control, London, England) **Effect of oral contraceptives on depressive mood changes and on endometrial monoamine oxidase and phosphatases.** *British Medical Journal*, 1968(Sep), Vol. 3(5621), 777-780.—Found significant variations in the incidence of depression and loss of libido in 797 women receiving 1 or more of 34 types of oral contraceptives. The highest incidence occurred with strongly progestogenic compounds (especially with those containing small amount of estrogen) which have high MAO activity for most of the cycle. The lowest incidence was found with the strongly estrogenic sequential regimens which have weak MAO activity for most of the cycle. (16 ref.)—*Journal abstract*.

7639. Grinspoon, Lester. (Harvard Medical School, Boston, Mass.) **Marihuana.** *Scientific American*, 1969(Dec), Vol. 221(6), 17-25.—Presents a review of the use of marihuana, emphasizing historical, chemical, medical, and psychological aspects. Behavioral effects are reviewed beginning with descriptions in 19th century literature, and including a clinical record by Walter Bromberg in 1934. Research studies of the effect of cannabis sativa on psychomotor and sensory functions, perception, learning, and simple cognitive tasks are summarized. Evidence suggests that marihuana is not addictive and that physiological effects, if any, are slight.

It is noted that public attitudes in the United States show a "hyperemotional bias" both in support of and opposition to the drug. Social and medical aspects are discussed in terms of such questions as whether the drug leads to narcotics, incites aggression or criminal behavior, or produces physical and mental degeneracy. It is concluded that there is substantial evidence that "the moderate use of marihuana does not produce physical or mental deterioration."—P. McMillan.

7640. Holanda Valente, Luiz C. & Amaral Vieira, F. J. (Ceará Federal U., Medical School, Brazil) **Efeitos de uma associação de ácido gama-aminobutírico e reserpina sobre a atividade intelectual e afetividade de estudantes universitários em período de provas.** [Effects of an association of gamma amino butyric acid and reserpine on the intellectual activity and behavior of students during examination period.] *O Hospital*, 1969(Sep), Vol. 76(3), 1137-1142.—Studied 60 male and female undergraduates divided into 2 groups. 35 Ss in Group A received a combination of gamma-aminobutyric acid and reserpine (RG 3), and 25 Ss in Group B received a placebo. RG 3 and a placebo were administered to Ss for 3 days, 3 hr. before they began studying for an exam. On the 4th day, RG 3 and placebo were administered about 3 hr. before the exam. It was found that RG 3 improved disposition and concentration in studying, and reduced anxiety. 8% of Group A Ss and 12% of Group B Ss showed side effects of drowsiness, headache, and nausea.—P. Hertzberg.

7641. Kelsey, Frances O. (Dept. of Health, Education & Welfare, Food & Drug Administration, Washington, D.C.) **Drugs and pregnancy. Mental Retardation.** 1969(Apr), Vol. 7(2), 7-10.—Reviews "the known hazards to the offspring of mothers given drugs during pregnancy," emphasizing the nature of the drug, time of administration during pregnancy, and dosage. Examples of drugs which may be toxic to the fetus and newborn are cited, e.g., reserpine, novobiacin, and chloromycetin. The steps taken by the Food and Drug Administration "to evaluate the safety of drugs during pregnancy and to communicate information on established or potential adverse effects to the physician" are discussed.—G. Steele.

7642. Makarov, P. O., Loginov, A. V., & Teibe, U. U. (Zhdanov State U., Leningrad, USSR) **Vliyaniye gistamina, adrenalina i atsetilkholina na mekhanoretseptiyu kozh' cheloveka.** [Influence of histamine, adrenaline and acetylcholine on the mechanoreceptors of human skin.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1354-1357.—Utilized the adequate- and discretometric methods, developed by P. O. Makarov, with air-stream as adequate stimulus. Changes in tactile sensitivity in 4 Ss under the influence of histamine, adrenaline, and acetylcholine (10⁻⁴ mg/ml) electrophoretically introduced in the right forearm were investigated. A connection was observed between vascular reactions resulting from the administration of the chemical agents and shifts in the neurodynamic indices. This connection involves the local and CNS as well as the vascular state. (English summary)—I. D. London.

7643. Martin, W. R. & Sloan, J. W. (National Inst. of Mental Health, Addiction Research Center, Lexington, Ky.) **Effects of infused tryptamine in man.** *Psychopharmacologia*, 1970, Vol. 18(3), 231-237.—In an experiment assessing the subjective and physiological effects of tryptamine infused iv in 4 patients, it was found that the drug facilitated the patellar reflex, dilated

pupils, and elevated blood pressure. It also caused changes in vision and hearing, as well as nausea, vomiting, dizziness, sweating, and heaviness of body. These changes are similar to those produced by LSD-like hallucinogens and are consistent with the hypothesis that LSD-like hallucinogens interact with tryptamine receptors as 1 mode of action.—*Journal abstract.*

7644. Rodin, Ernst A. & Calhoun, Hazel D. (Michigan Epilepsy Center & Assn., Detroit) **Metrazol tolerance in a "normal" volunteer population: A ten year follow-up report.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 438-443.—A follow-up questionnaire regarding interval life experiences was returned by 26 of 39 college graduates who had participated in a study on metrazol, a barbiturate, tolerance 10 yr. earlier. It was found that Ss who had shown spike wave activity in the EEG—or generalized seizures—had done well in all respects during the interval. Their children had, so far, not had febrile or afebrile convulsive seizures. Ss who had experienced a marked subjective response to the drug, however, had suffered more physical illnesses in the interval and expressed general dissatisfaction with their life achievements. The case of 1 S who committed suicide is presented to highlight the interactions between physiological and psychological mechanisms.—*Journal abstract.*

7645. Worm, Karen. (U. Copenhagen, Denmark) **Fatal amitriptyline poisoning: Determination of the drug in forensic-chemical material.** *Acta Pharmacologica et Toxicologica*, 1969(Oct), Vol. 27(6), 439-444.—In 5 22-45 yr. old females who died from amitriptyline poisoning, an amount of from 0-3 µg/ml of amitriptyline was found in the blood. In the liver, a mixture of nortriptyline and amitriptyline (50-80%) was found in a total concentration of 93-302 µg/gm tissue. In one case, the known dose was 2.5 gm. Death occurred after 7-8 hr. 261 mg. was found in the stomach contents, 3 µg/ml in the blood, and 127 µg/gm in the liver (of which 20% nortriptyline).—*Journal abstract.*

Drug Effects—Animal

7646. Abdullina, R. N. (Bashkir Medical Inst., Ufa, USSR) **Reaktsii perifericheskikh sosudov na nekotorye vasoaktivnye agenty.** [Peripheral vascular reactions to some vasoactive agents.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 605-609.—Cats were used in a comparative study of vascular reaction in the rear leg to the injection of vasoactive agents with myotropic (papaverin) and neurotropic (nembutal, benzohexonium, ormid) action, singly and in combination. Vascular reaction in the extremity was compared with that in the brain and kidneys. The vessels of the extremity displayed the least reaction to a myotropic agent as compared with those of the brain and kidneys. Conversely, neurotropic agents exerted equal or more pronounced action on them. On the basis of an analysis of findings, procured through pharmacological and anatomical denervation, bloodletting, and mesathion-induced hypertension, it is concluded that the weak effect of myotropic agents on femoral vessels is due to the great importance of the neurogenic component of their tonus. Enhancement of the effect of myotropic agents is observed when in combination with agents (gangliolytics, sympatholytics) weakening neurogenic vascular regulation. (English summary)—*I. D. London.*

7647. Agurell, S., Nilsson, I. M., Ohlsson, A., &

Sandberg, F. (Faculty of Pharmacy, Stockholm, Sweden) **Elimination of tritium-labelled cannabins in the rat with special reference to the development of tests for the identification of cannabis users.** *Biochemical Pharmacology*, 1969(May), Vol. 18(5), 1195-1201.—Describes a method for the preparation of tritium-labelled Δ^9 tetrahydrocannabinol and other cannabins. Iv injected Δ^9 -tetrahydrocannabinol- H^3 was eliminated very slowly by 10 female rats; $1/2$ of the administered dose still remained in the body after 1 wk. About 80% of the drug was excreted in metabolized form via feces, the remainder being eliminated also as metabolites in the urine. During the 1st 24 hr., 2-6% of the injected activity appeared in the urine, but less than .006% of the dose, if any, was excreted unchanged. A considerable amount of the activity was readily extractable with ether, and possibly an identification method for cannabis-users may be based on the occurrence of this metabolite. Δ^9 -tetrahydrocannabinol is apparently not excreted as a glucuronide.—*Journal abstract.*

7648. Akera, Tai & Brody, Theodore M. (U. Michigan) **The addiction cycle to narcotics in the rat and its relation to catecholamines.** *Biochemical Pharmacology*, 1968(May), Vol. 17(5), 675-688.—Tolerance to and physical dependence on several narcotic analgesics were demonstrated in the rat. Daily doses of morphine at 30 and 120 mg/kg and levorphanol at 6 and 15 mg/kg given in divided doses 3 times/day were capable of producing tolerance to the analgesic actions. With these treatment regimens withdrawal signs characterized by weight loss, marked diarrhea, piloerection, irritability, muscle rigidity, and anorexia. With the above treatments, no deviation from the normal growth curve of Ss was observed. Adrenal hypertrophy with chronic administration of morphine was not demonstrated. Tolerance to methadone was difficult to achieve and none was observed with chronic thebaine treatment. The severity of withdrawal from levorphanol was as great as or greater than that seen after withdrawal from chronic morphine treatment. While an increase in whole brain norepinephrine (NE) was observed during chronic morphine treatment, no such increase was detected with the chronic administration of levorphanol or methadone, nor was a dose-dependent relationship established. The higher chronic levels of morphine and levorphanol resulted in no higher brain NE concentration. Withdrawal of the S from morphine reduced brain NE levels to control values. No evidence was obtained indicating that the increased NE levels observed during chronic morphine treatment resulted from an increase in NE synthesis. No relationship exists between any phase of the addiction cycle and the levels of brain NE. The increase in brain NE after morphine is peculiar to this drug and is not a characteristic of the drug class.—*Journal summary.*

7649. Bainbridge, J. G. (Imperial Chemical Industries, Pharmaceuticals Div., Macclesfield, England) **The inhibitory effect of amphetamine on exploration in mice.** *Psychopharmacologia*, 1970, Vol. 18(3), 314-319.—In an experiment with male mice, amphetamine decreased exploratory activity at moderate doses. Conditions under which the drug caused increased motility occurred at dose levels above 10 mg/kg in combination with either (a) an explored environment, or (b) the grouping of several Ss in 1 cage.—*Journal abstract.*

7650. Bättig, K. (Swiss Federal Inst. of Technology,

Zurich) **Differential effects of nicotine and tobacco smoke alkaloids on swimming endurance in the rat.** *Psychopharmacologia*, 1970, Vol. 18(3), 300-304.—In 3 experiments the swimming endurance of 110 rats was measured in a water tub until Ss submerged for 2 sec. under the water surface. The total alkaloid fraction extracted from cigarette smoke produced deterioration of performance in doses of .05-.2 mg/kg, whereas pure nicotine (.1 and .2 mg/kg), and nicotine pretreated analogously to the extraction process of the total alkaloids produced performance improvements.—*Journal abstract.*

7651. Berlyne, D. E. (U. Toronto, Ontario, Canada) **The reward value of light increment under supra-normal and subnormal arousal.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 11-23.—2 Experiments, with 80 male Wistar rats each, studied the effects of methamphetamine and pentobarbital, respectively, on the reward value of light increment, alternating training days with test days to separate learning effects from performance effects. During the 1st wk. of Exp. I, if injected on training days with saline solution, Ss trained with light increment performed more responses on test days than Ss trained without light increment but, if injected with methamphetamine, Ss trained with light increment performed fewer responses. During the 2nd wk., training with light increment became relatively more effective for those trained under 2 or 3 mg/kg of methamphetamine but less effective in Ss with 0 or 1 mg/kg. In Exp. II, the difference in number of test-day responses between Ss trained with and without light increment decreased when pentobarbital injections (5, 10, 15, or 20 mg/kg) were administered on training days. In both experiments, more responses were performed on training days by Ss receiving light increments, and the number of responses varied inversely with doses of drugs. Results complement previous findings and indicating that the reward value of an indifferent stimulus depends on an interaction between the arousal value of the stimulus and arousal level of the organism. (French summary) (18 ref.)—*Journal abstract.*

7652. Black, Ira B., Parker, Larry, & Axelrod, Julius. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **A daily rhythm in the rate of depletion of brain norepinephrine by reserpine.** *Biochemical Pharmacology*, 1969(Nov), Vol. 18(11), 2688-2691.—Describes a circadian rhythm in the rate of depletion of brain norepinephrine by reserpine, and reports that environmental lighting factors are capable of altering the norepinephrine depletion rhythm. Groups of female Sprague-Dawley rats were treated with 1-2 mg/kg of reserpine and killed (with controls) 4 hr. later. Reduction of whole brain norepinephrine varied with the time of day. The highest depletion was observed during the dark period, while reduction of endogenous norepinephrine varied from 10 AM to 2 PM, to a peak produced at 2 AM. Dosages of .5 mg/kg produced no significant norepinephrine rhythm patterns. It is suggested that the rhythm was not endogenous, since a reversal of the lighting schedule shifts the phase of the rhythm by 180°.—B. A. Stanton.

7653. Cannizzaro, G. (U. Palermo, Inst. of Pharmacology, Italy) **Farmacologia dell'equilibrio idrico-salino quale motivazione del comportamento operante.** [Pharmacology of electrolyte balance which influences motivation of operant behavior.] *Acta Neurologica*, 1969(Jan), Vol. 24(1), 66-77.—Investigated the

possibility of measuring the influence of peripheral actions on the CNS using a technique based on an operant behavior test. Results show that, interfering with the equilibrium of electrolytic solutions with the use of sodium chloride, glucose, and drugs, it is possible to modify the intensity of thirst motivation. Ip injection of aqua fontis distinctly reduces the rats' working activity, while injection of 1.8% NaCl and 5% glucose solution does not modify this behavior. This drug displays its action only if given when it can influence the processes of elimination of water and salts. No effect was observed after the injection either of drugs able to influence the diuresis (posthypophysis extract and hydrochlorothiazide) or of hypotensive substances with peripheral action (tetranitrate of pentaerythrol). (17 ref.)—*English summary.*

7654. Carr, L. A. & Moore, K. E. (U. Louisville) **Effects of amphetamine on the contents of norepinephrine and its metabolites in the effluent of perfused cerebral ventricles of the cat.** *Biochemical Pharmacology*, 1970(Jul), Vol. 19(7), 2361-2374.—1 hr. after the injection of dl-³H-norepinephrine into the cat cerebroventricular system, ventricles were perfused with an artificial cerebrospinal fluid (CSF). 2 hr. after the perfusion was initiated the amount of radioactivity in the effluent remained relatively steady. At this time the ventricular system was perfused for 30 min. with CSF containing various concentrations of d- or l-amphetamine. d-Amphetamine sulfate (25 400 µg/ml) caused an immediate increase in the content of ³H-norepinephrine in the effluent; after a latent period of 10-20 min. there was also a significant increase in the effluent content of ³H-normetanephrine while the concentration of deaminated-O-methyl metabolites did not change. l-Amphetamine sulfate (50 µg/mg) did not significantly increase the amount of ³H-norepinephrine or ³H-normetanephrine in the perfusion effluent. d-Amphetamine caused a greater increase in the effluent concentration of ³H-norepinephrine and ³H-normetanephrine when the amine was injected into the lateral ventricle than when it was injected into the 3rd ventricle or cisterna magna. Iv injections of d-amphetamine (1 mg/kg) also increased the content of ³H-norepinephrine in the perfusion effluent. After injections of ³H-dopamine into the lateral ventricle, d-amphetamine increased the efflux of both ³H-norepinephrine and ³H-dopamine, whereas after the intraventricular administration of ¹⁴C-inulin or ¹⁴C-urea, the effluent content of these inert substances was not increased by d-amphetamine. Results indicate that amphetamine increases the efflux of catecholamines from structures bordering the cerebroventricular system by blocking the reuptake process, or enhancing the release mechanism, or both. (38 ref.)—*Journal abstract.*

7655. Carr, L. A. & Moore, K. E. (U. Louisville) **Release of norepinephrine and normetanephrine from cat brain by central nervous system stimulants.** *Biochemical Pharmacology*, 1970(Sep), Vol. 19(9), 2671-2675.—Previous studies concerning the central biochemical actions of cocaine are confusing. This drug does not alter brain concentrations of norepinephrine, but blocks the brain uptake of intracisternally administered, but not intraventricularly administered, ³H-norepinephrine, and prevents the accumulation of ³H-norepinephrine in brain slices. It has been suggested that cocaine may not have the same actions in the intact brain as it does in brain slices or in the peripheral

nervous system. Results of the present study, with mongrel cats, suggest that cocaine does not act by increasing the synaptic concentration of norepinephrine in structures lining the ventricular system. Caffeine has no effect on the concentration of norepinephrine in the cat hypothalamus, but it has been suggested that this drug releases norepinephrine from the rat heart and brain. Results suggest that the central stimulating actions of caffeine not related to an increased concentration of norepinephrine at postsynaptic receptor sites. However, the possibility exists that both caffeine and cocaine exert their effects at sites that are not adjacent to the ventricular system. Since neither cocaine nor caffeine increases the efflux of ^3H -norepinephrine or ^3H -normetanephrine, but like other central stimulants studied, both increase motor activity, it would appear that the increased efflux observed during perfusion of the other drugs is not the result of generalized CNS stimulation. Rather, it would appear that amphetamine, ephedrine, *p*-chloroamphetamine, methylphenidate, and possibly pipradrol, act directly at the terminals of catecholamine-containing neurons. (31 ref.)—*Journal abstract*.

7656. Chisholm, Drake C. & Moore, John W. (U. Massachusetts) Effects of chlordiazepoxide on discriminative fear conditioning and shuttle avoidance performance in the rabbit. *Psychopharmacologia*, 1970, Vol. 18(2), 162-171.—Previously acquired shuttle avoidance performance in rabbits was reduced by chlordiazepoxide. Other Ss were given chlordiazepoxide during differential tone-shock pairings. The effects of differential Pavlovian fear conditioning were tested during extinction. Comparison with saline controls showed that chlordiazepoxide did not disrupt fear conditioning. The decrement produced by chlordiazepoxide was not due to a sensory or motor impairment. (15 ref.)—*Journal abstract*.

7657. Coutinho, C. B., Cheripko, J. A., & Carbone, J. J. (Hoffmann-La Roche, Inc., Nutley, N.J.) Relationship between the duration of anticonvulsant activity of chlordiazepoxide and systemic levels of the parent compound and its major metabolites in mice. *Biochemical Pharmacology*, 1969(Feb), Vol. 18(2), 303-316.—Presents data relating to the anticonvulsant (antimetrazol) activity of chlordiazepoxide in CF-1 mice in relation to blood levels, tissue distribution patterns, and major metabolites. Quantitation of the effect of a 125 mg/kg subcutaneous injection of metrazol and the degree of protection by a single 20 mg/kg oral dose of chlordiazepoxide, based on measuring the incidence of defined seizure reactions, indicated maximal protection for 4 hr. Differential spectrofluorometric analyses of blood, brain, and muscle tissue samples for chlordiazepoxide and its major metabolites show that N-desmethylchlordiazepoxide is the major constituent in all 3 tissues both in the absence and presence of metrazol. Correlation of the levels of chlordiazepoxide and its metabolites in these tissues to its anticonvulsant (antimetrazol) activity indicates that it is the concentration of the N-desmethyl metabolite that most closely parallels the pattern of this anticonvulsant activity.—*Journal abstract*.

7658. Crow, T. J. (U. Aberdeen, Scotland) Enhancement by cocaine of intra-cranial self-stimulation in the rat. *Life Sciences*, 1970(Apr), Vol. 9(7, Pt. 1), 375-381.—Male hooded rats implanted with bipolar electrodes in the ventral midbrain tegmentum were

injected with either cocaine hydrochloride or saline ip to determine if cocaine can by itself enhance self-stimulation rates as amphetamines have been shown to do. It was found that 5 mg/kg cocaine produced enhancement of response rate similar to that of the amphetamines. It is suggested that these results can be considered to be consistent with the aminergic theory of reward, whereby these drugs act by a sensitization of the reward system by blockade of uptake or by increasing the amount of transmitter released by nerve activity, only if it can be shown that these drugs potentiate the effect of neural release of catecholamines.—*W. E. Wood*.

7659. Dési, L., et al. (U. Budapest, Medical School, Hungary) The process of learning in rats undergoing prolonged treatment with psychotropic agents. *Psychopharmacologia*, 1970, Vol. 18(2), 144-153.—Rats received .5 mg/kg/day of amphetamine or .5 mg/kg/day of chlorpromazine added to drinking water. Other groups received daily ip injections of .25 mg/kg of amphetamine or 4 mg/kg of chlorpromazine. Initially the learning index deteriorated by oral administration of amphetamine, but then improved, whereas ip treatment caused a slight deterioration. Both agents interfered with previously acquired CRs. The frequency of pseudo-positive responses was considerably higher following administration of amphetamine, but was unaltered by chlorpromazine.—*Journal abstract*.

7660. Dingell, James. V. & Bass, Allan D. (Vanderbilt U., Medical School, Psychopharmacology Research Center) Inhibition of the hepatic metabolism of amphetamine by desipramine. *Biochemical Pharmacology*, 1969(Jun), Vol. 18(6), 1535-1538.—Investigated the inhibitory action of desipramine (DMI) on the metabolism of amphetamine in hepatic microsomes and isolated perfused liver of male Sprague-Dawley rats. Centrifuged liver homogenates obtained from sacrificed Ss were incubated with 1.7 ml. of a .2 molar potassium buffer, following which 1 of the following drugs was added to the mixture and incubated for an additional 30 min.: (a) aminopyrine (5 μ moles), (b) nicotinamide (100 μ moles), or (c) magnesium chloride (150 μ moles). Liver perfusion studies were conducted using Axlerod's method. Results show that neither d- nor l-amphetamine was metabolized by microsomal rat liver which did, however, metabolize both aminopyrine and hexobarbital. DMI (in the liver perfusion study) markedly inhibited the metabolism of amphetamine. Results demonstrate that inhibition of amphetamine metabolism following DMI administration is a consequence of impairment of metabolism caused by the presence of hepatic enzymes. Since previous studies have shown that rabbit microsomal liver tissues are capable of metabolizing amphetamines, it is suggested that there are distinct differences in the metabolism of amphetamines by rats and rabbits.—*B. A. Stanton*.

7661. Downes, Hall. (U. Utah) Effects of a convulsant barbiturate on dorsal root ganglion cells and other components of the spinal reflex arc. *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 833-834.

7662. Driscoll, P. & Bättig, K. (Swiss Federal Inst. of Technology, Zurich) The effect of nicotine and total alkaloids extracted from cigarette smoke on avoidance behavior in rats under extinction procedure. *Psychopharmacologia*, 1970, Vol. 18(3), 305-313.—Measured the effect of nicotine and total alkaloids extracted from smoke on the avoidance behavior of 21 male albino

rats under extinction procedure in an experiment extended over a 3-mo period. There was no significant difference between the 2 substances, with both inhibiting the extinction of avoidance response to approximately the same degree. Significance against the control was achieved with all treatments, the effect being significantly greater with the dose of .2 mg/kg than with the 2 doses of .1 or .05 mg/kg.—*Journal abstract.*

7663. Fekete, Márton & Kürti, Marianne. (Research Inst. for Pharmaceutical Chemistry, Budapest, Hungary) **Psychopharmacologic effects of some cholinesterase inhibitors in comparison with imipramine.** *Psychopharmacologia*, 1970, Vol. 18(3), 238-248.—In an experiment with 5 mice it was found that imipramine and physostigmine, neostigmine, and dyflos inhibited the catalepsy elicited by injections of tetrabenazine, chlorpromazine, and bulbocapnine, respectively. This inhibition was demonstrable only at a given dose interval in certain cases. Both imipramine and cholinesterase inhibitors tested enhanced the hypermotility caused by amphetamine in mice, but not in conditioned male Wistar rats. The effect exerted by chlorpromazine on conditioned reflex activity was inhibited by neostigmine and physostigmine. Results are discussed in relation to the (a) effect produced by cholinesterase inhibitors on the permeability of the blood-brain barrier, and (b) possible significance of the cholinergic affinity of imipramine on its pharmacological effects. (40 ref.)—*Journal abstract.*

7664. Frey, H. H. (Leo Pharmaceutical Products, Ballerup, Denmark) **Determination of the anticonvulsant potency of unmetabolized trimethadione.** *Acta Pharmacologica et Toxicologica*, 1969(May), Vol. 27(4), 295-300.—Determined the iv effective dose for 50% of the Ss of trimethadione (3,5,5-trimethyl-2,4-dioxooxazolidine) and its metabolite dimethadione (5,5-dimethyl-2,4-dioxooxazolidine) in HaM/ICR strain mice by the pentetrazole seizure threshold test at different time intervals after the injection. Concurrently, the serum concentrations of dimethadione were determined. Results show that the anticonvulsant potency of unmetabolized trimethadione on a molar basis is 1.25 times that of dimethadione.—*Journal abstract.*

7665. Gaudiano, A., et al. (Istituto Superiore di Sanità, Rome, Italy) **Effects of chlorpromazine on behaviour of some enzymes of rat liver in different experimental conditions.** *Biochemical Pharmacology*, 1969(Jan), Vol. 18(1), 65-72.—Studied the behavior of 3 lysosomal hydrolases (acid phosphatase, cathepsin, and β -glucuronidase), of 2 mitochondrial enzymes (cytochrome oxidase and malic dehydrogenase) and of the glucose-6-phosphatase of the rat liver in 3 different experimental conditions (injection of dextran, fasting, and ischemia). The common effect of all these treatments is a marked increase of the "non-sedimentable" activities of the lysosomal hydrolases. Many of the unfavorable effects of these treatments can be antagonized by chlorpromazine.—*Journal abstract.*

7666. Giachetti, A. & Shore, P. A. (U. Texas, Southwestern Medical School, Dallas) **Permeability changes induced in the adrenergic neurone by reserpine.** *Biochemical Pharmacology*, 1970(May), Vol. 19(5), 1621-1626.—Rabbit heart slices preloaded with l- or d-metaraminol (l- or d-MA) showed relatively little washout of either amine, although only l-MA is stored in the adrenergic intraneuronal storage granules. Washout of either amine was enhanced by desipramine or

ouabain, while tetrabenazine had no effect. Reserpine pretreatment caused a marked increase in the efflux rate of both l- and d-MA in control slices, as well as those treated with desipramine or ouabain. The peak effect of reserpine occurred 18 hr. after injection and after a dose of .5 mg/kg or higher. The dose and time required for effect on amine efflux differed from those required for maximal effects on the granular amine storage mechanism. Lowering the reincubation temperature greatly inhibited the rate of amine efflux from control and drug-treated slices. It is concluded that high doses of reserpine greatly enhance, and cold effectively inhibits, the permeability of the adrenergic neurone membrane to the outward movement of amines.—*Journal abstract.*

7667. Hermansen, Keld. (Pharmacia A/S, Research Div., Copenhagen, Denmark) **Effect of different β -adrenergic receptor blocking agents on hexobarbital induced narcosis in mice.** *Acta Pharmacologica et Toxicologica*, 1969(Oct), Vol. 27(6), 453-460.—Found that hexobarbital anesthesia in male mice was 100% prolonged by the following doses of: propranolol: 18 mg/kg ip; (+)-propranolol: 16; (-)-propranolol: 18; 1-(isopropylamino)-3-(o-allylphenoxy)-2-propanol, HCl (H56/28 = aptin: 16; dichloroisoprenaline, HCl: 3-10; 2-(isopropylamino)-1-(p-nitrophenyl)ethanol, HCl (INPEA): no effect; 4-(2-isopropylamino-1-hydroxyethyl)methane sulfonanilide, HCl (MJ 1999): 190; 1-(isopropylamino)3-(o-phenoxyphenoxy)-2-propanol, HCl (Ph QA 33): 17. No correlation was found between the prolongation of anaesthesia and the β -adrenergic blocking effect.—*Journal abstract.*

7668. Hobbs, Donald C. (Chas. Pfizer & Co., Inc., Groton, Conn.) **Distribution and metabolism of doxepin.** *Biochemical Pharmacology*, 1969(Aug), Vol. 18(8), 1941-1954.—Reports drug metabolism studies with doxepin in Long-Evans hooded rats and dogs which reflect the fundamental similarity of its structure to that of the related tricyclic psychotherapeutic agents, amitriptyline, and imipramine. Doxepin was well absorbed after oral administration, and measurable amounts of doxepin and demethyl doxepin quickly appeared in the blood. Although numerous metabolites of doxepin were observed in liver and urine, only doxepin and demethyl doxepin were found in the rat brain, where the same ratio of cis- and trans isomers as in the administered drug was still present. Metabolic transformations include demethylation, N-oxidation, hydroxylation, and glucuronide formation. In the rat, doxepin and its metabolites were found in all tissues examined but, with the exception of the pigmented eye, rapidly cleared. This affinity for melanin was also reflected in studies in vitro with beef eyeball melanin, where, however, doxepin was less strongly bound than amitriptyline. (34 ref.)—*Journal abstract.*

7669. Ingoglia, Nicholas A. (New York U.) **Localization and the effects of chronic administration of methadone and morphine in mice and rats.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1437-1438.

7670. Jones, B. J., Tolman, B. D., & Roberts, D. J. (School of Pharmacy, Portsmouth, England) **Studies on interactions involving antidepressive and other drugs with tetrabenazine and noradmanine on locomotor activity in mice, including details of the experimental design and statistical analysis.** *Psychopharmacologia*, 1970, Vol. 18(3), 288-299.—Describes a method for the measurement of drug interactions on

locomotor activity in mice. The experiments, with 10 groups of 30 male albino Swiss mice in each, were designed on a factorial basis and the data obtained were subjected to variance analysis. The effects of various drugs on the hypoactivity induced by noradrenaline or tetrabenazine were studied. 20 potential drug interactions were examined, but only 7 exhibited statistically significant interaction. Tetrabenazine hypoactivity was antagonized by nortriptyline, amitriptyline, nialamide, and noradrenaline. The latter also potentiated the effect of a low dose of tetrabenazine. Hypoactivity induced by noradrenaline was antagonized by amitriptyline and nortriptyline, potentiated by atropine, but unaffected by nialamide. The significance of these findings is discussed. (22 ref.)—*Journal abstract*.

7671. Jori, A., Bernardi, D., Pugliatti, C., & Garattini, S. (Mario Negri Inst. of Pharmacological Research, Milan, Italy) **Strain differences in the metabolism of Imipramine by rat.** *Biochemical Pharmacology*, 1970(Apr), Vol. 19(4), 1315-1321.—Compared the hyperthermic response to injected imipramine in reserpinized rats in different strains, e.g., Sprague-Dawley, Holtzman, Wistar, and Long-Evans. Long-Evans Ss are less reactive than all the other strains to the antireserpine activity of imipramine and show high levels of imipramine and low concentrations of desipramine into the brain. In vitro experiments show that hepatic microsomal enzymes from Long-Evans Ss metabolize imipramine to desipramine and also other substrates, e.g., p. nitroanisole, aniline, and aminopyrine to respective metabolites to a smaller extent than other Ss. The reduced metabolic activity in addition to other possible reported effects, may be responsible for the reduced hyperthermic activity following imipramine in Long-Evans reserpinized Ss. (15 ref.)—*Journal abstract*.

7672. Khanna, J. M. & Kalant, H. (U. Toronto, Ontario, Canada) **Effect of inhibitors and inducers of drug metabolism on ethanol metabolism in vivo.** *Biochemical Pharmacology*, 1970(Jun), Vol. 19(6), 2033-2041.—SKF 525-A (β -diethylaminoethyl diphenylpropyl acetate), in a dose of 50 mg/kg ip had no effect on ethanol sleeping time or on the rate of disappearance of ethanol from the whole body in mice, or on the slope of linear decrease of blood ethanol concentration in rats. It appeared to delay the absorption or distribution of ethanol, as shown by a cross-over in the blood curves. Chronic pretreatment with chlorcyclizine or phenobarbital, in doses which significantly shortened the pentobarbital sleeping time, had no effect on ethanol sleeping time or ethanol metabolism in rats, although onset of sleep was delayed in rats pretreated with phenobarbital. It is concluded that the hepatic microsomal drug metabolizing systems are probably not involved in ethanol metabolism in vivo, or in cross-tolerance between ethanol and other drugs. (21 ref.)

7673. Khavari, Khalil A. (U. Wisconsin, Milwaukee) **Adrenergic-cholinergic involvement in modulation of learned behavior.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 284-291.—Selected doses of 2 anticholinergics (atropine and scopolamine) and a sympathomimetic drug (d-amphetamine) were injected ip or directly into the cerebral ventricle of 24 male albino Sprague-Dawley rats. All treatments produced analogous changes in the performance of learned behavior. Data (a) implicate a dichotomous CNS adrenergic-cholinergic neurotransmitter mechanism in the control of learned behavior, and

(b) suggest that the observed behavioral changes are manifestations of transitory memory impairment. (18 ref.)—*Journal abstract*.

7674. Lahti, R. A. & Platz, P. A. (Upjohn Co., Kalamazoo, Mich.) **Selective protection of serotonin stores against the action of reserpine by α -methyl-5-hydroxytryptophan pretreatment.** *Biochemical Pharmacology*, 1969(Oct), Vol. 18(10), 2363-2369.—Administration of a single dose of 200 mg/kg of α -methyl-5-hydroxytryptophan to mice results in a rapid decline of brain norepinephrine of approximately 50% and a concomitant increase in "apparent" serotonin of 150-200%. The increase in "apparent" serotonin was attributed to the formation of α -methyl serotonin and shown to be so by the use of ^3H - α -methyl-5-hydroxytryptophan. A time study indicated that after a single dose of the α -methyl amino acid the apparent serotonin levels were elevated above normal for up to 48 hr. Pretreatment of Ss with α -methyl-5-hydroxytryptophan prevented the depletion of serotonin stores by reserpine, but did not protect norepinephrine stores. A time study demonstrated that such protection against reserpine is afforded for at 24 hr. after the administration of α -methyl-5-hydroxytryptophan. (15 ref.)—*Journal abstract*.

7675. Liang, C. C. & Quastel, J. H. (U. Hong Kong, China) **Effects of drugs on the uptake of acetylcholine in rat brain cortex slices.** *Biochemical Pharmacology*, 1969(May), Vol. 18(5), 1187-1194.—Presents a list of drugs which inhibit competitively uptake of acetylcholine against a concentration gradient into rat brain cortex slices incubated aerobically at 37° in a physiological saline-glucose medium containing 20 μM paraoxon: eserine, tetramethylammonium chloride, tetraethylammonium chloride, atropine, cocaine, procaine, lidocaine, chlorprocaine, methacholine, succinylcholine, d-tubocurarine, hexamethonium, pilocarpine, nicotine, strychnine, and hemicholinium. The following drugs inhibit noncompetitively: chlorpromazine and amphetamine. A comparison of the inhibitor constants of a number of these drugs, which act competitively on acetylcholine transport, with the inhibitor constants towards acetylcholine esterase or certain neurophysiological acetylcholine receptor sites, leads to the conclusion that the transport carrier site for acetylcholine is not identical in chemical structure with the anionic site of acetylcholine esterase or with the acetylcholine receptor sites. The noncompetitive effects of certain drugs suggest the presence of a site on the transport carrier, with an affinity for these drugs, which affects the reactions of acetylcholine at the brain cell membrane.—*Journal abstract*.

7676. Lindemann, M., Schilter, R., & Sinkwitz, K. D. (Humboldt U., Medical Faculty, Berlin, E. Germany) **The influence of the ganglionic blocking agent ganglion on viscerovisceral and viscerocerebral reactions of the cat.** *Conditional Reflex*, 1970(Apr), Vol. 5(2), 97-108.—Studied in 21 subacute or chronic cats the influence of gallbladder distention on heart rate, respiratory movements, bioelectrical activity of the cerebral cortex and motor behavior under normal conditions and after ip administration of a ganglionic blocking agent. In control groups without administration of the drug, changes of heart and respiratory rates were observed during the mechanical stimulation of the gallbladder. These effects were independent of a sleeping or nonsleeping state of the S. In some cases viscerovisceral reactions could be accompanied by an arousal

reaction. After administration of the blocking agent in amounts ranging between 5-50 mg/kg body weight the viscerovisceral reactions were inhibited, whereas the behavioral arousal remained. (2 p. ref.)—*Journal abstract*.

7677. Loh, Horace H., Shen, Fu-Hsiung, & Way, E. Leong. (Wayne State U.) **Inhibition of morphine tolerance and physical dependence development and brain serotonin synthesis by cycloheximide.** *Biochemical Pharmacology*, 1969(Dec), Vol. 18(2), 2711-2721.—Mice were rendered tolerant to and physically dependent on morphine by daily subcutaneous injections of increasing doses of morphine for 3 wk. The degree of tolerance was determined by measuring the increase in the median analgesic dose of morphine in relation to response to thermal stimulus, and dependence was determined by the precipitation of withdrawal jumping with the antagonist, naloxone. The concomitant daily administration of cycloheximide with morphine prevented the development of tolerance and physical dependence. The increase in brain serotonin turnover, which was noted to accompany development of tolerance and physical dependence, was also blocked. Findings suggest that the 3 responses to morphine may be closely related. (19 ref.)—*Journal abstract*.

7678. Maj, J., Grabowska, M., & Kwiec, J. (Polish Academy of Sciences, Inst. of Pharmacology, Cracow) **The effect of disulfiram, diethyldithiocarbamate and dimethyldithiocarbamate on serotonin and 5-hydroxyindole-3-acetic acid brain levels in rats.** *Biochemical Pharmacology*, 1970(Aug), Vol. 19(8), 2517-2519.—Investigated the activity of disulfiram (DS), diethyldithiocarbamate (DE), and dimethyldithiocarbamate (DM) on cerebral serotonin (5-HT) and catecholamine (C) levels. Ip injections of 3% DS suspensions were given 3 times at 2-hr intervals to albino Wistar rats, while DE and DM (in saline) were given in single doses. Ss were sacrificed 3 hr. following DS injections, or 2 hr. following DE or DM injections. 5-HT and 5-hydroxyindole-3-acetic acid (5-HIAA) levels were determined using the Ansell and Beeson method. Results indicate that only 2 significant changes occurred: (a) DE (250 mg/kg) increased 5-HIAA content to 143%, and (b) DE (500 mg/kg) lowered 5-HT content to 75%. It is concluded that DS, DE, and DM do not effect 5-HT levels in rat brains. (17 ref.)—*B. A. Stanton*.

7679. Mal'chikova, L. S. & Poskonova, M. A. (Moscow State U., USSR) **Vliyaniye adrenalina i adenilovoykh nukleozidov na spontannuyu aktivnost' i atsetilkholinovuyu kontrakturu gladikih myshts.** [Influence of adrenaline and adenylnucleotides on the spontaneous activity and acetylcholine-induced contraction of smooth muscles.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1378-1384. Utilized the smooth muscles of frog gastric circular muscle and guinea pig taenia coli in a study of their reaction to the action of adenosine tri-, di-, and monophosphate, as well as of adrenaline. A definite similarity existed in the action of adrenaline and that of the adenylnucleotides on the spontaneous activity of smooth muscles, depressing such activity and relaxing the muscles. The adenylnucleotides effectuated their inhibitory influence through the beta-adrenoreceptors which serve as the substrate of adrenaline in its inhibitory effect on the smooth musculature. Adrenaline and the adenylnucleotides abolished or diminished the reaction to acetylcholine in the muscles studied. (English summary) (23 ref.)—*I. D. London*.

7680. Marcucci, F., Fanelli, R., Mussini, E., & Garattini, S. (Mario Negri Inst. of Pharmacological Research, Milan, Italy) **Effect of phenobarbital on the in vitro metabolism of diazepam in several animal species.** *Biochemical Pharmacology*, 1970(May), Vol. 19(5), 1771-1776.—Investigated the metabolic pathway by which diazepam is transformed in vitro by liver microsomes from control and phenobarbital-treated male Sprague-Dawley rats, albino Swiss mice, and albino guinea pigs. Increased diazepam metabolism resulting from phenobarbital treatment led to the formation of increased amounts of hydroxylated metabolites in mice, and of both hydroxylated and N-demethylated metabolites in rats. In guinea pigs pretreatment with phenobarbital produced only an increased formation of N-demethylated metabolite. In all the animal species considered, in addition to the increased diazepam metabolism, phenobarbital treatment led to a decreased recovery of diazepam from incubation medium.—*Journal abstract*.

7681. McCarroll, James E. (U. Arkansas) **Magnesium pemoline: Effects of high dosage on water maze performance by rats.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1567.

7682. Meyerson, Bengt J. & Lewander, Tommy. (U. Uppsala, Sweden) **Serotonin synthesis inhibition and estrous behavior in female rats.** *Life Sciences*, 1970(Jun), Vol. 9(12, Pt. 1), 661-671.—Estrogen and progesterone are normally required to activate estrous behavior (i.e., lordosis response) in ovariectomized rats. Previous data suggest that serotonergic pathways inhibit the hormone activated estrous behavior. The present results show that the tryptophan hydroxylase inhibitor p-chlorophenylalanine (PCPA, 350 mg/kg), but not p-propyldopacetamid (H 22/54, 500 mg/kg), can replace the progesterone treatment. The ability of PCPA to activate estrous behavior could be due to decreased serotonin biosynthesis in combination with loss of serotonin from storage sites caused by PCPA itself or a metabolite. A release is indicated by a significant inhibition of the estrogen + progesterone activated estrous behavior, if PCPA is preceded by the MAO inhibitor pargyline (25 mg/kg). No inhibitory effect was obtained when the order of the injections of the 2 drugs was reversed. No similar inhibition was caused by H 22/54 preceded by pargyline. The turnover of serotonin in brains of ovariectomized, hormone treated females was estimated by measuring the decrease in brain serotonin after inhibition of tryptophan hydroxylase with PCPA or H 22/54. No changes in turnover of brain serotonin were found after estrogen, estrogen + progesterone, or progesterone treatment.—*Journal summary*.

7683. Moore, Kenneth E. (Michigan State U.) **Effects of disulfiram and diethyldithiocarbamate on spontaneous locomotor activity and brain catecholamine levels in mice.** *Biochemical Pharmacology*, 1969(Jul), Vol. 18(7), 1627-1634.—Reports that ip injections of diethyldithiocarbamate (DDC) or disulfiram (DS), both of which inhibit dopamine- β -hydroxylase, did not alter brain levels of dopamine but caused a dose-dependent reduction of both the brain content of norepinephrine and the spontaneous locomotor activity of male albino mice. These latter effects were not causally related, since pretreatment with a MAO inhibitor prevented the DDC- and DS-induced depletion of norepinephrine, but did not alter the ability of these drugs to depress spontaneous locomotor activity. Exposure of Ss to a 4° environment

did not alter DS-induced depletion of brain norepinephrine or behavioral depression. When administered in the diet, DS reduced the brain content of norepinephrine but did not depress motor activity; DDC did not alter either parameter. Results indicate that the central depressant effects of DDC and DS are not exclusively due to the ability of these drugs to alter the absolute levels of brain catecholamines. (23 ref.)—*Journal abstract*.

7684. Mulé, S. J. (New York State Narcotic Addiction Control Commission, New York) **Inhibition of phospholipid-facilitated calcium transport by central nervous system-acting drugs.** *Biochemical Pharmacology*, 1969(Feb), Vol. 18(2), 339-346.—Narcotic analgesics effectively inhibit the binding of Ca^{2+} to phospholipids in vitro. Morphine and nalorphine also inhibit the Ca^{2+} transported by phospholipids obtained from guinea pig brain subcellular fractions. The inhibition of Ca^{2+} transported was related to ionization of the drug and was compared with the analgesic potency of the narcotic drugs. About 69% of morphine- ^{14}C was bound to phosphatidic acid and this binding was inhibited by divalent ions (3–29%). Various CNS-acting drugs were also effective in inhibiting the transport of Ca^{2+} ions by phosphatidic acid. It is postulated that an alteration in the binding of ions to phospholipids within the neuronal membrane may be involved in the pharmacological action of CNS-acting drugs. (27 ref.)—*Journal abstract*.

7685. Naik, Suresh R., Gokhale, Shrikant V., & Chittal, Shashikant M. (Seth G.S. Medical Coll., Pharmacology Research Unit, Bombay, India) **Effect of analeptics on brain pentobarbital levels and sleeping time in mice.** *Biochemical Pharmacology*, 1969(Aug), Vol. 18(8), 2038-2040.—For some time analeptics have been used as drugs of choice in the treatment of barbiturate poisoning. It has been observed that female white mice, given hexobarbital and nikethamide simultaneously, have shown sleeping time increases. This observation was extended following an examination of brain barbiturate levels in 3 Ss, using pentobarbital as the depressant and nikethamide, pentylentetrazol, and picrotoxin as analeptics. (15 ref.)—*B. A. Stanton*.

7686. Neimegeers, C. J., Verbruggen, F. J., & Janssen, P. A. (Janseen Pharmaceutica, Beerse, Belgium) **The influence of various neuroleptic drugs on noise escape response in rats.** *Psychopharmacologia*, 1970, Vol. 18(3), 249-259.—Studied the effects of 20 neuroleptic drugs on noise escape behavior in 90 female Wistar rats trained to interrupt an aversive noise (95 db. recycling every 20 sec.) by jumping, in a shuttle box, from 1 compartment into the other. All 20 drugs prolonged the latency (T) and reduced the frequency (F) of the noise escape response rate. For all compounds tested, T was more sensitive to drug effect than F. As far as potency was concerned, there was a good correlation ($r = .974$) between the F-900 values of the noise escape test and the ED_{50} values in the non-discriminated Sidman avoidance test in Ss and, as far as sedative properties were concerned, between the F 45/T900 ratio and the palpebral ptosis/cataplexy ratio ($r = .960$) of the observation test in Ss. (21 ref.)—*Journal abstract*.

7687. Nucifora, Thomas L. (U. Connecticut) **Psychopharmacological evaluation of certain nonsteroidal antiinflammatory compounds, lupine alkaloids and cryogenine.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1438.

7688. Rohte, Oskar. (Research Lab., Helsingborg,

Sweden) **Observation of the grooming behavior of reserpine white mice as a method for investigating reserpine antagonism and synergism.** *Psychopharmacologia*, 1970, Vol. 18(2), 154-161.—The grooming movements of reserpine white mice, dusted with pulverized charcoal, were studied under the influence of psychotropic drugs. Desipramine, d-amphetamine, and LEO 640 (a new potential antidepressant) showed positive results in this test and stimulated the grooming movements again. The results were compared with those obtained in the reserpine-temperature and the ptosis tests for mice.—*Journal abstract*.

7689. Senault, B. (Le Brun Lab., Aubervilliers, France) **Comportement d'agressivité intraspécifique induit par l'apomorphine chez le rat.** [Induction of intraspecific aggressive behavior with apomorphine in the rat.] *Psychopharmacologia*, 1970, Vol. 18(3), 271-287.—Apomorphine (1 mg/kg iv) has been found to induce aggressive behavior in rats. Having studied the influence of several factors (auditory stimulus, drug dosage, age, sex, strain, and cage size), an experimental design was adopted. 3 populations were distinguished among the 1524 pairs of Wistar rats studied, including those with (a) no aggressive behavior; (b) moderate aggressive behavior; and (c) severe, long-lasting, and reproducible aggressive behavior. The aggressive behavior induced by apomorphine was not correlated with that induced by electrical stimulation nor with that induced by killing mice. Several psychotropic drugs antagonized this action: neuroleptics (except reserpine), tranquilizers (chloridazepoxide, diazepam, meprobamate, hydroxyzine), morphine, and atropine. (24 ref.)—*English abstract*.

7690. Sofia, R. Duane. (Union Carbide Corp., Tuxedo, N.Y.) **Comparison of two methods for measuring drug-induced neurotoxicity.** *Journal of Pharmaceutical Sciences*, 1969(Jul), Vol. 58(7), 900-901.—Describes a series of experiments in which a rotating and a stationary rod procedure were used to determine the neurotoxic effect of various depressant and antidepressant agents in Swiss-Webster male mice and male hooded Long-Evans rats. Results reveal that the rotating rod technique is more sensitive in detecting drug-induced changes in performance. Observed differences between the 2 methods were more striking in mice than in rats.—*Journal abstract*.

7691. Sofia, R. Duane. (Pharmakon Lab., Scranton, Pa.) **Effects of centrally active drugs on four models of experimentally-induced aggression in rodents.** *Life Sciences*, 1969(Jul), Vol. 8(13, Pt. 1), 705-716.—Used 4 models of experimentally-induced aggression in male hooded Long Evans rats to determine the effectiveness of various centrally active compounds. Comparison of effective doses to those causing evidence of neurotoxicity revealed that no 1 drug or class of drugs was consistently effective in the 4 models presented. Only thiazesim in isolated mouse aggression, thioridazine, clomacran, chloridazepoxide, and diazepam in the electric shock-induced fighting, and imipramine and desipramine in the muricidal rat assay exhibited selective activity. No drug significantly reduced septal-lesion aggression in Ss. (25 ref.)—*Journal summary*.

7692. Squire, L. R., Gluck, S. D., & Goldfarb, J. (U. California, San Diego) **Relearning at different times after training as affected by centrally and peripherally acting cholinergic drugs in the mouse.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 41-45.—Tested 585 Charles

reaction. After administration of the blocking agent in amounts ranging between 5-50 mg/kg body weight the viscerovisceral reactions were inhibited, whereas the behavioral arousal remained. (2 p. ref.)—*Journal abstract*.

7677. Loh, Horace H., Shen, Fu-Hsiung, & Way, E. Leong. (Wayne State U.) **Inhibition of morphine tolerance and physical dependence development and brain serotonin synthesis by cycloheximide.** *Biochemical Pharmacology*, 1969(Dec), Vol. 18(2), 2711-2721.—Mice were rendered tolerant to and physically dependent on morphine by daily subcutaneous injections of increasing doses of morphine for 3 wk. The degree of tolerance was determined by measuring the increase in the median analgesic dose of morphine in relation to response to thermal stimulus, and dependence was determined by the precipitation of withdrawal jumping with the antagonist, naloxone. The concomitant daily administration of cycloheximide with morphine prevented the development of tolerance and physical dependence. The increase in brain serotonin turnover, which was noted to accompany development of tolerance and physical dependence, was also blocked. Findings suggest that the 3 responses to morphine may be closely related. (19 ref.)—*Journal abstract*.

7678. Maj, J., Grabowska, M., & Kwiek, J. (Polish Academy of Sciences, Inst. of Pharmacology, Cracow) **The effect of disulfiram, diethyldithiocarbamate and dimethyldithiocarbamate on serotonin and 5-hydroxyindole-3-acetic acid brain levels in rats.** *Biochemical Pharmacology*, 1970(Aug), Vol. 19(8), 2517-2519.—Investigated the activity of disulfiram (DS), diethyldithiocarbamate (DE), and dimethyldithiocarbamate (DM) on cerebral serotonin (5-HT) and catecholamine (C) levels. Ip injections of 3% DS suspensions were given 3 times at 2-hr intervals to albino Wistar rats, while DE and DM (in saline) were given in single doses. Ss were sacrificed 3 hr. following DS injections, or 2 hr. following DE or DM injections. 5-HT and 5-hydroxyindole-3-acetic acid (5-HIAA) levels were determined using the Ansell and Beeson method. Results indicate that only 2 significant changes occurred: (a) DE (250 mg/kg) increased 5-HIAA content to 143%, and (b) DE (500 mg/kg) lowered 5-HT content to 75%. It is concluded that DS, DE, and DM do not effect 5-HT levels in rat brains. (17 ref.)—*B. A. Stanton*.

7679. Mal'chikova, L. S. & Poskonova, M. A. (Moscow State U., USSR) **Vliyaniye adrenalina i adenilovyykh nukleozidov na spontannuyu aktivnost' i atsetilkholinovuyu kontrakturu gladiikh myshts.** [Influence of adrenaline and adenylnucleotides on the spontaneous activity and acetylcholine-induced contraction of smooth muscles.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1378-1384.—Utilized the smooth muscles of frog gastric circular muscle and guinea pig taenia coli in a study of their reaction to the action of adenosine tri-, di-, and monophosphate, as well as of adrenaline. A definite similarity existed in the action of adrenaline and that of the adenylnucleotides on the spontaneous activity of smooth muscles, depressing such activity and relaxing the muscles. The adenylnucleotides effectuated their inhibitory influence through the beta-adrenoreceptors which serve as the substrate of adrenaline in its inhibitory effect on the smooth musculature. Adrenaline and the adenylnucleotides abolished or diminished the reaction to acetylcholine in the muscles studied. (English summary) (23 ref.)—*I. D. London*.

7680. Marcucci, F., Fanelli, R., Mussini, E., & Garattini, S. (Mario Negri Inst. of Pharmacological Research, Milan, Italy) **Effect of phenobarbital on the in vitro metabolism of diazepam in several animal species.** *Biochemical Pharmacology*, 1970(May), Vol. 19(5), 1771-1776.—Investigated the metabolic pathway by which diazepam is transformed in vitro by liver microsomes from control and phenobarbital-treated male Sprague-Dawley rats, albino Swiss mice, and albino guinea pigs. Increased diazepam metabolism resulting from phenobarbital treatment led to the formation of increased amounts of hydroxylated metabolites in mice, and of both hydroxylated and N-demethylated metabolites in rats. In guinea pigs pretreatment with phenobarbital produced only an increased formation of N-demethylated metabolite. In all the animal species considered, in addition to the increased diazepam metabolism, phenobarbital treatment led to a decreased recovery of diazepam from incubation medium.—*Journal abstract*.

7681. McCarroll, James E. (U. Arkansas) **Magnesium pemoline: Effects of high dosage on water maze performance by rats.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1567.

7682. Meyerson, Bengt J. & Lewander, Tommy. (U. Uppsala, Sweden) **Serotonin synthesis inhibition and estrous behavior in female rats.** *Life Sciences*, 1970(Jun), Vol. 9(12, Pt. 1), 661-671.—Estrogen and progesterone are normally required to activate estrous behavior (i.e., lordosis response) in ovariectomized rats. Previous data suggest that serotonergic pathways inhibit the hormone activated estrous behavior. The present results show that the tryptophan hydroxylase inhibitor p-chlorophenylalanine (PCPA, 350 mg/kg), but not p-propyldopacetamid (H 22/54, 500 mg/kg), can replace the progesterone treatment. The ability of PCPA to activate estrous behavior could be due to decreased serotonin biosynthesis in combination with loss of serotonin from storage sites caused by PCPA itself or a metabolite. A release is indicated by a significant inhibition of the estrogen + progesterone activated estrous behavior, if PCPA is preceded by the MAO inhibitor pargyline (25 mg/kg). No inhibitory effect was obtained when the order of the injections of the 2 drugs was reversed. No similar inhibition was caused by H 22/54 preceded by pargyline. The turnover of serotonin in brains of ovariectomized, hormone treated females was estimated by measuring the decrease in brain serotonin after inhibition of tryptophan hydroxylase with PCPA or H 22/54. No changes in turnover of brain serotonin were found after estrogen, estrogen + progesterone, or progesterone treatment.—*Journal summary*.

7683. Moore, Kenneth E. (Michigan State U.) **Effects of disulfiram and diethyldithiocarbamate on spontaneous locomotor activity and brain catecholamine levels in mice.** *Biochemical Pharmacology*, 1969(Jul), Vol. 18(7), 1627-1634.—Reports that ip injections of diethyldithiocarbamate (DDC) or disulfiram (DS), both of which inhibit dopamine- β -hydroxylase, did not alter brain levels of dopamine but caused a dose-dependent reduction of both the brain content of norepinephrine and the spontaneous locomotor activity of male albino mice. These latter effects were not causally related, since pretreatment with a MAO inhibitor prevented the DDC- and DS-induced depletion of norepinephrine, but did not alter the ability of these drugs to depress spontaneous locomotor activity. Exposure of Ss to a 4° environment

did not alter DS-induced depletion of brain norepinephrine or behavioral depression. When administered in the diet, DS reduced the brain content of norepinephrine but did not depress motor activity; DDC did not alter either parameter. Results indicate that the central depressant effects of DDC and DS are not exclusively due to the ability of these drugs to alter the absolute levels of brain catecholamines. (23 ref.)—*Journal abstract*.

7684. Mulé, S. J. (New York State Narcotic Addiction Control Commission, New York) **Inhibition of phospholipid-facilitated calcium transport by central nervous system-acting drugs.** *Biochemical Pharmacology*, 1969(Feb), Vol. 18(2), 339-346.—Narcotic analgesics effectively inhibit the binding of Ca^{2+} to phospholipids in vitro. Morphine and nalorphine also inhibit the Ca^{2+} transported by phospholipids obtained from guinea pig brain subcellular fractions. The inhibition of Ca^{2+} transported was related to ionization of the drug and was compared with the analgesic potency of the narcotic drugs. About 69% of morphine- ^{14}C was bound to phosphatidic acid and this binding was inhibited by divalent ions (3-29%). Various CNS-acting drugs were also effective in inhibiting the transport of Ca^{2+} ions by phosphatidic acid. It is postulated that an alteration in the binding of ions to phospholipids within the neuronal membrane may be involved in the pharmacological action of CNS-acting drugs. (27 ref.)—*Journal abstract*.

7685. Naik, Suresh R., Gokhale, Shrikant V., & Chittil, Shashikant M. (Seth G.S. Medical Coll., Pharmacology Research Unit, Bombay, India) **Effect of analeptics on brain pentobarbital levels and sleeping time in mice.** *Biochemical Pharmacology*, 1969(Aug), Vol. 18(8), 2038-2040.—For some time analeptics have been used as drugs of choice in the treatment of barbiturate poisoning. It has been observed that female white mice, given hexobarbital and nikethamide simultaneously, have shown sleeping time increases. This observation was extended following an examination of brain barbiturate levels in 3 Ss, using pentobarbital as the depressant and nikethamide, pentylenetetrazol, and picrotoxin as analeptics. (15 ref.)—*B. A. Stanton*.

7686. Neimegeers, C. J., Verbruggen, F. J., & Janssen, P. A. (Janseen Pharmaceutica, Beerse, Belgium) **The influence of various neuroleptic drugs on noise escape response in rats.** *Psychopharmacologia*, 1970, Vol. 18(3), 249-259.—Studied the effects of 20 neuroleptic drugs on noise escape behavior in 90 female Wistar rats trained to interrupt an aversive noise (95 db, recycling every 20 sec.) by jumping, in a shuttle box, from 1 compartment into the other. All 20 drugs prolonged the latency (T) and reduced the frequency (F) of the noise escape response rate. For all compounds tested, T was more sensitive to drug effect than F. As far as potency was concerned, there was a good correlation ($r=.974$) between the F-900 values of the noise escape test and the ED_{50} values in the non-discriminated Sidman avoidance test in Ss and, as far as sedative properties were concerned, between the F 45/T900 ratio and the palpebral ptosis/catalepsy ratio ($r=.960$) of the observation test in Ss. (21 ref.)—*Journal abstract*.

7687. Nucifora, Thomas L. (U. Connecticut) **Psychopharmacological evaluation of certain nonsteroidal antiinflammatory compounds, lupine alkaloids and cryogenine.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1438.

7688. Rohte, Oskar. (Research Lab., Helsingborg,

Sweden) **Observation of the grooming behavior of reserpinized white mice as a method for investigating reserpine antagonism and synergism.** *Psychopharmacologia*, 1970, Vol. 18(2), 154-161.—The grooming movements of reserpinized white mice, dusted with pulverized charcoal, were studied under the influence of psychotropic drugs. Desipramine, d-amphetamine, and LEO 640 (a new potential antidepressive) showed positive results in this test and stimulated the grooming movements again. The results were compared with those obtained in the reserpine-temperature and the ptosis tests for mice.—*Journal abstract*.

7689. Senault, B. (Le Brun Lab., Aubervilliers, France) **Comportement d'agressivité intraspécifique induit par l'apomorphine chez le rat.** [Induction of intraspecific aggressive behavior with apomorphine in the rat.] *Psychopharmacologia*, 1970, Vol. 18(3), 271-287.—Apomorphine (1 mg/kg iv) has been found to induce aggressive behavior in rats. Having studied the influence of several factors (auditory stimulus, drug dosage, age, sex, strain, and cage size), an experimental design was adopted. 3 populations were distinguished among the 1524 pairs of Wistar rats studied, including those with (a) no aggressive behavior; (b) moderate aggressive behavior; and (c) severe, long-lasting, and reproducible aggressive behavior. The aggressive behavior induced by apomorphine was not correlated with that induced by electrical stimulation nor with that induced by killing mice. Several psychotropic drugs antagonized this action: neuroleptics (except reserpine), tranquilizers (chlordiazepoxide, diazepam, meprobamate, hydroxyzine), morphine, and atropine. (24 ref.)—*English abstract*.

7690. Sofia, R. Duane. (Union Carbide Corp., Tuxedo, N.Y.) **Comparison of two methods for measuring drug-induced neurotoxicity.** *Journal of Pharmaceutical Sciences*, 1969(Jul), Vol. 58(7), 900-901.—Describes a series of experiments in which a rotating and a stationary rod procedure were used to determine the neurotoxic effect of various depressant and antidepressant agents in Swiss-Webster male mice and male hooded Long-Evans rats. Results reveal that the rotating rod technique is more sensitive in detecting drug-induced changes in performance. Observed differences between the 2 methods were more striking in mice than in rats.—*Journal abstract*.

7691. Sofia, R. Duane. (Pharmakon Lab., Scranton, Pa.) **Effects of centrally active drugs on four models of experimentally-induced aggression in rodents.** *Life Sciences*, 1969(Jul), Vol. 8(13, Pt. 1), 705-716.—Used 4 models of experimentally-induced aggression in male hooded Long Evans rats to determine the effectiveness of various centrally active compounds. Comparison of effective doses to those causing evidence of neurotoxicity revealed that no 1 drug or class of drugs was consistently effective in the 4 models presented. Only thiazesim in isolated mouse aggression, thioridazine, clomacran, chlordiazepoxide, and diazepam in the electric shock-induced fighting, and imipramine and desipramine in the muricidal rat assay exhibited selective activity. No drug significantly reduced septal-lesion aggression in Ss. (25 ref.)—*Journal summary*.

7692. Squire, L. R., Glick, S. D., & Goldfarb, J. (U. California, San Diego) **Relearning at different times after training as affected by centrally and peripherally acting cholinergic drugs in the mouse.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 41-45.—Tested 585 Charles

River Swiss albino male mice for retention of a spatial task 1, 7, or 14 days after training. Normal Ss exhibited savings after 1 or 7 days, but not after 14 days. Ss given physostigmine before the retention test were impaired 1 day after training, but exhibited savings at both 7 and 14 days after training. Neostigmine, a peripherally acting anticholinesterase, had no effect when administered alone 1 day after training. Methscopolamine, a peripherally acting anticholinergic agent, had no effect when administered alone, but antagonized the behavioral effects of physostigmine. It is concluded that both central and peripheral actions of physostigmine are necessary to affect performance in this task.—*Journal abstract.*

7693. Strada, S. J., Sanders-Bush, E., & Sulser, F. (Vanderbilt U., Medical School, Psychopharmacology Research Center) ***p*-Chloroamphetamine: Temporal relationship between psychomotor stimulation and metabolism of brain norepinephrine.** *Biochemical Pharmacology*, 1970(Sep), Vol. 19(9), 2621-2629.—Unlike amphetamine, *p*-chloroamphetamine causes a decrease in cerebral serotonin (5HT) in rats. This effect on 5HT metabolism persists after the psychomotor stimulation has subsided. A study with male Sprague-Dawley rats indicates that like amphetamine, however, *p*-chloroamphetamine exerted a marked effect on the metabolism of intraventricularly administered ³H-norepinephrine during the period of psychomotor stimulation. Thus, it markedly increased the level of ³H-norepinephrine and decreased that of the tritiated deaminated catechol and the deaminated-O-methylated metabolites Desipramine, which blocks the metabolism of amphetamine, prolonged both the pharmacological and biochemical effects caused by amphetamine. It is concluded that the psychomotor stimulation elicited by *p*-chloroamphetamine is associated with changes in the metabolism of brain norepinephrine and not of brain serotonin. (35 ref.)—*Journal abstract.*

7694. Teitelbaum, Harry A., Newton, Joseph E., & Gantt, W. Horsley. (Johns Hopkins U., Medical School, Pavlovian Lab.) **Effects of pentobarbital sodium anesthesia and neurohumoral agents on the cardiac orienting reflex.** *Conditional Reflex*, 1970(Jan), Vol. 5(1), 6-26.—Reports studies of the cardiac orienting reflex in 16 dogs, moderately anesthetized and awake. In the anesthetized Ss prominent transient heart rate decrease was commonly noted within 1 or 2 beats after the onset of various auditory stimuli, and less often after visual stimuli. This cardiac inhibition was neither as prominent nor as frequent in occurrence in awake Ss. The respiratory cycle at stimulus onset influenced the appearance and degree of heart rate decrease, with the greatest and most frequent decreases occurring during the expiratory phase. Atropine abolished the response. There was little evidence of habituation of this orienting response under anesthesia, although "waxing" and "waning" apparently related to minute-by-minute fluctuations in degree of unconsciousness, occurred. Findings are discussed in relation to neurophysiological and neuroanatomical correlates of orienting responses, hypotheses of orienting and attention, cardiovascular neurohumoral mediators. (44 ref.)—*Journal abstract.*

7695. Wahlström, Göran. (U. Uppsala, Sweden) **Sleep induction by progesterone and medroxyprogesterone in the canary.** *Acta Pharmacologica et Toxicologica*, 1968(Nov), Vol. 26(6), 583-596.—Employing a method by which canaries could choose

between light and darkness, the circadian rhythm of activity and rest were recorded, using waking up times as starting points of the circadian periods. Progesterone (300 mg/kg) and medroxyprogesterone (75 mg/kg) were given as single oral doses during the activity of circadian period number 0. The progestational agents were administered either during the 1st half of the activity (AM) or during the last half of the activity (PM) period. The changes induced in duration of activity and rest were very similar after the 2 progestational agents. In the AM-series, activity was decreased and rest was increased. Roosting in circadian period number 0 thus occurred earlier than expected. A sleep-seeking behavior was thus induced in the Ss. In the PM-series opposite results were obtained, i.e., activity increased and rest decreased. There was a linear regression between the time during the activity when progesterone or medroxyprogesterone was administered and the changes induced in duration of activity and rest. The regressions were similar for progesterone and medroxyprogesterone. The changes in the duration of the circadian periods were different after progesterone and medroxyprogesterone. Marked changes were seen only in the AM-series. After progesterone, circadian period number 0 and 1 were decreased. After medroxyprogesterone, circadian period number 0 was increased and circadian period number 1 slightly decreased. (17 ref.)—*Journal summary.*

CARDIOVASCULAR PROCESSES

7696. Blitz, P. S., Hoogstraten, J., & Mulder, G. (U. Amsterdam, Psychological Lab., Netherlands) **Mental load, heart rate and heart rate variability.** *Psychologische Forschung*, 1970(Sep), Vol. 33(4), 277-288.—"Several investigators have shown that diminished sinus arrhythmia can be seen as an indication of increased mental load. The present experiment deals with the influence of different levels of mental load, operationalized as the number of binary choices per minute, on the regularity of the heart rate. Also ... investigated [were] the influence of 4 different rest conditions on the regularity of the heart rate. The results show that sinus arrhythmia scores differentiate significantly between several levels of mental load, but heart frequency appeared to be an even better indicator. No significant differences were found between the 4 rest conditions. Stability over 3 subsequent measurement sessions was satisfactory, and reliability within the measurement periods was very high."—R. Gunter.

7697. Cohen, David H. & MacDonald, Robert L. (U. Virginia, Medical School) **Some variables affecting orienting and conditioned heart-rate responses in the pigeon.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 123-133.—Describes in Exp. I 40 white Carneaux pigeons' heart-rate orienting response to light—monotonic cardioacceleration that habituates rapidly with a more persistent long-latency acceleratory component. Intermittent footshock modified the response dynamics, producing a decelerative component. However, this effect persisted for a limited number of presentations. Exp. II examined the effects of preexposures to light or unpaired light and shock. Preexposures to light had no effect. However, preexposure to 40 lights and shocks produced an acquisition decrement. Exp. III investigated ITI. There was a direct relationship between mean ITI and response magnitude, indicating a trial-massing effect in cardiac

conditioning. Controlling head position was found to have no effect. (22 ref.)—*Journal abstract.*

7698. Dobrovolskaya, V. N. (Pavlov Inst. of Physiology, Leningrad, USSR) *Uroven' i kolebaniya kolichestva leikotsitov perifericheskoi krovi u sobaks raznymi svoistvami osnovnykh nervnykh protsessov.* [Level and fluctuations of the number of leucocytes in the peripheral blood of dogs with various properties of the basic nervous processes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 509-515.—Ss were 24 3-8 yr. old dogs with different types of nervous systems. High average degree and larger fluctuations of leucocytic density were noted in Ss with a weak excitatory process, independently of other properties, and, among Ss with a strong excitatory process, those that were equilibrated and labile. Lower average degree and smaller fluctuations of leucocytic density were characteristic for unequilibrated and inert Ss with a strong excitatory process. The average degree of leucocytic density was higher in females than in males. The degree of fluctuations of leucocytic density was the same in males and females.—I. D. London.

7699. Finley, William W. (Children's Medical Center, Tulsa, Okla.) *The effect of feedback on the control of cardiac rate.* *Journal of Psychology*, 1971(Jan), Vol. 77(1), 43-54.—Examined effect of correct feedback (CF) and incorrect feedback (IF) of cardiac rate across 5 display (D) and 6 no-display (ND) trials. 10 human Ss were tested in each feedback condition. Results show that CF Ss significantly decreased their cardiac rate during D relative to ND and to D of the IF Ss. Skin conductance was positively correlated with cardiac rate during CF D, suggesting that CF Ss successfully decreased cardiac rate by adopting some sort of arousal or relaxation strategy. (24 ref.)—*Author abstract.*

7700. Galantsev, V. P. (Leningrad State U., USSR) *Rol' vagusnoi innervatsii v mekhanizme vznikeniya reflektornoi bradikardii u nyryayushchikh mlekopitayushchikh.* [Role of vagal innervation in the mechanism behind the emergence of reflex bradycardia in diving mammals.] *Nervnaya Sistema*, 1968, No. 9, 65-70.—Muskrats (*Ondatra zibethica* L), capable of remaining under water for 12 min., were used to study the role of the vagus nerve in changes observed in the functional state of the heart muscle upon diving. On plunging into water, an abrupt reflex bradycardia showed up (from an average of 310 contractions/min down to 44), produced by a change in vagal tonus. Reflex bradycardia was abolished with bilateral vagotomy in the cervical region or with injection of atropine (1 ml. of .1% solution), thereby excluding any vagal influence on the heart. Surfacing by the intact S led to an increase of pulse rate to 8-10% above the normal prior to diving. During this time, cardiac activity was not subjected to vagal inhibition.—I. D. London.

7701. Higgins, J. David. (Harvard Medical School, Boston, Mass.) *Set and uncertainty as factors influencing anticipatory cardiovascular responding in humans.* *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 272-283.—Monitored human heart-rate and vasomotor activity while 24 male undergraduates' expectancies concerning which of 2 stimuli would occur were manipulated. 1 stimulus demanded a button-press response while the other required the S not to respond. In 1 group this response served merely to detect the respond stimulus, while in a 2nd group it was given the added dimension of being a

RT response. In both groups cardiovascular activity leading up to stimulus onset was observed to be a function of stimulus uncertainty rather than a simple function of the respond stimulus' expectancy. It is concluded that anticipatory cardiovascular responding reflected the attentional requirements of the task rather than simple motor preparation. (21 ref.)—*Journal abstract.*

7702. Mazhbich, B. I. *Elektropletiizmografiya legkikh.* [Pulmonary electroplethysmography.] Novosibirsk, USSR: Nauka, 1969, 184 p.—Presents details and analysis of a method for measuring local blood flow in any part of the lung, intended for physiological and medical use.—I. D. London.

7703. Newton, Joseph E., Murphree, Oddist D., & Dykman, Roscoe A. (Veterans Administration Hosp., Neuropsychiatric Research Lab., North Little Rock, Ark.) *Sporadic transient atrioventricular block and slow heart rate in nervous pointer dogs: A genetic study.* *Conditional Reflex*, 1970(Apr), Vol. 5(2), 75-89.—2 behaviorally distinct strains of pointer dogs, 1 bred for nervousness (pronounced freezing, withdrawal behavior), the other bred for normal behavior, exhibited prominent differences in their heart rates and incidence of sporadic occurrences of atrioventricular (AV) heart block. Of 67 nervous-line dogs, 70% showed 2nd degree AV block on at least 1 occasion, and their heart rates averaged 65 bpm. Only 15% of 52 normal-line dogs displayed AV block (generally fewer instances/dog) and their heart rates averaged 110 bpm. 5th generation nervous-line puppies, 2-6 wk. old, exhibited occasional AV block even at heart rates averaging 183 bpm. The incidence and severity increased as the puppies aged. Dogs crossbred from 2nd and 3rd generation parents of the 2 main lines show intermediate incidences of AV block and intermediate heart rates. The incidence of AV block is predominant in females. This is interpreted as a sex-influenced, age-dependent, polygenic mode of inheritance. Humoral factors probably account for the sex-influence, and psychological stress also probably plays a role. No sex difference is noted in heart rates.—*Journal abstract.*

7704. Vainshtein, B. G. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) *K voprosu o proiskhozhdenii dykhatel'nykh voln vnutricherepnogo davleniya.* [On the origin of respiratory intracranial pressure waves.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1385-1392.—Used 50 cats and 21 dogs under nembutal narcosis to assess the importance of several major influences, in the formation of respiratory intracranial pressure waves. Under normal conditions these waves are due mainly to respiratory pressure waves originating in the superior cava, with those of arterial and inferior caval origin contributing little to formation of the respiratory intracranial pressure waves. (English summary) (22 ref.)—I. D. London.

7705. VanKirk, Kathryn & Sassin, Jon F. (U.S. Navy Medical Neuropsychiatric Research Inst., San Diego, Calif.) *Technique for serial blood sampling during sleep recording.* *American Journal of EEG Technology*, 1969(Dec), Vol. 9(4), 143-145.

ENVIRONMENT & STRESS

7706. Altukhov, G. V., Khruleva, L. N., Gritsyuk, R. I., & Tkachenko, P. A. (Inst. of Medicobiological Problems, Moscow, USSR) *Vliyaniye okhlazhdeniya razlichnoi*

stepeni i dlitel'nosti na vysshuyu nervnuyu deyatel'nost' i vegetativnye funktsii krysa. [Influence of duration and different degrees of cooling on higher nervous activity and autonomic functions in rats.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 788-793.—Studied the influence of prolonged and repeated cooling on CR activity, and its aftereffects. Hypothermal effects on motor alimentary CRs to sound were studied in 24 white rats. Cooling down to body temperatures of 21, 26, and 30° C was accompanied by depression of CR activity and autonomic functions. Depth and duration of the changes were a function of degree of cooling and, to a lesser extent, its duration. In 50% of the cases with cooling down to 30° C and in single instances with cooling down to 26° C, cooling had a stimulating action on CR activity during the revival period. Restoration of higher nervous activity started on the 2nd-3rd day, with complete restoration in 5-6 days. Such hypothermia produced more drastic changes in higher nervous activity, the general state, pulse, and respiration. Any stimulating effect that may be observed occurred only in single cases and was not served at all after maximal hypothermia. Cooling down to 26 and 30° C for 24 hr. and 21° C for 2 hr. produced no irreversible changes in higher nervous activity, autonomic functions, and general behavior.—*I. D. London.*

7707. Bokhor, B. B. & Voinova, I. I. (Inst. of Medicobiological Problems, Moscow, USSR) **Vliyaniye poverkhnostnoi gipotermii na protsessy tormozheniya v vestibulyarnom analizatore.** [Influence of surface hypothermia on the processes of inhibition in the vestibular analyzer.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 570-574.—Ss were 52 rats, several of which were subjected to extirpation of the temporal-parietal lobe of the cerebral cortex. Angular acceleration arising on stoppage of uniform rotation served as stimulus of the vestibular apparatus. Body cooling to 30° C slowed down extinction of the nystagmic reflex on repeated rotation. Transition from normal body temperature to surface hypothermia was accompanied by complete disinhibition of earlier extinguished nystagmus. The observed effects are viewed as the result of enhanced functional activity of the brainstem reticular formation during cooling. (English summary) (19 ref.)—*I. D. London.*

7708. Fantalova, V. L. (Inst. of Neurosurgery, Moscow, USSR) **O razlichnykh formakh reaktsii na proizvol'no usilennoe dykhanie.** [On different forms of reaction to voluntary deep breathing.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 632-639.—2 Ss, exhibiting 2 distinctly different forms of reaction to hyperventilation (1 and 2 min.), and an additional 25 Ss (16-54 yr. old) participated in a study of the effects of momentary hyperventilation, utilizing simultaneous respiratory, digital plethysmographic, and EEG recordings. Typical of the 1st distinct variant are atactic breathing and an increase in peripheral blood supply, accompanied by evidence of hypersynchronization of cortical rhythms in the EEG. In the 2nd distinct variant, a stable increase in the amplitude of respiratory movement and a decline in peripheral blood supply appeared without evidence of hypersynchronization in the EEG. Both variants were distinguished also by the degree of change in pH of the blood and by the reports of subjective sensations. (English summary)—*I. D. London.*

7709. Gliner, Jeffrey A. & Shemberg, Kenneth M.

(Bowling Green State U.) **Conditioned fear and gastric pathology in a continuing stress-rest paradigm in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 20-22.—Examined the hypothesis that ulceration in a continuing stress-rest paradigm may be suppressed as a function of the addition of conditioned fear to the rest period. Rest periods were modified by presenting 90 male Long-Evans rats with tones which were paired with shock during stress periods. The conditioned-fear group did not differ from the other groups in number of ulcers, but lost less weight ($p < .01$) than control groups which received no conditioned tones during the rest periods. Findings are consistent with previous research which failed to demonstrate that conditioned fear affects the development of gastric ulceration.—*Journal abstract.*

7710. Hörmann, H., Mainka, G., & Gummlich, H. (Ruhr U., Inst. of Psychology, Bochum, W. Germany) **Psychische und physische Reaktionen auf Geräusch verschiedener subjektiver Wertigkeit: Zeitweilige Hörschwellenverschiebung und Elektromyogramm.** [Psychological and physiological reactions to noise of different subjective valence: Temporary threshold shift and electromyogram.] *Psychologische Forschung*, 1970(Sep), Vol. 33(4), 289-309.—Hypothesized "that physiological and psychological reactions to noise are not independent from one another. 2 groups of Ss were exposed to an identical tape of interrupted white noise of 95 db. For Group A noise was the signal that they had made an error in a pseudo-tracking task; for the other group (B) the same noise was the signal that they were on target in the pseudo-tracking task. A 3rd group (C) of Ss heard the same noise without any task. The dependent variables were: (a) temporary threshold shift (TTS), (b) muscle tension as measured by electromyography, and (c) subjective scaling of the amount of annoyance and disturbance induced by the noise and of the general sensitivity for noise of the S. Results: Ss who invest the noise with a positive emotional valence feel themselves less disturbed, less annoyed and in general less susceptible to noise than Ss who receive the same noise with negative valence. Muscle tension is highest for Group A, less for Group B, least for Group C. The amount of TTS is dependent upon the valence of the noise; noise with negative valence results in a TTS of 18.1 db, whereas noise of neutral or positive valence leads to a TTS of only 11.0 resp. 12.8 db. The results are discussed in relation to noise research and to activation theory and detection theory."—*R. Gunter.*

7711. Lidberg, Lars & Levi, Lennart. (Lab. for Clinical Stress Research, Stockholm, Sweden) **Anxiety and the endocrine system.** *Australian & New Zealand Journal of Psychiatry*, 1969, Vol. 3(3-A), 202-206.—Describes 4 studies on: (a) sympatho-adrenomedullary responses during pleasant and unpleasant emotional states (Ss were 20 young female office clerks who viewed bland, tragic, and comic films), (b) central nervous function and sympatho-adrenomedullary response (Ss were 20 patients with Ménière's disease, and the 20 Ss from the previous study were controls), (c) life stress and sympatho-adrenomedullary activity (Ss were stutterers speaking in public and nonstutterers as controls, and 20 young men in police custody and awaiting trial; all were subjected to a 2-hr relaxed condition followed by 2 hr. during which they were repeatedly asked to read texts and describe TAT pictures projected onto a screen), and (d) long-term stress and thyroid activity (Ss were 31

military Ss who had to perform uninterruptedly on an electronic shooting range during 3 days and 3 nights; 32 Army officers were Ss in another, similar experiment). Results from all studies indicate "that situations that evoke anxiety, both in the laboratory and real life, are capable of provoking marked endocrine reactions, which may even be of pathogenic significance." (18 ref.)—*M. Maney*.

7712. Mikhail, A. A. (U. Manitoba, Winnipeg, Canada) **Effects of acute and chronic stress situations on stomach acidity in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 23-27.—Tested the effects of acute (Exp. I) and chronic (Exp. II) conditioned fear on gastric acidity in pylorus-ligated female Sprague-Dawley rats. Exp. I indicated that the acidity of 10 Ss exposed to conditioned fear during 14 hr. of accumulation of gastric juice was not significantly different from that of 10 controls. In Exp. II it was found that 16 Ss from 2 experimental groups which received 7 days of stimulation by light and shock followed by further stimulation during 14 hr. of pylorus ligation had significantly lower gastric acidity than 8 control Ss. These observations support the view that the sympathetic activity associated with fear-provoking situations, particularly chronic ones, suppresses rather than promotes gastric acidity. (24 ref.)—*Journal abstract*.

7713. Newberry, Benjamin H. (U. Wisconsin) **Effects of population density on mammary carcinoma in the rat.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 936.

7714. Romanova, L. S. (Leningrad State U., USSR) **Vliyanie glipoksii na tserebrozidy i gangliozidy mozga rastushchikh krys.** [Influence of hypoxia on the cerebro- and gangliosides of the brain of growing rats.] *Nervnaya Sistema*, 1968, No. 9, 47-52.—3-wk-old Ss were used to study the influence of severe hypoxia (1 min.) on the concentration and rate of metabolism of (a) the cerebro- and gangliosides, and (b) their different fractions, utilizing subcutaneous administration of acetate-2-C¹⁴ and various intervals of posthypoxic time (1 min., 1 and 4 hr.). Considerable sensitivity to hypoxia is demonstrated for both the cerebro- and gangliosides which are also shown to be metabolically dissimilar substances. 4 hr. after exposure to hypoxia, complete restoration of initial concentration occurred with almost full restoration of metabolic rate ("specific activity").—*I. D. London*.

7715. Stern, Warren C. (Indiana U.) **Behavioral and biochemical aspects of rapid eye movement sleep deprivation in the rat.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1574-1575.

GENETICS

7716. Lanier, G. N. (Canadian Forestry Service, Calgary, Alberta, Canada) **Sex pheromones: Abolition of specificity in hybrid bark beetles.** *Science*, 1970(Jul), Vol. 169(3940), 71-72.—Reports that specificity of sex pheromones maintained breeding isolation among 3 closely related species of spruce-infesting beetles (Scolytidae). Hybrids produced in the laboratory were intermediate to the parent species in both attractiveness and response. Pheromones and pheromone receptor types in the hybrids are probably mixtures of those of the parent species.—*Journal abstract*.

7717. Mayo, O. (U. Edinburgh, Inst. of Animal Genetics, Scotland) **The relation between secretor-ABO interactions and the maintenance of the ABO polymorphism.** *Human Heredity*, 1969, Vol. 19(4), 415-418.—Examines the hypothesis made by D. R. Ackerman that the secretor locus is maintained as a balanced polymorphism by gametic and zygotic selection acting in opposition, and, that this could help maintain segregation at the I(ABO) locus. It is indicated that the hypothesis ignores much of the evidence about selection at the I locus, so that it cannot provide the complete explanation for the existence of this polymorphism.—*Journal abstract*.

7718. Streng, Johannis. (U. Colorado) **Genetic correlates of activity and related learning performance in mice.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1575.

7719. Thiessen, D. D. (U. Texas) **Reply to Wilcock on gene action and behavior.** *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 103-105.—Replies to J. Wilcock's (see PA, Vol. 43:12595) review of single-gene studies of behavior in which he evaluates most studies as "trivial" in that they concentrate on obvious peripheral mechanisms without deep psychological meaning. It is argued that the evaluation neglects that: (a) peripheral mechanisms often account for much of the normal range of variation, (b) single genes can be used to preset physiological parameters, and (c) simple explanations can prevent premature neurologizing. (19 ref.)—*Journal abstract*.

7720. Wilcock, John. (U. Birmingham, England) **Gene action and behavior: A clarification.** *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 106-108.—Replies to D. D. Thiessen's (see PA, Vol. 45:Issue 5) criticism of J. Wilcock's (see PA, Vol. 43:12595) review of single-gene studies of behavior, in which a number of methodological points are raised. It is argued that the previous paper was intended not as a contribution to methodology, but as a critique of empirical findings and their implicit or explicit interpretations.—*Journal abstract*.

PERSONALITY CORRELATES

NUTRITION & GASTROINTESTINAL PROCESSES

7721. Borisova, R. P. (Inst. of Sanitation & Hygiene, Leningrad, USSR) **Vliyanie razdrazheniya interotseptorov zheludka i slepoi kishki na bioelektricheskuyu aktivnost' skeletnykh myshts.** [Influence of stimulation of the gastric and cecal interoceptors on the bioelectrical activity of skeletal muscles.] *Fiziologicheskii Zhurnal SSSR*, 1966(Feb), Vol. 52(2), 188-194.—Employed rabbits with chronic gastric and cecal fistula to study the influence of balloon stimulation of the interoceptors of different parts of the gastrointestinal tract on the bioelectrical activity of skeletal muscles (gastrocnemius and anterior tibial). Stimulation of the interoceptors of the stomach and cecum caused a considerable change in the distension evoked bioelectrical activity of the leg muscle antagonists. Stimulation of the gastric interoceptors elicited primarily inhibition of the bioelectric activity of the muscles; that of the cecal interoceptors exerted both an inhibitory and stimulatory influence. It is concluded that the inhibitory or stimulatory effect of interoceptive stimulation is a

function of level of initial bioelectrical activity of the muscle.—*I. D. London.*

7722. Deaux, Edward & Kakolewski, Jan W. (Antioch Coll.) **Character of osmotic changes resulting in the initiation of eating.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 248-253.—Presents evidence regarding the systemic cue of lowered body-fluid osmolality in the initiation of eating. In 40 female albino Holtzman and 60 male albino partially hydrated rats the latency to eating and serum osmolality are inversely related to the volume consumed. The preference for eating increases with an increased level of hydration. With unlimited water available the rat prefers to rehydrate before engaging in food consumption. Results are discussed in terms of a model relating preferred consummatory responding to the internal state of the body-fluid osmolality.—*Journal abstract.*

7723. Kas'yanov, V. M. (Lenin Pedagogical Inst., Moscow, USSR) **Soderzhanie medli v slyune okoloushnykh zhelez s uchëtom parnosty ikh raboty.** [Copper content in the saliva of the parotid glands with due consideration of their joint function.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 886-888.—Used 3 dogs in a polarographic study of bilateral effects on salivary copper content of elaborating alimentary CRs to sound, light, and dermatactile stimulation. A number of asymmetrical effects are noted. The largest asymmetrical concentration of salivary copper was observed in the right gland when the stimulus was dermatactile. The impossibility of fine cortical regulation of copper content in the secretory process is attributed to the minuteness of the quantities of copper involved and leads to an instability in the disclosed forms of asymmetry.—*I. D. London.*

7724. Kosenko, A. F. (Shevchenko State U., Kiev, USSR) **Rol' bluzhdayushchikh i chrevnykh nervov v peredache vliyaniy gipotalamusa na sekretnuyu zheludka.** [Role of the vagus and splanchnic nerves in the transmission of hypothalamic influences on gastric secretion.] *Fiziologicheskii Zhurnal SSSR*, 1966(Feb), Vol. 52(2), 179-183.—Employed 4 dogs with isolated stomach pouches to study (a) the character of the influences resulting from electrical stimulation of different parts of the hypothalamus on the secretory activity of the stomach during digestion under conditions of chronic experiment, and (b) the importance of the vagus and splanchnic nerves in the transmission of hypothalamic influences on the 1st and 2nd phase of gastric secretion. Stimulation of different parts of the hypothalamus caused a change in gastric secretion in response to food. With stimulation of the anterior and middle parts of the hypothalamus, influences on gastric secretion were transmitted chiefly by the nervous route. Influences, mainly exciting gastric secretion and partially inhibiting it, were transmitted through the vagus nerves; influences, mainly inhibiting gastric secretion, were transmitted through the splanchnic nerves. With stimulation of the posterior part of the hypothalamus, the influences on gastric secretion were mediated by the humoral route.—*I. D. London.*

7725. Maier, Steven F., Zahorik, Donna M., & Albin, Richard W. (U. Illinois) **Relative novelty of solid and liquid diet during thiamine deficiency determines development of thiamine-specific hunger.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 254-262.—Previous experiments have found that thiamine-deficient Ss prefer new solid diets to the diet

present during deficiency but do not prefer new liquids to the liquid present during deficiency. That is, thiamine-specific hunger has been shown for solid diets but not for liquids. In these experiments the familiarity of the liquid and solid was not equated. Using 64 male Holtzman rats, the novelty of the liquid and solid diet present during thiamine deficiency was varied. It was found that the degree of new liquid preference by thiamine-deficient Ss depended on the novelty of both the liquid and solid present during deficiency. Parallel results were found for solid-diet preferences. The relevance of these results for a learned-aversion interpretation of thiamine-specific hunger is discussed. (17 ref.)—*Journal abstract.*

7726. Udalova, G. P. (Leningrad State U., USSR) **Vliyaniye khimicheskogo razdrazheniya retseptorov tonkogo kishechnika na élektricheskuyu aktivnost' gipotalamusa i dvigatel'noi oblasti kory bol'shikh polusharii u kryss.** [Influence of chemical stimulation of the small intestinal receptors on electrical activity of the hypothalamus and motor region of the rat cerebral cortex.] *Nervnaya Sistema*, 1968, No. 9, 103-108. Ss were 32 nembutalized rats with prepared small intestinal loops (4-5 cm. in length). The study utilized, for 10-25 sec., the following stimuli on the small intestinal receptor field: solutions of NaCl, HCl, and glucose; water; and a physiological solution. Changes emerged in the electrical activity of several hypothalamic nuclei in response to the stimulation of small intestinal receptors by chemical solutions. The electrical responses were expressed either in a transformation of spontaneous rhythm or in the appearance of a series of potentials with diverse configurations (amplitude of 50-150 microV, and duration of 50-200 msec.). Adequate stimulation of the small intestinal chemoreceptors produced in the motor cortical region bioelectrical reactions, by way of response, in the form of changes in spontaneous activity or the appearance of evoked potentials.—*I. D. London.*

7727. Winer, David. (U. Connecticut) **A test of the Malmö activation hypothesis.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1578.

ANIMAL PSYCHOLOGY

COMPARATIVE PSYCHOLOGY

7728. Collins, William E., et al. (FAA, Civil Aero-medical Inst., Oklahoma City, Okla.) **Some characteristics of optokinetic eye-movement patterns: A comparative study.** *Aerospace Medicine*, 1970(Nov), Vol. 41(11), 1251-1262.—Optokinetic stimulation of parrots and cats showed that both slow-phase displacement and frequency of eye movements increased during the initial 18 sec. or more of stimulation before leveling off. There was no significant difference between right- and left-beating responses. Cats were studied more extensively and showed no clear adaptation effects for stimuli up to 2 min. in duration. Cats also displayed a smoothly declining afternystagmus (in the dark) following stimulus termination; this response consistently gave way to a secondary nystagmus, the magnitude of which did not seem to be affected by the longer stimulus durations. Vertical nystagmus from cats was less regular and could be obtained consistently only in a down-beating direction. Human Ss showed no consistent

directional differences in either horizontal or vertical optokinetic nystagmus but differed from the cats in that no build-up period was evident, a sharp drop in nystagmus followed stimulus termination, the output of afternystagmus tended to be greater following longer durations of stimulation, and secondary responses were both infrequent and weak. Some striking but apparently normal asymmetries in the vertical responses of humans were noted. (34 ref.)—*Journal abstract*.

7729. Collins, William E., et al. (FAA, Civil Aero-medical Inst., Oklahoma City, Okla.) **Some characteristics of optokinetic eye movement patterns: A comparative study.** *FAA Office of Aviation Medicine Report*, 1970(Jul), No. 70-10, 29 p.—Optokinetic stimulation of parrots, dogs, and cats showed that both slow-phase displacement and frequency of eye movements increased during the initial 18 sec. or more of stimulation before leveling off. There was no significant difference between right- and left-beating responses. Cats, studied more extensively, showed no clear adaptation effects for stimuli up to 2 min. in duration. Cats also displayed a smoothly declining afternystagmus (in the dark) following stimulus termination; this response consistently gave way to a secondary nystagmus, the magnitude of which did not seem to be affected by the longer stimulus durations. Vertical nystagmus from cats was less regular and could be obtained consistently only in a down-beating direction. Human Ss showed no consistent directional differences in either horizontal or vertical optokinetic nystagmus but differed from the cats in that no build-up period was evident, a sharp drop in nystagmus followed stimulus termination, the output of afternystagmus tended to be greater following longer durations of stimulation, and secondary responses were both infrequent and weak. Some striking but apparently normal asymmetries in the vertical responses of humans were noted. (32 ref.)—*Author abstract*.

7730. Fox, M. W. (Washington U.) **Ontogeny of prey-killing behavior in Canidae.** *Behaviour*, 1969, Vol. 35(3-4), 259-272.—Observed hand-raised foxes, wolves, coyotes, and dogs in their responses to live rats and mice. "Movement of the prey was a strong stimulus to all canids, eliciting orientation, approach and attack. These reactions occurred earliest in ontogeny, followed by seizure of the prey and carrying to a safe or quiet place. Consummatory eating in the wolf and grey fox appeared to be triggered by blood."—*N. M. Ginsburg*.

7731. Fox, M. W. (Washington U., St. Louis) **The anatomy of aggression and its ritualization in Canidae: A developmental and comparative study.** *Behaviour*, 1969, Vol. 35(3-4), 242-258.—Observed conspecific interactions of pairs of foxes, wolves, coyotes, and dogs. "Piloerection and back arching were present in all species.... The orientation of attack was almost exclusively directed at the cheek in the grey fox, but in other canids the shoulder hackle area, throat and muzzle area were also attacked; prolonged bouts of jaw-muzzle wrestling occurred in the wolf, scruff-wrestling in wolf and coyote and dog, and cheek-wrestling in the grey fox.... Orientation of attack was correlated with distinctive body markings."—*N. M. Ginsburg*.

7732. Gruber, Howard E., Girus, Joan S., & Banuazizi, Ali. (Rutgers State U., Inst. for Cognitive Studies) **The development of object permanence in the cat.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 9-15.—Modified Piaget's methods of studying object permanence in children to form 8 behavioral tests

suitable for cats. 12 laboratory-reared kittens and alley cats served as Ss. It was found that Ss reached an early developmental limit. Unlike children, they were unable to follow an object through a series of invisible displacements. 7 house-reared Ss showed similar limitations, but advanced more rapidly than cage-reared Ss. A longitudinal study with 3 house-reared litter mates suggests that cats go through 4 stages rather than the 6 found by Piaget in children. In the 1st 24 wk. of life, kittens develop as far as children do in their 1st yr., but the child's behavior with respect to vanished objects eventually becomes more complex and more general.—*Journal abstract*.

7733. Harper, Lawrence V. (U. California, Davis) **The young as a source of stimuli controlling caretaker behavior.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 73-88.—Reviews the effects of mammalian offspring on their caretakers, following a general classification system in which the offspring are seen as providing exogenous stimuli which facilitate (trigger, sensitize, orient) or inhibit (check, desensitize, disorient) caretaker behavior. Comparative studies provide well documented examples of general offspring-stimulus effects. The application of the same behavior analysis to parent-offspring relations in man is suggested. (4 p. ref.)—*Journal abstract*.

7734. Layne, James N. (American Museum of Natural History, New York, N.Y.) **Nest-building behavior in three species of deer mice, Peromyscus.** *Behaviour*, 1969, Vol. 35(3-4), 288-303.—Compared Florida, cotton, and wood mice on the "basis of amount of cotton removed daily from a dispenser and the type of nest built, and... their tendency to shred paper strips. Floridanus removed less cotton and built poorer nests than the other species.... Laboratory conceived and reared Ss of floridanus and gossypinus performed more poorly and more variably in these tests than wild-caught individuals.... Floridanus did less shredding than gossypinus... Laboratory Ss of both species tended to do more shredding than field animals."—*N. M. Ginsburg*.

7735. Maurinya, Kh. A. (Ed.) **Voprosy biologii.** [Problems of biology.] Riga, USSR: Zinatne, 1969, 267 p.—Contains 4 articles on human and animal physiology, 1 of which is devoted to a study of the autonomic components of the anxiety reaction in situational neuroses.—*I. D. London*.

7736. Morris, Desmond. **The human zoo.** New York, N.Y.: McGraw-Hill, 1969. 256 p. \$6.95.

7737. Sanders, Barbara. (U. Colorado) **Factors affecting reversal and nonreversal shifts in rats and children.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 192-202.—Trained 20 2nd grade children (Exp. I), 20 preschool children (Exp. II), and 16 naive brown male rats (Exp. III) on sequential discriminations analogous to reversal-nonreversal (R-NR) shifts, but without a basis for dimensional mediation. Population differences paralleled those obtained in actual R-NR studies and suggest that 1 factor which may contribute to the R-NR results is the spontaneous abandonment by older children of 1 previously rewarded response following nonreward of another previously rewarded response. Preschool Ss "spontaneously shifted" in this situation when the 1st postshift nonreward was accompanied by verbal instruction (Exp. IV). In an actual R-NR situation (Exp. V), although more instructed than noninstructed preschoolers spontaneously shifted, criterion performance in both groups depended

upon training dimension. Results are consistent with a theory in which dimensional mediators are assumed for rats and younger children as well as for older human Ss. (18 ref.)—*Journal abstract.*

7738. Sluckin, W. (U. Leicester, England) **Early learning in man and animal.** London, England: George Allen & Unwin, 1970. 123 p. 35 s(cloth), 20 s(paper).

NATURAL OBSERVATION

7739. Nogge, G. & Staack, W. (Inst. angewandte Zoologie, Bonn, W. Germany) **Das Flugverhalten der Dasselfliege (*Hypoderma Latreille*) (Diptera, Hypodermatidae) und das Bienen der Rinder.** [Flying behavior of the warble-fly and the panicking of cattle.] *Behaviour*, 1969, Vol. 35(3-4), 200-211.—Investigated the flight-sound by a $\frac{1}{3}$ octave analyser, and the oviposition-flight by slow motion filming. "Flying speed is 8-9 m/sec, the wing-stroke frequency 450 Hz.... Oviposition itself takes place in .2-.3 sec. After 1 attack, consisting of 3-6 ovipositions, a short rest follows.... The female may oviposit all her eggs within 2.5-3 hr.... The cattle react with panic on the flies' behaviour and take to flight. After some experience the flight-sound, as recorded by a tape, is able to induce fleeing."—N. M. Ginsburg.

EARLY EXPERIENCE

7740. Abel, Ernest L. (U. Toronto, Ontario, Canada) **Habituation as a factor in early handling.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 219-221.—Either handled or carried 48 Long-Evans hooded rats in their home cages during infancy. As adults, they were placed in an open field either by handling or by tipping them out of their cages. Infant handling was shown to affect latency to move in the open field only when handling occurred immediately prior to testing. Results are discussed in terms of habituation.—*Journal abstract.*

7741. Fox, M. W. (Washington U.) **Behavioral effects of rearing dogs with cats during the "critical period of socialization."** *Behaviour*, 1969, Vol. 35(3-4), 273-280.—Raised 4 pups singly with a litter of 4-6 kittens together with their mother, from 25 days to 16 wk. old. A series of tests were run on both experimental Ss and controls at 16 wk. Experimental Ss showed much less responsiveness to a mirror than controls. They played actively with strange cats but avoided other dogs. "Only cats with prior experience with a dog interacted socially with dog raised dogs while the latter always solicited play from cats."—N. M. Ginsburg.

7742. Tees, Richard C. (U. British Columbia, Vancouver, Canada) **Luminance and luminous flux discrimination in rats after early visual deprivation.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 292-297.—Trained 38 light- and 44 dark-reared hooded Long-Evans rats on 3 visual discrimination tasks. No significant difference due to rearing condition was observed in acquisition of an intensity discrimination in which both luminance and luminous flux differences were available and relevant. Stimulus equivalence tests revealed that the luminance differences were utilized by light-reared Ss in learning such a discrimination significantly more than by dark-reared Ss. Inferior performance by dark-reared Ss was obtained on a 2nd intensity discrimination in which only

luminance differences were relevant. No significant differences due to rearing condition were found in terms of acquisition or cue utilization on a luminous flux-size discrimination. Findings are discussed in terms of the effect of visual deprivation on selective attentional and information-processing mechanisms. (16 ref.)—*Journal abstract.*

7743. Wong, Roderick. (U. British Columbia, Vancouver, Canada) **Infantile handling and the extinction of responses acquired under food reward.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 702-706.—Compared the runway behavior of female Long-Evans rats which had been handled from Days 1-21 (N = 12) and their nonhandled litter mates (N = 12). The training began on Day 70 after Ss were habituated to a restricted food schedule for 10 days. Ss were given 6 trials each day in the runway and were rewarded with a .045-gm Noyes pellet. After 10 days of rewarded training trials, Ss were given 6 extinction trials a day for 10 days. Results show that handled Ss ran faster than nonhandled Ss during acquisition and during the 1st 3 days of extinction. Extinction data suggest that the relationship between emotionality and effects of frustrative nonreward should be reevaluated.—*Journal abstract.*

INSTINCTS

7744. Gardner, Louis E. & Ratner, Stanley C. (Creighton U.) **In-burrow behavior of earthworms.** *Psychological Record*, 1970(Sum), Vol. 20(3), 387-394.—Studied several classes of earthworm (*Lumbricus terrestris*) behavior in a 3-dimensional, seminatural habitat. Study I described the burrowing, foraging, feeding, and mating behavior of 5 Ss. Ss were exposed to light, air, and vibratory stimulation while in their burrows. Light and intermittent vibration consistently elicited responses while air was an ineffective stimulus. Study II with 8 Ss investigated the effects of a light-dark cycle and the time of day upon the amount of burrowing by the Ss. The light cycle did not affect the distance burrowed, but time of day did have a significant effect upon the amount of burrowing activity.—*Journal abstract.*

7745. Hailman, Jack P. (U. Wisconsin) **How an instinct is learned.** *Scientific American*, 1969(Dec), Vol. 221(6), 98-106.—Investigated the hypothesis that "stereotyped behavior patterns of animals also require subtle forms of experience for development." The feeding behavior of laughing and herring sea gull chicks was studied in both a natural and laboratory environment. Results show that the newborn chick reveals a poorly coordinated peck, motivated by hunger and elicited by the stimulus properties of shape and movement from a parent or sibling. The chick's aim and depth perception improves steadily through practice in pecking. Also, the chick's begging and feeding pecks become differentiated as it learns to rotate its head when begging from the parent. It is concluded that "behavioral development is a mosaic created by continuing interaction of the developing organism and its environment."—P. McMillan.

7746. Vaidya, V. G. (U. Poona, India) **Studies on the perception of colours in some Papilionidae (Lepidoptera): II. Inborn preferences for colours in the state of feeding.** *Acta Biologica Experimentalis*, 1968, Vol. 28(4), 401-407.—3 Papilionid species, *Papilio demoleus*, *Polydorus aristolochiae*, and *Graphium aga-*

memnon, with no previous color experience, were kept in a large outdoor cage. They were offered artificial flowers made out of the papers of the Otswald color series and the Bauman grey series. The insects showed characteristic feeding responses toward the flowers. A comparison of color preferences indicate that all 3 species preferred the purple and blue colors for feeding, and, to a lesser extent, the yellow and orange colors. These preferences were similar to those shown by the Pierids, but quite distinct from those shown by the Nymphalids.—*Journal summary*.

MOTIVATION & EMOTION

7747. Ewert, J. P. & Rehn, B. (Technische Hochschule, Darmstadt, W. Germany) **Quantitative Analyse der Reiz-Reaktionsbeziehungen bei visuellem Auslösen des Fluchtverhaltens der Wechselkröte (*Bufo viridis* Laur.)** [Quantitative analysis of stimulus-response relations in visual release of escape behavior in the toad.] *Behaviour*, 1969, Vol. 35(3-4), 212-234.—“Escape activity... was quantitatively studied as a function of the stimulus parameters of a visual enemy-dummy. A dummy coming from above... releases more reactions than 1 coming from the ground.... Escape activity increases with increasing contrast of the dummy against the background.” Stimulus velocity showed a maximum effect at 30°/sec, and stimulus size at 50°.—*N. M. Ginsburg*.

7748. Frieman, Jeanne P., Rohrbaugh, Michael, & Riccio, David C. (Kansas State U.) **Age differences in the control of acquired fear by tone.** *Canadian Journal of Psychology*, 1969(Aug), Vol. 23(4), 237-244.—Administered 10 inescapable shocks to 38 male Holtzman infant and adult albino rats in the presence of a 450-cps tone (CS) while Ss were confined in 1 compartment of a double-compartment shuttle box. Each S subsequently received 20 4-min trials (without shocks) in which a 230-, 450-, or 1000-cps tone, or no-tone, was made contingent upon S's presence in the former shock (fear) compartment. 8 Ss served as controls. Time spent avoiding the fear compartment during the various tone conditions revealed a steeper group gradient for pups than for adults, although mean avoidance of the CS condition was comparable for both groups. Individual stimulus generalization gradients were observed in 8 of 10 infants and 2 of 10 adults. Data are discussed in relation to the nature of maturational experience. (French summary)—*Journal abstract*.

7749. Greenberg, Gary. (Kansas State U.) **The effects of ambient temperature and population density on aggression in two strains of mice.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1564.

7750. Hadley, Raymond W. (U. California, Berkeley) **A test of activation theory using signal detection theory.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1564-1565.

7751. Hirota, Theodore T. (U. Toronto, Ontario, Canada) **Observing behaviour in the pigeon: Is conflict reduction a possible reinforcer?** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1566.

7752. Hsiao, Sigmund & Kendrick, Daryl. (U. Arizona) **Feeding-drinking interaction: Efficacy of saline solutions for ingestion of dry food in rats.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 62-67.—Deprived 30 female Wistar albino rats of food and

water for 24 hr. Ss were then given food and 1 of the following liquids: water; .3, .6, .9, and 1.8% NaCl solutions; or a condition with no liquid as the base-line level. Food and a liquid (or no-liquid) were presented for 2 hr. to measure intake. Results show that (a) Ss drank more isotonic saline (.9%) than other hypo- or hypertonic saline solutions; (b) Ss ate more food with water, and food intake declined as the accompanying solution increased in NaCl concentration; and (c) Ss drank more liquid to eat the same amount of food beyond the base-line level as NaCl in liquid increased. NaCl reduces the effectiveness of liquid in reducing thirst induced by ingestion of dry food. Increased intake of dilute saline solutions may be partly due to their reduced hydrating capability compared with water. (28 ref.)—*Journal summary*.

7753. Long, Charles J. & Stein, Gerald W. (Memphis State U.) **An analysis of the reinforcing properties of food odour.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 212-218.—Evaluated food-odor preference for 24 male albino rats in a double-lever situation where odor presentation and odor-offset were made contingent upon a lever press, or in a noncontingent situation, where no change in stimulus presentation was made contingent upon the lever press. All groups exhibited a significant odor preference, although the odor-onset elicited the greatest preference and the noncontingent situation the least. Results suggest that when odor-stimuli are made response-contingent, the increased probability of responding is due to directing, stimulus-changing, and conditioned-reinforcing properties of the stimulus. (French summary)—*Journal abstract*.

7754. Matthews, T. James. (New York U., Coll. of Arts & Sciences) **Thermal motivation in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 240-247.—Studied thermally motivated behavior under variations in 3 basic parameters; drive intensity, reinforcement duration, and reinforcement intensity. 5 naive male albino Norway rats were trained to press a bar to change the temperature of air in the experimental chamber from the drive temperature to the reinforcer temperature. Exp. I measured the effects of drive intensity and reinforcement duration with reinforcement intensity held constant at neutrality. Response speed increased sharply with increases in drive intensity but was very weakly affected by reinforcement duration. In Exp. II, variations in the reinforcement temperature between the drive temperature and neutrality did not affect response speed. Exp. III showed that variations in reinforcement intensity and reinforcement duration only affected response speed when the temperature of the reinforcer was on the opposite side of neutrality from the drive. With reinforcers beyond neutrality, response speed decreases with an increase in reinforcement intensity or duration.—*Journal abstract*.

LEARNING

7755. Etkin, Michael W. (Rutgers State U.) **Ambient light produced interference in a delayed matching task with capuchin monkeys.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1562.

7756. Hu, Baw-chyr. **Runway performances as a function of reinforcement schedule and alley length.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 125-134.—Reports studies designed to integrate 2 different kinds of learning, classical and instrumental con-

ditioning. 48 naive albino rats were trained to run to water in a straight alley, and randomly assigned to 6 groups. A factorial design was employed with 3 alley lengths (32, 8, and 4 in.) and 2 levels of reinforcement schedules. Starting and running speed were measured for each section of the runway. Analyses of variance indicate that starting speed was the most sensitive measure of all, since it yielded significant and consistent major effects. For the extinction performances, findings indicate a greater resistance to extinction under partial reinforcement schedule. Results also indicate that during the acquisition, the effect of the reinforcement schedule was significant in the shorter alley groups. Results are consistent with previous instrumental reward studies, i.e., the effects of variation of the reinforcement schedule in an instrumental conditioning situation may depend upon which portion of the response chain is measured. The prediction that the response latency depends on the response speed was also confirmed.—*Journal abstract.*

7757. Jenkins, Marie M. (Madison Coll.) **Effect of light on feeding in planarians.** *Journal of Biological Psychology*, 1969(Sep), Vol. 11(1), 13-19.

7758. Lachman, Sheldon J. (Wayne State U.) **Behavior in complex learning situations involving three levels of difficulty.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 119-126.—Solutions to multiple-choice problems involving 3 (N = 11), 4 (N = 9), and 5 (N = 7) elevated paths in which the order of elimination was determined by the S were learned by albino rats. The problem for the S was to choose different paths on successive runs, i.e., not to repeat a particular path on a day's trial. Each trial consisted of as many runs as there were paths plus the number of incorrect choices, i.e., path selections repeated. The criterion of learning was 4 successive errorless trials (days). For all problems: (a) Correct choices were made more rapidly than incorrect choices. (b) Ss did not stereotype in the sense of repeating the same pattern of choices on consecutive days, but rather chose different patterns on consecutive days. (c) Ss exhibited strong preferences for choosing successive pathways which diverged maximally from each other, i.e., Ss tended to select on a given run a pathway which was maximally different in terms of spatial orientation from the pathway chosen on the immediately previous run. Alternation in the 2-path problem is regarded as a specific instance of this general principle.—*Author abstract.*

7759. Mackintosh, N. J. & Little, Lydia. (Dalhousie U., Halifax, Nova Scotia, Canada) **Selective attention and response strategies as factors in serial reversal learning.** *Canadian Journal of Psychology*, 1969(Oct), Vol. 23(5), 335-346.—3 experiments investigated the basis of serial-reversal improvement in 40 white Carneaux pigeons. In the 1st, Ss trained on either color or position reversals alone performed more accurately than Ss initially trained on interspersed color and position reversals, and then shifted to 1 type of problem only. This suggests that the selective strengthening of attention to a single relevant dimension is 1 factor underlying rapid reversal learning. In 2 further experiments, Ss were trained on delayed conditional discriminations, the requirements of which were similar to those of a win-stay, lose-shift strategy. Ss' poor performance on these problems implies that such strategies do not play an important part in reversal learning in these Ss. (French summary)—*Journal abstract.*

7760. Manocha, Satinder N., Mills, John A., & Winocur, Gordon. (U. Toronto, Ontario, Canada) **The effects of concept training on interproblem transfer in rats.** *Canadian Journal of Psychology*, 1969(Oct), Vol. 23(5), 327-334.—Assigned 24 hooded rats, matched for intelligence on the Hebb-Williams maze, to 3 groups. Groups I and II were trained on 10 2-choice simultaneous discrimination problems (56 trials/problem); for Group I, positive discriminanda had the feature of curvature in common. Group III were untrained controls. On transfer to 10 unrelated discrimination problems (20 trials/problem), Group III ran at 50% correct. Group I was significantly superior to all other groups and Group II was significantly superior to Group III. It is concluded that training on related problems leads to a more efficient reduction of error tendencies than training on unrelated problems. (French summary) (21 ref.)—*Journal abstract.*

7761. Pollard, J. S. & Lewis, R. F. (U. Canterbury, Christchurch, New Zealand) **Ferrets do learn mazes.** *Journal of Biological Psychology*, 1969(Sep), Vol. 11(1), 40-43.

Conditioning

7762. Black, A. H. (McMaster U., Hamilton, Ontario, Canada) **Mediating mechanisms of conditioning.** *Conditional Reflex*, 1970(Jul), Vol. 5(3), 140-152.—Attempts to explain the connection between the discriminative stimulus (S^D) and the CR that is established by the conditioning procedure. 2 approaches to mediating mechanisms are discussed: (a) the peripheral mechanism approach which determines whether the occurrence of 1 CR is necessary for the occurrence of another; and (b) the central mechanism approach which considers the neural structures that underlie the CR, the specific changes in neural activity that occur in these structures when S^D is presented, and the temporal relationship among these changes. It is thought that the peripheral mechanism approach is less likely to provide useful information about the mechanisms underlying the CR than the central mechanism approach. Reasons for this are reviewed and experimental evidence is cited to support them. The central mechanism approach is discussed regarding experiments which analyze the relationship of hippocampal theta waves to CR. A new method for studying the central mechanisms of behavior, i.e., operant reinforcement of the central electrical activity, is described. It is concluded that, although the mechanisms underlying CR are not yet understood, this approach appears to be the most promising. (21 ref.)—*M. Maney.*

7763. Black, Roger W. (U. South Carolina) **Incentive motivation and the parameters of reward in instrumental conditioning.** *Nebraska Symposium on Motivation*, 1969, Vol. 17, 85-137.—Discusses the "role of reward and reinforcement in simple learning situations" involving instrumental and appetitive conditioning. Recent research on "reward," here considered interchangeable with "reinforcer," is presented. Charts showing the mean running speed and average rate of rats in a straight alley following various lengths of access to food reward, different amounts of reward, and number of reinforcements per trial are discussed in detail. It is concluded that: (a) "A primary mechanism of reinforcement seems to be incentive-motivational." (b) "The apparent reinforcement value of a reward appears to

depend not only on its magnitude or the amount of consummatory behavior it evokes but upon the consistency with which such behavior occurs." (c) "The 'sources of reward' appear to be multiple." Comments by E. L. Wike follow. (69 ref.)—*J. M. Roberts.*

7764. **Dmitriev, Yu. S.** (Pavlov Inst. of Physiology, Koltushi, USSR) **Rol' struktury stereotipa v skorosti obrazovaniya uslovnykh refleksov.** [Role of stereotypic structure in speed of formation of conditioned reflexes.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(2), 257-260.—Used 32 rats, in groups of 8, to study the influence of the order of application of 2 CSs on the speed of formation and reversal of 2 electrodefensive CRs simultaneously in a T maze. 5 acoustic and 5 photic stimuli were employed in each experimental trial. In the 1st stereotype, CSs were applied in strict alternation and always started with an acoustic signal. In the 2nd stereotype, the conditioned signals were also alternated, but each succeeding experimental trial began with that CS, with which the preceding trial ended. In the 3rd stereotype, in the beginning, 5 acoustic stimuli were given in sequence, then 5 photic stimuli, with this order unchanging thereafter. But in the 4th stereotype, while repeating the blocks of stimuli, each succeeding experimental trial began with that sequence of stimuli, with which the preceding trial ended. The 1st CS was a bell signaling a turn to the right in order to escape painful electrostimulation; the 2nd CS was a light signaling a turn to the left to accomplish the escape. It was established that the elaboration and reversal of CRs are accomplished more quickly in rats. The growth of magnitude of the reflex from combination to combination in the experimental trials is viewed as the essential parameter of speed of reflex formation.—*J. D. London.*

7765. **Franchina, Joseph J., Sparling, Daniel L., & Chlipala, Ronald.** (Virginia Polytechnic Inst., Coll. of Arts & Sciences) **Effects of patterns of goal-box placements on the subsequent acquisition of instrumental response patterning.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 84-89.—Placed 64 male hooded naive rats either directly into the goal box of a runway or into a neutral box with either reward alone, nonreward alone, or both reward and nonreward presented in alternation or random sequences. In subsequent runway training, the acquisition of single-alternation (SA) running behavior was reliably facilitated following goal- or neutral-box placements with alternating reward and nonreward compared to all other procedures, acquisition being faster for goal- than neutral-box conditions. Placements with either nonreward alone or random reward and nonreward reliably facilitated subsequent SA learning over that for placements with reward alone in the goal- but not in the neutral-box condition.—*Journal abstract.*

7766. **Hitzing, E. Wade & Safar, Tibor.** (Kalamazoo State Hosp., Mich.) **Auto shaping: The conditions necessary for its development and maintenance.** *Psychological Record*, 1970(Sum), Vol. 20(3), 347-351.—Investigated the conditions necessary for the acquisition of key pecking. 12 naive white carneaux pigeons were tested during 2 sessions of 80 key light trials, 8 sec. in duration, presented on a noncontingent variable-interval 1" schedule. After 2 hopper-training periods the Ss were again presented with 2 sessions of key light only trials. Prior to hopper training none of the Ss pecked, but after training 8 Ss pecked within the 1st 2 trials, 1 pecked during the 16th trial and 1 during the

83rd trial. 2 never pecked the lit key. 4 Ss were then tested during sessions in which both the key light and hopper were presented but never paired (forward pairing). This procedure was not sufficient to maintain key pecking. Noncontingent forward-pairings of key light and hopper presentations resulted in both a reacquisition and maintenance of the key peck. It is concluded that pairing of the key light and hopper presentation is not necessary for acquisition of the key peck but is necessary to maintain the behavior.—*Journal abstract.*

7767. **Johnson, Donald & Anderson, D. Chris.** (U. Minnesota) **Acquisition of a second-order classically conditioned response.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 174-183.—Following alleyway food-training on a 50% random partial reinforcement schedule and 10 forward 1st-order (CS-UCS) conditioning trials elsewhere, forward 2nd-order (CS₁-CS₂) classical conditioning trials were initiated for 40 female albino rats (Group 1) and equivalent but backward (CS₁-CS₂) training was started for 20 additional Ss (Group 2). After each set of 2 CS₁-UCS and 3 CS₂-CS₁ trials (or 3 CS₂-CS₁ trials for Group 2) were given, the CS₂ was presented in the goal area of the alley on nonreinforced trials to assess its suppressing effect on total running times. While the performance of Group 2 to the CS₂ was unchanged as a function of conditioning trials, Group 1 evinced both increasing suppression and skin conductance levels as 2nd-order training progressed. Maximum suppression was obtained by the 12th CS₂-CS₁ trial. (French summary) (16 ref.)—*Journal abstract.*

7768. **Karas, A. Ya., & Yakimenko, O. O.** (Moscow State U., USSR) **Issledovanie mekhanizmov razlicheniya elementarnykh i slozhnykh priznakov pri opoznanii form u karpovykh ryb (Cyprinus carpio).** [Investigation of the mechanisms involved in discrimination of elementary and complex cues in the recognition of forms by carp (Cyprinus carpio).] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(3), 404-409.—6 2.5-yr-old Ss were used to study (a) the mechanisms involved in the recognition of simple and complex cues (differently oriented lines and geometric figures, e.g., square, rectangle, triangle), and (b) the influence of kind of stimulus on signal recognition time. Various physiological mechanisms account for the discrimination of elementary and complex cues. The differentiation of elementary cues (variously oriented lines, e.g., 0, 25, 35, 45, 60, and 90°) developed with their simultaneous presentation (1 positive, 3 inhibitory), independently of their number (from 1 to 4). This can be seen by the fact that motor RT was not prolonged with an increase in the number of selected signals. Geometrical figures were distinguished by complex cues through a sequential analysis involving a mechanism of choice. This can be seen by the fact that recognition-time here was a function of the number of stimuli—evidence of signal choice. The speed of formation of the CR depends on the kind of stimuli. The CR is elaborated the most quickly to a horizontal line; the most slowly to an inclined line; in between for a vertical line. The data still cannot be held to provide evidence for the existence of visual images in fish.—*J. D. London.*

7769. **Kimmel, H. D.** (U. South Florida) **Essential events in the acquisition of classical conditioning.** *Conditional Reflex*, 1970(Jul), Vol. 5(3), 156-164.—Identifies 3 approaches to the definition of "mediating" mechanisms in classical conditioning—that of the neuro-

psychologist, the radical empiricist, and the theoretical behaviorist. Studies are reported concerning inhibitory behavioral aspects of classical conditioning, especially the diminution of the unconditional response and the conditioned inhibition of the conditional response. Theoretical possibilities concerning this inhibitory phenomenon are considered. It is concluded that a possibly essential factor in the acquisition of classical conditioning is the "paired presentation in appropriately close temporal contiguity of the conditional stimulus and the unconditional stimulus, but only when the course of conditional response acquisition is still upward."—P. McMillan.

7770. Kremer, Edwin F. & Kamin, Leon J. (Princeton U.) **The truly random control procedure: Associative or nonassociative effects in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 203-210.—Using 16 naive male hooded rats in a CER paradigm, a truly random (TR) control procedure was found to produce reliable suppression during testing. The suppression could not be attributed to a nonassociative effect based simply on prior experience with both stimuli, independent of temporal spacing, as a group receiving the same number of CSs and UCSs "explicitly unpaired" showed little suppression. In a 2nd experiment with 16 hooded and 16 albino Holtzman rats, unlike at least some nonassociative effects, TR-produced suppression was retained intact over a long retention interval. In Exp. III with 32 naive male hooded rats, the outcome of a TR schedule was shown to be sensitively related to average CS-UCS interval, despite the absence of any contingency.—*Journal abstract*.

7771. Levis, Donald J. (U. Iowa) **Short- and long-term auditory history and stimulus control in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 298-314.—The rearing history of the organism was considered a potentially important variable in determining the ability of offset of a stimulus to serve as a cue for responding. 72 naive male Blue Spruce rats were raised for various durations under a constant-tone environment and/or under normal rearing conditions. At maturity, Ss were exposed to either a tone-present or tone-absent cue. Tone offset provided a comparable cue as its onset, for both rearing conditions, in either a shuttle-box avoidance or bar-press situation. Long-term tone exposure retarded an S's avoidance learning and appeared to reduce responsiveness to fearful stimuli. This effect is not a function of early experience but rather is related to the duration of exposure. (27 ref.)—*Journal abstract*.

7772. Li, Mei-chih. (National Taiwan U., Taipei) **The relationship between classical conditioning and generalization.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 135-141.—Administered classical conditioning trials to 14 goats. Of these trials 16 were training trials, with 500-msec light for CS and 150-msec electric shock for UCS; 2 were test trials, with 500 msec-light accompanied with 30-msec electric shock; and 2 were 500-msec light alone for test stimuli. If response potential were considered an index of response strength, a rather distinctive generalization gradient is obtained. The response potential decreases as the difference between training stimulus and the test stimulus increases. Results illustrate the fact that classical conditioning can be regarded as a special case of generalization. CS and UCS in the classical conditioning corresponds to the training stimulus in the

process of generalization, whereas CS plus a fraction of UCS in the classical procedure is equal to the test stimulus of generalization.—*Journal abstract*.

7773. Miyata, Y. & Soltysek, S. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **The relations between salivary, cardiac and motor responses during instrumental performance.** *Acta Biologica Experimentalis*, 1968, Vol. 28(4), 345-361.—Using the Ellison-Konorski separation procedure, 6 naive adult mongrel dogs were trained to perform 14 lever presses in response to a metronome (instrumental CS), followed by a buzzer (classical CS) and food reinforcement. Salivary and instrumental CRs and cardiac responses were recorded. 2 other Ss served as controls. The instrumental CS elicited lever pressing but also a fair rate of salivation, and failed to obtain a strict separation between the motor and salivary responses. The classical CS, however, strongly inhibited the instrumental response and produced a large amount of salivation. The cardiac rate increased during the instrumental CS and slowed during the classical CS. From several tests of the properties of both CSs, it is concluded that neither was a pure instrumental or classical CS. Acute extinction was performed 3 times in each S. No Ss in the 1st extinction, 1 in the 2nd, and 4 in the 3rd could reach the criterion of 3 consecutive trials without lever pressing. Even when the instrumental CR was extinguished, some salivation was still observed and the cardiac rate remained at a relatively high level. The interrelationship between the drive and consummatory CRs is discussed.—*Journal summary*.

7774. Mohay, Heather & Chen, Chia-Shong. (Monash U., Melbourne, Victoria, Australia) **Effects of food deprivation on the performance of a two-turn task in a temporal circular maze.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 674-680.—Trained 10 hooded rats to perform a 2-turn task in a temporal circular maze. The effects of levels of food deprivation (2, 26, 50, 74, 98, 122 hr.) on performance were evaluated. It was found that the correct responses were not affected, but both running time and competing behavior decreased significantly with increase in hours of food deprivation. In a 2nd experiment, 8 Ss were trained in a similar way and after attaining a stable performance, were run for a further 4 sessions at 24-hr deprivation, and then at 72-hr deprivation. Results preclude the possibility that results obtained in Exp. I were due to practice effects, and support the findings on the effects of deprivation.—*Journal abstract*.

7775. Ramsay, Douglas A. (Franklin Delano Roosevelt Veterans Administration Hosp., Montrose, N.Y.) **Form and characteristics of the cardiovascular conditional response in Rhesus monkeys.** *Conditional Reflex*, 1970(Jan), Vol. 5(1), 36-51.—Exposed 3 male rhesus monkeys restrained in primate chairs to several Pavlovian control procedures, followed by 13 sessions of cardiac conditioning under a delay paradigm. The CS was a vertical line and the UCS was electric foot shock. Heart rate (HR) was analyzed in successive 5-sec intervals beginning 5 sec. before CS onset. The major finding was that the CR was consistently biphasic and consisted of an initial acceleration followed by deceleration toward the base line, but rarely reaching it before onset of UCS. Ss differed in magnitude of acceleration and subsequent deceleration as well as the location of the maximum rate in the CS-UCS interval. A breakdown of trials on the basis of the pre-CS HR revealed that the

magnitude of effect was inversely related to the pre-CS rate. (24 ref.)—*Journal abstract.*

7776. Rudenko, L. P. (Inst. of Higher Nervous Activity & Neurophysiology, Moscow, USSR) *K voprosu o mekhanizme uslovno-reflektornogo pereklyucheniya.* [On the mechanism of conditioned response switchover.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 794-800.—Utilized secretory alimentary and instrumental electrodefensive CRs on 4 dogs to determine (a) whether in CR switchover functional readiness is merely an aspect of a "dominant" in operation or whether at its basis an elaborated CR of the "tonic type" is to be found, and (b) what physiological mechanism is involved in the emergence of a phasic CR against a background of functional readiness as well as the significance of the signal character and specificity of the CS in eliciting the corresponding reaction. A number of functional tests were carried out, involving the substitution of different stimuli: (a) participating in the switchover, (b) indifferent, (c) with definite signal significance. Alimentary and defensive CRs were elaborated to the same signal stimuli (bell, buzzer, light). The start of a wall ventilator served as switchover signal in the electrodefensive situation; its cessation for the alimentary situation. It was established that the employment of an indifferent stimulus instead of the switchover signal interfered with the switchover effect. Indifferent stimuli, employed in place of the phasic, did not produce the corresponding reaction. CSs, employed in an opposite situation, elicited a reaction corresponding to their own signal significance, not that corresponding to the situation in which they were employed. It is concluded that, at the basis of functional readiness for imminent activity, there lie not the operations of a "dominant," but those characteristic of CR activity, i.e., the "elaboration of true CRs." A CR, accordingly, is elaborated to a switchover stimulus—a reflex which is not visibly active, but which creates maximal functional readiness for imminent activity. E. A. Asratyan's conception of a "tonic" CR.—*I. D. London.*

7777. Schoenfeld, W. N. (Queens Coll., City U. New York) *Oyepk on mediating mechanisms of the conditional reflex.* *Conditional Reflex*, 1970(Jul), Vol. 5(3), 165-170.—Discusses mediating mechanisms from the "pure" behavioristic viewpoint. A preference for empirical approaches over reliance on hypothetical constructs is presented in considering all events that occur between the stimulus and the response. Examples are provided from studies with a Pavlovian or an operant approach. Conclusions illustrative of the behavioristic viewpoint include the following: (a) "experimental analysis of behavior into reflex terms is not compromised by analysis at any other level"; and (b) data so derived have "absolute priority over all constructional theories about the reflex and its mediating mechanisms."—*P. McMillan.*

7778. Shapiro, Martin M., Mugg, Gregory J., & Ewald, William. (Emory U.) *Instrumental preferences and conditioned preparatory responses in dogs.* *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 227-232.—24 dogs, divided into 3 groups, chose between 2 levers. Forced trials were intermixed with free-choice trials. Both levers produced a 4-sec noise with a probability of .5 and both produced food after the delay with a probability of .5. The levers differed only in the correlation between noise and food,

1, .5, or 0; each group had a choice between 2 contingencies. Ss preferred the lower correlation lever, but salivated more to the noise after pressing the higher correlation lever. Salivary results were attenuated when the data were compared with respect to each S's preference of choice rather than the correlations of the levers. Salivation was functionally related to stimulus contingencies rather than instrumental choice behavior. (15 ref.)—*Journal abstract.*

7779. Shapiro, Martin M., Sadler, Emory W., & Mugg, Gregory J. (Emory U.) *Compound stimulus effects during higher order salivary conditioning in dogs.* *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 222-226.—Ran 45 dogs on higher order salivary conditioning, pseudohigher order, a generalization control, a 1st-order control, or a partial reinforcement procedure. Significant higher order salivary conditioning was demonstrated. The subsequent extinction of the higher order CR was shown to be a function of the discrimination between the higher order serial stimulus and the 1st-order CS.—*Journal abstract.*

7780. Smith, Stanley G. (U. Mississippi, Biocontrol Systems Lab.) *Auto-shaping: A three key technique.* *Psychological Record*, 1970(Sum), Vol. 20(3), 343-345.—Attempted to extend single key autoshaping to 3-key training. 3 naive homing pigeons were given key peck training with a 3-key autoshaping technique. The new procedure eliminates successive approximation shaping and presence of the E. Results indicate all Ss rapidly acquire the initial pecking behavior and readily transfer it to a new discrimination on the 1st trial. It is suggested that the technique would be desirable for the operant laboratory.—*Journal abstract.*

7781. Tang, Maisy & Collier, George. (Rutgers State U.) *Effect of successive deprivations and recoveries on the level of instrumental performance in the rat.* *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 108-114.—Studied the effect of prior deprivation experience and different metabolic states on the relationship between percentage body weight loss and rate of instrumental behavior. A group of 8 male albino Sprague-Dawley rats were trained to bar press for water on a variable interval (VI) 1 schedule and were then subjected to 3 successive water-deprivation recovery cycles. A 2nd group of 8 matched Ss was given only 2 cycles with the 1st cycle beginning at the same time the 1st group initiated its 2nd deprivation. Bar-press sessions were given throughout the duration of the experiment. Results reveal that neither prior deprivation nor different metabolic states (deprivation vs. recovery) had any effect on the function between body weight loss and rate of performance and failed to find any significant difference in either the slopes or intercepts from any of the functions obtained. Results suggest body weight loss regardless of the direction of weight change to be a major factor in determining the level of thirst-motivated behavior, and that this relationship appeared to be independent of prior deprivation experiences. (18 ref.)—*Journal abstract.*

7782. Uhl, Charles N. & Sherman, William O. (U. Utah) *Comparison of combinations of omission, punishment, and extinction methods in response elimination in rats.* *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 59-65.—Compared, after 40 male albino rats were pre-trained to lever press for sucrose reinforcement, the relative effectiveness of combinations of omission,

extinction, and punishment in eliminating the lever-pressing response. Omission is characterized by reinforcement of response cessation. Punishment consisted of grid shock. Response elimination was more rapid when punishment was used in combination with omission or extinction in comparison to either of the latter procedures used alone. However, the durability of response elimination was greater when omission alone was used in comparison with extinction alone or combinations of punishment with omission or extinction. Results amplify and extend previous research demonstrating the efficacy of omission as a response-elimination procedure, especially in terms of the relatively greater durability of omission effects in comparison with other response-elimination methods.—*Journal abstract.*

7783. Vogel-Sprott, M. & Burrows, V. (U. Waterloo, Ontario, Canada) **Response suppression in humans as a function of contingent and non-contingent punishment: Signal properties of stimuli.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 66-74.—Trained an instrumental goal (G) response in 40 undergraduates in 4 groups under intermittent reward (money). When the acquisition criterion was met, reward was withdrawn and different punishment treatments administered. Group C received contingent punishment (electric shock) of the G response whenever it was omitted. Shock occurring on a variable interval schedule provided noncontingent punishment to another group (NC). Contingent and noncontingent punishments were combined and administered to Group C and NC. The 4th group (E) served as a control and received no punishment. This entire study was repeated, and both experiments indicate that the C treatment yielded most suppression, even exceeding that obtained under the C and NC procedure which administered more punishments. Results favor the notion that punishment acts in an analogous, but opposite direction to reward, and that its consequences may be predicted on the basis of the consistency of the information conveyed by a punisher. (French summary)—*Journal abstract.*

7784. Weisman, R. G. & Litner, J. S. (Queen's U., Kingston, Ontario, Canada) **Role of the intertrial interval in Pavlovian differential conditioning of fear in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 211-218.—In Exp. I, 36 naive female Long-Evans rats were trained to turn a wheel to avoid unsignaled shock, then received Pavlovian differential conditioning with either a .5-, 1-, 2-, or 5-min ITI. Decreased responding to CS-, but not increased responding to CS+, was a function of ITI duration. In Exp. II with 47 female hooded rats, Pavlovian differential inhibitory conditioning, with 2 conditioned inhibitors (CI₁ and CI₂), each signaling a different shock-free interval, was administered. Decreased responding to CI₁, that always signaled at 200-sec period free from shock, was a function of the duration of the shock-free (10-, 110-, 200-, 290-, or 390-sec) interval correlated with CI₁. Results suggest possible relationships between the role of the intertrial, or shock-free, interval in Pavlovian inhibitory conditioning and in avoidance training. (20 ref.)—*Journal abstract.*

7785. Wu, En-chang. (National Taiwan U., Taipei) **Body weight and the maximum of effort.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 142-148.—Using a modified Skinner-box, 24 albino cross-hooded rats were tested concerning the relationship between

body weight and maximum effort. Ss average age was 150 days when the experiment began. Results indicate that 2 kinds of bar-pressing were used by Ss: (a) the usual method of standing on the grid and putting forelegs on the bar; and (b) other methods, e.g., biting the bar or standing or hanging on it. Counting the 2 kinds as 1, there is a coefficient $r = -.014$ for body weight and maximum of effort. However if only the usual method of bar pressing is considered, which includes 83.33% of Ss, another $r = .87$ with $Z = 3.83$ is gained. It is concluded that body weight, in general, correlates with maximum effort.—*Journal abstract.*

Discrimination

7786. Born, David G. & Snow, Mark E. (U. Utah) **Stimulus control by relevant, irrelevant, and redundant components of complex stimuli as assessed by two testing methods.** *Psychological Record*, 1970(Sum), Vol. 20(3), 311-319.—Compared generalization and component stimulus testing procedures within each of 6 adult white King pigeons. Ss learned a successive discrimination where S+ was a vertical line on a green background, and S- was either a green background, a red background, or a vertical line on a red background. Generalization of responding to the angular orientation of line on green, dark, and red backgrounds was evaluated. A component stimulus test was conducted in which green, line on green, red, line on red, dark, and line on dark, appeared separately. Steep generalization gradients were obtained from all Ss when angular orientation was varied on the green background, and similar gradients were obtained from all but 1 S when the background was dark. Results indicate stimulus control by line for Ss in all groups. However, results of the component stimulus test indicate clear stimulus control by line only in the case of the 2 Ss trained with a green background, and 1 of the Ss with a red background. Component stimulus tests for the other 3 Ss produced no clear evidence of stimulus control by line. Of the 2 testing methods used to determine stimulus control, stimulus generalization testing appears to be the most sensitive and easiest to interpret.—*Journal abstract.*

7787. Miles, C. G., Mackintosh, N. J., & Westbrook, R. F. (Addiction Research Foundation, Toronto, Ontario, Canada) **Redistributing control between the elements of a compound stimulus.** *Quarterly Journal of Experimental Psychology*, 1970(Aug), Vol. 22(3), 478-483.—Gave 28 hybrid male pigeons discrimination training. 4 groups were run in which for 0, 2, 4, and 9 sessions of training color was an irrelevant cue and tone was relevant. Generalization tests were given in extinction; the training color (C₁) and another color (C₂) were presented with tone (T) and noise (N). Responding to these 4 stimulus combinations, TC₁, TC₂, NC₁, and NC₂, allowed the assessment of control by color and tone. A reduction of control by color and an increase in control by tone were found to be positively related to the amount of training with color irrelevant. Tests show a strong inverse relationship between control by color and tone.—*Journal abstract.*

7788. Milner, A. D. (Inst. of Psychiatry, London, England) **Cross-modal transfer between touch and vision without change of illumination.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 501-503.—11 preadolescent rhesus monkeys showed significant transfer of training from a visual shape discrimination given in darkness

(using self-luminous objects) to the same discrimination given in the light. No transfer was found between a visual and tactual size discrimination both of which were given in darkness. Results suggest that the illumination change normally a feature of tactual/visual cross-modal transfer studies is not critical. (French & German summaries)—*Journal abstract*.

7789. Riopelle, A. J. & Kumaran, Mary B. (Tulane U., Delta Regional Primate Research Center, Covington, La.) **Learning of repeated and nonrepeated discrimination-reversal problems by patas monkeys.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 185-191.—Trained 40 patas monkeys on 10 repeated-reversal problems with 5 reversals/problem using correction and noncorrection procedure. Criterion lengths prior to reversal were 2, 3, 4, 8, and 16 consecutive correct responses. Ss were then tested on nonrepeated reversals. The most important determiner of proficiency was criterion length. Proficiency on Exp. I did not predict efficiency in Exp. II. The role of win-stay, lose-shift hypotheses is questioned as is the general capability of the patas monkey in discrimination-learning performance. (26 ref.)—*Journal abstract*.

7790. Steiner, John. (Maudsley Hosp., Inst. of Psychiatry, London, England) **Observing responses and uncertainty reduction: II. The effect of varying the probability of reinforcement.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 592-599.—Used the observing response paradigm to assess the reinforcing properties of discriminative stimuli by allowing a rhesus monkey and a baboon either to work for food in the presence of a neutral stimulus or to 1st make an observing response by pressing a lever. On a progressive ratio schedule this resulted in the appearance of easily discriminable stimuli which marked positive and negative trials. The uncertainty associated with the imposed neutral stimulus was varied by manipulating the proportion of positive and negative trials in the session. Ss switched most often when the probability of reinforcement was low, less often when it was intermediate, and least often when it was high. This is inconsistent with an uncertainty reduction hypothesis but can be explained if the uncertainty has to do with response rather than outcome.—*Journal abstract*.

7791. Thomas, David R., Miller, James T., & Svinicki, John G. (U. Colorado) **Nonspecific transfer effects of discrimination training in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 96-101.—Gave 1 group of 11 male albino Sprague-Dawley rats 16 sessions of "true-discrimination" (TD) training in which the houselight intensity, bright or dim, denoted S+ and S-. 1 control group of 11 Ss was given training in which responses to the 2 intensities were equally reinforced, while another control group of 11 Ss experienced only 1 light intensity. Next, all Ss were shifted to a transfer problem in which tones of 2500 and 4500 Hz. denoted S+ and S-. An analysis of the percentage of total responses to S+ revealed that the TD group learned more rapidly than either of the controls, which did not differ. Thus, the nonspecific transfer effect previously observed with pigeons extends to a different species and to discrimination problems in different sensory modalities.—*Journal abstract*.

Avoidance & Escape

7792. Banks, R. K. & Torney, D. (U. Waterloo,

Ontario, Canada) **Generalization of persistence: The transfer of approach behaviour to differing aversive stimuli.** *Canadian Journal of Psychology*, 1969(Aug), Vol. 23(4), 268-273.—In 3 experiments it was found that intermittent punishment with electric shock increased persistence to quantitatively and qualitatively different punishers but failed to increase resistance to extinction. Male albino Wistar rats (N=16, 26, and 17, respectively) served as Ss. It is suggested that while approach tendencies acquired to 1 fear state may be elicited by quite different fear states, generalization between fear and frustration may be limited by fairly narrow boundary conditions. (French summary)—*Journal abstract*.

7793. Fonberg, Elzbieta. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **The instrumental alimentary-avoidance differentiation in dogs.** *Acta Biologicae Experimentalis*, 1968, Vol. 28(4), 363-373.—Established an alimentary-avoidance differentiation in 12 male mongrel dogs in 2 experiments. Results indicate that (a) combining alimentary and avoidance procedures during the same experimental session is not neurosogenic, and (b) the alimentary-avoidance differentiation was not more difficult for Ss than the usual alimentary differentiation between positive and inhibitory stimuli. (22 ref.)—*Journal summary*.

7794. Riccio, David C. & Schulenburg, Candace J. (Kent State U.) **Age-related deficits in acquisition of a passive avoidance response.** *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 429-437.—In Exp. I, 80 male albino rats 10, 15, 20, 30, or 100 days old received a brief inescapable shock contingent upon making a step-off response. Step-off latencies increased for all age groups, but rate of learning was significantly faster in older Ss. Learning appeared to be based primarily upon punishment effects rather than general emotionality, since yoked Ss shocked after being placed directly on the grids did not acquire the avoidance response. Exp. II with 120 Ss employed 3 training conditions with independent groups 12, 15, 18, or 21 days old. The step-off response resulted in shock that was either: (a) escapable; (b) inescapable, 1-sec duration; or (c) inescapable, yoked duration. Younger Ss were again significantly inferior to more mature Ss. Escapable shock improved acquisition at 2 age levels, but the effect appeared to be more related to shock duration than to the response contingency. It is suggested that the requirement of withholding a punished response may represent a category of learning that is especially sensitive to maturational changes. (French summary) (16 ref.)—*Journal abstract*.

7795. Schulenburg, Candace J., Riccio, David C., & Stikes, Edna R. (Kent State U.) **Acquisition and retention of a passive-avoidance response as a function of age in rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 75-83.—Administered in Exp. I, brief inescapable shock to 135 15-, 21-, 27-, and 100-day old male albino Holtzman rats contingent upon crossing into the black side of a white-black chamber. Rate of acquisition increased significantly as a function of age. Resistance to extinction suggested that immature animals were also somewhat inferior to adults in response strength. Exp. II and III examined the influence of age, shock duration in training, and length of the training-test interval upon retention of the passive-avoidance response. Young Ss were markedly inferior to adults in retention, even under training conditions which produced comparable re-

sponse strength across ages. (23 ref.)—*Journal abstract.*

7796. Steiner, Geri. (RPH-1, Massachusetts General Hosp., Boston) **Stimulus control of avoidance learning in fish.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 52-58.—Observed shuttling in 72 common goldfish in the absence of shock schedule, in 2 experiments with nonavoidable shock and with avoidable shock. After establishing that this response was an operant, the development of stimulus control over shuttling was compared under free-operant and traditional discriminated-avoidance schedules by investigating the effects of variables on which these schedules differ. Introducing temporal restrictions on avoidance (differential reinforcement) into free-operant schedules lowered avoidance significantly, while the introduction of signals prior to shock increased avoidance. Response distributions revealed that diverse patterns of stimulus control were generated. Although schedules, in general, produced characteristic response patterns, individual deviations provided important clues to mechanisms underlying avoidance learning.—*Journal abstract.*

Reinforcement

7797. Biederman, Gerald B. & Furedy, John J. (U. Toronto, Ontario, Canada) **The preference-for-signalled-shock phenomenon: Signalling shock is reinforcing only if shock is modifiable.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 681-685.—Inescapable, unavoidable, 5-sec shocks were preceded by 5-sec white-noise signals contingent on previously food-trained bar pressing and fixed ratio 40 reinforcement training of 20 male Sprague-Dawley rats. 20 yoked-control Ss receiving the same, but noncontingent, series of signals indicated that the signal was reliably reinforcing only if the shocks were delivered through an alternate, rather than scrambled, floor-grid system. Implications are discussed for previous reports of the preference for signaled shock phenomenon.—*Journal abstract.*

7798. James, J. P. & Mostoway, Walter W. (U. Manitoba, Winnipeg, Canada) **Stimulus intensity dynamism: Effect of non-reinforcement of the highest intensity stimulus.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 49-55.—24 naive male albino Sprague-Dawley rats, in 2 groups, received extensive lever-pressing-discrimination training to 4 intensities of auditory stimulation (85, 90, 95, 100 db.); 1 intensity was SA and 3 were SP. For 1 group, the lowest intensity stimulus was nonreinforced; for the other group the highest intensity stimulus was the SA. After 24 days, nonreinforcement in each group was switched to stimulation of the other extreme and performance was assessed for an additional 15 days. Results indicate that (a) during the 1st phase response strength was a positive function of the distance, along the intensity continuum, from the nonreinforced stimulus; (b) after nonreinforcement contingencies were changed, performance was immediately disrupted and tended to be replaced by the functional relation of the initial phase; and (c) SA response rate was positively related to SA intensity. (French summary)—*Journal abstract.*

7799. Laforge, Hubert. (U. Quebec, Montreal, Canada) **The influence of random reinforcement on heart rate during extinction.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 89-99.—Studied heart rate, considered as an

index of specific activation, during extinction in 2 groups of 8 male rats water-deprived for 24 hr. Ss had acquired a habit under either a fixed 100% reinforcement schedule or a random schedule of 50% reinforcement. The significant stimulus was the appearance of a retractible lever and lever pressing by the S resulting in the delivery of water as reinforcement. The attempt to reconcile the theoretical viewpoint of habit activation according to M. H. Marx and the physiological concept of activation was successful. Activation may be considered responsible for the prolonging of the habit as demonstrated by the group which learned under a random reinforcement schedule. (33 ref.)—*Author abstract.*

7800. Marx, Melvin H. & Tombaugh, Tom N. (U. Missouri) **Acquisition and extinction of an instrumental response as a function of quality and quantity of reinforcement.** *Psychological Record*, 1970(Sum), Vol. 20(3), 297-303.—Investigated the "quantitative (volume) and qualitative (concentration) effects of sucrose incentives within a discrete-trial operant paradigm." Ss were 63 albino Sprague-Dawley rats trained in controlled-operant bar-pressing boxes. The design was a 3×3 factorial in which 3 levels of sucrose concentration (4, 16, and 64%) were combined with 3 levels of volume (.05, .15, and .45 ml.). The major findings are: (a) acquisition performance is an increasing monotonic function of both volume and concentration; (b) volume and concentration interact with the effects of volume being greatest at low level of concentration; and (c) in extinction only concentration affects performance, with the 4% groups showing poorer performance in early trials. (23 ref.)—*Journal abstract.*

7801. Tarpay, Roger M. (Williams Coll.) **Reinforcement difference limen (RDL) for effort.** *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 410-414.—150 naive, male albino Sprague-Dawley rats pressed 1 of 2 levers to terminate shock. 1 lever required a standard force, the other a comparison force. Comparison levels were paired with standard force requirements of 20, 40, 80, or 160 g. The reinforcement DL (defined as the minimum difference in force producing a 75% preference for the less effortful lever) increased as a function of the standard force. The relative function, $\Delta E/E$, was U shaped. (French summary)—*Journal abstract.*

Reinforcement Schedule

7802. Carlson, John G. & Arokbaar, Richard E. (U. Hawaii) **Effects of time-out upon concurrent operant responding.** *Psychological Record*, 1970(Sum), Vol. 20(3), 365-371.—Reinforced 2 male Long-Evans hooded rats on variable-interval (VI) schedules of reinforcement on each of 2 concurrently available response levers. When responding on 1 lever was punished by time-out from positive reinforcement (retraction of both levers), responding on the punished lever was suppressed and rate of responding on the unpunished lever increased. The preference for the unpunished lever persisted when the VI schedule of reinforcement on this lever was adjusted to relatively lower levels than that on the punished lever. Results favor the view that time-out functioned as an aversive stimulus in this context.—*Journal abstract.*

7803. Hake, D. F. & Powell, J. (Anna State Hosp., Behavior Research Lab., Ill.) **Positive reinforcement and suppression from the same occurrence of the**

unconditioned stimulus in a positive conditioned suppression procedure. *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 247-257.—Maintained the responding of 6 experimentally naive Sherman Sprague-Dawley rats on a variable-interval schedule of food reinforcement. The same response also produced a blinking light followed by electrical brain stimulation according to a fixed-interval schedule. This conjoint schedule produced 2 behavioral changes: (a) instead of a steady rate of responding throughout the session, which would be characteristic of the variable-interval food schedule alone, responding between occurrences of the light-brain stimulation pairings became positively accelerated and thus was more characteristic of the fixed-interval schedule of these pairings; and (b) food responding was suppressed during the light that preceded brain stimulation. Results indicate that positive reinforcement and suppression resulted from the same occurrence of the light-brain stimulation combination and suggest that stimuli, e.g., conditioned reinforcers that precede an unconditioned reinforcer may have a suppressive effect upon responding in their presence that is being maintained by another reinforcer. (28 ref.)—*Journal abstract*.

7804. Menitskii, D. N. & Khananashvili, M. M. (Pavlov Inst. of Experimental Medicine, Leningrad, USSR) *Izmeneniya komponentov émoțional'nykh reaktsii u sobak pri veroyatnostnom podkreplenii uslovnykh razdrzhitel'ei i ugashenii uslovnykh reflektsov*. [Changes in the components of emotional reactions in dogs subjected to probability-scheduled reinforcement of conditioned stimuli and extinction of conditioned responses.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969, Vol. 19(5), 876-878.—Presents the results of 12 experimental series with 6 dogs. The changes in the complex of behavioral reactions of Ss as a function of various probabilities of reinforcement of motor alimentary CRs was investigated. Findings involve (a) the high activity of food procuring reactions under the conditions of probability scheduled reinforcement employed in the study, (b) the slow extinction of the CRs, and (c) the absence of clearly expressed signs of any neurotic state.—I. D. London.

7805. Morgan, M. J. (U. Cambridge, England) **Fixed interval schedules and delay of reinforcement.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 663-673.—Compared the behavior of 3 female hooded rats on a fixed interval schedule with their behavior on a schedule where a response made at any time during the interval was reinforced by setting up a reward which was delivered when the interval had elapsed. Response rates were higher in the ordinary fixed interval schedule than in its modified version, and it is argued that this rules out attempts to explain the maintenance of fixed interval performance by delayed reinforcement. Despite the clear difference in response rates, there was considerable similarity between the postreinforcement pauses developed in the 2 schedules, and this suggests that pausing is influenced more by temporal than by response contingencies. (19 ref.)—*Journal abstract*.

7806. Zeiler, Michael D. (Emory U.) **Fixed-interval stimulus control.** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 291-299.—Exposed 4 adult white Carneaux pigeons to 3 stimuli simultaneously, with responses to 1 of them, the positive stimulus, followed by food presented according to a

fixed-interval (FI) schedule (2, 4, 8, or 16 min.). Over 90% of the total responses emitted were to the positive stimulus within a few sessions. When Ss were then studied under each of 4 FIs, responding continued to be confined primarily to the same stimulus independent of interval size. In subsequent conditions, the 3 stimuli changed positions after each $\frac{1}{4}$ of the interval. If the position changes did not require a response, response rate and the percentage of responses occurring to the positive stimulus decreased. If the changes did depend on a response, the complete interval appeared to be divided into 4 smaller intervals with a pause and then positively accelerated responding following each position change. Position changes produced by a response to any stimulus decreased control by the positive stimulus, and changes produced only by a response to it increased the percentage of responses made to that stimulus. All of the data suggest that the stimulus conditions contiguous with reinforcement controlled behavior.—*Journal abstract*.

Punishment & Extinction

7807. Baum, Morrie. (McGill U., Montreal, Quebec, Canada) **Extinction of an avoidance response following response prevention: Some parametric investigations.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 1-10.—Conducted 2 experiments to investigate parameters influencing the efficacy of response prevention. In Exp. I, with 44 female hooded rats, the amount of response prevention given to Ss who had learned to avoid electric shock in an automated apparatus was systematically varied. Increasing the duration of response prevention increased its effectiveness in hastening extinction. In Exp. II, with 31 Ss, the intensity of shock used in avoidance learning was parametrically varied. More intense shock diminished the efficacy of a fixed amount of response prevention. In both experiments, S's spontaneous behavior during response prevention was systematically recorded. The cessation of fear behavior and the occurrence of relaxation during response prevention were found to predict accurately the successful extinction of the avoidance response. (French summary)—*Journal abstract*.

7808. Best, John K. & Baum, Morrie. (U. Western Ontario, London, Canada) **Studies of the extinction of avoidance responding through the massing of trials.** *Canadian Journal of Psychology*, 1969(Dec), Vol. 23(6), 438-444.—Performed 2 experiments in an automated 1-way avoidance box for rats. Exp. I, with 44 Sprague-Dawley female albino rats, was concerned with the effect of shock intensity on the rate of extinction using the massing-of-trials technique during extinction. Most measures of avoidance learning were not affected by shock intensity, and the rate of extinction was also not significantly affected. Exp. II, with 44 Ss similar to those in Exp. I, examined the effect of the duration of the extinction ITI on the rate of extinction. A critical duration is suggested by results. (French summary) (15 ref.)—*Journal abstract*.

7809. Homzie, M. J., Gohmann, Timothy, & Hall, Stanley W. (U. Virginia) **Runway performance in rats as determined by the predictive value of intertrial reinforcements.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 90-95.—Attempted to investigate the hypothesis that rats discriminate intertrial reinforcements (ITRs) from runway

trials and that such differentiation can affect resistance to extinction. Ss were 45 naive female Long-Evans rats. Ss receiving partial reinforcement training were administered ITRs either positively, negatively, or randomly correlated with reinforced runway trials. Extinction was conducted under 2 different conditions, either the ITR was administered prior to each of the daily nonreinforced trials or the ITR was omitted. For each S the extinction procedure was subsequently switched to the other condition, and later changed back to the original testing method. Results show that with extended training rats differentiated between ITR events and runway trials and that extinction performance was in accordance with the reinforcement contingencies established during acquisition training.—*Journal abstract*.

7810. Katzev, Richard D. & Hendersen, Robert W. (Reed Coll.) **Effects of exteroceptive feedback stimuli on extinguishing avoidance responses in Fischer₃₄₄ rats.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 66-74.—Investigated the role of exteroceptive feedback stimuli in controlling discriminative-avoidance responding during extinction trials in the shuttle box in 3 studies. Ss were 30 experimentally naive male Fischer₃₄₄ rats. Exp. I demonstrated that such a stimulus has no effect on extinction responding when it had been a redundant source of information during previous acquisition trials. In contrast, Exp. II showed that when such a feedback stimulus becomes a source of information during acquisition, its removal during extinction significantly reduces the occurrence of avoidance responses. Exp. III revealed that the probability of responding during extinction trials is a decreasing monotonic function of the delay in presenting such an informational feedback stimulus.—*Journal abstract*.

7811. Leonard, Dale W. & Capaldi, E. J. (U. Rochester) **Successive acquisitions and extinctions in the rat as a function of number of nonrewards in each extinction session.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 102-107.—Gave 2 groups of 11 female albino Holtzman rats a daily acquisition-extinction-reacquisition session for 20 consecutive days in a discrete-trials lever-press situation. In both groups the preextinction acquisition series in each session consisted of 7 rewarded trials while the postextinction acquisition series consisted of 9 rewarded trials. In 1 group (Group 12) the extinction series was 12 consecutive nonrewarded trials; in the other (Group 24) the extinction series was 24 trials. Group 12 exhibited more improvement in acquisition performance across sessions than did Group 24. In extinction Group 12 showed a decrease in extinction rate over sessions, both for the early and late nonrewarded trials in each extinction series. Group 24 showed a decrease in extinction rate over sessions only on late nonrewarded trials in the extinction series, i.e., those immediately preceding reacquisition, but an increase in extinction rate on early extinction trials. A theoretical analysis derived from the sequential hypothesis described these results quite satisfactorily.—*Journal abstract*.

7812. McCain, Garvin; Baerwaldt, James, & Brown, Erin R. (U. Texas, Arlington) **Extinction following a small number of goal-box placements.** *Canadian Journal of Psychology*, 1969(Aug), Vol. 23(4), 274-284.—3 experiments involved extinction of male and female Wistar albino rats in a straight alley following direct

placement in the goal box. Placements were given either before or after running trials in Exp. I and II. In Exp. III only placements with no alley running were given. In each case the presence of a partial reinforcement extinction effect indicates the effectiveness of placements. Data are interpreted in terms of the cue effects of placement. (French summary) (16 ref.)—*Journal abstract*.

7813. Milstead, James R. (U. Houston) **Interactive effects of reward magnitude and intertrial intervals on resistance to extinction.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1567.

7814. Ward, John E. & Duerfeldt, Pryse H. (U. Portland) **The influence of varied reinforcement magnitude on extinction: A test of Capaldi's "N-length" hypothesis.** *Canadian Journal of Psychology*, 1969(Oct), Vol. 23(5), 315-326.—Tested an extension of E. J. Capaldi's modified after effects hypothesis. 3 small reinforcement (s)-length groups of 15 male albino Holtzman rats each were run down a straight alley for a food reward. In place of the usual sequences of nonreward vs. reward trials there were substituted 3 s-length sequences of small- vs. large-reward trials. The s-length is defined by the number of consecutive small-reward trials occurring in sequence without interruption by a large-reward trial. Differential effects of s-length on resistance to extinction were predicted in accordance with Capaldi's theoretical development of the hypothesis. Analyses of extinction data statistically confirm, in general, the experimental predictions and support the nonreinforcement-length hypothesis. (French summary)—*Journal abstract*.

SOCIAL & SEXUAL BEHAVIOR

7815. Barrass, Robert. (Sunderland Polytechnic, England) **Preening and abdomen dipping by the male *Mormoniella vitripennis* (Walker) (Hymenoptera, Pteromalidae) after courtship.** *Behaviour*, 1969, Vol. 35(3-4), 304-312.—Observed wasps that had been parasitic on house fly pupae on their 1st day as imagos. "Fewer preening movements occur when a male is undisturbed than after courtship and more after courtship of 20 females than after a single courtship. Abdomen dipping movement may occur when the male is undisturbed but they occur characteristically after courtship. More abdomen dipping movements follow mating than follow courtship of non-receptive females. These movements are compared to the 'displacement activities' described in other groups of animals."—N. M. Ginsburg.

7816. Bierl, Barbara A., Beroza, Morton, & Collier, C. W. (U.S. Agricultural Research Service, Entomology Research Div., Beltsville, Md.) **Potent sex attractant of the gypsy moth: Its isolation, identification, and synthesis.** *Science*, 1970(Oct), Vol. 170(3953), 87-89.—Identified the sex attractant emitted by the female gypsy moth (*Porthetria dispar*) as cis-7,8-epoxy-2-methyloctadecane. The structure was verified by spectral, gas chromatographic, and biological comparisons with the synthesized compound. 9 closely related isomers were considered less effective. (20 ref.)—*Journal abstract*.

7817. Cole, James E. & Ward, Jack A. (Bloomsburg State Coll.) **The communicative function of pelvic fin-flickering in *Etoplus maculatus* (Pisces, Cichlidae).** *Behaviour*, 1969, Vol. 35(3-4), 179-199.—"Fin-flickering... is exhibited only by adult fish when they are caring for young." Orange chromides were

observed during Days 1, 3, 6, 9, and 12 of free swimming of the fry. Ss were observed when undisturbed and when disturbed by a ball swung in front of the tank. "The amount of parental fin-flickering during undisturbed conditions was significantly greater on Day 3 than on any other test day." On all test days fin-flickering was much higher when Ss were disturbed. There were no sex differences under either condition.—*N. M. Ginsburg.*

7818. Free, J. B., Weinberg, Ingrid, & Whiten, A. (Rothamsted Experimental Station, Harpenden, England) **The egg-eating behavior of *Bombus lapidarius* L.** *Behaviour*, 1969, Vol. 35(3-4), 313-317.—Established and observed a bumblebee colony in a nest box. Ovaries of marked workers were later dissected, and oocytes counted. "When ... workers built egg cells and laid eggs, their queen ate the eggs and appropriated the egg cells for her own eggs, whereupon the workers tried to eat her eggs. There was a positive general correlation between the tendency of workers to behave aggressively, to demolish and build cells, to lay and eat eggs, and the degree of their ovary development."—*N. M. Ginsburg.*

7819. Hodan, Gerald J. (U. Oklahoma) **Social organization in captive chimpanzees: The effect of space, estrus and coalitions upon the dominance hierarchy.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 914.

7820. Lockner, F. Russell & Phillips, Richard E. (Sonoma State Coll.) **A preliminary analysis of the decrescendo call in female mallards (*Anas platyrhynchos* L.)** *Behaviour*, 1969, Vol. 35(3-4), 281-287.—"Conditions necessary for the elicitation of this call were studied in captive, paired female Mallards ... in both outdoor and indoor pens. Paired females gave significantly more calls when visually isolated from their mates than when their mates were present. The response was specific to separation from the mates and not to separation from familiar but non-mated males. Females did not give decrescendos when they were auditorially as well as visually isolated from their mates."—*N. M. Ginsburg.*

7821. Menzel, Emil W. (Tulane U., Delta Regional Primate Research Center, Covington, La.) **Group behavior in young chimpanzees: Responsiveness to cumulative novel changes in a large outdoor enclosure.** *Journal of Comparative & Physiological Psychology*, 1971(Jan), Vol. 74(1, Pt. 1), 46-51.—An established social unit of 4 juvenile chimpanzees was acute in detecting successive additions of 1 new object at a time to an array of 20 test objects in a 30.5 × 122 m. field. The nature and temporal course of responsiveness conformed generally to previous descriptions of individual habituation to novelty in more traditional laboratory settings. However, group processes and spatial variables introduced new problems of equal or greater importance. (16 ref.)—*Journal abstract.*

7822. Pearce, C. (U. Adelaide, South Australia) **A new deterministic model for the interaction between predator and prey.** *Biometrics*, 1970(Sep), Vol. 26(3), 387-392.—A simple model, differing from the standard Lotka-Volterra model in the assumptions made, is proposed to describe the interaction between predator and prey. The difficulties of that model are overcome without the introduction of such additional factors as immigration.—*Journal summary.*

SENSORY PROCESSES

7823. Bertmar, Gunnar & Toft, Rolf. (U. Umea,

Sweden) **Sensory mechanisms of homing in salmonid fish: I. Introductory experiments on the olfactory sense in grilse of Baltic salmon (*Salmo salar*).** *Behaviour*, 1969, Vol. 35(3-4), 235-241.—Eliminated the olfactory sense in 191 grilse and then released them 35-40 km north and south of the home river. "Most of these fishes failed to orient toward home during spawning time, whereas many of the 100 control animals traumatized on the nose homed as readily as did many of the 100 untreated controls released in the same place. These results indicate an important role for olfaction in homing behaviour and migration."—*N. M. Ginsburg.*

7824. Fay, Richard R. (Princeton U., Auditory Research Lab.) **Auditory frequency generalization in the goldfish (*Carassius auratus*).** *Journal of the Experimental Analysis of Behavior*, 1970(Nov), Vol. 14(3, Pt. 1), 353-360.—Studied auditory frequency generalization in 20 goldfish at 5 points within the best hearing range through the use of classical respiratory conditioning. Each experimental group received single-stimulus conditioning sessions at 1 of 5 stimulus frequencies (100, 200, 400, 800, and 1600 Hz.), and were subsequently tested for generalization at 8 neighboring frequencies. All stimuli were presented 30 db. above absolute threshold. Significant generalization decrements were found for all Ss. For the Ss conditioned in the range between 100-800 Hz., a nearly complete failure to generalize was found at 1 octave above and below training frequency. The Ss conditioned at 1600 Hz. produced relatively more flat gradients between 900-12000 Hz. The widths of the generalization gradients, expressed in Hz., increased as a power function of frequency with a slope greater than 1. (23 ref.)—*Journal abstract.*

7825. Graham, Ernest S., Farrer, Donald N., Crook, Guy H., & Garcia, Paul V. (Holloman Air Force Base, 6571st Aeromedical Research Lab., Alamogordo, N. M.) **A self-adjustment procedure for measuring the visual acuity of rhesus monkeys.** *Behavior Research Methods & Instrumentation*, 1970(Nov), Vol. 2(6), 301-305.—Describes a visual acuity testing procedure which uses a self-adjustment procedure combined with shock avoidance and punishment. A male rhesus monkey (*Macaca mulatta*) served as the S. S adjusts the size of the gap opening in Landolt rings by pressing levers. Correct trials decrease the size of the gap opening and are followed by a tone; incorrect trials increase the size of the gap opening and are followed by shock. The number of correct and incorrect trials needed to change the gap-opening size can be varied.—*Journal abstract.*

7826. Hack, Martin H. (New York U., Medical School) **Auditory intensity discrimination in the rat.** *Journal of Comparative & Physiological Psychology*, 1971(Feb), Vol. 74(2), 315-318.—Examined auditory intensity discrimination in 5 naive male albino Wistar rats in a frequency range of 2-30 kHz., at sensation levels of 20 and 40 db. Minimum mean DLs at these 2 sensation levels were found to be 2.3 and 1.3 db., respectively, at 8 kHz. These values were compared with those of man, cat, and goldfish. They were found to be of the same magnitude, except for relative shifts along the frequency axis.—*Journal abstract.*

7827. Hoffman, Howard S. & Wible, Barry L. (Pennsylvania State U.) **Role of weak signals in acoustic startle.** *Journal of the Acoustical Society of America*, 1970(Feb), Vol. 47(2, Pt. 2), 489-497.—Conducted 2 experiments to determine the minimum inten-

sity at which a weak signal could reliably produce facilitation (latency reduction) and inhibition (amplitude reduction) of the startle response in 7 and 6 experimentally naive male Wistar rats. Stimulus configurations were used in which the weak pulse had intensities as low as 10 db. Both response inhibition and latency reduction were detected when the weak signal had an intensity of only 35 db., and the magnitude of the 2 effects increased with increases in pulse intensity. Since, for signals comparable to the pulses used here, the S's threshold for hearing is approximately 35 db., it is concluded that the brain system that mediates these effects is probably as sensitive as the auditory system itself. (16 ref.)—*Journal abstract*.

7828. Morrison, G. Rolfe. (McMaster U., Hamilton, Ontario, Canada) **The relative effectiveness of salt stimuli for the rat.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 34-40.—Determined the relative detectability of 8 salts over a molar concentration range of .0125-.80 in an experiment with 5 male hooded rats. The detectability of those salts, which have a strong sour or bitter quality, is substantially greater when compared with sodium chloride, than their relative effectiveness as determined by the size of the evoked response in the chorda tympani. It is suggested that, like quinine, these salts are more effective on the posterior tongue. (French summary)—*Journal abstract*.

DEVELOPMENTAL PSYCHOLOGY

7829. Bühler, Charlotte. (U. Southern California, Medical School) **Vorstellungen vom Glück in unterschiedlichen Altersgruppen.** [The concept of happiness in different age groups.] *Psychologische Beiträge*, 1970, Vol. 12(2), 173-185.—Reviewed and summarized results of investigations conducted since 1965 concerning the concept of "happiness" in different age groups. Elementary school children (age 8) responded to interviews in such a manner as to equate happiness with wish fulfillment. An investigation in 1967 by E. Scott of delinquent and nondelinquent Oregon high school students showed that happiness was most often equated by both groups with feelings of love, success, and personal satisfaction. Another study by S. Blum revealed that middle-aged women, equated happiness with marital accord. In conclusion, it is suggested that personal interviews and psychotherapy records were of greater value than were questionnaires in conducting investigations of the concept of "happiness." (French & English summaries) (15 ref.)—*B. A. Stanton*.

7830. Kay, A. W. (Nottingham Coll. of Education, England) **Moral development: A psychological study of moral growth from childhood to adolescence.** New York, N.Y.: Schocken, 1969, 270 p. \$5.50.

7831. Liss, Phillip H. & Haith, Marshall M. (City Coll., City U. New York) **The speed of visual processing in children and adults: Effects of backward and forward masking.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 396-398.—Tested 8 4-5 and 9-10 yr. old children, and college-age adults on 2 visual masking tasks. In Task 1, Ss indicated whether a tachistoscopically presented bar was horizontal or vertical. In Task 2, also using tachistoscopic presentation of stimuli, Ss located a horizontal (or vertical) bar in a matrix of vertical (or horizontal) bars. In both tasks, backward masking produced greater disruption than

forward masking, and the amount of disruption induced by both decreased as age increased. An Age \times Masking Condition interaction was found only in the location task and reflected a much greater difference between backward- and forward-masking conditions for the youngest group than for older groups. It is concluded that only in the location task, which presumably required visual search, was the speed of visual processing slower in the younger group.—*Journal abstract*.

7832. Mackworth, N. H. & Bruner, J. S. (Stanford U.) **How adults and children search and recognize pictures.** *Human Development*, 1970, Vol. 13(3), 149-177.—Recorded the eye fixations of 20 young adults and 20 6-yr-old children while they were recognizing or inspecting a series of displays. The test photographs presented 3 levels of definition for 1 particular scene: very blurred, blurred, or sharp. Each picture was presented for 2 10-sec trials. Either the very blurred or the sharp picture was given 1st to a particular S. The position and sequence of the fixations of each S were recorded individually on a Polaroid copy or the original display. 8 different analysis procedures were used to study the eye tracks, and all showed reliable differences between adults and children. With the sharp pictures, children lacked adequate coverage of the display; and their eye tracks averaged only $\frac{2}{3}$ the length of the adult tracks. Adults were more skillful at visually selecting the informative areas within out-of-focus pictures which requires a delicate balance between central and peripheral vision. Children were less consistent than adults regarding the areas they visually selected from the out-of-focus displays. Only adults attempted to relate important areas of such displays by long leaping movements of the eyes. The direction of these long movements altered when S already knew the nature of the display. Adult fixation times increased by 40% when Ss had to comprehend the out-of-focus displays rather than merely inspect them. Theoretical interpretations are provided. (73 ref.)—*Journal abstract*.

7833. Piaget, Jean. **Izbrannyye psikhologicheskile trudy.** [Collected psychological words.] Moscow, USSR: Prosveshchenie, 1969, 660 p.—Presents translations of several of Piaget's works: *La Psychologie de l'Intelligence*, *La Genèse du Nombre Chez l'Enfant*, and *Logic and Psychology*. The translations include (a) an introductory article on the operational conception of the intellect in the works of Piaget, coauthored by V. A. Lektorskiĭ, V. N. Sadovskii, and E. G. Yudin; (b) a concluding commentary by the same authors; (c) a listing of terminological vocabulary (French-Russian); and (d) a complete bibliography of Piaget's writings, including translations into foreign languages.—*I. D. London*.

7834. Schmidt, W. H. & Nzimande, A. (U. Alberta, Edmonton, Canada) **Cultural differences in color/form preference and in classificatory behavior.** *Human Development*, 1970, Vol. 13(2), 140-148.—Presents data concerning color-form preference and ability to classify obtained from rural Zulu children with and without Western-type schooling, from literate and illiterate Zulu urban workers, and from illiterate urban workers. Significant differences are shown between children in school and those not going to school, between literate and illiterate urban workers, between illiterate urban and farm workers. Some comparisons are made with R. G. Suchman's data on Moslem Hausa children, J. Gay and M. Cole's data on Kpelle children, J. S. Bruner and associates' studies of Wolof children, and N.

L. Corah's data on American children. It is concluded that even a poorly equipped and poorly staffed Western-type school in the bush "seems to be a powerful agent for changing the direction in which the course of human cognitive development will flow." (15 ref.)—*Journal abstract.*

7835. Smulders, F. J. De pseudoherediteit van gedragsmodaliteiten: Een konfliktologische visie op de normering van menselijk gedrag. [The pseudo-heredity of behavioral modalities: A conflictual analysis.] *Gawein*, 1969(Jun), Vol. 17(4), 172-193.—Develops the theory that behavior is primarily environmentally determined. The only thing hereditary is the possibility of responding at all; the precise way of responding is culturally determined. Cathexis and introjection are the major tools in this process.—S. G. Vandenberg.

7836. Staub, Ervin. (Harvard U.) **Helping a person in distress: The influence of implicit and explicit "rules" of conduct on children and adults.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 137-144.—Examined the influence of variation in information about the permissibility of behavior involved in helping on subsequent attempts to help in response to sounds of severe distress from an adjoining room. In Exp. I 40 7th grade boys and girls who received prior permission to enter the adjoining room attempted to help more often than those who did not. In Exp. II 33 7th grade girls who received permission helped more than those who received no information or those who received a prior prohibition against entering the adjoining room. Prohibition and no information had about the same effects. In Exp. III 56 adult females helped a distressed female significantly more following both permission and no information than following prohibition, with no difference between the former 2 groups. Behavior that is thought to be highly valued culturally seems easily inhibited by counterinfluences including beliefs about appropriate social behavior and explicitly stated expectations of others that prohibit behavior involved in helping. (19 ref.)—*Journal abstract.*

INFANCY

7837. Barber, Lucie W. (Union Coll., Character Research Project) **Effect of an infancy curriculum on motor and personal-social behaviors.** *Character Potential*, 1971(Feb), Vol. 5(3), 128-147.—Parent reports on 16 infants were coded for Gesell normative behaviors. The agreement of 2 independent judges that evidence for a normative behavior existed was stipulated. Each separate Gesell behavior was recorded with the age in weeks when it occurred. Graphs for each of the 16 Ss were constructed to describe each behavior and illustrate by how many weeks it either exceeded Gesell norms or lagged behind norms. Categories for motor and personal-social behaviors were kept separate. The criterion for classifying an infant as benefiting from the infancy design rested on an overall pattern of acceleration which increased with age. Each case history was judged. The results of a previous study on language development were included in the discussion. All infancy design children benefited in at least 1 area. 7 benefited in all 3, while 4 benefited in 2 of the 3 categories of behavior. Language and personal-social advantage to the infancy design children were most pronounced. The large differences discovered using innovative procedures warrant further research.—*Author abstract.*

7838. Barber, Lucie W. (Union Coll., Character Research Project) **Language development in infants enrolled in the infancy design.** *Character Potential*, 1971(Feb), Vol. 5(3), 118-128.—Parents of 19 infants reported on infant language behavior from the time the infants were first enrolled until the children were 24 mo. old. These data were compared to Gesell norms for each child. Infants were judged as having benefited from the infancy design if their language development exceeded norms and increasingly so with age. 15 benefited, 2 did not, while no conclusions were reached for the remaining 2. Accelerated language ability was not the primary purpose of the infancy design. It was 1 of many areas studied with personality integration as the chief concern.—*Author abstract.*

7839. Barber, Lucie W. (Union Coll., Character Research Project) **The effects of an infancy curriculum on character development.** *Character Potential*, 1971(Feb), Vol. 5(3), 147-151.—Parents of infants enrolled in an infancy curriculum and parents of infants without exposure to the curriculum completed an open-ended statement of their child's self. An instrument was used which elicited information on purposiveness, value integration, and social effectiveness. Pairs were achieved that matched sex, age, and socioeconomic background. There were 19 pairs that were judged by 5 judges. When 4 or 5 judges agreed on a pair member as superior, reliability was assumed. Results strongly indicate that infants exposed to the infancy design exceeded infants not so exposed in 2 dimensions: values and social (17 to 7 and 20 to 5, respectively). Judges were not in agreement on the purposiveness dimension which could indicate a problem of definition of this dimension in infancy. Findings further indicate that infants with early exposure to the curriculum fared better than late starters. Other findings are included from this exploratory research which will be of interest to those involved in the infancy period.—*Author abstract.*

7840. Barber, Lucie W. (Union Coll., Character Research Project) **The infancy design in relation to other infancy research: A search of the literature.** *Character Potential*, 1971(Feb), Vol. 5(3), 107-111.—There is great current interest in infancy research. A large share of this research is related to the poverty problem; the poor environment for cognitive development of disadvantaged infants, and how to correct deficiencies to insure later academic success, thus breaking the poverty cycle. How does research with the infancy design to which only advantaged infants have been exposed relate to research with the disadvantaged? This article scans all infancy research and places the infancy design and its research, described in other articles in the same journal, in context. Learning by conditioning and individual differences in infancy are examples of other areas of infancy research that are examined besides the area of extra stimulation for disadvantaged infants. Certain distinctions are made (the infancy design's aim is character development—not just cognitive development or acceleration of infant behaviors; and theoretical explanations for a relationship transcending the distinctions are provided. The infancy design is an innovative program and the importance of relating this new educative approach to other infancy research is recognized as beneficial to all. (26 ref.)—*Author abstract.*

7841. Barber, Lucie W. & Hedges, Elizabeth W. (Union Coll., Character Research Project) **Family**

background and socio-economic environment of infants enrolled in the infancy design. *Character Potential*, 1971(Feb), Vol. 5(3), 114-118.—Describes the sample for 6 other studies in the same journal. The families who volunteered their participation in the infancy design (a curriculum for character development in infants) were above average in socioeconomic status, education, prenatal care of mother, physical condition of infant, and exposure of child to environment. The infants began life highly advantaged. The infancy design made already abundant stimuli more appropriate and meaningful to the maturation of unique infants.—*Author abstract.*

7842. Barber, Lucie W. & Hedges, Elizabeth W. (Union Coll., Character Research Project) **Research results with the infancy design.** *Character Potential*, 1971(Feb), Vol. 5(3), 112-114.—Summarizes the results of 7 studies described in the same journal. 1 study describes the sample. 2 studies compare infants exposed to the infancy design with Gesell norms. The infancy design children are clearly accelerated in either language, personal-social, or motor development, and combinations of the 3. The aim of the infancy design is to promote character development in infancy along 3 dimensions: purposiveness, value integration, and social effectiveness. Results from the 4th study were inconclusive for purposiveness but strongly suggest an effect of the infancy design on value integration and social effectiveness. The concluding 3 studies present an innovative method for studying a unique infant. Elements to explain personality integration were recognized and quantified from parent reports on 1 infant from 5-30 mo. of age. Consistent patterns over time were found.—*Author abstract.*

7843. Campos, Joseph J., Langer, Alan, & Kowitz, Alice. (U. Denver, Behavior Development Lab.) **Cardiac responses on the visual cliff in prelocomotor human infants.** *Science*, 1970(Oct), Vol. 170(3954), 196-197.—Previous studies, reporting marked emotionality in animals placed directly over the visual cliff's deep side, suggested that the autonomic responses of infants placed directly over either side of the cliff might serve to discriminate the deep from the shallow sides. In an experiment with 31 human infants younger than crawling age, it was found that Ss yielded reliable cardiac decelerations when placed directly atop the deep side of a visual cliff and generally nonsignificant changes when atop the shallow side. Distress was elicited less frequently, however, on the deep side than on the shallow at these ages, in contrast to the behavior of older infants and other species. Prelocomotor infants, therefore, can discriminate the 2 sides of the cliff, but not by means of distress at loss of optical support.—*Journal abstract.*

7844. Fraiberg, Selma. (U. Michigan, Medical School) **Libidinal object constancy and mental representation.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 9-47.

7845. Hedges, Elizabeth W. (Union Coll., Character Research Project) **Evidence of self in an infant at five months and thirty months of age.** *Character Potential*, 1971(Feb), Vol. 5(3), 157-159.—The self element includes one's basic drives and desires. Evidence of the self element was coded in open-ended reports by parents on their infant son who was enrolled in a home-based infancy curriculum. Reports chosen were from 5-7 mo. of age and, again, from 24-30 mo. of age. 2 matrices were constructed, 1 for each time period, and a cluster

analysis was performed. 3 judges interpreted the clusters. 2 important findings resulted: (a) the self could be described even at these early ages, and (b) there was a consistency of basic drives and desires from the early age to the later age for this infant. The study belongs to a series of studies reported in the same journal on a new approach to training infants. The purpose for training is character development and the core of the program is parents' recognition of their infant's unique self.—*L. W. Barber.*

7846. Hedges, Elizabeth W. (Union Coll., Character Research Project) **Purposiveness, value integration, and social effectiveness in an infant from five months to thirty months of age.** *Character Potential*, 1971(Feb), Vol. 5(3), 160-162.—Parent reports on an infant enrolled in an infancy curriculum were coded for an M element. The M element is "measures of character dimensions orientation." The dimensions were: purposiveness, value integration, and social effectiveness. The reports were also coded for each of these dimensions. The open-ended reports were written reports of behavior from 5-30 mo. of age. Frequencies of codes when put in graph form indicated a pattern which suggests that the infant was consistently higher in the social dimension than in values, with purposiveness increasing with age. This pattern was interrupted only around 1 yr. when the infant was perfecting walking skills and was able to verbalize value preferences for the first time. Thereafter the original pattern returned. This study along with others in the same journal presents an innovative method for studying personality development in infants.—*L. W. Barber.*

7847. Hedges, Elizabeth W. (Union Coll., Character Research Project) **The presence and frequency of personality elements in one infant, five months to thirty months of age.** *Character Potential*, 1971(Feb), Vol. 5(3), 152-157.—Parent reports on a male infant from 5-30 mo. old were coded for 15 "elements" of personality. These elements are members of a mathematical group by which personality integration can be described. Evidence on all but 1 element (vision) was found, although frequencies of codes were low for judgment, courage, roles, and decision-making. The following elements were coded most frequently: endowments, action, growth and maturation, self, measures of character dimensions, and learning. Evidence was found for the other 4 elements: home resources, evaluation, world, and philosophy of values. The definitions of the elements are presented and illustrations found of them in the infant's behavior. This is a new and possibly valuable approach to the study of infancy.—*L. W. Barber.*

7848. Jordan, T. E. & Spaner, S. D. (U. Missouri, St. Louis) **Biological and ecological influences on development at 12 months of age.** *Human Development*, 1970, Vol. 13(3), 178-187.—Reported a multivariate analysis of development at the end of 1st yr. of life, and analyzed the contribution of biological data, and 2 aggregates of environmental data to the study of development at age 12 mo. The case histories of 353 12-mo-old children were drawn from a prospective longitudinal study of development in the preschool years.—*Journal abstract.*

7849. Kistyakovskaya, M. Yu. **Razvitiye dvizhenii u detei pervogo goda zhizni.** [Development of movement in children in the first year of life.] Moscow, USSR: Pedagogika, 1970. 224 p.—Presents the results of studies

on the origin and development of various movements in the 1st yr. of life, including the results of studies on the development of movements in 2-yr-old children characterized by severe hypotrophy and acute retardation of development.—I. D. London.

7850. Munroe, Ruth H. & Munroe, Robert L. (Pitzer Coll.) **Household density and infant care in an East African society.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 3-13.—Carried out time- and event-sampling observations of infant care among 12 Logoli households. High household density was associated with frequent holding of the infant and small latency of response to crying. However, the infant's mother was somewhat less accessible to him in the high-density household. The mother's lower availability was probably due to her greater economic responsibilities in a large household. Findings support the view that ecological variables can influence socialization practices. (18 ref.)—*Author abstract*.

7851. Pursley, Theeron L. (Duquesne U.) **Structure theory: its application to the study of the first seven months of life of the human infant.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1523.

7852. Spitz, René A., Emde, Robert N., & Metcalf, David R. (U. Colorado, Medical School, Denver) **Further prototypes of ego formation: A working paper from a research project on early development.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 417-441.

7853. Well, Annemarie P. (Child Development Center, New York, N.Y.) **The basic core.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 442-460.

7854. Williams, Herman. (Union Coll., Character Research Project) **Possible applications of an infancy curriculum.** *Character Potential*, 1971(Feb), Vol. 5(3), 163-165.—The infancy design, developed by the Union College Character Research Project, has been used in infants' families for 3 yr. Initial research indicates acceleration in motor, language, and personal-social behaviors, as well as advancement in value integration and social influence. Revision and further research will be continued. Although the infancy design has been used with middle-class Ss, it has also been applied in the case of training home educators who help mothers of disadvantaged infants in an innercity project. Both the research and the practical applications will be continued.—L. W. Barber.

7855. Williams, Herman & Barber, Lucie W. (Union Coll., Character Research Project) **Description of an infancy curriculum for character development.** *Character Potential*, 1971(Feb), Vol. 5(3), 99-106.—The Union College Character Research Project has worked with character education for 35 yr. In 1967, the decision was made to add an infancy curriculum to the existing nursery-senior high curriculum. Developing purposiveness, value integration, and social effectiveness was the goal of the infancy design. The method involved drawing parents' attention to maturations so that appropriate stimuli could be introduced to the infant. Basic to the design was parents' learning about their child's unique self. This introductory article describes the infancy design and how it has been used by participating families.—L. W. Barber.

7856. Zelazo, Philip R. **Smiling to social stimuli: Eliciting and conditioning effects.** *Developmental Psychology*, 1970(Jan), Vol. 4(1, Pt. 1), 32-42.—In Exp. I, 1 male and 1 female E each tested 5 male and 5 female infants (11-13 wk. old). 1 block (2 6-min trials) of base

rate and 5 blocks of conditioning were run over 3-4 days. During base rate, Es were unresponsive; during conditioning, each infant smile received contingent smiling, talking, and touching. Results show differential smiling to E during base rate, a significant but scalloped decline in smiling to contingent stimulation, and a need to rigidly control ITIs. In Exp. II, 1 female E examined 10 Ss in each of 3 conditions: contingent and noncontingent stimulation, and an unresponsive control. 3 6-min trials were run each day for 3 consecutive days. Results reveal a significant linear decline over trials and days for all groups with an attenuation of the decline on Trial 1 and from Day 1-2 for the contingent condition. A 2-process view of smiling is proposed involving reinforcement and habituation effects. (26 ref.)—*Journal abstract*.

CHILDHOOD

7857. Benavent Oltra, Jose A. (U. Valencia, Spain) **Génesis de la risa infantil.** [Origin of laughter in children.] *Anuario de Psicología*, 1970, Vol. 1(2), 107-114.—Examines the development of laughter in children from 0-14 yr. old and concludes that, contrary to psychoanalytic theories, a child is able to laugh at a very early age (2 mo.). As the child develops, the stimuli for laughter gradually multiply until, at the age of 10, he acquires an understanding of that which is comical. His laugh reaches full maturity at 14, at which point he is able to appreciate humor. Any type of laugh that can be observed thereafter in an adult will have already appeared in the child. This does not mean that those situations which cause a child to laugh will produce the same effect in an adult. It is suggested that the best stimuli for laughs are always those situations that are particular to the age and last functional or intellectual achievement of the moment. Thus any stimulus that brings about a child's laugh has its parallel in an adult. It is proposed that such parallel situations be searched and outlined whereby the causes and types and laughs can be studied. (41 ref.)—S. Maze.

7858. Briggs, Dorothy C. **Your child's self-esteem: The key to his life.** Garden City, N.Y.: Doubleday, 1970. xvi, 341 p. \$6.95.

7859. Bryan, James H. & Schwartz, Tanis. (Northwestern U.) **Effects of film material upon children's behavior.** *Psychological Bulletin*, 1971(Jan), Vol. 75(1), 50-59.—Reviews studies of symbolic modeling influences upon human behavior. Experiments concerned with film influences upon aggression, phobic and altruistic responses, as well as their impact upon social judgments and communications are discussed. (38 ref.)—*Journal abstract*.

7860. Candiani Moncalvo, Ernesta. (U. Turin, Graduate School of Psychology, Psycho-Pedagogy, & Pedagogy, Italy) **Intorno ad un aspetto del comportamento morale di bambini immigrati.** [On one aspect of moral behavior in immigrant children.] *Rivista di Psicologia Sociale e Archivio Italiano di Psicologia Generale e del Lavoro*, 1970(Jan), Vol. 37(1), 53-81.—Semin's test of moral judgment was administered to local northern (N = 35) and southern (N = 39) immigrant children of elementary school age in the suburbs of Milan, Italy. The immigrant children tended to give a significantly greater number of responses of a sociocentric (rather than egocentric) nature. This propitiatory, ingratiatingly sacrificial attitude appeared related to age and length of residence in the North of Italy. (French & English summaries)—L. L'Abate.

7861. de Moffarts, M. (25 rue Charles Degroux, Brussels, Belgium) **Le choix de la main pour l'écriture: Etude au Niveau préscolaire.** [The choice of hand for writing: Study at the preschool level.] *Revue de Psychologie et de Sciences de l'Education*, 1970, Vol. 5(3), 309-316.—19 left-handed or ambilateral preschool children were compared with a random sample of 40 right-handed preschool children by means of neurological and psychomotor tests. All parents were interviewed regarding their attitudes toward the etiology and importance of handedness. Parents' attitudes were, for the most part, liberal. Establishment of preference, except for cases of retarded neurological maturation, is established by the end of the kindergarten period. Motivation and affective factors are important and, if these are taken into account, intervention which begins early enough will usually lead to the establishment of right-hand preference. (Dutch & English summaries)—S. S. Marzolf.

7862. Dusek, Jerome B. (Syracuse U.) **Experimenter bias in performance in children at a simple motor task.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 55-62.—54 boys and 72 girls of CAs 6-7 were tested by neutral Es, or Es biased to expect boys (or girls) to drop marbles faster than girls (or boys) in a marble dropping task. $\frac{1}{2}$ of the Ss were tested under conditions of social reinforcement and $\frac{1}{2}$ under conditions of nonreinforcement. Es were 18 male undergraduates. There were 2 dependent variables: a base-rate score and 6 difference scores. Girls had a higher base rate than boys. The difference scores indicate a significant main effect due to E bias for girls but not for boys. Results do not support (a) the hypothesis of a greater bias effect in the social than in the nonreinforcement condition, or (b) a cross- or same-sex effect for the neutral Es. Results are related to previous studies of social reinforcement in children. (23 ref.)—*Journal abstract.*

7863. Ehlert, Roger C. (U. Iowa) **Children's lever pulling as a function of intertrial interval and visual stimulus change.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1534.

7864. Ferraris, Anna. (U. Torino, Inst. of Experimental & Social Psychology, Turin, Italy) **Effetti del linguaggio dell'adulto sul pensiero e sul linguaggio del fanciullo.** [The effects of adult language on thinking and language of the child.] *Rivista di Psicologia Sociale e Archivio Italiano di Psicologia Generale e del Lavoro*, 1970(Jan), Vol. 37(1), 3-22.—The verbal help of a grown-up influences operational and verbal solutions of 5-6 yr. olds in different ways, according to the frequency and manner of intervention. A type of verbal guidance helped specifically in lowering the frequency of mistakes made during test performance. (French & English summaries)—L. L'Abate.

7865. Flapan, Dorothy & Neubauer, Peter B. (Teachers Coll., Columbia U., Psychological Consultation Center) **Issues in assessing development.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 669-687.—Presented some of the difficulties and problems encountered in a study of the development of children attending community nursery schools, and suggested directions for further investigations of children's development. Among the issues considered are: the conceptualization of health, the problems of validity and reliability, the prediction of developmental progression and postdiction, the role of symptoms, the determination of developmental interference, and the

definition of variations in development. Implications of these issues for clinical diagnosis, treatment, and judgments concerning the development of the children in a community are discussed. The criteria used to determine which children need treatment and to decide on the choice of treatment technique for a particular child are questioned, and the broader question of recommendations for community mental-health programs is examined.—*Journal summary.*

7866. Herzka, Heinz S. (Child Psychiatric Service of the Zürich Cantons, Switzerland) **Die Bedeutung der Spielsachen für die Reifung des Kindes.** [The meaning of toys for the maturation of children.] *Heilpädagogische Werkblätter*, 1970(Sep), Vol. 39(5), 225-231.—Toys are an example for the meaning that objects can possess for the development and education of children. The meaning can be divided into functional and educational values. Educational values influence the logical, esthetic, emotional, and ethical development of the child, while functional values concern the environmental situation (living architecture, playground layout) as well as the planning, manufacture, and sales of toys in a narrower sense. Toys are of similar value as books and other educational and informative media engender.—R. F. Wagner.

7867. Hirschhorn, Theodora. (Inst. for Emotional Education, New York, N.Y.) **Jacob's log: On teaching a two-year-old to handle fear.** *Journal of Emotional Education*, 1969(Spr), Vol. 9(2), 69-75.—Defines discipline as "teaching the child to recognize and handle his needs." Teaching the child to discipline himself is 1 of the objectives at the Institute for Emotional Education. A log book is presented which illustrates the steps and progress in teaching a 2 yr. old to cope with fear.—B. A. Stanton.

7868. Hoffman, Martin L. (U. Michigan) **Conscience, personality, and socialization techniques.** *Human Development*, 1970, Vol. 13(2), 90-126.—Divided 7th graders with internal moral orientations into humanistic and conventional groups on the basis of moral judgment responses. A 3rd group oriented toward detection and punishment (external) was also selected. The humanistic and conventional Ss were found similar to each other and higher than the external on guilt, confession, acceptance of blame, and parent identification; their parents were reported to express affection and use induction discipline more frequently, and power assertion less frequently. The major differences were (a) the humanistic Ss appeared more tolerant of antimoral impulses, (b) more apt to experience guilt as a direct result of awareness of consequences of their behavior for others, and (c) more identified with personal characteristics of their parents. Their parents' discipline techniques were more varied. The conventional Ss appeared to be more repressed, more apt to experience guilt as a result of their own impulse expression rather than the harm done to others, and more identified with the power aspect of the parental role. Their parents' discipline was characterized by frequent use of love withdrawal and inductions highlighting the harm done to the parent by the child's action. The differences, especially on the guilt and repression indexes, were more pronounced for boys than girls. Findings are discussed and interpreted in terms of a general analysis of the discipline encounter and the attempt was made to link them with trends among today's youth. (27 ref.)—*Journal abstract.*

7869. Kogan, L. N. (Ed.) *Molodēzh, eē Interesy, stremeniya, idealy*. [Youth, its interests, strivings, ideals.] Moscow, USSR: Molodaya Gvardiya, 1969. 431 p.—Presents a collection of 17 sociological and social psychological papers, read at the 1967 All-Union Scientific Theoretical Conference on Socialism and Youth held in Moscow.—I. D. London.

7870. Kohlberg, Lawrence. (Harvard U.) *The child as a moral philosopher*. *Psychology Today*, 1968(Sep), Vol. 2(4), 25-30.—A 12-yr study of the moral development of 75 boys supported the theory that moral thought develops in a stage sequence independently of specific experience. The 3 stages are: preconventional (an orientation toward punishment and self-needs), conventional (obedience to rules and support of the social order), and postconventional (espousal of principles that have generality beyond the group). Cross-cultural comparisons suggested that the general sequence is not altered by the culture although the rate of progression through the stages may be different.—E. J. Posavac.

7871. Laurence, Joan E. *White socialization: Black reality*. *Psychiatry, Washington, D.C.*, 1970(May), Vol. 33(2), 174-194.—Asserts that political socialization is a process beginning in childhood, and a number of definitions are discussed. 178 black and 821 white children from 5th, 6th, and 8th grade integrated classes filled in a questionnaire in March, 1968. Feelings of general efficacy within the political system and information on politics is constant among younger black and white Ss, but older black Ss had less information and felt less efficacious than whites. A number of specific variables are questioned including feelings for minority groups, responses to black power, trust of policemen, and the Vietnam war. Attempts to increase political socialization of blacks is seen to be futile as long as what is taught is in contrast to the reality of their lives. 2 suggestions for reducing polarization and immunizing conflict between the races are (a) intensifying efforts for socialization of white children in the area of racial realizations, and (b) changing attitudes of black children by changing the reality of their circumstances.—E. M. Uprichard.

7872. MacMillan, Donald L. & Keogh, Barbara K. (U. California, Riverside) *Effects of instructional set on twelve-year-old children's perception of interruption*. *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 106.

7873. Marsden, Gerald. (U. Michigan, Medical Center) *Intelligence and the Rorschach whole response*. *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 470-476.—Previous research on the relation between intelligence and Rorschach whole (W) responses has produced inconclusive results. The problem was reexamined with methodological improvements. Ss were 58 8-14 yr. old boys. Rorschach W responses were coded to H. Friedman's developmental scoring system, and response frequencies in these categories were correlated with WISC IQ and subtest scaled scores. IQ scores were significantly related to 1 of 2 types of developmentally advanced W responses as predicted ($r = .33$), and no meaningful pattern of correlations was found between the developmentally more primitive types of W responses and IQ. (31 ref.)—*Journal abstract*.

7874. McKeever, Walter F. & Huling, Maurice D. (Ventura County Mental Health Dept., Calif.) *Lateral dominance in tachistoscopic word recognitions of*

children at two levels of ability. *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 600-604.—Studied monocular tachistoscopic word recognition performance as a function of word placement to the right or left of fixation in 20 7th grade children. $\frac{1}{4}$ the Ss possessed normal reading skills, while the other $\frac{1}{4}$ read at a 3rd grade level. Words directed to the left cerebral hemisphere (right field words) were recognized significantly more often ($< .005$) in both groups than words channeled to the right hemisphere. The result supports the view that right field recognition superiority reflects the language specialization of the left hemisphere rather than training of the left hemiretinae through the acquisition of reading proficiency.—*Journal abstract*.

7875. Peto, Andrew. (Albert Einstein Coll. of Medicine, Yeshiva U.) *To cast away: A vestibular fore-runner of the superego*. *Psychoanalytic Study of the Child*, 1970, Vol. 25, 401-416.

7876. Rabinowitz, F. Michael & DeMyer, Sandra. (Tulane U., Newcomb Coll.) *Stimulus and response alternation in young children*. *Developmental Psychology*, 1970(Jan), Vol. 4(1, Pt. 1), 43-54.—Investigated in 3 experiments the stimulus and response alternation of 72 preschool and 66 kindergarten children. Of major interest are the findings that (a) stimulus alternation decreased as stimulus meaningfulness increased, (b) stimulus alternation increased as stimulus discriminability increased, (c) response alternation increased as stimulus discriminability decreased for kindergarten Ss but decreased for preschool Ss, (d) stimulus alternation remained relatively constant across trial blocks for kindergarten Ss but decreased across trial blocks for preschool Ss, (e) response strategies were more pronounced in girls than boys, and (f) choice latencies were faster on stimulus-alternation trials than on stimulus-repetition trials with the more discriminable pair of stimuli.—*Journal abstract*.

7877. Siegel, Alexander W. & McBurney, Donald H. (U. Pittsburgh) *Estimation of line length and number: A developmental study*. *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 170-180.—96 children from 6-13 yr. old and 16 adults matched handgrip force to length of lines and verbally presented numbers. Slopes of the matching functions increased with age, with the greatest differences in slope being found between 11-13 yr. on both tasks. Response variability was not a function of age, indicating that in spite of systematic differences among age levels, the method used has promise for the assessment of perceptual and cognitive skills of young children whose facility with the ratio properties of numbers cannot be assumed. *Journal abstract*.

7878. Swingle, Paul G. & Condy, Henry V. (McGill U., Montreal, Quebec, Canada) *Social class, age, and the nature of the incentive in children's lever-pressing performance*. *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 41-48.—96 middle class (MC) and lower class (LC) 6-, 10-, and 15-yr-old schoolchildren lever pressed for a 2 min. practice, followed by a 5-min session reinforced on a fixed-interval 30-sec schedule with money, a verbalism ("good"), both money plus "good," or nothing. Results indicate that MC sensitivity to verbal incentive and LC sensitivity to monetary incentive become pronounced as the child grows older since no differences between LC and MC were found for the youngest Ss. Data also suggest that sensitivity to the reinforcing properties inherent in a task does not develop

as rapidly in LC as in MC Ss. (French summary)
—*Journal abstract.*

7879. Vijftigschild, W., Berger, H. J., & van Spaendonck, J. A. *Interpretatie en greep op de werkelijkheid van alledag: een sociale interpretatie test.* [Intelligence and the grasp of everyday life reality; A social interpretation test.] *Gawein*, 1969(Jun), Vol. 17(4), 161-171.—Constructed a Social Interpretation Test which provides information about a child's individual response to situations arising in daily life. Binet's work was used as a basis. An attempt was made to develop a type of test that would satisfy psychometric conditions, and allow the S a margin of freedom. 1 finding is that S's scores gained in this test do not necessarily agree with the level of general intelligence as expressed in an IQ score.—*English summary.*

7880. White, Elliott. (Temple U.) *Intelligence, individual differences, and learning: An approach to political socialization.* *British Journal of Sociology*, 1969(Mar), Vol. 20(1), 50-68.—Proposes a general 4-stage model of political socialization, based on the principle that socialization involves a mutual interaction between the child and his environment. The 1st facet of the political socialization process is considered to be the agents of socialization: the family, church, school, peers, mass media, etc. These agents act on the child through the 2nd aspect of the process—learning—according to generally accepted (connectionist or cognitive) principles. Developmental theory, the 3rd facet, is also applicable to political socialization and suggests the importance of cognitive aspects of learning. If the 4th facet, cognitive abilities, is indeed paramount, then individual differences in political socialization can be traced to differences in conceptual or cognitive ability. Specifically, it is asserted that the politically active, as opposed to passive, individual tends to be more intelligent, cognitively more abstract and conceptual, more internally motivated, and personally more effective.—K. G. Shaver.

7881. Yoshikawa, Tomizo; Yagishita, Toyoko, & Matsuda, Yaeko. (Mukogawa Women's U., Nishinomiya, Japan) *Color-mood associations in young children.* *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 57-58.—Previous research by other investigators found a close relationship between mood-tone and color choice among nursery school children. An attempt was made to determine if Japanese children of the same age had "good" color-mood associations. Ss were 307 children from 3 kindergartens and 1 nursery school, about evenly divided by sex. Ages ranged from 5-6½ yr. Apparatus consisted of 2 crayons of different color, white paper with a drawing of a girl on it, and 2 short stories, 1 sad, 1 happy. Some Ss heard the former, the others the latter. Ss colored the girl's dress with either crayon they chose. No significant sex differences were obtained. A chi-square test indicated a mood-color choice relationship.—R. D. Nance.

Learning

7882. Brown, Richard A. (Michigan State U.) *The effect of alternating social approval comments and tangible rewards on task performance of kindergarten children.* *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1530.

7883. Burt, David L. & Knull, W. D. (U. Alberta, Edmonton, Canada) *A comparative study of different*

modes of presentation on efficiency of learning and retention. *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 149-156.—Studied the problem of learning and retention with special consideration given to single channel presentation modes. 120 8th graders were exposed to 1 of 3 learning tasks (paired associates) and were posttested for retention on a strict schedule. The learning tasks were presented with a constant printed word stimulus. The responses were printed words, pictures, and spoken words depending on the experimental treatment group. Students in the picture response group made correct associations with fewer errors and retained information over the 7-day period significantly better than did the other 2 experimental groups.—*Journal abstract.*

7884. Flavell, John H., Friedrichs, Ann G., & Hoyt, Jane D. (U. Minnesota) *Developmental changes in memorization processes.* *Cognitive Psychology*, 1970(Oct), Vol. 1(4), 324-340.—Studied developmental changes in 2 broad classes of memory-related phenomena using nursery school, kindergarten, and 2nd and 4th grade children as Ss: (a) the production and strategic deployment over time of various types of memorization activities; (b) S's knowledge concerning his own memory. With regard to the former class, only the older Ss tended to show a specific, fairly complex memorization strategy when given unlimited time to study a set of items to the point of perfect serial recall. The strategy appeared to consist of first naming the items to oneself to initiate the learning process, and of subsequently using systematic anticipation and rehearsal procedures to monitor and maintain one's gradually increasing state of recall readiness. As for the latter class, the older Ss were likewise better able than the younger ones, both to predict their own memory span in advance of any concrete memorization experience, and to assess their readiness to recall after such experience. It is concluded that the 2 phenomena are intimately interrelated in the older child's memorization activities and that the nature and development of S's knowledge and awareness of his own memory system is a particularly important and timely research problem.—*Journal abstract.*

7885. Fleming, James T. (U. California, Graduate School of Education, Los Angeles) *Oral language and beginning reading: Another look.* *Reading Teacher*, 1968(Oct), Vol. 22(1), 24-29.—In confirming the relation between oral language and beginning reading assumptions about both the nature of language and the reading act must be clear. As a substantial part of developing sound programs, more research is needed wherein the instruments used to measure reading achievement or language development, must incorporate some of the relatively recent findings of linguistic research. It is concluded that in any rank ordering of language priorities or objectives, there would seem to be no debate about placing competence in reading well ahead of the acquisition of language etiquette. (22 ref.)—P. D. Leedy.

7886. Frith, Uta. (Medical Research Council Developmental Psychology Unit, London, England) *Memory coding for binary sequences in children.* *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 618-630.—10 3-5 yr. old children with a short memory span and 10 5-7 yr. old children with a long memory span recalled binary word sequences of different structure. It was found that the difficulty of recall was mainly determined by the run structure but not by the cyclicity of the sequences. Incorrectly recalled

sequences were systematically analyzed in terms of 2 supposed coding mechanisms, i.e., feature extraction and pattern imposition. It could be demonstrated that certain features of the presented sequences were preserved while others usually were not. While the extracted feature served as a basis for reconstruction of the sequence in recall, the obtained sequences showed in addition certain characteristics which appeared to be unrelated to the input. Some differences in the efficiency of coding were found between 4 and 6 yr. olds. However, it appeared that the coding strategies were similar at lower and higher levels of memory capacity and development. —*Journal abstract.*

7887. Haaf, Robert A. (U. Connecticut) **Cue and incentive motivational properties of reinforcers in children's discrimination learning.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1564.

7888. Kamil, Michael L. (U. Wisconsin) **Memory for parallel structure and repeated items in compound sentences and digit, letter, and word strings.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 930.

7889. Kendler, H. H. & Kendler, T. S. (U. California, Santa Barbara) **Developmental processes in discrimination learning.** *Human Development*, 1970, Vol. 13(2), 65-89.—Reviews the discrimination-learning behavior of children which indicates that 2 general theoretical orientations have been mainly responsible for guiding recent research, the mediational-attention conception, and a coordinated single-unit and mediational stimulus-response formulation. Results from discrimination-shift studies are analyzed in terms of these 2 models and the influence on discrimination learning of verbal labels and other forms of symbolic representational responses are discussed. (72 ref.)—*Journal abstract.*

7890. King, Mary L. (U. Mississippi) **The effectiveness of social reinforcement on a motor performance of Negro preschool children as a function of socioeconomic level.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1540-1541.

7891. Levin, Joel R. (Wisconsin Research & Development Center, Madison) **Factors related to the sentence facilitation of paired-associate learning: Some characteristics of verbs.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 431-439.—Reports 2 paired-associate learning experiments with 75 6th graders. On the study trials, the to-be-learned paired associates were embedded in 3-word sentences of the form noun-verb-noun. Ss were cued for recall of the 2nd noun by either the 1st noun (N), the verb (V), or the 1st noun plus the verb (N + V). Results show that: (a) the type of test cue provided made a difference, with N and N + V producing better recall than V; (b) neither prelearning instructions nor the amount of implied activity of the verb connectives had an effect on performance; and (c) the usual finding that sentence-embedded paired associates are easier to learn than nonsense paired associates was not demonstrated. (24 ref.)—*Journal abstract.*

7892. Muñoz Perez, Francisco. (U. Barcelona, Spain) **Actividad de organización y capacidad de aprendizaje verbal en el niño de ocho a doce años.** [Organization and learning in an 8 to 10 year old child.] *Anuario de Psicología*, 1970, Vol. 1(2), 65-84.—Performed an experiment of free recall learning on 3 groups of 16 normal children, ages 8-13, from an all boys school

in Paris. 13 different 1-min tests, consisting in recalling in writing a list of 12 2-syllable meaningful words, were administered to these Ss. The order of words varied each time. Results show that (a) learning increased according to age, though not in every case; (b) learning occurred throughout the experiment and that the test factor was important; (c) there were no basic differences of learning development among the 3 groups; (d) organization increased progressively with the tests in all 3 groups; and (e) the data established by organization increased with each age group. It is concluded that: (a) organization and the amount of words learned increased with each test; (b) the Ss who organized more were those who learned more words; (c) as of the age of 8, a child is able to spontaneously develop a method of organizing material to be learned; (d) this organization is a factor (though not the only 1) at every age level which determines the number of words learned; (e) there is a correlation between the development of a capacity for organization between the ages of 8 and 12 and a capacity for learning; and (f) the development of the organization process is greatly responsible for the development of learning and determines its progress and stability between the ages of 8 and 10. (17 ref.)—*S. Maze.*

7893. Neville, Mary H. (Trinity Coll. of Education, Leeds, England) **Effect of reading method on the development of auditory memory span.** *Reading Teacher*, 1968(Oct), Vol. 22(1), 30-35.—The analysis of treatments by learning levels showed that the main effect for memory span for learning levels was significant at the .001 level. Results support the earlier findings of the development of memory span during the 1st mo. of school. Results indicate a positive association between reading and memory span. A comparison of the effects of the reading method on the development of memory span during beginning reading and the relationship between memory span and reading may be affected by the manner in which the child reads.—*P. D. Leedy.*

7894. Westcott, Page. (Yale U.) **Age differences in strategies for free recall.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1577.

7895. Williams, Eddie H. (U. Southern California) **Effects of readiness on incidental learning in EMR, normal, and gifted children.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 117-119.—Investigated the effects of readiness on incidental learning among 30 educable mentally retarded (EMR), 30 normal, and 30 gifted Ss who were equated on CA (84-119 mo.). Ss were divided into readiness and nonreadiness treatment groups. The incidental learning stimuli were presented with the intentional learning materials. The criterion measure was based on the incidental learning task. When readiness was given, EMR, normal, and gifted Ss did not differ in incidental learning; when readiness was not given, they did. Readiness was found to benefit EMR and normal Ss while it had no effect on gifted Ss.—*Journal abstract.*

Concepts & Language

7896. Brainerd, Charles J. & Allen, Terry W. (U. Windsor., Div. of Developmental Psychology, Ontario, Canada) **Experimental inductions of the conservation of "first-order" quantitative invariants.** *Psychological Bulletin*, 1971(Feb), Vol. 75(2), 128-144.—Reviews experiments that have attempted to train Piaget's concrete conservations. Pertinent theoretical and meth-

odological issues are summarized. Empirical questions are posed concerning: (a) whether or not conservations are trainable, (b) what training methods are most effective, (c) whether or not specific transfer of training occurs, (d) whether or not nonspecific transfer or training occurs, (e) whether or not some conservations are more resistant to extinction than others, and (f) whether or not "natural" conservers are more resistant to extinction than trained conservers. On the basis of currently available data, reasonably complete answers to questions a, b, c, and e are advanced, and judgment is reserved on questions d and f. (58 ref.)—*Journal abstract.*

7897. Bresnahan, Jean L. & Blum, William L. (Emory U.) **Chaotic reinforcement: A socioeconomic leveler.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 89-92.—Presented 60 1st grade children from 2 different socioeconomic levels with a concept-acquisition problem after either 0, 6, or 12 trials of random reinforcement. The overall performance of high socioeconomic level Ss was superior to low socioeconomic level Ss, but results also indicate a significant interaction between socioeconomic level and number of random reinforcements. With an increase in the number of random reinforcements, the behavior of high socioeconomic level Ss deteriorated to the same level as low socioeconomic level Ss. The experimental manipulation of prior reinforcements produced low socioeconomic level behavior in high socioeconomic level Ss. Data are interpreted as further evidence that the inconsistent reinforcement histories of low socioeconomic level children contribute to their typical ineffectual performance.—*Journal abstract.*

7898. Bronckart, J. P. (U. Liège, Lab. of Experimental Psychology, Belgium) **Le rôle régulateur du langage chez l'enfant: Critique expérimentale des travaux d'A. R. Luria.** [The regulatory role of language in the infant: An experimental critique of A. R. Luria's studies.] *Neuropsychologia*, 1970(Nov), Vol. 8(4), 451-463.—Attempts to verify experimentally results obtained by A. R. Luria (see PA, Vol. 36:4GH48L) in his studies on the regulatory role of language, and to analyze the results more deeply. 12 experiments, standardized with 67 normal 1½-6½ yr. old Ss, were conducted. In the 1st series of tests, inspired directly by those of Luria, the importance of other people's language in the initiation of this regulation is demonstrated by showing the precise moment when these functions appear. In the 2nd series, the role of the language of the child himself, is studied trying to evaluate separately the evolution of motor and verbal responses, before deciding on the eventual effect of 1 type of response on the other. It is demonstrated that the regulatory role of language of the child is only important in those situations in which verbal development precedes motor development. This role can only be ascribed to vocal emission which, eventually, reinforces a positive motor act of the same rhythm. (German summary)—*English summary.*

7899. Brown, Lynn K. (Yale U.) **Developmental differences in the effects of stimulus complexity on concept identification performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1516.

7900. Di Vesta, Francis J. & Walls, Richard T. (Pennsylvania State U.) **Factor analysis of the semantic attributes of 487 words and some relationships to the conceptual behavior of fifth-grade children.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6,

Pt. 2), 1-15.—Presents mean ratings of 487 words on 8 semantic differential scales by 5th grade Ss and on Emotionality, Concreteness, and Imagery scales by 15 undergraduates. Frequency counts, primary associates, and probability of association were summarized from other sources where available. The 4 factors of evaluation, activity, concreteness, and potency were extracted via a factor analysis of the intercorrelations among the 11 scales. For emotionally neutral words, but not for affectively polarized words, there was a moderate correlation between evaluation factor scores and imagery, and between imagery of a word and its probability of association with its primary associate. Semantic factor scores of stimulus words were moderately correlated with semantic factor scores of their primary associates when opposites were excluded. Several experiments, in which these norms have been employed, are described together with the implications of the findings for understanding the emergence of affective meaning systems. (56 ref.)—*Journal abstract.*

7901. Grimmer, Sadie A. (U. Arizona) **The influence of ethnicity and age on solving Twenty Questions.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 143-144.—Contrasted 156 males belonging to 2 low income ethnic groups with 40 white males of a middle income ethnic group and evaluated them for categorizing, strategy, and conceptual tempo via the game of Twenty Questions. Age and socioeconomic status were found to influence level of performance. The only dependent measure affected by ethnicity was tempo rate.—*Author abstract.*

7902. Hornby, Peter A., Hass, Wilbur A., & Feldman, Carol F. (U. Chicago) **A developmental analysis of the "psychological" subject and predicate of the sentence.** *Language & Speech*, 1970(Jul), Vol. 13(3), 182-193.—Studied the early development of the distinction between the "psychological" subject and predicate and to determine its relationship to the grammatical subject and predicate distinction. In the 1st task, 8 kindergarten and 8 2nd grade Ss selected the most important word in each of several sentences. In the 2nd task, 2 more groups of Ss at the same age levels produced opposites for the same set of sentences. It was found that, the younger Ss' responses could be accounted for by factors of semantic features of individual words, the older Ss consistently centered on the grammatical predicate as the locus of opposition and most important word. This shift to the predicate in the older Ss was characterized by an emphasis on the verb. (19 ref.)—*Journal abstract.*

7903. Kasdorf, C. A. & Schnall, M. (Rice U.) **Developmental differences in the integration of picture series: Effects of variations in object-attribute relationships.** *Human Development*, 1970, Vol. 13(3), 188-200.—Studied the effects on integration of variables which contextualize picture series in terms of everyday life: object familiarity and appropriateness of attribute change to the object. Also, integration of color, shape, and position changes were compared. 176 Ss in 3 age groups (mean ages: 6.8, 11.11, 19.7) were subdivided into matched groups; each viewed series manifesting a different contextuality condition: familiar object-appropriate (FA) change, familiar object-inappropriate (FI) change, and geometric object-attribute change same as in other conditions (G). Integration was found to increase between 6 and 11 yr.; varied with contextuality condition (FA>FI>G), different contextuality condi-

tions being the focus of challenge for different age groups; and was less for color changes than for shape or position changes.—*Journal abstract.*

7904. Klahr, David & Wallace, J. G. (Carnegie-Mellon U.) **An information processing analysis of some Piagetian experimental tasks.** *Cognitive Psychology*, 1970(Oct), Vol. 1(4), 358-387.—1 of the fundamental problems in the study of cognitive development is the determination of the developmental relationship between particular cognitive skills. An indication of its complexity is provided by the research literature centered on Piaget's concept of a "stage" in intellectual development. The first steps in an attempt to tackle this issue from a new methodological orientation based upon an information processing analysis are presented. A simple model of the problem-solving processes which appear to underlie successful performance on a range of experimental tasks testing concrete operations is described. It is analogous to a computer assembly system, with the major processes consisting of encoding of external stimuli, assembly of a task-specific routine from a repertoire of fundamental processes, and execution of the task-specific routines sufficient to perform successfully are described in terms of the fundamental processes. It is argued that since the complex task-specific routines consist of components that contain motivational and attentional mechanisms, no simple ordering of concrete operational tasks can be expected. Some new directions for experimental work are suggested. (24 ref.)—*Journal abstract.*

7905. Marsh, Jayne & Fitch, James. (Central State Hosp., Milledgeville, Ga.) **The effect of singing on the speech articulation of Negro disadvantaged children.** *Journal of Music Therapy*, 1970(Fal), Vol. 7(3), 88-94.—"1 of the greatest deficits of the culturally deprived child is in the area of communication and language skills . . . This deficit becomes a crucial barrier when the child is to be educated outside his usual environment, as in the plight of the southern Negro child newly placed in an integrated educational situation . . . Although much attention has been given to the language deficits of the culturally disadvantaged child by various socially-oriented professions, the field of music therapy has not yet developed its potential in this area. It is conceivable that any language program for the disadvantaged would greatly stress oral language skills . . . and singing would seem to be a valuable tool in teaching such skills to children. Few references can be found in the music therapy literature which pertain to the use of music in the improvement of speech patterns." An attempt was made to determine the effect of singing specially composed music on: (a) the articulation of ending consonants as pronounced in continuous speech by southern Negro children, and (b) the syllabic frequency in continuous speech of southern Negro children. Ss were 30 4th, 5th, 6th graders. Although the results were not statistically significant, it is felt there was enough improvement in certain areas to warrant further research. (15 ref.)—*F. O. Triggs.*

7906. Masland, Mary W. & Case, Linda W. **Limitation of auditory memory as a factor in delayed language development.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 139-142.—Describes some of the facets of auditory memory involved in the recall of verbal language. 4 aspects of auditory memory are considered: temporal span, temporal se-

quence, temporal patterning of pitch, rhythm and stress, and patterning of phonetic detail. The interrelationships of these aspects within the linguistic framework of what K. S. Lashley called serial order temporal integration are brought out. Illustrations from the case histories of preschoolchildren delayed in language development are presented.—*Journal abstract.*

7907. Morra Pellegrino, M. L. & Garibbo Giuganino, B. M. (U. Genoa, Inst. of Psychology, Italy) **Confronto di alcuni indici psicolinguistici applicabili al linguaggio scritto e orale in età evolutiva.** [The confrontation of some psycholinguistic indications applicable to the written and oral language in the evolutive age.] *Rivista di Psicologia Sociale e Archivio Italiano di Psicologia Generale e del Lavoro*, 1970(Jan), Vol. 37(1), 99-108.—The Buseman verbs/adjectives ratio and the Osgood-Walker nouns and verbs/adjectives and adverbs ratio showed an increase with increasing age with 90 9-, 11-, and 14-yr-old Ss. The Buseman ratio seemed more appropriate than the latter in its application to developmental stages. (English & French summaries)—*L. L'Abate.*

7908. Pascual-Leone, Juan. (York U., Toronto, Ontario, Canada) **A mathematical model for the transition rule in Piaget's developmental stages.** *Acta Psychologica, Amsterdam*, 1970(Aug), Vol. 32(4), 301-345.—Conceptualizes Piaget's cognitive-developmental variable as a quantitative construct, the central processor M. The set measure of M, i.e., the maximum number of discrete chunks of information or schemes that M can control or integrate in a single act, is assumed to grow in an all-or-none manner as a function of age in normal Ss. The M measure is taken as the quantitative characteristic of each developmental stage. M values for the Piagetian stages were inferred from Piagetian data and postulated as experimental hypotheses. A new compound-stimuli visual information (CSVI) type of task was designed for testing quantitatively the M construct. The stochastic model used for these predictions in the CSVI task is the Bose-Einstein occupancy model of combinatorial analysis. Successful results from 2 different series of studies with 5, 7, 9, and 11 yr. olds are reported. In addition, the manifestation at the performance level of the hidden parameter M is shown to be mediated by a number of moderator variables. (4 p. ref.)—*Journal abstract.*

7909. Sapon, Stanley M. (U. Rochester, Verbal Behavior Lab.) **Contingency management in the modification of verbal behavior in disadvantaged children.** *IRAL: International Review of Applied Linguistics*, 1969(Feb), Vol. 7(1), 37-49.—Reports modification of verbal behavior of 10 2.5-3.5 yr. old nursery school children. Individual acceptable responses were rewarded with tokens that could be used to operate timed, self-terminating, audiovisual reinforcing devices. Contingency management (CM) procedures were transferred to the general school area, as well as the functioning of a token economy during play and mealtime. It is concluded that (a) disadvantaged Ss did not display any striking differences in response to CM procedures that have been successfully applied to middle class Ss, (b) the strategies involved in training seem valid, and (c) verbal behavior in very young Ss was amenable to modification under CM procedures. (French & German abstracts)—*M. West.*

7910. Schludermann, Shirin & Schludermann, Eduard.

(U. Manitoba, Winnipeg, Canada) **A comparative factorial analysis of semantic structures in monolingual Indian and American school children.** *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 79-92.—430 monolingual, Hindi-speaking elementary school children in India and 200 English-speaking Ss in the United States rated 15 concepts on 15 bipolar semantic scales. Factor analyses yielded a bifactor common space for the United States sample, and 3- and 4-factor space for the 8- and 12-yr-old Ss, respectively, in the Indian sample. The common denominator, evaluative, potency, and activity semantic space, was observed in both cultural samples. The 2 sample factor structures showed evidences of factorial congruence. Between sample factorial dissimilarities are suggested to be due to Culture-Concept-Scale interactions. (French summary)—*Journal abstract*.

7911. Schweitzer, Thomas M. & Schnall, M. (Brandeis U.) **Sequence effects in the abstraction of the concept of progressive change.** *Human Development*, 1970, Vol. 13(3), 201-202.—Descriptions of changes as opposed to states are viewed as reflecting an abstract integrative conceptualization when S applies them to picture series depicting steps in the progressive alteration of an object's attributes. 1 concrete-familiar (A) and 3 geometric series (B, C, D) were used, where B, C, and D were respectively decreasingly similar to A. 125 Ss, mean age 7.5 yr., were divided into groups which viewed 1 of the sequences: ABD; ACD; ADD; BAD; BDD. Descriptions of D served as the test trial. S's descriptions were significantly affected by ordering of experiences from concrete to geometric and by similarity between the 1st 2 orienting series. Within the age range studied, suggestive tendencies differentiating oldest and youngest Ss were observed.—*Journal abstract*.

7912. Taylor, Ann. (U. Toronto, Inst. of Child Study, Ontario, Canada) **Followup of institutionalized infants' concept formation ability at age 12.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 441-447.—Describes a study, made previously by A. Taylor (see PA, Vol. 45:Issue 5) demonstrating that the normal sequence of conceptual development was reversed in 10 children reared for the 1st 3 yr. of life in an institution. The reversal occurred between the ages of 6 and 9. A further study made at age 12 indicates that by then Ss had demonstrated an ability to relearn a more mature conceptual approach. It is noted that the 2 most important steps in the retraining of inadequate cognitive processes were destimulation of the environment and the opportunity to regress to infantile and preschool levels of conceptualization.—*Journal abstract*.

7913. Vasić, Smiljka. **Jedna kvalitativna analiza dečjeg rečnika sa stanovišta psiholingvistike.** [A qualitative analysis of children's vocabulary from the standpoint of psycholinguistics.] *Psihologija*, 1969(Sep), Vol. 2(2), 400-420.—Investigated active children's vocabulary obtained from free essays written by elementary school children in Serbia and the United States. By means of the trend analysis, and the correlational and cluster analysis, the psychosemantic area of the active vocabulary of the Ss in these 2 linguistically and economically different environments was determined. Certain semantic universalities typical for children of elementary school age were determined. It was established that of the 100 observed nouns from the semantic atlas the words used with greatest frequency were home, man, sun, mother, water, meat, bird, river, and hand. The

only difference found was that Serbian Ss placed the word, home, 1st, while American Ss placed the word, mother, 1st. All kinds of nouns have an ascending trend in both vocabularies, the coefficient of direction being sharpest for the concrete nouns. A descending trend was found only for certain singular nouns typical for early childhood and for different economic environments. An even trend was observed for the nouns related to food-stuffs. Psychosemantic area of children's vocabulary is made up of 4 separate discrete groups: man, home, mother, and abstract nouns, which are highly correlated among themselves, but each represents a distinct psychosemantic whole. Irrespective of economic, cultural, social, and linguistic differences, there exists a certain fund of words which has the same dynamics of the development of use, conditioned by general development and growth of the child. It is concluded that different environmental conditions influence a child's vocabulary.—*English summary*.

7914. Zern, David. (Vassar Coll.) **The "mental step" hypothesis in solving verbal problems: Effects of variations in question-phrasing on a grade school population.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 103-104.

Abilities

7915. Bannatyne, Alex D. & Wichiarajote, Penny. (U. Illinois, Inst. for Research on Exceptional Children) **Relationships between written spelling, motor functioning and sequencing skills.** *Journal of Learning Disabilities*, 1969(Jan), Vol. 2(1), 4-16.—Reports research on relationships between spelling ability, motor functioning, and various auditory and vocal skills with 50 3rd grade, 8-yr-old schoolchildren. (18 ref.)

7916. Bemelmans, F. (U. Laval, Quebec, Canada) **L'analyse clinique des aptitudes par les tests.** [Clinical analysis of aptitude by tests.] *Bulletin de Psychologie Scolaire et d'Orientation*, 1970(Mar), Vol. 19(1), 24-49.—Discusses aptitude prediction on the basis of Raven's Progressive Matrices Test, which is comprised of 38 matrices. It was administered to 371 9-yr-old Ss, 534 10-yr-old Ss, 575 11-yr-old Ss, and 457 12-yr-old Ss. Age norms and correlations between scholarly performance and test answers were correlated and discussed. Significant correlations were observed and described as items trying to form a "chain." Specific correlations between series and items were interpreted. It is concluded that the test is a useful tool for assessing normal development. (English summary)—*P. R. Shibleski*.

7917. Haber, Ralph N. (U. Rochester) **Eidetic images.** *Scientific American*, 1969(Apr), Vol. 220(4), 36-44.—Reports studies in the identification and examination of children possessing capacity for eidetic imagery. Approximately 20 2nd-6th grade children with apparent eidetic capacity were chosen from 500 tested for this ability. Questions by E regarding the eidetic image and Ss' responses were tape recorded, and an example of 1 child's verbal report of a picture just presented to him is included. Visual stimuli included composite pictures with vivid colors and objects, nonsense words, a succession of letters in a viewing window, and visual illusions, e.g., the Necker cube. Results confirm the presence of eidetic imagery. Characteristics of the recognition and fading of images are summarized.—*P. McMillan*.

7918. Keogh, Barbara K. (U. California, Los Angeles) **Pattern copying under three conditions of an expanded spatial field.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 25-31.—75 boys and 60 girls (CAs 8-9) copied patterns by drawing and by walking in an expanded spatial field under 3 conditions: no defined reference points, reference points, and reference points plus visual tracking cues. Drawing differences among groups are nonsignificant. Boys were significantly better than girls in reproducing patterns by walking under 2 of 3 walking conditions. Boys improved in pattern walking across conditions as more visual cues were available; girls did not. Differences were reflected in objective scores and in styles of pattern walking. Findings suggest a sex difference in perceptual strategies in the organization of space.—*Journal abstract.*

7919. Kovacevic, Panta. **Standardizacija Kohn-Goldsteinovog Testa (modifikacija N. Granjon i H. Santucci).** [Standardization of the Kohn-Goldstein Test.] *Psihologija*, 1969(Sep), Vol. 2(2), 483-492.—Tested 400 7-10 yr. old elementary school children in Belgrade by Kohn's Block Design Test to determine the norms, the differences in achievement between Ss of different age, sex, and area of residence, and the metric characteristics of the test. It was established that there were no significant differences in the achievement on the test between Ss 7-8 and 8-9 yr. old, while the difference between Ss 9-10 yr. old was significant. Despite the fact that boys' mean scores are higher, the differences between the boys and the girls are not significant, with the exception of the subsample of 7-yr-olds from the suburbs. The achievement on the test of urban Ss is higher at the age of 7 and 9, while the differences for other age groups are not significant. As for the norms, a satisfactory solution had not been found so that when certain irregularities appeared, a single scale was proposed for the age of 7, 8, and 9, and a separate scale for the age of 10. Item analysis reveals that the models were not in satisfactory order in respect to difficulty of solution. By means of the mean correlation item-test, the reliability of the test was computed: $r_{tt} = .93$. Validity was estimated on the basis of the correlation between the test scores and 4 school ratings. Analysis of Ss behavior reveals typical errors in the task-solving process: (a) apraxis in construction, (b) erroneous orientation, (c) erroneous selection of colors, (d) use of smaller number of blocks for the construction of models, and (e) insufficiency of abstraction. High percentage of ego-centric speech was noted in some Ss. The concrete and the abstract levels of the problem-solving were distinguished.—*English summary.*

7920. Lauten, Doris A. (U. North Carolina, Greensboro) **The relationship between intelligence and motor proficiency in the intellectually gifted child.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1521.

7921. McDonald, Marjorie. **Transitional tunes and musical development.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 503-520.

7922. Ramos Lopez, Elba C. (U. "Inca Garcilaso de la Vega," Lima, Peru) **Adaptacion de los subtests de vocabulario de las escalas de inteligencia Stanford-Binet Forma L-M y Wechsler para niños.** [Adaptation of the vocabulary subtest of the Stanford Binet (Form L-M) and Wechsler for children.] *Revista de Psicologia General y Aplicada*, 1970(Jan), Vol. 25(102), 53-68.—Reports on just the translated vocabulary subtest of

the Stanford Binet Form L-M and the WISC. 301 6-15 yr. olds of both sexes were selected randomly from the primary school system in Callao, Peru. The average performance of children in Callao was much less on the translated words than the norms on the original words for children in the United States. The mental ages and numbers of words known on the 2 tests correlated .68 and .74, respectively, showing only a moderate degree of equivalence. With restrictions as noted, the tests can be used with these tentative norms.—*D. H. Schuster.*

7923. Stevens, Joseph H. (George Peabody Coll. for Teachers) **Visual attending behavior and information processing ability in kindergarten age children as a function of socioeconomic status, type of preschool education, length of preschool education, and stimulus complexity.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1551.

7924. Turnure, James E. (U. Minnesota) **Control of orienting behavior in children under five years of age.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 16-24.—Investigated the capability of young high-ability children to cope with extraneous distractive stimuli during performance on a 2-choice discrimination task. In Study I, 3.3-yr-old nursery school Ss in a noise condition exhibited significantly greater nontask orienting and significantly poorer learning than controls. In 40 Ss (3-9 and 4-9 yr. old) converse results prevailed, as the learning of noise condition Ss was enhanced compared to controls, and they exhibited less nontask orienting. In Study II with 28 Ss, an explanation of the previous results based on possible habituation to noise in the classroom prior to testing was investigated and found deficient. Results are interpreted as placing constraints on traditional views of children's distractibility, and as indicating that existing interpretations of the development of attentive abilities in children, based on an increasing attention span, need elaboration or reformulation. (24 ref.)—*Journal abstract.*

7925. Wooster, Arthur D. (U. Nottingham, Inst. of Education, England) **Testing the ability to respond to verbal instructions.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 156-160. Presents a method of investigating the young child's ability to understand and respond to verbal instructions, which does not require speech from the child. 64 5-5.5 yr. old children were employed and data is presented which enables some assessment of noncooperation, failure to learn, or the formation of idiosyncratic forms of usage to be made. The technique is shown to be valid and reliable over time.—*Journal abstract.*

Perception

7926. Bryden, M. P. (U. Waterloo, Ontario, Canada) **Laterality effects in dichotic listening: Relations with handedness and reading ability in children.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 443-450. Investigated dichotic listening performance in 234 children in Grades 2, 4, and 6. Right-ear superiority increased with age in right-handers and decreased with age in left-handers, the difference between right- and left-handers reaching significance at Grade 6. Generally, girls showed the adult pattern of ear dominance earlier than boys. In a subsample of 90, the relation between laterality effects and reading ability was investigated. Boys who were poor readers were more likely to show crossed ear-hand dominance than were boys who were good readers, but

this effect was only evident in 2nd grade girls. (French & German summaries) (21 ref.)—*Journal abstract*.

7927. Munroe, Robert L. & Munroe, Ruth H. (Pitzer Coll.) **Effect of environmental experience on spatial ability in an East African society.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 15-22.—Exploratory testing revealed that Logoli male children were more skillful than female children on maze tests and in the construction of diagonals. It was hypothesized that extensive movement through the environment (noted casually for males) might lead to enhanced spatial ability. An observational study of 30 3-7 yr. old Logoli children indicates that in free time boys were farther from home than age matched girls. It was also found that Ss who were farther from home were more skillful at the spatial task of copying block patterns. Possible contributions of innate sex and sex-role differences to male environmental experience and spatial abilities are discussed. (16 ref.)—*Author abstract*.

7928. Pedersen, Darhl M. & Pedersen, Nancy O. (Brigham Young U.) **The relationship between pitch recognition and vocal pitch production in sixth-grade students.** *Journal of Research in Music Education*, 1970(Fal), Vol. 18(3), 265-272.—54 6th graders were administered tests designed to measure knowledge of (a) musical symbols, (b) pitch discrimination, and (c) ability to vocally produce a pitch sounded on an instrument. Results indicate a significant relationship between b and c, a significant correlation between a and c, but an insignificant correlation between a and b, and insignificant differences in scores related to sex of Ss.—D. Higbee.

7929. Venger, L. A. **Vospriyatle i obuchenie.** [Perception and learning.] Moscow, USSR: Prosveshchenie, 1969, 368 p.—Presents the principles of perceptual development in preschoolchildren, and a psychological evaluation of the different methods of perceptual and sensory training, applied in current preschool pedagogy.—J. D. London.

7930. Vicinanza, Paul J. (U. North Carolina, Greensboro) **The effects of recency and varied amounts of auditory habituation on the novel stimulus selection behavior of lower and middle class kindergarten children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1576.

Personality

7931. Cook, Ruth E. (U. California, Los Angeles) **Relation of achievement motivation and attribution to self-reinforcement.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1560.

7932. Cropley, A. J. & Feuring, Elsie. (U. Saskatchewan, Regina, Canada) **Training creativity in young children.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 105.

7933. Epstein, Ralph & Komorita, S. S. (Wayne State U.) **Self-esteem, success-failure, and locus of control in Negro children.** *Developmental Psychology*, 1970(Jan), Vol. 4(1, Pt. 1), 2-8.—Evaluated personality and situational parameters related to internal-external control by investigating self-esteem and success-failure treatments. A 3 × 2 factorial design was employed with 20 4th-6th grade Negro boys in each of 6 experimental conditions. Results confirm the predictions that (a) failure rather than success experiences were attributed to external causes, and (b) high-self-esteem Ss were more

internal than low- or moderate-esteem Ss. Results imply that the belief in one's powerlessness, arising from membership in a stigmatized minority group, may be cushioned by a positive self-concept. (25 ref.)—*Journal abstract*.

7934. Foster, Josephine A. (U. North Carolina, Greensboro) **Variations in levels of aspirations of children grouped by class, race, sex and grade level.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1517-1518.

7935. Hebble, Peter W. (Rutgers State U.) **The development of elementary school children's judgment of intent.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1518-1519.

7936. Levinson, Boris M. (Yeshiva U., Ferkauf Graduate School of Humanities & Social Sciences) **Pets, child development, and mental illness.** *Journal of the American Veterinary Medical Association*, 1970(Dec), Vol. 157(11), 1759-1766.—Pets may play a crucial role in a child's emotional development and abort mental illness, particularly in homes devoid of affection and emotional security. A pet aide, particularly a dog, may satisfy the child's need for physical contact without fear of undesirable emotional entanglements that accompany contact with human beings. A program of action involving pets as mental hygiene assets is envisaged.—*Author abstract*.

7937. Nagera, Humberto. (Michigan U.) **Children's reactions to the death of important objects: A developmental approach.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 360-400.

7938. Nagera, Humberto. (U. Michigan, Medical Center) **The imaginary companion: Its significance for ego development and conflict solution.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 165-196.

7939. Neuringer, Charles & Livesay, Robert C. (U. Kansas) **Projective fantasy on the CAT and CAT-H.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 487-491.—Compared the Children's Apperception Test (CAT) and its "human" equivalent the CAT-H for amounts of evoked projective fantasy in children. The 2 tests were given to 30 4th grade children of high, moderate, and low anxiety. The protocols were scored for 5 indices of productivity. They were (a) number of words, (b) number of emotional words, (c) number of expressed negative emotions, (d) adaptive mechanisms, and (e) Transcendence Index. Results indicate that there is little to choose between the 2 tests in terms of stimulating fantasy production. Neither was there a Test Form × Anxiety Level interaction found. (16 ref.)—*Journal abstract*.

7940. Pérez T., Aurora. **Relaciones objetales y etapas evolutivas.** [Object relations and evolutive stages.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 227-232.—270 children were evaluated for prevalent complaints at different age levels and sex. All Ss were seen individually, in private practice. 174 were males and 96 were females, of normal intelligence, with an age range from birth to 12 yr. Dynamic, evolutive hypotheses were made, with emphasis on the status of the integration of object relations with the whole process of integration of the mental apparatus. The implications for therapy procedures are discussed.—*English summary*.

7941. Poultney, Joan M. (U. Maryland) **An exploration of possible relationships between self-reinforcement, self-concept and performance.** *Dis-*

sertation Abstracts International, 1970(Sep), Vol. 31(3-B), 1522.

7942. **Ruvinskii, L. I.** *Vospitanie i samovospitanie shkol'nikov*. [Training and self-training of school-children.] Moscow, USSR: Prosveshchenie, 1969. 184 p.—Considers (a) the interconnection between training and self-training in the development of the young personality in school, and (b) the pedagogical bases for the development of self-training.—*I. D. London*.

7943. **Schwebel, Andrew I. & Bernstein, Andrew J.** (Ohio State U.) **The effects of impulsivity on the performance of lower-class children on four WISC subtests.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 629-636.—Assessed the performance of 18 lower-class boys on 4 WISC subtests under 2 conditions of test administration, the standard 1 and 1 in which an imposed latency period was included. Ss generally did better in the latter condition, suggesting that the nature of the stimulus task affected the quality of the response produced. (23 ref.)—*Journal abstract*.

7944. **Seltz, Willi & Metzelder, Lothar.** (28 Friedrichstrasse, Würzburg, W. Germany) **Empirischer Beitrag zum Zusammenhang von HAWIK-Leistungen mit Persönlichkeitsvariablen.** [An empirical contribution concerning the connection between HAWIK scores and personality variables.] *Psychologische Beiträge*, 1970, Vol. 12(1), 127-146.—40 male 11-13 yr. old students answered a German version of Form A of the Children Personality Questionnaire (CPQ). Ss were also given the action section of the HAWIK Test. Between 12 personality factors, 10 HAWIK subtests, and several HAWIK indices correlations were calculated. Significant relations were found between certain personality traits and certain HAWIK subtests and indices. Results correspond to findings concerning the personality diagnostic interpretations of the Wechsler Test. The limited applicability of results and the necessity for comparative experiments are discussed. (18 ref.)—*English summary*.

7945. **Seltzer, Aida R.** (Temple U.) **The relationship between moral development and the development of time perception and time conceptualization in lower class Negro children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1524.

7946. **Weinheimer, Sidney S.** (New York U.) **Egocentrism and social influence in children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1525-1526.

7947. **Wren, Karen T.** (Florida State U.) **Two familial antecedents of cognitive styles in young children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1526-1527.

Social Behavior

7948. **Anan'ev, B. G. & Kerimov, D. A.** (Eds.) **Sotsial'nye problemy molodëzhi.** [Social problems of youth.] Leningrad, USSR: Leningrad U., 1969. 200 p.—Presents a collection of 19 articles, reporting the results of sociological and social psychological studies on Soviet youth. The methodology of interdisciplinary research is also discussed. The collection constitutes Issue 6 of *Chelovek i Obshchestvo* [Man and Society].—*I. D. London*.

7949. **Berkowitz, Leonard.** (U. Wisconsin) **Impulse, aggression and the gun.** *Psychology Today*, 1968(Sep), Vol. 2(4), 19-22.—Compared to controls, angry college

students and nonaroused children exhibited more aggression toward a confederate and a hypothetical older child, respectively, after being casually exposed to guns. Other studies using films indicated that exposure to violence, especially "justified" violence, also increases aggression. It is concluded that exposure to violence, and violence-related cues does not have a cathartic effect, and that if a society wishes to reduce violence, it must remove "cues that can set off aggressive acts."—*E. J. Posavac*.

7950. **Fouts, Gregory T.** (U. Iowa) **Imitation in children: The effects of an audience and number of presentations.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1563.

7951. **Hegion, Ada G.** (U. Minnesota) **Role playing and communication: A developmental study.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1537.

7952. **Philippe, N. & Winnykamen, F.** (Sorbonne, Genetic Psychology Lab., Paris, France) **Etude de la nature et de l'évolution des loisirs en fonction de l'âge et du milieu familial chez des filles d'âge scolaire.** [Study of the nature and change of leisure time as a function of age and family milieu of school age children.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 92-102.—Examined the types of leisure activities of 80 7-13 yr. old girls from families of 2 contrasting socioeconomic and sociocultural family levels (laborer-skilled worker vs. professional-administrative). By chi-square analysis the following hypotheses were tested: (a) at a given age, girls' leisure activities are different according to their parents' sociooccupational level; (b) developmental change in leisure activities with age is not the same with respect to all leisure categories considered; (c) developmental change with age for a given leisure category is different according to sociooccupational level; and (d) the diversity of leisure activities at a given age is greater in the higher level group than in the lower. Results show that age is the most important factor in leisure activities, but that sociooccupational level also influences both the quantitative and qualitative aspects of leisure activities. (29 ref.)—*T. N. Webster*.

7953. **Zaffy, Donna J.** (U. South Carolina) **Help-seeking behavior in second, fourth, and sixth grade Negro boys of low and middle socioeconomic status.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 908.

Parent-Child & Family Relations

7954. **Anthony, E. James & Benedek, Therese.** (Eds.) (Washington U., Medical School) **Parenthood: Its psychology and psychopathology.** Boston, Mass.: Little, Brown, 1970. xxiv, 617 p. \$15.—Focuses on parenthood in context of the biologic and environmental evolution of human behavior. The authors present material from a range of interrelated fields but maintain a consistent psychobiologic approach.

7955. **Barnett, Suzanne E.** (Michigan State U.) **Anxiety and negative feeling: Children's perceptions of family members.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1529.

7956. **Baumrind, Diana.** (U. California, Berkeley) **Current patterns of parental authority.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 2), 1-103.—Attempted (a) to replicate or modify parent-child relationships found in 2 previous studies by D. Baumrind

(see PA, Vol. 41:5780) and D. Baumrind and A. E. Black (see PA, Vol. 41:10271); and (b) to differentiate further among patterns of parental authority and measure their effects upon the behavior of preschool children. Data were based upon observational procedures, and were analyzed for boys and girls separately. Ss were 146 white preschool children and their families. Results include the following: (a) authoritative parental behavior was clearly associated with independent, purposive behavior for girls but only associated with such behavior for boys when the parents were nonconforming; (b) authoritative parental control was clearly associated with all indexes of social responsibility in boys compared to authoritarian and permissive parental control, and with high achievement in girls, but not with friendly, cooperative behavior; and (c) contrary to expectations, parental nonconformity was not associated with lack of social responsibility in either boys or girls. (45 ref.)—*Journal abstract*.

7957. Baumrind, Diana. (U. California, Berkeley) **Harmonious parents and their preschool children.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 99-102.

7958. Bell, Richard Q. (National Inst. of Mental Health, Child Research Branch, Bethesda, Md.) **Stimulus control of parent or caretaker behavior by offspring.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 63-72.—Asserts that the child's contribution to parent-child interaction has been equated in the past with congenital and genetic factors, and thus neglected by socialization theorists who reacted with extreme environmentalism against instinct theory and other biological extensions of the theory of evolution. As a result, most investigators have considered the child an object on which parental actions are registered, rather than a participant in a social system, stimulating as well as being stimulated by the other. As a corrective, a way of thinking about the child's stimulus effects is advanced and applied to parent-child interactions observed in home settings. (35 ref.)—*Journal abstract*.

7959. Bernhardt, David K. (Ed.) (Carleton U., Ottawa, Ontario, Canada) **Karl S. Bernhardt: Being a parent: Unchanging values in changing world.** Toronto, Ontario, Canada: U. Toronto Press, 1970. x, 187 p. \$2.50(paper).

7960. Chu, Cheng-ping. (National Taiwan U., Taipei) **A study of the effects of maternal employment for the preschool children in Taiwan.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 80-100.—Compared 20 mothers who were employed with 20 who were not employed, each with a child in kindergarten. All Ss were of average or above average socioeconomic status and were interviewed, using a modified form of the Mother's Interview Schedule of R. R. Sears and Y. M. Wang. Data indicate that working mothers (a) give less time and personal care to their children and are less responsive to the child's crying; (b) are less strict toward the child's general behavior, but more strict toward eating and toilet training processes; (c) give more praise for obedience but may punish for dependency; (d) have higher self-esteem as individuals; and (e) delegate more housework and child care to their husbands. It is noted that the children of working mothers appear to demand more attention and need more love than children of non-working mothers. A reproduction of the Mother's Interview Schedule is included.—*P. McMillan*.

7961. Halpern, Florence. (Tufts-Delta Health Center, Mound Bayou, Miss.) **Self-perception of black chil-**

dren and the civil rights movement. *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 520-526.—Describes black parents' identification with or rejection of the civil rights movement as a source of confusion to their children, especially the middle-class child whose father has "made it." For all black children the movement provides a channel through which to express positive or negative feelings for the parents.—*Journal abstract*.

7962. Levenstein, Phyllis. (Mother-Child Home Program, Freeport, N.Y.) **Cognitive growth in preschoolers through verbal interaction with mothers.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 426-432.—Compared general and verbal IQs derived by the administration of the Cattell or Stanford-Binet Intelligence Scales and the Peabody Picture Vocabulary Test to 3 groups of 20-43 mo. old low-income preschoolers before and after exposure of the experimental group (N = 33) to 7 mo. of home sessions stimulating verbal interaction in mother-child dyads. The experimental group made highly significant cognitive gains in contrast to the 2 comparison groups of 21 Ss. (21 ref.)—*Journal abstract*.

7963. Medioli Cava, Franca. (U. Turin, Graduate School of Psychology, Psycho-Pedagogy, & Pedagogy, Italy) **Espressioni proiettive dell'ambiente sociale ed economico nel test della famiglia.** [Projective expressions of the social and economic environment in the family test.] *Rivista di Psicologia Sociale e Archivio Italiano di Psicologia Generale e del Lavoro*, 1970(Jan), Vol. 37(1), 23-52.—Social and economic factors tend to affect the number of members in Corman's Draw-a-Family Test. Southern, immigrant children, and children from lower socioeconomic levels tended to eliminate members of their families. (French & English summaries)—*L. L'Abate*.

7964. Poznanski, Elva; Maxey, Annette, & Marsden, Gerald. (U. Michigan, Children's Psychiatric Hosp.) **Clinical implications of maternal employment: A review of research.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 741-761.—Reviews in developmental sequence, the maternal-employment literature published since 1960, highlighting issues relevant to clinical work with children and families. It was found that: (a) studies in this area have produced few hard facts; (b) the effects of maternal employment probably depend on the developmental stage and ego maturity of the child; (c) maternal employment may increase dependency behavior and sexual identity problems, especially among lower-class children and under adverse conditions of intrafamilial strife; (d) generally, school achievement, particularly reading, is enhanced by maternal employment; (e) although maternal employment places stress on the family, it can be tolerated, and in some situations appears beneficial; and (f) inherent family stability is more important than maternal employment. It is noted that most authors in this area are women, and it is suggested that "women's motivation to study this problem may possibly spring from guilt as well as genuine concern with children, and perhaps a degree of feminism." (42 ref.)—*M. Maney*.

7965. Rothbart, Mary K. (U. Oregon) **Birth order and mother-child interaction in an achievement situation.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 113-120.—Investigated hypotheses about birth order and the antecedents of adult

achievement by observing mother-child interactions in a laboratory setting. Ss were 56 5-yr-old boys and girls and their mothers; $\frac{1}{2}$ of the children had a same-sex sibling who was approximately 2 yr. older than himself, and $\frac{1}{2}$ had a same-sex sibling, 2 yr. younger. Mothers supervised their child's performance on 5 tasks, and mother-child interaction data were examined as they related to birth order and sex of child. No differences were found in the amount of time mothers spent interacting with their children. In terms of the quality of interaction, however, mothers gave more complex technical explanations to 1st born children. They also exhibited greater pressure for achievement and greater anxious intrusiveness into the performance of the 1st born, with these findings accentuated in the mother's behavior toward the 1st girl. (18 ref.)—*Journal abstract.*

1966. Seitz, Willi; Wehner, Ernst G., & Henke, Margarete. (U. Würzburg, Psychological Inst., W. Germany) **Zusammenhänge zwischen elterlichem Erziehungsstil und Persönlichkeitszügen 7- bis 8 jähriger Jungen.** [The relationship between parental style of education and personality characteristics 7- to 8-year old boys.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(3), 165-180.—Investigated intercorrelational and factor-analytic relations among several personality traits and parental attitudes toward child rearing. Ss were 42 7-8 yr. old male students. All of the 4 rotated factors showed covariance between children's personality and parental child-rearing attitude. As a personality measure, a German version of Coan and Cattell's Early School Personality Questionnaire was used. (English summary)—*R. F. Wagner.*

1967. Stapf, Kurt H. (U. Marburg, Inst. of Psychology, W. Germany) **Praktische Erfahrungen mit dem Messmodell von Rasch bei der Konstruktion von erziehungsspezifischen Einstellungsskalen.** [Practical experiences with Rasch's metric model in the construction of specific attitude scales.] *Psychologische Beiträge*, 1970, Vol. 12(1), 105-114.—Reports the construction of scales for determining parental behavior with G. Rasch's logistic test model. The advantages of scaling frequency and intensity previous to the essential application of the model are discussed. As an example a 9-item scale concerning punishment behavior is described. The strict criteria of the model are sufficiently valid for these items. (16 ref.)—*English summary.*

1968. Starr, Philip; Taylor, Delores A., & Taft, Ruth. (Child & Family Services of Connecticut, Hartford) **Early life experiences and adoptive parenting.** *Social Casework*, 1970(Oct), Vol. 51(8), 491-500.—Studied 340 couples with latency age adopted children regarding their characteristics at the time they adopted the child, their own early childhood experiences, and their current parent-child relationships. Responses were used to classify Ss into 2 distinct groups, and a sample was selected from each for intensive interviews. Early life experiences of the adoptive couples were found to be only minimally associated with their performance as parents. The adoptive couples tended to reinforce their own disciplinary experiences as children with their adoptive child. No relationship was found between nature of infertility and performance as parents. A substantial number of the children experienced behavioral difficulties in school and home.—*M. W. Linn.*

1969. Winkelmann, Wolfgang. **Verstärkung, Löschung und andere Erziehverhaltensweisen:**

Eine Befragung zu einem hypothetischen Erziehungsproblem. [Reinforcement, extinction and other means of educational behavior: A survey regarding a hypothetical educational problem.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(3), 181-196.—208 students of a teacher training college were asked 2 questions concerning a hypothetical educational situation. Among other things, they had to suggest a parental attitude which they regarded as efficient so that the crying of a child would disappear when the mother leaves the room. Results show that only 16-21% of the students surveyed adhered to a strict reinforcement-extinction concept. There were significantly fewer answers implying extinction for the 1st question than were for the 2nd which had asked the students to conjecture about the previous behavior of the mother. (English summary) (15 ref.)—*R. F. Wagner.*

ADOLESCENCE

1970. Aarons, Z. Alexander. **Normality and abnormality in adolescence: With a digression on Prince Hal: "The sowing of wild oats."** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 309-339.

1971. Duffy, Robert J. (U. Connecticut) **Description and perception of frequency breaks (voice breaks) in adolescent female speakers.** *Language & Speech*, 1970(Jul), Vol. 13(3), 151-161.—Made a phonelesopic investigation of the pitch characteristics of 24 11-, 13-, and 15-yr-old females. Data descriptive of the incidence, extent, and upper and lower limits of phenomena known as frequency breaks (voice breaks) are presented. Data are discussed and compared with similar data from other studies of males and females of various ages. Judgments by 5 trained listeners indicated that frequency breaks are not perceived as a pitch phenomenon, but are associated with the perception of "rough" vocal quality. Results are discussed in relation to vocal fry and harshness.—*Journal abstract.*

1972. Graff, Harold. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **The development of the adolescent.** *Pennsylvania Psychiatric Quarterly*, 1970(Spring), Vol. 10(1), 27-32.—States that adolescence itself is not an illness, that the great majority of children pass successfully through it with minimum problems and go on to become healthy adults. Though adolescent rebellion is a widely publicized, much discussed phenomenon, most adolescents become very much like their parents in outlook. The truly rebellious problem students are a small number, the majority of students participating in rebellious activities only for a good time and to be part of the crowd. From the sociological viewpoint, the problem adolescent is the product of injudicious permissiveness who cannot tolerate any form of restriction, becoming violent and destructive when thwarted, i.e., the extension of the childlike tantrum which brought satisfaction of his desires. From the psychiatric viewpoint, he has failed to develop inner controls and thus is incapable of tolerating frustration by finding effective and nondestructive ways of achieving his desires.—*M. Walker.*

1973. Harrison, Danny E., Bennett, Walter H., & Globetti, Gerald. (Mississippi State U.) **Attitudes of rural youth toward premarital sexual permissiveness.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 783-787.—Describes a comparative analysis of the premarital sexual attitudes of 83 white and 49 Negro

rural high-school students in a Southern community. As indicated by other studies, the degree of affection present in a relationship was a major factor in determining acceptability of advanced sexual activity. Neither Negro nor white Ss displayed a widespread predisposition toward promiscuous behavior. Several variations between the racial systems in the sociocultural factors which influence attitudes of permissiveness were noted. —*Journal abstract.*

1974. Hornbeck, Frederick W. (San Diego State Coll.) **Studies in forced compliance: IX. The effects of deception, commitment, and incentive on attitude change produced by the writing of a counter-attitudinal essay.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 63-72.—Studied 418 junior high school students, assigned to 1 of 8 conditions defined by the orthogonal variation of deception, commitment, and incentive. Although previously recognized conditions for the production of cognitive dissonance were met in at least some cells, Ss paid \$1.50 evidenced more attitude change than those paid \$.25 ($p < .001$). Patterns of within-cell correlations suggest that attitude change occurs as a result of self-persuasion during the process of role playing when conditions do not lead Ss to dissociate themselves from the content of their acts. When Ss do dissociate, attitude change may be effected by the perceived consequences of the act through "fait accompli" dissonance reduction. (16 ref.)—*Author abstract.*

1975. Keniston, Kenneth. (Yale U., Medical School) **Student activism, moral development, and morality.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 577-592.—Reviews recent studies of the development of moral reasoning and suggests optimism about the high level of moral development of most student activists. However, it is warned that any level of moral development in "the absence of a developed capacity for compassion, empathy, and love for one's fellow man" is dangerous. (46 ref.)—*Journal abstract.*

1976. Murray, Randall L., Cole, Richard R., & Fedler, Fred. (U. Minnesota) **Teenagers and TV violence: How they rate and view it.** *Journalism Quarterly*, 1970(Sum), Vol. 47(2), 247-255.—Data were gathered from questionnaires, telephone interviews, and content and regression analyses. From their definitions of violence and ratings of prime-time TV programs on the basis of violent content, teen-agers categorized violence into physical, mental, and verbal types, and generally defined violence as a "senseless phenomenon." Amount of violence viewed was defined as the product of frequency of viewing and violence ratings of programs divided by total programs watched. High and low users of violent content were rated on alienation and 11 other variables. Sex was the best predictor of violent viewing; males viewed more violent content. There was little relationship between alienation and viewing of violence. Relatively few teen-agers spent large amounts of time viewing TV. (18 ref.)—*J. A. Kline.*

1977. Philips, Irving & Szurek, Stanislaus A. (U. California, Medical School, San Francisco) **Conformity, rebellion, and learning: Confrontation of youth with society.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 463-472.—Describes clinical experience related to the confrontation of youth with society and hypothesizes that in our society the satisfaction associated with early successful learning is reduced and distorted during each developmental phase, so that

subsequent and continued learning is similarly affected. The inevitable frustration may be expressed by youth in the context of rebellion, alienation, and over-conformity. (16 ref.)—*Journal abstract.*

1978. Yagoda, Gerald R. (New York U.) **The relation of degree of emotional conflict to age and sex differences in adolescents.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1554-1555.

1979. Zytoskee, Adrian; Strickland, Bonnie R., & Watson, James. (Emory U.) **Delay of gratification and internal versus external control among adolescents of low socioeconomic status.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 93-98.—Compared the responses of 76 Negro and 56 white 9th grade adolescents of low socioeconomic status concerning belief in internal vs. external control of reinforcement and delay of gratification under high- and low-status conditions. Negro Ss were significantly more likely to be external and less likely to delay gratification than their white counterparts. A Sex \times Race interaction approached significance with the difference between Negro and white females greater than the difference between Negro and white males in both internality-externality and delay of reinforcement. No relationship was found between internal-external control or the status conditions and delay behavior. (30 ref.)—*Journal abstract.*

ADULTHOOD & OLD AGE

1980. Dias Cordeiro, J. (Gulbenkian Foundation, Bel-Air Psychiatric Clinic, Geneva, Switzerland) **Les idées délirantes de préjudice.** [The delirious ideas of prejudice.] *Annales Médico-Psychologiques*, 1970(May), Vol. 1(5), 719-734.—Aged people often will ascribe to others' attacks on their personal property, health, or reputation. Although some writers attribute these prejudicial ideas to projection onto others of actions that the patient has himself performed but forgotten, it is asserted that memory defect is not essential. The phenomena may be understood by a psychodynamic perspective on the anxious and depressed state of pathological aging and the patients' need to defend against progressive deterioration. By displacing the anxiety to physical objects (finding them to be deteriorated or stolen), the patient compensates for his own deterioration. He becomes a center of interest for others and regards himself as a good object, i.e., worthy of being robbed. The patient is both the subject and the object of theft-by-aging. (English summary)—*H. E. King.*

1981. Green, Russel F. & Reimanis, Gunars. **The age-intelligence relationship: Longitudinal studies can mislead.** *Industrial Gerontology*, 1970(Sum), No. 6, 1-16.—Investigated the age-intelligence relationship in order to standardize a Spanish-language WAIS. Results indicate that an education-balanced group manifested no decline in performance due to age. As a check on this result which seemed to nullify several studies, a re-examination—and extension—of a longitudinal study was instituted. Ss, residents of a Veterans Administration hospital, had a mean CA at 1st testing of 57.15; at 2nd, 66.17; and at 3rd, 73.41. 1st and 2nd testing had been done by a PhD clinical psychologist and a testing technician using the WAIS. The 3rd testing was done by 2 MA psychologists using the Wechsler-Bellevue. Environmental and policy changes of the facility changed from the 1950s through the 1960s, improving motivation

for the 3rd testing. In the "under-65" retesting, the group as a whole averaged a decrease of 1 IQ point/yr. In the "over-65" group the annual decrease averaged .56 point/yr. Longitudinal studies are not necessarily more reliable for tracing age-related changes than certain other approaches.—A. M. Cawley.

7982. Kangas, Jon A. (Washington State U.) **Intelligence at middle age.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1520.

7983. Kostolanský, Rudolf. (Comenius U., Bratislava, Czechoslovakia) **K otázke prístupov k vývinovému procesu psychiky v období starnutia.** [On the question of psychical development in the period of aging.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 83-88.—Discusses approaches to the study of man's development during the period of aging, supposing the term "development" to be applicable in a teleological, historical, empirical, and intellectual sense. The theory of inverse development is rejected and the human organism is regarded as a system moving in time with functional levels of physiology and biology showing a decline. Though they are being determined by these levels, psychical functions may have a relative autonomy in this system, participating in the determination of maintenance activity up to the end of life. (Russian & German summaries) (15 ref.)—*English summary*.

7984. Zubick, Howard H. (Michigan State U.) **The relationships among speech reception threshold, auditory discrimination, speaker intelligibility, and the total number of articulation errors in a geriatric population.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1589.

SOCIAL PSYCHOLOGY

7985. ———. **Comments and queries: What social, what psychology, in social psychology?** *Psychological Record*, 1970(Sum), Vol. 20(3), 403-407.—Examines the nature of social psychology and its relation to general psychology and sociology. It is suggested that the discipline could more accurately be called cultural psychology; and that "cultural psychology should be devoted to the investigation of a particular type of behavior acquired in interaction with objects and conditions" that have derived their unique properties in various "artifactual environments."—S. Knapp.

7986. Anan'ev, B. G. & Kerimov, D. A. (Eds.) **Chelovek i obshchestvo.** [Man and society.] Leningrad, USSR: Leningrad U., 1969. 168 p.—Presents a collection of 19 articles on problems in sociopolitical management, problems in social planning, social and psychological problems of youth, and problems in the psychology of work. The collection constitutes Issue 5 of *Uchenye Zapiski* [Scientific Notes].—I. D. London.

7987. Campbell, Donald T., et al. **Experimental and quasi-experimental studies.** In E. R. Tuft (Ed.), "The quantitative analysis of social problems." (See PA, Vol. 45:Issue 5) 110-167.

7988. Chadwick-Jones, J. K. (University Coll., Cardiff, Wales) **Recent interdisciplinary exchanges and the use of analogy in social psychology.** *Human Relations*, 1970(Aug), Vol. 23(4), 253-261.—Social science disciplines are showing an increasing tendency to cross disciplinary lines and to develop areas of shared interest. Methods developed in 1 area of research are

being fruitfully applied in others. Theoretical analogies are being extended empirically to other areas of research interest, e.g., application of biological and engineering analogies to control of social variables. (49 ref.)—W. W. Meissner.

7989. Codol, J. P. (Centre National de la Recherche Scientifique, Social Psychology Lab., Aix-en-Provence, France) **Note terminologique sur l'emploi de quelques expressions concernant les activités et processus cognitifs en psychologie sociale.** [Terminological note on the use of certain expressions concerning cognitive activities and processes in social psychology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 63-71.—The description and study of cognitive activities and processes plays an increasingly important role in all divisions of present-day social psychology. Unfortunately, the special theories established in this field utilize terminological constructions at times so diverse that it is not rare, e.g., for a single fact to be designated by several different terms. The aim of this terminological note is to propose, concerning current usage of certain expressions in what may be conveniently called "cognitive theories," traditionally considered as relevant to social psychology (e.g., structural equilibrium, congruence principle, theory of cognitive dissonance, formation of impressions, implicit theory of personality, etc.), a simple and clear system designed to unify the vocabulary without attempting to discuss the theories as to content or implications. (62 ref.)—*English summary*.

7990. Marshall, James. **The evidence: Do we see and hear what it is? Or do our senses lie?** *Psychology Today*, 1969(Feb), Vol. 2(9), 48-52.—Sources of inaccuracy in the courtroom testimony of a witness include: the stress the witness was under during the event, the completion of forgotten details on the basis of what was remembered, the tendency to make inferences to unobserved events, the role played by the witness, the possible use of hypnotic suggestion, and the amount of information requested of the witness. Witnesses who changed testimony compared to those who did not change, and those who were suspicious of a line of questioning compared to those who were not, tended to give more accurate reports. It is urged that lawyers and social scientists conduct joint research on the validity of trial processes.—E. J. Posavac.

7991. Rapoport, Amos. (U. Sydney, New South Wales, Australia) **Symbolism and environmental design.** *International Journal of Symbolism*, 1970(Apr), Vol. 1(3), 1-9.—After pointing out the minor role of symbolism in environmental design, it is suggested that most building is essentially symbolic and some examples are given. It is further suggested that symbols play an important role in the way man perceives, evaluates, and shapes his environment. Given this apparent importance of symbols the question posed is why have contemporary designers neglected them. Some suggestions are made based on the distinction between the perceptual and associational worlds and the prevalence of idiosyncratic rather than shared symbols. Some implications of this are discussed. (26 ref.)—*Journal abstract*.

7992. Serraf, Guy. (U. Paris, School of Higher Commercial Studies, France) **Le psychologue et la recherche appliquée.** [The psychologist and applied research.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 12-28.—Surveys the situation of the social psychologist in business, industry, and administration with respect to applied research, examining: (a) the present

status of applied psychological research; (b) the various fields of application of applied psychological research; (c) the tasks, duties, and methods of "psychosociologists"; (d) their background and training; (e) problems posed by the role of the research psychologist; and (f) communications and conditions of the integration of social psychologists within organizations. The educational standards, career prospects, and criteria for success and promotion of social psychologists engaged in applied research are appraised.—*T. N. Webster.*

1993. Tufte, Edward R. (Ed.) (Princeton U.) **The quantitative analysis of social problems.** Reading, Mass.: Addison-Wesley, 1970. 449 p. \$6.95(paper).

1994. Zdravomyslov, A. G. **Metodologiya i protsedura sotsiologicheskikh issledovanii.** [Methodology and procedure of sociological research.] Moscow, USSR: Mysl', 1969. 207 p.—Analyzes the methodological and technical procedures used in sociological and social psychological research. Illustrative use is made of recent materials gathered by field investigators in Moscow, Leningrad, and Novosibirsk.—*I. D. London.*

CULTURE & SOCIAL PROCESSES

1995. Bridger, Wagner H. (Pavlovian Society, Princeton, N.J.) **Pavlovian principles and social issues.** *Conditional Reflex*, 1970(Jul), Vol. 5(3), 180-184.—Discusses the relevance of the concepts and methods of Pavlovian research to crucial issues facing man in society and concludes that they are applicable. It is suggested that the study of higher nervous activity can shed light on social problems. Concepts discussed as illustrative of this viewpoint include signalization, individual differences in temperament, and the 2nd signal system.—*P. McMillan.*

1996. Brody, Eugene B. (U. Maryland) **Migration and adaptation: The nature of the problem.** *American Behavioral Scientist*, 1969(Sep), Vol. 13(1), 5-13.—Discusses the adaptation of migrant, his way of establishing and maintaining a stable, reciprocal relationship with his new environment in terms of intrapsychic and interpersonal elements. These are constantly in play during the process of migration as it involves changes in attitudes, relationships, and behavior and a move across physical space and social system boundaries. Special attention is paid to the interrelationship between donor system and host system factors, as they mutually influence each other, the migrant and his family.—*Journal summary.*

1997. Cohen, Rosalie A. (U. Pittsburgh) **Conceptual styles, culture conflict, and nonverbal tests of intelligence.** *American Anthropologist*, 1969(Oct), Vol. 71(5), 828-856.—Focuses on (a) incompatibility in conceptual styles as a notable indicator of culture conflict and on the characteristics that distinguish it from deprivation and culture difference, and (b) styles of conceptual organization as culture-bound characteristics of nonverbal intelligence tests. Evidence is presented of the reciprocal relationships between conceptual styles and styles of primary group process. (16 ref.)—*Journal summary.*

1998. Eaton, Joseph W. (U. Pittsburgh) **Reaching the hard-to-reach in Israel.** *Social Work*, 1970(Jan), Vol. 15(1), 85-96.—Analyzes the nature and impact of voluntary programs for adolescents and discusses the characteristics of the hard-to-reach, culturally deprived poor who are usually children of parents born in

Afro-Asian countries. Data were obtained from a questionnaire survey of adolescents in a metropolitan suburb in Israel. It is concluded that although these Ss are consistently underrepresented in youth group activities, a noteworthy proportion can be reached when special efforts are made to include them.—*Journal abstract.*

1999. Ekman, Paul & Friesen, Wallace V. (U. California, San Francisco) **Constants across cultures in the face and emotion.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 124-129.—Investigated the question of whether any facial expressions of emotion are universal. Recent studies showing that members of literate cultures associated the same emotion concepts with the same facial behaviors could not demonstrate that at least some facial expressions of emotion are universal; the cultures compared had all been exposed to some of the same mass media presentations of facial expression, and these may have taught the people in each culture to recognize the unique facial expressions of other cultures. To show that members of a preliterate culture who had minimal exposure to literate cultures would associate the same emotion concepts with the same facial behaviors as do members of Western and Eastern literate cultures, data were gathered in New Guinea by telling 342 Ss a story, showing them a set of 3 faces, and asking them to select the face which showed the emotion appropriate to the story. Ss were members of the Fore linguistic-cultural group, which up until 12 yr. ago was an isolated, Neolithic, material culture. Results provide evidence in support of the hypothesis. (30 ref.)—*Journal abstract.*

1900. Hanson, Robert C. & Simmons, Ozzie G. (U. Colorado, Inst. of Behavioral Science) **Differential experience paths of rural migrants to the city.** *American Behavioral Scientist*, 1969(Sep), Vol. 13(1), 14-35.—Based on an analysis of the urban experiences of 4 groups of migrants, a method for examining their adjustment process is illustrated. "The composition of the groups is held constant while . . . what happened to each group on a series of variables describing their urban experiences over time" is observed. "An interpretation of some of the conditions and processes producing the variety of adjustment outcomes evident in the case histories of rural migrants to the city" is presented.—*G. Steele.*

1901. Kearny, Michael. (U. California, Riverside) **An exception to the "Image of Limited Good."** *American Anthropologist*, 1969(Oct), Vol. 71(5), 888-890.—Indicates an exception to G. M. Foster's theory of limited good, that in the Mexican world view all desirable material and nonmaterial entities are seen as existing in finite amounts which cannot be augmented. In the Zapotec town of Ixtepeji, the cycle of fiestas is examined as a culturally sanctioned respite from the struggle for existence. In such a community it is implicitly assumed that one can experience intensified desirable emotions without necessarily suffering a loss in some other area of life, as is implied by the "image of limited good."—*Journal abstract.*

1902. Lambert, W. E. (McGill U., Montreal, Quebec, Canada) **What are they like, these Canadians? A social-psychological analysis.** *Canadian Psychologist*, 1970(Oct), Vol. 11(4), 303-333.—Presents an analysis of Canadians and Canadian society from (a) a social-psychological perspective, and (b) a personal view based on 15 yr. of involvement. Studies are presented as

samples of the larger "Canadian mosaic." Social interactions within groups of both English-Canadian (EC) and French-Canadian (FC) communities are discussed, and child training values compared. EC and FC groups in interaction in areas, e.g., levels of aspiration, personality adjustment of adolescents of mixed English-French parentage are discussed, and a report of attempts to reduce intergroup tension is presented. The study concludes with an appraisal of the shared, the partly shared, and the unique characteristics of Canadians with respect to other people. (40 ref.)—*P. McMillan.*

8003. Lipowski, Z. J. (McGill U., Montreal, Quebec, Canada) **The conflict of Buridan's ass or some dilemmas of affluence: The theory of attractive stimulus overload.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 273-279.—Outlines a motivational theory of human behavior that considers the effects on the individual of certain ubiquitous features of affluent societies, which provide an overabundance of attractive stimuli and alternatives related to material and symbolic values. Such an overabundance leads to intrapsychic conflict between incompatible approach tendencies, exemplified by the parable of Buridan's ass. Conflicts of this type have widespread effects on human behavior and on mental health. A need for revision of current psychodynamic theory of intrapsychic conflict is pointed out, and the practical implications of the proposed theory for psychiatric intervention are emphasized. (18 ref.)—*Journal abstract.*

8004. Marcovitz, Eli. (Jefferson Medical Coll., Philadelphia, Pa.) **Aggression, dignity and violence.** *Pennsylvania Psychiatric Quarterly*, 1970(Spr), Vol. 10(1), 49-64.—Describes aggression as a generic concept, covering a wide spectrum of behavior and relationships which range from activity towards an object, i.e., curiosity and investigation, to the most violent forms of destruction. Some of the categories of aggression described are self-assertion, mastery over others, and hostility. Aggression, unlike violence, is seen as the stimulus of civilization. Violence is defined as hostility translated into action and may occur when a goal-directed activity is frustrated. Violence may be the outcome of hatred caused by being betrayed by love or trust, being shamed or humiliated, or being envious or jealous. Dignity is equated with well-being that comes from self-liking and self-esteem based on the feeling of having some degree of power in relation to inner or outer forces. Current violence on the American scene is discussed. It is concluded that any hope of eliminating violence from human interpersonal or intergroup behavior is utopian and that violence can only be controlled.—*M. Walker.*

8005. Rogin, Michael. (U. California, Berkeley) **Politics, emotion, and the Wallace vote.** *British Journal of Sociology*, 1969(Mar), Vol. 20(1), 27-49.—An analysis of 1964 Presidential primary and general election voting patterns in Indiana and Wisconsin was conducted, together with interviews of politicians, newspapermen, and union officials in the metropolitan areas of these states. Results show that greatest primary support for Wallace derived from white- and blue-collar racial prejudice activated by proximity to Negroes (especially near urban ghettos). Although Goldwater's support in the general election did not dramatically deviate from traditional Republican bases, the most substantial shifts that did occur could be traced to pro-Wallace sentiment in counties where race was a

salient issue. Finally, the interview data suggest that the Wallace vote, an emotional rather than political response, attained the size it did partly because local political organizations and workers, in pragmatic attempts to remain nonideological, did not oppose his candidacy with conviction.—*K. G. Shaver.*

8006. Thomine-Desmazures, Micheline. (National Inst. of Agronomic Research, Paris, France) **Diagnostic de la viabilité sociale de deux communes rurales.** [A diagnosis of the possibilities of social survival of two rural communes.] *Economie Rurale*, 1968(Jul), No. 77, 25-33.

Ethnology

8007. Boyer, L. Bryce & Boyer, Ruth M. (3021 Telegraph Ave., Berkeley, Calif.) **Aportes psicoanalíticos y antropológicos a la tarea con minorías étnicas.** [Psychoanalytic and anthropological insights in working with ethnic minorities.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Mar), Vol. 15(1), 25-33.—Describes psychoanalytic and anthropological experiences with Apache Indians of the Mescalero Reservation in New Mexico. Social structure, child rearing patterns, and the personality organization of the group studied are emphasized, and comparisons of aboriginal vs. modern patterns are made when appropriate. The implications for the social worker who has to deal with ethnic minorities is discussed.—*English summary.*

8008. Dizard, Jan E. (Amherst Coll.) **Black identity, social class, and black power.** *Psychiatry, Washington, D.C.*, 1970(May), Vol. 33(2), 195-207.—Examines the phenomenon of black identity or group consciousness and the current manifestations of it in the black community, particularly the politically relevant aspects of growing black community identity. 1160 black residents of Berkeley, California were interviewed in 1967 on a wide range of attitudes and experiences. High attachment to black identity was higher in younger and better educated blacks. Lowest attachment was seen in proprietors-managers, service workers, and craftsman. These groups also were lower in militancy. An increase in black identity and group pride and "a growing sharpness in the conflict between black and white" are predicted. (24 ref.)—*E. M. Uprichard.*

8009. Forbes, Gordon B. & Mitchell, Shirley. (Millikin U., Psychology Lab.) **Attribution of blame, feelings of anger, and direction of aggression in response to interracial frustration among poverty-level female Negro adults.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 73-78.—Administered a test to 31 low socioeconomic class 20-60 yr. old female Negroes, depicting Negroes frustrating whites and whites frustrating Negroes. It was found that Ss attributed more blame to the frustrators when a white frustrated a Negro than when a Negro frustrated a white. Feelings of anger and direction of anger were not related to race of frustrator. It is suggested that the Negro reactions to white frustration were related to sex, age, and socioeconomic class, and may not, therefore, be applicable to other Negro groups.—*Journal summary.*

8010. Kleiner, Robert J. & Parker, Seymour. (Temple U.) **Social-psychological aspects of migration and mental disorder in a Negro population.** *American Behavioral Scientist*, 1969(Sep), Vol. 13(1), 104-125.—Examines the relationship between migration and mental disorder and attempts to explain differences in

rates of mental disorder between Negroes who migrated from the South to the North and Negroes native to the North, in terms of social mobility, goal-striving behavior, and ethnic or racial identity. Results from interviews using a 206-item questionnaire with a total of 2906 Ss show that northern Negroes had higher rates of mental disorder, higher levels of upward and downward social mobility, more intense goal-striving behavior, and weak or ambivalent attitudes toward their Negro group membership. Based on a demonstration that these characteristics prevail in high illness-yield community population segments, it is concluded that these factors are not simply consequences of mental disorder, but are dynamically involved in its development. (25 ref.).—G. Steele.

8011. Miller, Errol L. **Body image, physical beauty and colour among Jamaican adolescents.** *Social & Economic Studies*, 1969(Mar), Vol. 18(1), 72-89.—Investigated the 475 urban Jamaican 11-15 yr. olds "perceive their bodies and conceive of physical beauty in relationship to their actual skin-colour." Results indicate: (a) a common concept of beauty, (b) no preference for white skin color, (c) "cathexis of their Body Image is determined by the closeness of their actual body features to the Caucasian stereotype generally accepted as being ideal . . ." and (d) the most important body features were those affected by growth or of social significance (racial). It is concluded that the prediction is valid that political and social changes will alter the perception of color within the society.—G. Steele.

8012. Ring, Stephen I. & Schein, Lawrence. (U. Pennsylvania, Medical School) **Attitudes toward mental illness and the use of caretakers in a black community.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 710-716.—Surveyed mental health attitudes and caretaker utilization with 388 upwardly mobile, lower-middle income black households. The general trend in attitudinal responses was accepting and understanding. Nearly 90% of respondents reported an intention to utilize medical personnel in the event of mental or emotional problems.—*Journal summary*.

8013. Taddei, Maria A. **O problema da interação Judeu-anti-semita: Uma análise do preconceito.** [The problem of interaction between Jew and anti-semita; Analysis of the prejudice.] *Revista de Psicologia Normal e Patológica*, 1969(Jan), Vol. 15(1-2), 111-128.—Discusses the attitudes and characteristics of the ghetto Jew and the antisemite. The real basis of antisemitism is considered to be socioeconomic competition. The social isolation of Jews is thought to serve as a pretext for preconceived attitudes on the part of non-Jews. For Jews, the isolation of a ghetto is thought to provide a rationalization for furthering their status quo and encouraging defense mechanisms, e.g., group valorization. The problem of Jewish segregation is regarded as one which extends beyond the Jews themselves, and involves the entire sociocultural system in which they live. 3 possible solutions are discussed: total voluntary isolation, total integration, or emigration to Israel.—P. Hertzberg.

8014. TenHouten, Warren D. (U. California, Los Angeles) **The black family: Myth and reality.** *Psychiatry, Washington, D.C.*, 1970(May), Vol. 33(2), 145-173.—Examines the stereotype of the white family as patriarchal and the black family as matriarchal, particularly in the ghetto. The Moynihan thesis is that family deterioration in the Negro community explains the

pathology of the Negro community's social relationships to the larger community. The literature is reviewed and the implications of the Moynihan thesis are examined. A study was designed which sampled black and white, lower and higher socioeconomic status families. A list of 9 statements was presented on an agree-disagree spectrum; families were questioned as to who would have the final decision power on 8 important problems; and the children in the family were interviewed regarding their perception of the power relationships, and their perception of the "expressive support" and the "instrumental means" support they could expect from either parent. Although black wives appear to be powerful, so do black husbands. Lower class white husbands tend to be highly dominant in the conjugal role but less so in child socialization. Political reasons are indicated for more controlled studies of the black community, as research can lead to either "control of blacks by whites or as a means of resistance to such control."—E. M. Upchurch.

Social Structure & Social Role

8015. Anant, Santokh S. (U. Lethbridge, Alberta, Canada) **Caste Hindu attitudes toward Harijans: A study of inter-caste and urban-rural differences.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 42-56.—From the traditional 4 Varnas, hundreds of subcastes and subsubcastes have evolved. All have elaborate rituals and customs and are cognizant and vigilant about their place in the caste hierarchy. Harijans are the former "Untouchables," considered to be outside the hierarchy. Ss were 577 male Indians randomly drawn from urban and rural areas in 3 locations of northern India. A 50-item multiple-choice questionnaire was individually administered in late spring of 1968. Results indicate more resistance to admission of Harijans into temples than to physical contact. Urban Ss were more liberal than rural Ss on all questions. (18 ref.).—R. D. Nance.

8016. Elder, Glen H. (U. North Carolina) **Appearance and education in marriage mobility.** *American Sociological Review*, 1969(Aug), Vol. 34(4), 519-533.—Investigated the relative influence of attractiveness and educational attainment in marriage mobility in a longitudinal sample of women from middle- and working-class families. Ss were born in the early 1920s, were intensively studied during the 1930s, and most of them participated in at least 1 adult follow-up. During adolescence, middle-class Ss were significantly higher on physical attractiveness, groomed appearance, and IQ than Ss from the working class. The 2 groups did not differ on status aspiration or academic aptitude. Ss who became upwardly mobile through marriage were characterized by physical attractiveness, a desire to impress and control others, high aspirations for the future, and an avoidance of steady dating. Intelligence and academic aptitude were not directly predictive of marriage mobility, although both factors influenced the adult status of the Ss through their educational attainment. Among Ss from the working class, physical attractiveness was more predictive of marriage to a high-status man than educational attainment, while the relative effects of these factors were reversed among Ss of middle-class origin. Social ascent from the working class was also related to sexual restraint and a well-groomed appearance. (40 ref.).—*Journal abstract*.

8017. Kinloch, Graham C. (U. Natal, South Africa)

Social origins, academic achievement, and mobility channels: Sponsored and contest mobility among college graduates. *Social Forces*, 1969(Sep), Vol. 48(1), 36-45.—Investigates the significance of achievement and ascriptive factors in the career mobility of college graduates. Data gathered from a national sample of 150 organizations and 4000 engineers and managers indicate the continued operation of both social origins and academic achievement on the postcollege career. It is clear, however, that there is an independent influence of origins and achievement on these careers. The importance of school-organizational factors is also evident. With the continuing expansion in higher education it remains to be seen whether these influences upon mobility will contribute to a more open class structure or to the emergence of new class-based hurdles. (20 ref.)—*Journal abstract*.

8018. McKinlay, John B. (Aberdeen U., Scotland) **Comment on "Class attitudes to dental treatment."** *British Journal of Sociology*, 1969(Mar), Vol. 20(1), 85-87.—For the following 4 reasons, it is felt that S. Dickson's (see PA, Vol. 42:17069) study did not conclusively demonstrate that the middle class are more dentally conscious and attend the dentist more often than the working class: (a) None of the available direct evidence was adduced to support the crucial assertion of differential use of medical services by different social classes. (b) Dickson's sample selection for his own study was not convincingly representative. (c) General conclusions about Dental Service usage were drawn not from usage behavior, but from attitudes toward a specific kind of usage. (d) Dickson's study constitutes a "research regression" to descriptive investigation while recent studies in the area are now concerned not with further replication of differential usage findings but with determining reasons for such differences.—K. G. Shaver.

Religion

8019. Ali Beg, Moazziz. (Muslim U., Aligarh, India) **The theory of personality in the Bhagavad Gita: A study in transpersonal psychology.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 12-17.—Presents a brief outline of a personality theory, and discusses its empirical significance as related to transpersonal psychology. The Gita's personality theory is based on an overall conception of human nature stressing the value of the highest possibilities of human existence. 3 states of existence, Tamas, Rajas, and Sattwa, are described. The first 2 involve a closed action system activated by biological drives. Rajas, however, involves full use of reason. Sattwa stresses transcendental cosmic awareness and bliss. These 3 orientations constitute morality, freedom, health, and adjustment. Adjustment may be either desirable or undesirable. The model of man presented is essentially a human one.—R. D. Nance.

8020. Anzai, Jiro. **Kyoto psychological slightseeing: III.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 59-60.—Describes a path which is related to a legend told of Buddha. The reader's "destination" is the Temple of Pure Quiescence founded in 802 AD. A brief history of the temple is given. The panoramic view from the temple includes downtown Kyoto. The "borrowed view" technique is discussed, and the technique is related to Gestalt principles of perception. These principles are said to

describe the ways people naturally perceive.—R. D. Nance.

8021. Arasteh, A. Reza. (U. Teheran, Iran) **Patterns and processes of self-liberation in the Near Eastern Sufism (art of rebirth).** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 5-11.—The Sufis are Near Eastern mystics who analyze underlying realities of religion and philosophy and unveil man's psyche as a means of attaining perfection and certainty. The real self is the product of the universe in evolution. Cosmic self is contrasted with phenomenal self, the product of culture and environment. The cosmic self must be obtained through experiencing; mere instruction is insufficient. The fully awakened person attains union with all. Having had an image of a better life, he becomes a seeker. The phenomenal self separates us from our origin, union with all of life. The various stages experienced by the Sufi are described. (19 ref.)—R. D. Nance.

8022. Chernyak, V. A. **Formirovanie nauchno-materialisticheskogo ateisticheskogo mirovozreniya.** [Formation of a scientific-materialist atheistic world-view.] Alma-Ata, USSR: Nauka, 1969. 372 p.—Presents the findings of a wide scale study of persistent religiosity under contemporary conditions among workers in Kazakhstan, Russia.—I. D. London.

8023. Dittes, James E. (Yale U., Divinity School) **Pastoral psychology: The next 20 years: In relation to all psychology.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 43-49.—Up to now pastoral psychology has been pastoral clinical psychology. In the next 20 yr. pastoral psychology should become much more clear and more than pastoral clinical psychology. It should encourage the pastor to take far more seriously that which is uniquely and decisively his own basis for relationship with his people—his role as a religious and church leader.—O. Strunk.

8024. Klink, Thomas W. (Menninger Foundation, Div. of Religion & Psychiatry, Topeka, Kan.) **The ministry as career and crisis.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 13-19.—The ministry as a vocation exists in a network of unwritten "contracts of expectation." As these are understood and clarified, the minister will be in a far better position to carry out his vocation effectively and with a sense of personal fulfillment.—O. Strunk.

8025. Lowe, C. Marshall. (U. California, School of Education, Berkeley) *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 55-59.—Explores how churches are like hospitals and hospitals like churches. Their common elements are a sense of community, a common concern for those most in need of help, and a common aspect involving the way in which healing takes place. Although church and hospital are different in some respects, they are united in their attempt to help the whole man.—O. Strunk.

8026. McGinnis, Thomas C. (Counseling & Psychotherapy Center, Fair Lawn, N.J.) **Clergymen in conflict.** *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 13-20.—Describes some "occupational hazards" of clergymen in regard to the roles society expects clergymen to play; the behavior that is usually an implied part of their profession; the personal and spiritual goals that ministers aspire to; and the potential influences of these often conflicting positions on their family lives. The various divergent expectations of community, parishioners, family, and the minister himself must be

evaluated realistically if he is to function effectively.—O. Strunk.

8027. Mead, Margaret. (American Museum of Natural History, New York, N.Y.) **Pastoral psychology: The next 20 years: As seen by a social scientist.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 8-15.—Traces the interrelationships between professional pastors and the social sciences in 4 areas: (a) education and self-knowledge of pastors and the use of this self-knowledge in counseling, (b) increased understanding of the pastors' possible roles and functions within the social structure, (c) broadening the pastors' understanding of and sympathy with different groups in the larger society, and (d) extension of the pastors' own understanding of religious practices as such. The next 2 decades can be devoted, with valuable results, to an increasingly serious concern with religion itself. Bridges between the various disciplines will be provided by many more people who belong to both worlds. (26 ref.)—O. Strunk.

8028. Murphy, Carol. (Society of Friends, Swarthmore, Pa.) **Faith and experiment.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 9-12.—Discusses the contemporary belief that both science and theology have deeply personal dimensions and that it is no longer possible to think of objective science opposed to subjective religious faith. Truth is more a personal and unconditional summons, answered by scientist and religionist in his own way.—O. Strunk.

8029. Oates, Wayne E. (Southern Baptist Theological Seminary, Louisville, Ky.) **Pastoral psychology: The next 20 years: In relation to theological education.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 49-55.—Needed changes in the future of pastoral psychology and theological education include moving from medical to field theory models, from individualistic to social psychology, a new emphasis on pastoral research, interdisciplinary education in theology, and more aggressive stances in pastoral care and counseling.—O. Strunk.

8030. Pantskhav, I. D. (Ed.) **Konkretno-sotsiologicheskoe izuchenie sostoyaniya religioznosti i opyta ateisticheskogo vospitaniya.** [Empirico-sociological study of the state of religiosity and atheistic training.] Moscow, USSR: Moscow U., 1969. 283 p.—Presents a collection of 14 articles, representing some of the findings of field studies conducted in Orenburg Province (1962), Krasnodar Region (1963), Orlov Province (1965), the Lenin District of Moscow (1966), as well as in Central Asia, Western Ukraine, Belorussia, etc. (1966-1968). A criticism of the research methods utilized in the "American psychology of religion" is included.—I. D. London.

8031. Sato, Koji. (Otemongakuin U., Japan) **Zen, Tendai Sen and Naikan.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 2-4.—Lists various representatives of the varieties of Japanese Buddhism. The case of a teacher-priest who studied the Naikan method is described. Changes in his personality are indicated including an apparently successful abstention from liquor. Naikan is felt, in some respects, to be superior to Zen. Zen is also compared with Tendai Zen, the latter being more complex. It is suggested that all 3, plus other approaches, should be integrated into the psychologist's training.—R. D. Nance.

8032. Shaw, Blair W. (Ontario Inst. for Studies in Education, Toronto, Canada) **Religion and conceptual**

models of behaviour. *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 320-327.—Studied the relationships between a number of religious variables (e.g., denominational affiliation, devoutness, and "intrinsicness") and the ways in which people tend to perceive and respond to the behavior of others in an experiment with 170 undergraduates. The latter variable was measured by use of the Beliefs About Behaviour Inventory which assesses the relative extent to which a person uses each of 3 conceptual models of behavior: theological, illness, and psychological. These models were selected for measurement because of their significance historically and in contemporary debates. Results indicate that Ss who were fundamentalist, devout, or indiscriminately proreligious were significantly lower in the use of a psychological approach to conceptualizing behavior and, conversely, Ss who are not characterized by these religious dimensions are more prone to use a psychological approach and to reject a theological conceptualization of human behavior. (20 ref.)—Journal abstract.

8033. Stinnette, Charles R. (U. Chicago, Divinity School) **Pastoral psychology: The next 20 years: In relation to social action.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 68-80.—Explores the characteristics and requirements of an "honest method," especially in regard to the relation between pastoral psychology and social action. The concept of action research is considered as a sound method of social inquiry and a way of hoping.—O. Strunk.

Cross Cultural Comparison

8034. Butler, John R. (U. Kent, Centre for Research in Social Sciences, Canterbury, England) **Illness and the sick role: An evaluation in three communities.** *British Journal of Sociology*, 1970(Sep), Vol. 21(3), 241-261.—Identical household interview surveys were conducted in communities in America, Britain, and Yugoslavia to test the hypothesis derived from Parsons' theory of illness that there would be differential tolerance of illness between these differing cultures. Within each community interviewers recruited and comparably trained specifically for this survey interviewed all noninstitutionalized members of the systematically selected households. Results showed that: (a) between 1/3 and 1/2 of the respondents in each area whose activities had been limited failed to seek medical care, (b) professional care was sought primarily for more "serious" complaints, and (c) persons defined as ill on action criteria generally constituted a minor portion of all those either seeking professional care or reporting complaints that caused serious bother. It is suggested that inadequacies in the Parsonian analysis of illness derive from a failure to consider personality, organismic, and cultural components of action theory. It is concluded that the deviancy assumed by "the sick role" in fact is a subtle complex of roles and expectations such that true deviancy is associated with withdrawal from social participation inappropriate to the extent of illness. (3 p. ref.)—K. G. Shaver.

8035. Cameron, Paul & Robertson, Donald. (U. Evansville, Indiana) **Comparison of the cultural values of Scot and U.S. children.** *International Journal of Psychology*, 1970, Vol. 5(2), 135-139.—1189 Scottish Ss and 1268 United States Ss ranging in age from 10-18 yr.

ranked 27 value items on a Likert-type scale and indicated in an open-ended scale the 2 most important things in life. Similarities appeared much more marked than dissimilarities, with no differences appearing on the structured questionnaire and few on the open-ended part. No sex differences on the open-ended questionnaire approached the .001 level, and about 75% of the responses in both countries fell into mutual heavily valued categories. United States Ss tended to value education, family relationships, and self-actualization relatively more than their Scottish peers, while Scots valued career, happiness-fun, health, and satisfaction of biological imperatives more. (French abstract)—S. E. Gavin.

8036. Dixon, Paul W., Fukuda, Nobuko K., & Berens, Anne E. (U. Hawaii, Hilo) **Cognitive and personalogical factor patterns for Japanese-American high-school students in Hawaii.** *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 35-41.—One may associate differences in personality type among Sansei Japanese with time of immigration from their homeland. The study investigated sex differences in need hierarchy as shown on the EPPS, teachers' ratings of classroom behavior, and cognitive abilities as measured by the School and College Abilities Test. Ss were 166 members of the graduating class of a large high school in Hawaii, 107 of whom were Japanese. An oblique rotation derived factor patterns. 1 emerged for males and 2 for females. A teachers' rating scale is included. (22 ref.)—R. D. Nance.

8037. El-Abd, Hamed A. (Makerere University Coll., Kampala, Uganda) **The Intellect of East African students.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 423-433.—Describes an experiment confirming earlier findings by H. A. El-Abd that the East African students' structure of mental abilities is no different from that of students in the West. 7 factors were chosen, each being represented by 2 Western reference tests. These factors were flexibility of closure, spatial orientation, visual cognition, numerical facility, symbolic identification, verbal comprehension, and word fluency. The battery was administered to 104 Higher School Certificate boys and 155 university undergraduates. Principal components analysis was followed by orthogonal rotation using the varimax solution. The 7 factors were identifiable in both samples, tending to confirm the original study findings. (19 ref.)—*Journal abstract*.

8038. Ghiglione, Rodolphe & Beauvois, Jean L. (U. Paris, Vincennes, France) **Perception de soi et perception d'autrui chez les adolescents: Enquête en France et en Grèce.** [Self-perception and perception of others by adolescents: Investigation in France and in Greece.] *International Journal of Psychology*, 1970, Vol. 5(2), 123-133.—1000 14-18 yr. old Ss, from Paris, an outlying province in France, and Athens checked traits they believed applied to young men, young girls, adult men, and adult women. A complementary interview procedure involving volunteers followed. French adolescents revealed a desire to be different from adults, and Greek adolescents, a desire to be similar to adults. Sex differences in perception of French Ss consisted in the tendency of young men to be perceived as affirming themselves, and of young women as maintaining dependence upon men. No corresponding sex comparison could be made for the all-male Greek sample. Differences in perception for Ss from 2 nations support a cultural origins hypothesis. The study leads to questions

concerning the degree to which stereotypes affect behavior.—S. E. Gavin.

8039. Green, R. T. & Santori, G. (University Coll., London, England) **A cross cultural study of hostility and aggression.** *Journal of Peace Research*, 1969, No. 1, 13-22.—Conducted a cross-cultural study of hostility and aggression using a 60-item questionnaire. 117 English-speaking and 71 Italian urban middle-class Ss did not differ greatly on their overall level and general scoring patterns, but the differing norms of the 2 societies were reflected. Results for the item analysis for the 2 samples were generally in line with 1 another; hostility and aggression would, therefore, appear to share a similar, though not identical, conceptual framework in the 2 cultures. It is suggested that, although there is some truth in national stereotypes, and comparisons of cultural patterns of hostility/aggression may be fruitful, definitive statements are essentially meaningless since no objective criterion exists. A copy of the questionnaire is included. (Russian summary) (23 ref.)—*Journal summary*.

8040. Hare, A. Paul & Peabody, Dean. (Haverford Coll.) **Attitude content and agreement set in autonomy-authoritarianism items for United States, African, and Philippine university students.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 23-31.—Used cross-cultural data, including sets of autonomy and authoritarian items, to reexamine the importance of attitude content and agreement set in such items. Consistent results in this and other studies—the means, variability, reliability, and correlations for the 2 types of items—suggest that content and set are normally both important components of the scores. External correlates of such scales may relate to either content or set. The social background characteristics of these cross-cultural samples seem more related to content. (17 ref.)—*Journal summary*.

8041. Miller, M. J., Brehmer, B., & Hammond, K. R. (U. Colorado) **Communication and conflict reduction: A cross-cultural study.** *International Journal of Psychology*, 1970, Vol. 5(2), 75-87.—Undergraduate Ss from Sweden and the United States experienced pre-training, in 2 independently conducted studies, leading to conflicting systems of belief for paired Ss. Next the differently-trained members who made up each pair encountered a new but similar situation in which some pairs received full communication, others factual communication, still others no feedback concerning performance on the conflict task. $\frac{1}{2}$ the Ss in the no communication group received the correct answer following each of 20 trials; the other $\frac{1}{2}$ did not. Ss showed less conflict and greater conflict reduction under full communication than under no communication, with factual communication falling in between. Results yield no cross-cultural differences. Outcome feedback shows no effect upon conflict reduction. Information about the nature of the belief system of other persons appears to be essential to conflict reduction. (French abstract)—S. E. Gavin.

8042. Wiberg, J. Lawrence & Blom, Gaston E. (U. Colorado, Denver) **Cross-national study of attitude content in reading primers.** *International Journal of Psychology*, 1970, Vol. 5(2), 109-122.—Quantitative analysis of content of American primers has shown great discrepancies between the actual lives of children and story content. This result, presumably related to reading disability, stimulated cross-national study of primer

content. Preliminary analysis of 60 randomly selected stories from primers of the United States, South Korea, England, West Germany, and Russia reveal 17 of 38 attitudes that appear discriminated at a statistically significant level. Systematic investigation of attitudinal content in primers could provide information important for determining differences or similarities between societies in stereotypes, moral systems, and child rearing. (French abstract)—*S. E. Gavin.*

Family

8043. Aldous, Joan. (U. Minnesota) **Occupational characteristics and males' role performance in the family.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 707-712.—Discusses the literature linking men's occupational activities to their performance of marital and parental roles. The usual dichotomization of occupational and family role demands is questioned. The economic resources that certain occupations give a man, which supply the minimum essentials for his functioning in the family, are discussed. An analysis is also made of how the right kind of occupation can facilitate communication skills needed for marital interaction. Also occupational characteristics, e.g., job salience, the synchronization of its demands with those of the family, and the overlap in personal and ecological location between family and work settings all affect intrafamily dynamics.—*Journal abstract.*

8044. Aug, Robert G. & Bright, Thomas P. (U. Kentucky, Medical Center, Div. of Child Psychiatry) **A study of wed and unwed motherhood in adolescents and young adults.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 577-594.—Conducted psychological interviews 24-48 hr. postpartum with 24 unmarried and 22 married mothers in an obstetrical clinic serving primarily low socioeconomic rural whites and urban Negroes in the Appalachian area of Kentucky. Results based on global impressions show that most Ss fit into 1 of 4 groups which cut across distinctions of married vs. unmarried and white vs. black. The characteristics of each group are summarized and an illustrative case is presented for each. Based on findings, certain widely held views on out-of-wedlock pregnancy are reexamined regarding: (a) understanding unwed motherhood in terms of pathology, as opposed to normal psychosocial development; (b) tendencies toward overgeneralization of similarities and differences within patient populations; and (c) current views of prevention of recurrence of illegitimate pregnancy.—*M. Maney.*

8045. Grey, Alan L. (Ed.) (Fordham U., Graduate School of Arts & Sciences) **Man, woman, and marriage: Small group process in the family.** New York, N.Y.: Atherton, 1970. 225 p.

8046. Howells, J. G. (Inst. of Family Psychiatry, Ipswich & East Suffolk Hosp., England) **Fallacies in child care: II. That fathering is unimportant.** *Acta Paedopsychiatrica*, 1970(Feb), Vol. 37(2-3), 46-55.—With the emphasis on mothering, fathering has been neglected in Western culture. Both in the zoological sphere and in some human cultures, fathering takes on added importance and, except for producing and nursing the young, the mother takes a minor role. Fathering is not a poor substitute for mothering, but an element of family group life of equal significance. Father influence must be

evaluated in the clinical exploration like any other element.—*G. Rubin-Rabson.*

8047. Jacoby, Arthur P. (U. North Dakota) **Transition to parenthood: A reassessment.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 720-727.—Suggests fresh theoretical, conceptual, and methodological perspectives for research on the transition to parenthood. Several parenthood as a crisis studies are reviewed, including 1 significant but unpublished investigation. Possible explanations for the discrepancy in published crisis scores are offered. In this context, the relationship of social class to ease of assuming the parenthood role is explored. Morris Freilich's concept of the "natural triad" is shown as a potentially useful theoretical approach to understanding parenthood. It is suggested that future research on the adjustment of parents to their children include (a) a distinction between objective behavioral changes required by parenthood and their subjective interpretation; (b) reliable instruments for measuring the rewards and difficulties of parenthood; (c) larger and more representative samples; and (d) identification of variables related to the ease of transition to parenthood.—*Journal abstract.*

8048. Kaplan, Howard B. (Baylor Coll. of Medicine, Texas Medical Center, Houston) **Self-derogation and childhood family structure: Family size, birth order, and sex distribution.** *Journal of Nervous & Mental Disease*, 1970(Jul), Vol. 151(1), 13-23.—Conducted a survey of a representative sample (N = 500) of the adult population of a highly populated county in Texas to determine the relationship between family characteristics and self-derogation scores. Significant relationships were observed between adult self-derogation and the number (odd vs. even) of siblings, birth order, and sex distribution of children. No relationship between self-derogation and only child status or family size was noted. Interaction effects of childhood family structure and S characteristics (sex, race, social class, rural-urban origins) are noted. Discussion of related literature is included. (32 ref.)—*Journal abstract.*

8049. King, Karl. (U. Georgia) **Adolescent perception of power structure in the Negro family.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 751-755.—Assessed the perception of 226 adolescent Negro males and 313 females concerning the power structure within the Negro family. Ss were divided by the father's occupation into 3 levels: white collar, blue collar, and unskilled. Results indicate that both male and female Ss viewed the power structure to be mainly syncretic. Males reported stronger father participation than did females, and females reported stronger mother participation than did males. Both males and females indicated stronger father participation in decision-making than has been historically presented.—*Journal abstract.*

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content. Preliminary analysis of 60 randomly selected stories from primers of the United States, South Korea, England, West Germany, and Russia reveal 17 of 38 attitudes that appear discriminated at a statistically significant level. Systematic investigation of attitudinal content in primers could provide information important for determining differences or similarities between societies in stereotypes, moral systems, and child rearing. (French abstract)—S. E. Gavin.

Family

8043. Aldous, Joan. (U. Minnesota) **Occupational characteristics and males' role performance in the family.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 707-712.—Discusses the literature linking men's occupational activities to their performance of marital and parental roles. The usual dichotomization of occupational and family role demands is questioned. The economic resources that certain occupations give a man, which supply the minimum essentials for his functioning in the family, are discussed. An analysis is also made of how the right kind of occupation can facilitate communication skills needed for marital interaction. Also occupational characteristics, e.g., job salience, the synchronization of its demands with those of the family, and the overlap in personal and ecological location between family and work settings all affect intrafamily dynamics.—*Journal abstract.*

8044. Aug, Robert G. & Bright, Thomas P. (U. Kentucky, Medical Center, Div. of Child Psychiatry) **A study of wed and unwed motherhood in adolescents and young adults.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 577-594.—Conducted psychological interviews 24-48 hr. postpartum with 24 unmarried and 22 married mothers in an obstetrical clinic serving primarily low socioeconomic rural whites and urban Negroes in the Appalachian area of Kentucky. Results based on global impressions show that most Ss fit into 1 of 4 groups which cut across distinctions of married vs. unmarried and white vs. black. The characteristics of each group are summarized and an illustrative case is presented for each. Based on findings, certain widely held views on out-of-wedlock pregnancy are reexamined regarding: (a) understanding unwed motherhood in terms of pathology, as opposed to normal psychosocial development; (b) tendencies toward overgeneralization of similarities and differences within patient populations; and (c) current views of prevention of recurrence of illegitimate pregnancy.—M. Maney.

8045. Grey, Alan L. (Ed.) (Fordham U., Graduate School of Arts & Sciences) **Man, woman, and marriage: Small group process in the family.** New York, N.Y.: Atherton, 1970. 225 p.

8046. Howells, J. G. (Inst. of Family Psychiatry, Ipswich & East Suffolk Hosp., England) **Fallacies in child care: II. That fathering is unimportant.** *Acta Paedopsychiatrica*, 1970(Feb), Vol. 37(2-3), 46-55.—With the emphasis on mothering, fathering has been neglected in Western culture. Both in the zoological sphere and in some human cultures, fathering takes on added importance and, except for producing and nursing the young, the mother takes a minor role. Fathering is not a poor substitute for mothering, but an element of family group life of equal significance. Father influence must be

evaluated in the clinical exploration like any other element.—G. Rubin-Rabson.

8047. Jacoby, Arthur P. (U. North Dakota) **Transition to parenthood: A reassessment.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 720-727.—Suggests fresh theoretical, conceptual, and methodological perspectives for research on the transition to parenthood. Several parenthood as a crisis studies are reviewed, including 1 significant but unpublished investigation. Possible explanations for the discrepancy in published crisis scores are offered. In this context, the relationship of social class to ease of assuming the parenthood role is explored. Morris Freilich's concept of the "natural triad" is shown as a potentially useful theoretical approach to understanding parenthood. It is suggested that future research on the adjustment of parents to their children include (a) a distinction between objective behavioral changes required by parenthood and their subjective interpretation; (b) reliable instruments for measuring the rewards and difficulties of parenthood; (c) larger and more representative samples; and (d) identification of variables related to the ease of transition to parenthood.—*Journal abstract.*

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8065. Kelman, Herbert C. (Harvard U.) **A social-psychological model of political legitimacy and its relevance to black and white student protest movements.** *Psychiatry, Washington, D.C.*, 1970(May), Vol. 33(2), 224-246.—"Black militants, draft resisters, student protestors, and liberated women all deny the legitimacy of the authority exercised by those who make demands upon them and thus feel under no obligation to meet these demands." Reasons for this include system value failures embodied in the Vietnam war, poverty in an overfed nation, and denial of a place in the system to blacks. It is asserted that the trust in national leaders has eroded because of governmental lies and political assassinations ("to place trust in a leader seemed to have become tantamount to imposing a death sentence on him"). Youth today has been raised to question traditional attitudes. This has broken down old beliefs in the legitimacy of traditional authority personified in black and white student movements. A paradigm of perceived legitimacy is presented based on slowing of system values, participation in system roles, and adherence to authoritative norms. The differences between black and white student movements are analyzed in terms of this paradigm.—E. M. Uprichard.

8066. Tomlinson, T. M. (Office of Economic Opportunity, Washington, D.C.) **Determinants of black politics: Riots and the growth of militancy.** *Psychiatry, Washington, D.C.*, 1970(May), Vol. 33(2), 247-264.—Reviews the rise of black militancy since the 1950s. A random sample of 586 blacks living in the riot area of South Central Los Angeles, California were interviewed following that riot. Militancy was defined as a positive attitude toward the Black Muslims (the most militant group visible at the time). Conservatives were defined by a negative attitude toward the Muslims. An uncommitted group was neutral. Federal, state, and local government was viewed with less enthusiasm by militants, as were the President and the state governor. Ss were more likely to endorse civil rights activity short of violence. The uncommitted were least well informed and seemed to be the "silent minority" of the black community. (18 ref.)—E. M. Uprichard.

8067. Tripodi, Tony; Epstein, Irwin, & MacMurray, Carol. (U. Michigan, School of Social Work) **Dilemmas in evaluation: Implications for administrators of social action programs.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 850-857.—Suggests 4 basic questions that administrators of social action programs should consider in making decisions about program evaluation: evaluation for what, for whom, by whom, and at what cost? A notion of differential evaluation for different stages of program development is introduced. (36 ref.)—*Journal abstract.*

8068. Weingart, Peter. (Inst. of the Economic Sciences of the Trade Unions, Düsseldorf, W. Germany)

Beyond Parsons? A critique of Ralf Dahrendorf's conflict theory. *Social Forces*, 1969(Dec), Vol. 48(2), 151-165.—R. Dahrendorf attempts to synthesize the Marxian concepts of class, class interests, and class conflict, and the methodology and concepts of the modern theory of action in his analysis of social conflict and change. Authority appears as the focus of social conflicts and plays a dual role in social structures, as both an integrative force and a source of conflict. In each social structure there are 2 classes, rulers and ruled, whose conflicting interests are defined in terms of role expectations. In trying to account theoretically for the occurrence—in the same social structure—of both obedience and conflict, Dahrendorf is forced to resort to a voluntaristic explanation of conflict and change. Likewise his promise to provide a concept of change which transcends given structures, in the Marxian sense cannot be fulfilled. His explanation of change turns out to be identical with that of social mobility. The synthesis between Marx and Parsons fails. (29 ref.)—*Journal abstract.*

8069. Zimbardo, Philip G. (Stanford U.) **The human choice: Individuation, reason, and order versus deindividuation, impulse, and chaos.** *Nebraska Symposium on Motivation*, 1969, Vol. 17, 237-307.—While psychologists "were demonstrating in the laboratory the remarkably fine degree of control which man had at his disposal, all hell was breaking loose outside in the real world." Recent evidence regarding self-destruction, the destruction of others, riots, mob violence, the diminution in the value of life, and the loss of control of behavior is presented. Research evidence relating anonymity to aggression, car smashing, vandalism, and other violent acts is also presented. The "releaser cues" required to initiate destructive vandalism in various cities such as New York and Palo Alto are compared. Anonymity, deindividuation, dehumanization, and control (or the lack of it) are the key words. "In the eternal struggle between order and chaos, we openly hope for individuation to triumph, but secretly plot mutiny with the forces within, drawn by the irresistible lure of deindividuation." (26 ref.)—J. M. Roberts.

SEXUAL BEHAVIOR

8070. Berman, Myron. (Temple Beth-El, Richmond, Va.) **Sex and the Jewish teenager.** *Religious Education*, 1970, Vol. 65(5), 415-421.—Sex-with-affection among the middle classes, constituting the sexual revolution, is less evident among Jews than among Catholics and Protestants, but shows signs of increasing. Stability of the family has served as the common denominator of sexual behavior for Jews, coupled with the elevated status of women. Sex education should include: physiological factors, interpersonal relations, preparation for marriage, sociological considerations, and formulating a standard of values. Girls in a sex education class posed almost 3 times as many questions as boys. Girls' inquiries, in descending order, related to female physiology and the birth process, social implications of sexual behavior, petting, social-sexual behavior, male physiology, intercourse, and contraception. Boys' lesser concern over interpersonal relations suggests continued existence of a double standard with respect to sex. Avoiding puritanism and irrelevancy, future programs can construct a bridge for understanding sex within a total philosophy of life.—S. E. Gavin.

8071. **Hartley, Shirley F.** (California State Coll., Hayward) **The decline of illegitimacy in Japan.** *Social Problems*, 1970(Sum), Vol. 18(1), 78-91.—Although it is typical to examine deviance in social situations where it looms relatively large or is on the increase, it is possible to learn a great deal from negative case studies, as well. In Japan although concubinage had been, historically, a recognized contractual arrangement and births out of wedlock were recorded as 8.8% of the total in 1900, illegitimacy has been declining throughout the 20th century to the point of virtual disappearance. From 1940-1964: (a) the ratio, or percentage, of all illegitimate births declined by 75%; (b) the general illegitimate fertility rate dropped by 88%; and (c) the number of births out of wedlock was reduced by 80%. The demographic and sociological factors related to the decline are examined for clues unique to Japan and/or applicable to societies in general.—S. L. Warren.

8072. **Pope, Hallowell.** (U. Iowa) **Negro-white differences in decisions regarding illegitimate children.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 756-764.—Collected data from 254 Negro and 314 white unwed mothers (primiparas only) chosen from birth certificate information for a 1-yr period. Respondents were interviewed 6 mo.-2½ yr. after the illegitimate birth. The completed cases represent 32% of the white and 65% of Negro cases sampled. Present marital status of the mothers was categorized and discussed. Other findings were that the Negro woman more often than the white woman kept her child (95% vs. 62%), that the Negro woman was more often advised by others to do so, that she more often did not want to marry her sex partner after discovery of her pregnancy if she had not been planning marriage beforehand, that she more often associated with her sex partner after the birth if they were not married, and that she more often felt marriage to her sex partner in the future was a definite possibility. 2 reasons for these findings were discussed: (a) Negroes have a lesser commitment to the norm of legitimacy than whites, and (b) Negro women have less reason and desire than white women to marry. It is noted, however, that because of conceptual inadequacies and the lack of data, these 2 interpretations cannot be definitively supported.—*Journal abstract.*

8073. **Udry, J. Richard & Morris, Naomi M.** **Frequency of intercourse by day of the week.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 229-234.—Data derived from daily reports of sexual behavior of 3 different samples investigated whether or not the probability of coitus occurring on Saturday or Sunday is higher than the probabilities for other days in the week. The only sample that indicated a weekend pattern was the white female (educated) group, both married and unmarried. Data from the Negro, low-educated females and Negro, middle- and lower-class males indicated Monday, Tuesday, or Wednesday as the peak days for intercourse.—E. B. Jaffa.

8074. **Veith, Ilza.** (U. California, San Francisco) **"Education for morality": Sex education—Victorian style.** *Bulletin of the Menninger Clinic*, 1970(Sep), Vol. 34(5), 292-303.—Presents a historical review of 2 major Victorian writers (Thomas Beddoes and Elizabeth Blackwell) on sex education. Their relationship to present-day sex educational approaches is examined.—J. Z. Elias.

8075. **Weller, Robert H.** **Role conflict and fertility.** *Social & Economic Studies*, 1969(Sep), Vol. 18(3),

263-272.—Investigates the effects of role conflict, current employment status, previous employment experience, and developmental status of the economy in the relationship between fertility and female participation in the labor force. Changes in the nature of female employment are examined in data from predominantly lower- and middle-class female residents of Puerto Rico. It is concluded that certain aspects of employment do affect fertility and that if a program is "to be effective in lowering fertility, the overall goal should be to create alternative modes of behaviour in such a way that the worker is motivated to restrict her fertility to a level lower than otherwise would be the case."—G. Steele.

Birth Control & Abortion

8076. **Anderson, T. W.** (U. Toronto, School of Hygiene, Ontario, Canada) **Oral contraceptives and female mortality trends.** *Canadian Medical Association Journal*, 1970(May), Vol. 102(11), 1156-1160.—Compared death rates for 15-44 yr. old Ontario females before and after 1961 to see if there have been any changes in these rates related to the widespread use of oral contraceptives since 1961. Overall mortality has declined significantly during this time, as have the rates for deaths due to childbirth and pregnancy, and from cancer of the uterus. Death rates from ischemic heart disease and cancer of the breast have not shown any significant change, but there has been a substantial increase in the rates ascribed to venous thromboembolism and suicide. It is stressed that a change in the recorded death rate does not necessarily mean that there has been a corresponding change in the incidence of the disease in question, or that such a change is related to the use of oral contraceptives. However, it is concluded that if oral contraceptives do cause an increase in a fatal disease, the effect should show up, sooner or later, in routine mortality statistics, and periodic examination of death rates provides a useful starting point for more detailed epidemiological investigation. (French summary)—*Journal abstract.*

8077. **Fleck, Stephen.** (Yale U., Medical School) **Some psychiatric aspects of abortion.** *Journal of Nervous & Mental Disease*, 1970(Jul), Vol. 151(1), 42-50.—Presents data from the literature concerning the psychiatric elements found in women who request and obtain abortions under regular medical auspices and experience with several hundred unwillingly pregnant females. The importance of abortion as a stopgap for contraceptive failure and as a significant family-planning measure is discussed. Abortion in itself is a safe, simple procedure without clinically significant psychiatric sequelae, but it becomes an emotionally traumatic experience because of the medicolegal obstacles which lead 1,000,000 or more women to seek illegal abortions in contrast to some 10,000 legal abortions performed annually. Psychiatric considerations must extend to the unhealthy consequences of unwanted pregnancy and motherhood and the risks for the emotional development and personality of the unwanted offspring. (42 ref.)—*Journal abstract.*

8078. **Howells, John G.** (Ipswich & East Suffolk Hosp., Inst. for Family Psychiatry, England) **Extended birth control: Abortion on request.** *Canada's Mental Health*, 1970(Sep), Vol. 18(5), 3-8.—Examines various problems involved in extended birth control, e.g., woman's rights, ethics, basis for legislation, time limit, and assent. Legal, religious, and sociological factors are

discussed. It is concluded that the woman should have the right to terminate an unwanted pregnancy.—G. Steele.

8079. Huffer, Virginia; Levin, Leon, & Aronson, Harriet. (U. Maryland, Medical School, Baltimore) **Oral contraceptives: Depression and frigidity.** *Journal of Nervous & Mental Disease*, 1970(Jul), Vol. 151(1), 35-41.—Correlated the use of oral contraceptives with the development of mood and/or sexual disturbances and, when a relationship was found, determined whether such disturbance fell into any predictable pattern. Hypothesized variables included: (a) previous history of psychiatric disorders, (b) current life stresses, (c) attitudes toward contraception, (d) symptoms due to expectations of the effect of the pill, (e) marital and sexual adjustment, (f) physiological alteration secondary to pill usage, and (g) reaction to pregnancies. 39 21-45 yr. old women from a private patient population were studied. 16 experienced adverse psychological symptoms. 23 had no emotional difficulty and were used as controls. Ss were studied by interview and the MMPI. Of those who had difficulty, 11 showed depressive reactions and 5 had loss of sexual interest not related to depression. All developed these symptoms while on the oral contraceptives and lost them after discontinuance. Affected Ss could not be differentiated from controls by any of the hypothesized variables. However, 2 factors tended to correspond with the development of adverse reaction: (a) use of the combined (as opposed to sequential) type of contraceptive pill, and (b) age of the S. Results suggest that women who have adverse reactions to oral contraceptives might represent a biochemically different subgroup in whom estrogen-progesterone steroids are the triggering mechanisms for mood and sexual disturbances. (21 ref.)—*Journal abstract*.

8080. Levene, Howard I. & Rigney, Francis J. Law, **preventive psychiatry, and therapeutic abortion.** *Journal of Nervous & Mental Disease*, 1970(Jul), Vol. 151(1), 51-59.—Discusses changes in antiabortion laws because of 3 modern developments: (a) advances in medical science minimizing the risk of operative procedures, (b) the desire to control overpopulation, and (c) the growing emphasis on individual human rights and civil liberties. Because of certain political pressures, legislators have not abandoned the archaic laws but have merely liberalized them. The inclusion of mental health provisions in the liberalized laws places the psychiatrist in the position of granting dispensations and forming new definitions. Although there are objections to such utilization of psychiatrists by the legal system, it is felt that the psychiatric profession must remain involved in the question of abortion in light of the present evidence that to force a woman to carry a pregnancy to term against her will may be detrimental to her mental health and to that of her unborn child. Evidence is reviewed by comparing previously reported psychiatric outcome in women who were refused abortion with the outcome in women granted abortion in the United States and Sweden (24% of women denied abortion show significant, continuing psychiatric disability at 7-11 yr. follow-up, vs. 0-2% significant psychiatric disability after therapeutic abortion). A study of 120 children born after application for therapeutic abortion was refused shows that they had greater social and emotional handicaps than their peers. Data collected by follow-up questionnaires sent to 70 consecutive women granted therapeutic abortion for psychiatric indications under a new

state therapeutic abortion law are presented. Results agree with those of previous studies: no serious psychiatric sequelae were found, guilt feelings were short lived, and depressive phenomena decreased significantly between 2 wk. and 3-4 mo. postoperatively. (32 ref.)—*Journal abstract*.

8081. Pfeiffer, Eric. (Duke U., Medical Center) **Psychiatric indications or psychiatric justification of therapeutic abortion?** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 402-407.—Under recently enacted abortion reform laws, the total number of abortions and the proportion of abortions for psychiatric reasons has increased dramatically. It is possible for psychiatrists to distinguish between psychiatric indications and psychiatric justification of abortion. Instances involving psychiatric indications are properly in the domain of the psychiatrist; instances involving psychiatric justification should be removed from the domain of psychiatry since it is extremely difficult to distinguish psychiatric justification and "abortion on request." Further changes in abortion laws are probably in the offing and these are likely to contain sanctioning of abortion for social, economic, and hardship reasons. Some of the possible consequences of a policy of "abortion on request" are considered.—*Journal summary*.

8082. Senay, Edward C. (U. Chicago, Pritzker Medical School) **Therapeutic abortion: Clinical aspects.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 408-415.—Discusses the psychological crises attendant upon the patient seeking abortion. It is suggested that these patients need and ethically require the best medicopsychological care possible. It is noted that at present there is confusion and variability about legal directives to physicians surrounding therapeutic abortion. Therefore psychiatrists need to be clear in their values as they attempt to intervene rationally in such cases. Indications and contraindications for abortion are summarized, e.g., abortions are contraindicated when the patient feels she must comply with the wishes of someone else rather than her own. Suicidal risks and problems of management are discussed.—P. McMillan.

ATTITUDES & OPINIONS

8083. Ahammer, Inge M. (West Virginia U.) **Desirability judgments as a function of item content, instructional set, and sex: A life-span developmental study.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1514.

8084. Bebbington, A. C. (London School of Economics, England) **The effect of non-response in the sample survey with an example.** *Human Relations*, 1970(Jun), Vol. 23(3), 169-180.—Examined the varieties of nonresponse in a sample survey based on a cohort study of 13-yr-old schoolboys in London. The study was originated in 1951 and respondents were followed-up 10 yr. later. Nonrespondents in the follow-up were divided into those who had emigrated, the "elusive," the "stallers," the "refusers," and those who had died. Responders were generally better balanced and more intelligent. Emigrants showed no significant differences. The elusive were more likely to come from broken homes and tended to minor delinquency. Stallers were less intelligent, lower in social class, and showed antisocial and amoral attitudes. Refusers were high on the environmental response factor. Varieties on nonresponse

will bias survey results in multiple ways.—W. W. Meissner.

8085. Ehrlich, Howard J. & Van Tubergen, G. Norman. (U. Iowa) **Exploring the structure and salience of stereotypes.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 113-127.—Describes a study of 2 theoretical issues: (a) that systems of stereotypes can be viewed as a multidimensional structure, and (b) that stereotyping systems can be better understood in terms of their components. In Study I, with 91 undergraduates, 2 sets of atheist stereotypes (1 positive and 1 negative) and 3 sets of Jewish stereotypes (2 negative and 1 positive) were isolated through factor analysis. In Study II, with 67 Ss, it was demonstrated that these directionally consistent sets of stereotypes could be reproduced by another method of analysis, the paired comparisons of sets of stereotypes. It is concluded that (a) there existed more than 1 distinct and identifiable system of stereotypes for the groups studied; (b) ethnic stereotype systems tend to be directionally consistent; (c) as stereotype systems increase in salience, they increase in intensity; and (d) the relation between the direction of a stereotype system and its salience remains unclear.—*Author abstract.*

8086. Gibbons, Don C. (San Francisco State Coll.) **Crime and punishment: A study in social attitudes.** *Social Forces*, 1969(Jun), Vol. 47(4), 391-397.—Investigates the relationships between punitive sanctions directed at offenders and public sentiments about appropriate penalties. Previous studies are noted. An investigation in California in which citizens indicated the degree of punishment appropriate for 20 different crimes is reported. The most visible and coercive offenses received the most severe penalty choices and these are crimes which are severely punished in the state. However, some discrepancies between citizen preferences and penalties currently imposed were also observed.—*Journal abstract.*

8087. Lubchansky, Isaac; Egri, Gladys, & Stokes, Janet. (Lamuz Hosp., Buenos Aires, Argentina) **Puerto Rican spiritualists view mental illness: The faith healer as a paraprofessional.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 312-321.—Examines the attitudes and beliefs about mental illness of 20 faith healers in the Puerto Rican community of New York City; these were compared with data collected earlier from samples of Spanish-speaking community leaders and a cross-section of Puerto Rican household heads. Spiritualists appear to be an idiosyncratic group differentiated within their culture for the purpose of healing. The lack of professional acknowledgement of the role native healers play in this and other minorities is emphasized, and 2 case studies that may help to explain this lack of acknowledgement are presented. (25 ref.)—*Journal abstract.*

8088. Yang, Pen-hua Lee & Yang, Kuo-shu. (National Taiwan U., Taipei) [National-ethnic stereotypes of 240 Chinese students at the National Taiwan University.] *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 7-23.

Formation & Change

8089. Epstein, Yakov M., Buchanan, Elena, & Landon, P. Bruce. (Rutgers State U.) **Effects of set on the "effects of mere exposure."** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 121-123.—Replicated 1 of R. B. Zajonc's (see PA, Vol. 42:12019)

studies on the attitudinal effects of differential exposure, using 6 "Chinese characters" at exposure frequencies of 0, 1, 2, 5, 10, and 25. Each of 72 undergraduates saw 1 stimulus at each frequency. $\frac{1}{2}$ of the Ss were given a favorable set toward the stimuli, the other $\frac{1}{2}$, an unfavorable set. The 1st group's ratings were similar to those reported by Zajonc. The other group's ratings were a curvilinear function of exposure, with the most negative ratings at 0 and 25 exposures. Set apparently determines evaluation after the stimulus becomes moderately familiar.—*Journal abstract.*

8090. Berger, Wallace G. (Michigan State U.) **Some correlates of attitude change, retention of the attitude message, and evaluation of the communicator.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1515.

8091. Chalmers, Douglas K. (U. California, School of Social Sciences, Irvine) **Repetition and order effects in attitude formation.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 219-228.—Tested hypotheses regarding repetition and presentation order in an impression-formation task with 188 female undergraduates. The effects of repetition indicate that (a) repetition of information added a negative evaluative component to both favorable and unfavorable communications; (b) unlike unfavorable information, repeating favorable information was more effective at the end of a communication than at the beginning; and (c) in line with the verbal memory hypothesis (in which specific memory influences judgment), repetitious communications cancelled the usual primacy effect, although usual primacy did not obtain for 1 control condition. Where primacy occurred, it occurred for communications containing evaluatively opposed information, but not for unopposed communications. This finding supports a change of meaning account of primacy, but does not support an attention-decrement account.—*Journal abstract.*

8092. Dillehav, Ronald C. & Clayton, Marilyn L. (U. Kentucky) **Forced-compliance studies, cognitive dissonance, and self-perception theory.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 458-465.—Attempted (a) to replicate D. J. Bem's (see PA, Vol. 42:2500) previously reported interpersonal simulation of the L. Festinger and J. M. Carlsmith (see PA, Vol. 34:1158) experiment; and (b) to test a major assumption of self-perception theory, i.e., that self-reports of attitude under conditions of high incentive will be regarded by an O as mands rather than facts. Results indicate that O Ss cannot reliably replicate involved S responses. Data provide negative evidence for the assumption that O Ss will regard behavior under conditions of high incentive as manding reinforcement, and suggest that greater incentive for attitude-discrepant behavior increases the perceived potency of reward in inducing actual attitude change.—*Journal abstract.*

8093. Hjelle, Larry A. & Clouser, Randall. (State University Coll. New York, Brockport) **Susceptibility to attitude change as a function of internal-external control.** *Psychological Record*, 1970(Sum), Vol. 20(3), 305-310.—Hypothesized and confirmed that "externally controlled Ss will show more attitude change when exposed to standardized communications advocating a change in their preestablished positions than will internally controlled Ss." The Internal-External Locus of Control (I-E) Scale and a College Opinion Survey (COS) were administered to 16 male and 16 female under-

graduates. 5 wk. later Ss were divided into small groups and given a booklet containing the alleged opinions of an authority on all COS items. Ss reindicated their degree of agreement or disagreement to the COS items. Sex differences were not significant, but the internal-external differences were ($p < .001$) in the predicted direction.—S. Knapp.

8094. Pitz, Gordon F. (Southern Illinois U.) **An inertia effect (resistance to change) in the revision of opinion.** *Canadian Journal of Psychology*, 1969(Feb), Vol. 23(1), 24-33.—Earlier studies have reported a reluctance of Ss to reduce their confidence in a decision following disconfirming information. This inertia effect may be due to a commitment process, or to the fact that Ss expect some disconfirming information to occur. To test the commitment hypothesis, 5 groups of Ss, with 15 male undergraduates each, were run in a sequential decision-making task, under conditions of varying levels of commitment to preliminary confidence judgments. An inertia effect, measured directly, or through an increase in confidence as a function of sample size, was present in Ss who gave confidence judgments that were displayed or could easily be recalled. In other Ss the effect was absent. It is concluded that the inertia effect was the result of Ss' commitment to their initial judgments. (French summary)—*Journal abstract*.

8095. Wise, James H. (George Washington U.) **Cognitive dissonance and reinforcement-incentive theory predictions on the role of reward in influencing attitude formation and performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1526.

Influence & Behavior

8096. Cook, Stuart W. (U. Colorado) **Motives in a conceptual analysis of attitude-related behavior.** *Nebraska Symposium on Motivation*, 1969, Vol. 17, 179-231.—Discusses attitude-related behavior (segregation, prejudice, discrimination, etc.) toward disliked groups using a conceptual analysis developed by the author. Interracial public housing of 2 extreme types (segregated by areas vs. complete integration) was the setting for the research. 5 characteristics of unintended interracial contact were identified which were linked with favorable attitude changes and friendly behavior. These were then studied in the laboratory. 4 time stages in the conceptual analysis and 3 additional features are covered in detail. Comments by P. Zimbardo follow. (27 ref.)—J. M. Roberts.

8097. Lester, David & Kam, Elizabeth G. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Effect of a friend dying upon attitudes toward death.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 149-150.—Reports results of a questionnaire on death attitudes administered to 100 female undergraduates. The experience of recent loss was found to have a weak but consistent effect on attitudes toward death. The effect was to increase preoccupation with thoughts of death and the depressing effect of death stimuli.—*Author abstract*.

8098. Tarter, Donald E. (U. Alabama, Huntsville) **Toward prediction of attitude-action discrepancy.** *Social Forces*, 1969(Jun), Vol. 47(4), 398-405.—In an attempt to predict behavior discrepant from measured attitudes, an instrument is developed which utilizes T. Parsons and E. A. Shils' pattern-variable scheme. 40

undergraduates were selected out of 338 Ss tested to ascertain their racial attitudes. These Ss were forced to activate their attitudes in the face of social opposition. The instrument is unable to predict discrepant behavior, but the diffuseness-specificity variable is found to be an excellent predictor of actual situational behavior in an experimental situation which makes that dilemma paramount. Emphasis is placed on the fact that individual pattern-variable dilemmas, when measured, offer a way to significantly increase prediction of actual behavior.—*Journal abstract*.

GROUP & INTERPERSONAL PROCESSES

8099. Balswick, Jack O. & Anderson, James A. (U. Georgia) **Role definition in the unarranged date.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 776-778.—Discusses the accuracy of role definition on the part of individuals in dating situations. Data are based on responses of 417 undergraduates to questionnaires. It was found that both males and females misread the sexual expectations of members of the opposite sex, and both always do so in the direction of increased permissiveness. A tentative suggestion is made that such inaccuracy in role definition will result in sexual standards being liberalized.—*Journal abstract*.

8100. Blackburn, James R. (U. Arkansas) **The efficacy of modeled self-disclosure on subject's response in an interview situation.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1529-1530.

8101. Eisenberger, Robert; Carlson, Carl; Kuhlman, David M., & Williams, Daniel C. (U. California, Riverside) **More help for those who try harder.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 451-454.—Postulated that the amount of altruistic helping behavior is an increasing function of the effort which the donor believes is being expended by the recipient in pursuit of a goal. To test this, 42 male undergraduates were given the opportunity anonymously to help a peer (actually a confederate of E) whom they perceived to be unsuccessfully attempting to perform an act. As predicted, S's rate of helping responses increased, the greater the recipient's rate of unsuccessful attempts.—*Journal abstract*.

8102. Force, Elizabeth J. (Michigan State U.) **Personal changes attributed to human relations training by participants, intimates and job colleagues.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1535-1536.

8103. Foulds, Melvin L., Wright, James C., & Guinan, James F. (Bowling Green State U., Counseling Center) **Marathon group: A six month follow-up.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 426-431.—Reports a follow-up study of the effects of a 24-hr marathon group experience. 15 college students were interviewed 6 mo. after the experience and were asked their opinions regarding 12 questions dealing with the long-range effects of the group session. The results reflect a highly positive regard for the perceived value of the experience. Specific examples of increased personal growth include increased awareness of and contact with inner feelings, greater spontaneity, openness, honesty, self-confidence, and trust in others, as well as increased feelings of empathy for and identification with others.—R. H. Mueller.

8104. Hall, Jay & Watson, W. H. (American Behavioral Science Training Lab., Houston, Tex.) **The effects of a normative intervention on group decision-**

making performance. *Human Relations*, 1970(Aug), Vol. 23(4), 299-317.—Reports on a study to evaluate effects of normative interventions (instructions defining and legitimizing new forms of procedure) on solution of a moon-survival problem by 148 management seminar participants divided into 6 member groups. Instructed groups showed an increase of group decision quality, seemed to benefit significantly from emergent judgments and therefore showed a higher level of creativity, and showed a synergy bonus in being able to improve performance significantly over that of their superior resources in decision-making. Instructed groups did not show any significant difference in use of available resources. Uninstructed groups tended to resort to majority rule to resolve conflicts, so that majority decisions approximate those of the group's average member in quality. Normative instructions were aimed at minimizing the strain toward convergence in naive groups, thus modifying a significant systemic element of the group process.—*W. W. Meissner*.

8105. **Hirschman, Bernardo & Muratorio, José L. La enseñanza de dinámica de grupos a través de técnicas grupales.** [Group dynamics teaching through group techniques.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Mar), Vol. 16(1), 39-44.—Reports an experience of group dynamics teaching at the university level. The plan included direct group experiences, used to reach evidence in the group phenomenon, and a working (learning) level. It is concluded that this kind of teaching plan is useful in group dynamics training.—*English summary*.

8106. **Hood, Thomas C. & Back, Kurt W. (U. Tennessee) Self-disclosure and the volunteer: A source of bias in laboratory experiments.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 130-136.—Examined the nature of bias introduced by using 39 male and 55 female undergraduate volunteer Ss in laboratory experiments. Ss were given a questionnaire containing anxiety, social desirability, and self-disclosure scales. Ss were then given the opportunity to volunteer for experimental participation. Statistically significant differences in the mean amounts of past self-disclosures appeared. Male volunteers were higher in self-disclosure than male nonvolunteers. Females showed the relationship mediated by other factors. An interpretation of these findings suggests that the potential S views the experiment as a self-revealing situation. Individuals may vary in their attraction to self-revealing situations; this variation can introduce an uncontrolled bias into experimental studies. (26 ref.)—*Journal abstract*.

8107. **Howard, Jane. Please touch: A guided tour of the human potential movement.** New York, N.Y.: McGraw-Hill, 1970. xii, 271 p. \$6.95.

8108. **Johnsen, Tom B. (U. Oslo, Inst. of Psychology, Norway) Balance tendencies in sociometric group structures.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 80-88.—Administered a sociometric questionnaire to 8 squads from an officers training school 4 times during a period of 2 mo., and compared the sentiment structures of the groups at these points by means of the structural balance index. The difficulties encountered when comparing nonisomorphic structures with this index are discussed, and a strategy for acquiring a base line for use in the interpretation of the data are proposed. Results indicate that increased positivity of the relations involved was the only systematic tendency in the development of the structures.—*Journal abstract*.

8109. **Juhász, Joseph B. (U. California, Berkeley) Imagination, Imitation, and role taking.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 899.

8110. **Křivohlavý, Jaro. Experimentální výzkum účinnosti slibů.** [Experimental research into the effectiveness of promises.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(2), 119-130.—The effect of the quality of promises, which was the trustworthiness of the promising person, on the solution of interpersonal conflicts was studied using experimental games. A number of variables was systematically changed including: (a) the source of the promised reward, making it possible to study promises with both internal and external reward; and (b) the position of power of the partners who are in mutual conflict. It was found that the theory of effectiveness of promises on the solution of interpersonal conflict takes all these factors into consideration. It is concluded that the theory of credibility of promises which combines the relationship of power between the partners and the credibility of the promise is the most acceptable. (Russian summary)—*English summary*.

8111. **Kroger, Rolf O. & Briedis, Irene. (U. Toronto, Ontario, Canada) Effects of risk and caution norms on group decision making.** *Human Relations*, 1970(Jun), Vol. 23(3), 181-190.—Studied risk and caution conditions on 139 university students in small groups. Results support Brown's value theory of group decision-making. Exposure to social norms of risk and caution produced, respectively, risky and conservative shifts in decisions. Exposure did not produce such shifts in the absence of relevant discussion. "The present results suggest that Brown's theory should be expanded so that the situation in which the decisions are made as well as the content of the problem is seen as determining the social norms or rules which are perceived as being applicable to a given problem."—*W. W. Meissner*.

8112. **Leyens, Jacques-Philippe. (U. Louvain, Belgium) Influence de la distance psychologique et de l'éducation sur l'identification.** [Influence of psychological distance and education on identification.] *Bulletin Centre d'Etudes et Recherches Psychotechniques*, 1969(Jul), Vol. 18(3-4), 255-266.—Presents a synthesis of existing research which supports the assumption of a nonlinear relationship between an S's identification with a model and the psychological distance between them. This distance depends on security and possibilities of gratification emanating from the model; gratification increases, whereas security decreases as the distance increases, and identification is highest for an optimal psychological distance. Moreover, personality variables probably come into play, since this distance is always subjective. 120 French-speaking undergraduates, served in an experiment with psychological distance and security (reduced by the prospect of punishment) manipulated, and these variables subsequently analyzed with respect to identification scores. Results show that identification is highest: (a) for an optimal distance; (b) when security is present; (c) in Ss educated in a democratic manner; (d) when these 3 factors interact with each other; and (5) when extended contact with the model increases identification, but only with minimal security. (32 ref.)—*English summary*.

8113. **Lowe, Rosemary H. (U. Illinois) Prediction of characteristics of group output from individual performance characteristics.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-A), 826.

8114. Mackenzie, Kenneth D. (U. Waterloo, Ontario, Canada) **The effects of status upon group risk taking.** *Organizational Behavior & Human Performance*, 1970(Nov), Vol. 5(6), 517-541.—Defines and uses a decision model of the M. A. Wallach and N. Kogan (see PA, Vol. 39:8626) choice dilemma question to identify a model relating the impact of status differentials upon group risk taking. The model was tested on 48 mature, middle management level, federal employees working at the same installation and divided into groups of (a) 1 high status conservative and 2 lower status non-conservatives, (b) 1 low status conservative and 2 higher status nonconservatives, and (c) members at about the same level of status and conservatism. The high and low status conservatives shifted in a risky fashion and there was a significant overt conservative shift on the post-discussion questionnaire. The low status risky Ss shifted conservatively with a risky overt shift on the post-discussion questionnaire. High status risky Ss evidenced a risky shift with no overt conservative shift. The low status differential groups all tended to shift in a risky fashion with no subsequent conservative overt shift. Results are not consistent with either the R. Brown value of risk hypothesis or the M. A. Wallach, N. Kogan, and D. J. Bem (see PA, Vol. 38:10097) diffusion of responsibility hypothesis. (31 ref.)—*Journal abstract*.

8115. Meador, Betty D. (Center for Studies of the Person, La Jolla, Calif.) **Individual process in a basic encounter group.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 70-76.—Observed the process of change in 8 individuals who participated in an intensive small encounter group from the viewpoint of C. Rogers' process theory. Proceedings were recorded on film. 13 judges rated 80 segments, 1 segment selected at random for each S from the 1st and 2nd halves of the 5 sessions the group met. Ratings were made using the Rogers and Rablen Process Scale. Each S made significant ($p < .01$) positive process movement over the course of the group. Results support Rogers' theory both in the direction of movement and the kinds of changes individuals make under the stated conditions, and suggest that the weekend format induces greater process movement than weekly time-limited groups.—*Journal abstract*.

8116. Pellegrini, Robert J., Hicks, Robert A., & Gordon, Lance. (San Jose State Coll.) **The effect of an approval-seeking induction on eye-contact in dyads.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 373-374.—Tested the proposition that "with physical proximity held constant, an assigned approval-seeking role will enhance EC [eye contact] while the opposite effects will follow from an assigned approval-avoiding role." 24 female undergraduates were randomly assigned to approval-seeking, approval-avoiding, and control groups in which a 2-person interaction situation was established. Measures of both total duration and frequency of EC were obtained for each S. Results show that the order of the means on both EC measures was consistent with the hypothesis. 1 discrepant finding is discussed.—P. McMillan.

8117. Peters, George R. & Kennedy, Carroll E. (Kansas State U.) **Close friendships in the college community.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 449-456.—Investigated the development and maintenance of friendship ties on the part of 116 college students. The data gathered through interviews and questionnaires indicate that between $\frac{1}{3}$ and $\frac{1}{2}$ of the friendships were initiated at the university,

that the friendships developed either through another friend, through class contact, by living in the same residence, or spontaneously. Other findings include a positive relationship between the degree of intimacy of the friendship and the number of activities shared with friends. Men named more friends than women did and rural students listed more friends than did students from urban areas. The data reflect the importance of the university as the setting for initiating friendships, while off-campus relationships are also maintained. (22 ref.)—R. H. Mueller.

8118. Pollis, Carol A. (U. Wisconsin, Coll. of Community Sciences, Green Bay) **Dating involvement and patterns of idealization: A test of Waller's hypothesis.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 765-771.—Primary respondents (231 male and female undergraduates), representing 3 degrees of emotional involvement with their dating partners, and 462 of their best friends evaluated the frequency with which each primary respondent's dating partner exhibited 17 characteristics. Data were used to test the hypothesis, derived from W. Waller's analysis of idealization, that individuals tend to be differentially idealistic about their dating partners in the order of casual < moderate < serious involvement. Support for the hypothesis was not found among either male or female involvement groups. Male groups exhibited significant differences in total idealization scores indicating decreasing idealization with increasing involvement. Significant differences were not found among female groups, although data indicate a trend similar to that for males. An explanation is offered to account for findings.—*Journal abstract*.

8119. Spier, Morris S. (Michigan State U.) **Improving interpersonal sensitivity: An evaluation of a stereotype accuracy training program.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1582.

8120. Stone, Thomas H. (U. Minnesota) **The effects of mode of organization, type of feedback, and source of evaluation on the performance and satisfaction of creative task groups.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1582.

8121. Vidmar, Neil & Hackman, J. Richard. (U. Western Ontario, London, Canada) **Interlaboratory generalizability of small group research: An experimental study.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 129-139.—Describes an experiment, examining the effects of group size and task type on group performance and member reactions, which was conducted simultaneously at 2 different university laboratories with 324 Ss. Considerable effort was expended to minimize as many differences as possible (i.e., same tasks, questionnaires, standardized instructions, and data analysis by the same research personnel). However, the laboratory factor accounted for a sizable number of main and interaction effects. These results were probably due to differences in S populations and/or the ways in which Ss were recruited (i.e., volunteering vs. required participation). Because differences between the replications were considerably less than those which exist between most small group studies, the generalizability of small group research is questioned. Suggestions for increasing generalizability are discussed. (22 ref.)—*Author abstract*.

8122. Watson, Eugene R. (U. North Carolina) **Interpersonal changes through immediate feedback approaches.** *Adult Education*, 1969(Sum), Vol. 19(4),

251-267.—Considers the improvement of the quality of interpersonal behavior as an increasing responsibility of adult educators. The desired changes, however, are difficult to state as objectives, and the outcomes even more difficult to assess. Research with programed materials and human relations laboratory training is reviewed. Systems for immediate and direct feedback on behavior are concluded to accomplish interpersonal changes in: self-awareness, perception of others, openness, acceptance, decrease in extreme needs, group understandings and skills, and self-confidence. The crucial role of the trainer is examined. (53 ref.)—*Journal abstract*.

8123. Williams, Robert L., Cormier, William H., Sapp, Gary L., & Andrews, Henry B. (U. Tennessee, Coll. of Education) **The utility of behavior management techniques in changing interracial behaviors.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 127-138.—Appraised the effects of 5 treatment conditions (contingent teacher reinforcement, peer reinforcement, role modeling, group process) and control on 2 major dimensions of interracial harmony, biracial sociometric measures and biracial behavioral interaction. 60 racial isolates in 5 racially balanced classes of a metropolitan junior high school served as Ss. A main effect positive change was obtained on both the sociometric and behavioral measures. Differences between groups in amount of change were statistically nonsignificant. However, the raw data indicate that the control group made the least improvement of any treatment group on both dependent variables.—*Journal summary*.

8124. Zwiren, Abbie & Zielke, Susan. **Training group leaders in the 7-Step Technique.** *Journal of Emotional Education*, 1969(Sum), Vol. 9(3), 108-112.—Describes a 7-step technique of training group-leaders in "how to identify emotions, methods of developing emotional awareness, and [increasing] facility in problem-solving."—S. Appelle.

Influence & Communication

8125. Cook, Mark & Laljee, Mansur. (U. Oxford, England) **The interpretation of pauses by the listener.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 375-376.—Tested the hypothesis, originally presented by H. Maclay and C. E. Osgood, that filled pauses (FP) are signals by the speaker that he is not finished (even though he has paused) by determining whether such FPs are interpreted by listeners as meaning that the speaker has not finished. 2 experiments were made using 32 and 120 Ss, respectively. Results did not confirm the findings of Maclay and Osgood. In Exp. I, Ss took less time to conclude that the speaker had finished when his utterance ended with an FP, and in Exp. II the presence of a silent pause caused a majority of Ss to think the speaker had finished. Despite these findings, it is concluded that the methods of Maclay and Osgood are valid.—P. McMillan.

8126. Foot, Hugh C. & Lee, Terence R. (U. Wales, Inst. of Science & Technology, Cardiff) **Social feedback in the learning of a motor skill.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 309-319.—Studied the motivational effects of the transmission of results between members of a group performing a motor task. Ss were 15-yr-old school children. Exp. I compared learning by (a) 18 Ss in 3-man groups, whose feedback consisted of their own and each other's

results; and (b) 18 similarly grouped Ss, who received only their own results. The former Ss performed significantly better, and with less variability, than the latter. Exp. II, of similar design, varied the information received by Ss concerning whether or not their own results were displayed to the other group members. Findings suggest the operation of 2 processes: (a) reinforcement through evaluation of own performance with social norms, which significantly increased the rate of learning; and (b) motivation through an audience effect which increased the general level of performance. The evaluation process operated only after the 1st feedback of others' results, while the audience effect operated immediately. Findings are discussed in relation to other evidence from social comparison and audience studies. (29 ref.)—*Journal abstract*.

8127. Hardy, Kenneth R. & Larsen, Knud S. (Brigham Young U.) **Personality and selectivity factors as predictors of social conformity among college girls.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 147-148.—Reports results of 3 studies analyzing the behavior of 30 female undergraduates in resolving conflict between religious and general American norms in the areas of dress fashion, cosmetics, hair styling, and dance behavior. 2 studies employed validated self-report questionnaires, and the 3rd used actual dress-length measures. Religious norm support in the parental home, academic achievement, and living on campus at a parochial school were all related to closer adherence to the religious norms. The vast majority of Ss, however, adopted a moderate position between the conflicting norms.—*Author abstract*.

8128. Heller, Frank A. (Tavistock Inst. of Human Relations, Human Resources Centre, London, England) **Group feed-back analysis as a change agent.** *Human Relations*, 1970(Aug), Vol. 23(4), 319-333.—Discusses the possible applications of group feedback analysis (GFA) in effecting organizational change. Applications of GFA to various forms of action research are described. Analysis of the systematic feedback mechanism in GFA is contrasted with the level and focus of analysis of motivational forces in T-group processes. (59 ref.)—W. W. Meissner.

8129. Kadane, Joseph B. & Lewis, Gordon H. (Yale U.) **The distribution of participation in group discussions: An empirical and theoretical reappraisal.** *American Sociological Review*, 1969(Oct), Vol. 34(5), 710-723.—The distribution of participation in small task-oriented group discussions has been described as harmonic or exponential. With evaluations based on different measures of goodness of fit, the harmonic function was rejected, and the exponential function accepted in its place. Reanalysis of the evidence shows that the exponential function does not describe the data any better than the harmonic. Several attempts have been made to explain why an exponential relation should occur. Since no explanations have been offered for the harmonic, the existence of explanations for the exponential relation should play a crucial role in the choice of a description. Analysis of the proposed explanations of the exponential reveals them to be inadequate. (15 ref.)—*Journal abstract*.

8130. Levine, John M. (U. Wisconsin) **Social support, conformity reduction, and the bases of social influence.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 932.

8131. Liendo, Ernesto C. **Análisis de un modelo**

posible de Interpretación en el grupo operativo: El trabajo con grupos operativos: I. [Analysis of a model of interpretation for operative groups: I.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Mar), Vol. 15(1), 34-42.—Proposes a theoretical model of interpretation to be applied with operative groups. It is based on the assumption that whatever is communicated by a member of a group must be interpreted in 3 levels, as an expression (a) of all the members of the group; (b) of a transferential link between the members of the group and the coordinator; and (c) of the structure composed by the group, the coordinator, and their common task.—*English summary.*

8132. Liendo, Ernesto C. **Momentos típicos en el trabajo con grupos operativos: El trabajo con grupos operativos: II. Pretarea, dilema-problema, decisión y nuevo proyecto.** [Characteristic moments in operative groups' work: Work with operative groups: II. Pretask, dilemma, problem, decision and new project.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Mar), Vol. 15(1), 43-54.—Describes and exemplifies a theoretical model of interpretation to be applied with the operative group. Different "moments" of the therapeutic session are noted: pretask (preparatory to the session's task); evident dilemma (the group coordinator points out the evident, and interprets the latent, dilemma); evident problem (the coordinator points out the evident, and interprets the latent, problem); decision (insight, synthesis attained); and new project.—*English summary.*

8133. Monaghan, Robert R. & McCarthy, Kathleen E. (Ohio State U.) **A media-directed communication learning program.** *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 5-15.—Describes a self-supervised, TV-taught workshop aimed at promoting individual improvement in interpersonal relationships and communication. Each of the 9 sessions is fully described.—*A. Krichew.*

8134. Myers, David G. & Bishop, George D. (Hope Coll.) **Discussion effects on racial attitudes.** *Science*, 1970(Aug), Vol. 169(3947), 778-779.—Predicted that discussion would enhance dominant group values, leading to increased polarization between homogeneously composed groups of high-, medium-, and low-prejudice high school Ss (N=256). Ss had previously been administered the Woodmansee and Cook Multifactor Racial Attitude Inventory. In an experimental condition, Ss made individual attitude judgments, discussed them, and remade judgments. Controls discussed irrelevant materials before responding again to the attitude items. As predicted, discussion of the racial attitude items with others having similar attitudes significantly increased the gap between high- and low-prejudice groups.—*Journal abstract.*

8135. Saltzstein, Herbert D. & Diamond, Rhea M. (Massachusetts Inst. of Technology) **Transfer of social influence effects across stimulus modalities.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 91-98.—Describes an experiment testing whether or not social influence effects on judgments are due to an actual change in the judge's strategy, method, or standard, using a transfer procedure. Young male adult Ss made base-line judgments, separately, of the roughness of abrasives and the heaviness of weights. A cross-modal matching procedure was used whereby Ss produced lengths of a (blank) tape to match the magnitude of the stimuli. In a 2nd session, the judgments of roughness

were influenced by exposure to discrepant estimates made by a (confederate) peer. Afterwards and in private, Ss showed an influence effect on both judgments of roughness and weights (which they had never seen the peer judge).—*Author abstract.*

8136. Singh, Yadavendra P. & Pareek, Udai. (Punjab Agricultural U., Hissar, India) **Discriminant function in a profile pattern of key-communicators in an Indian village.** *International Journal of Psychology*, 1970, Vol. 5(2), 99-107.—Study of interpersonal communication in an Indian village through acts performed by key communicators as compared to noncommunicators, reveals key communicators as higher in socioeconomic status, a variable significantly correlated with other variables investigated: social preference, contact with change agents, adoption of new practices, skill in communicating effectively, and influence on decision-making. In Indian villages, leadership generally rests with few persons, a condition typical of authoritarian culture. Persons high in socioeconomic status find their situation reinforced, perpetuated. To build new leadership, it would be interesting to try and to evaluate new ways of effecting change. (French abstract) (32 ref.)—*S. E. Gavin.*

8137. Sistrunk, Frank & McDavid, John W. (State University System of Florida, Tallahassee) **Sex variable in conforming behavior.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 200-207.—Reports the results of 4 experiments with 80, 90, and 60 undergraduates, respectively, in Exp. I, II, and IV, and 40 high school students in Exp. III. Ss performed a 65-item conformity measure constructed to control for sex relatedness of the judgmental task. Data led to the conclusion that the simple explanation of sex differences in conformity as a function of cultural role prescriptions is inadequate, and that a disregard for the nature of the experimental tasks has contributed to artificially inflated observations of sex differences in conformity. (31 ref.)—*Journal abstract.*

8138. Slater, Robert. (Liverpool U., Medical Research Council, England) **Characteristics of cooperation in a volunteer panel.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 371-372.—Examined differences between responders and nonresponders from a panel of 690 volunteers to a simple 3-page questionnaire. Variables studied for response characteristics were age, sex, intelligence (verbal and nonverbal), social class, educational level, and personality measures of neuroticism and sociability. Results suggest that overall differences that did occur are determined more by the response patterns of the women than the men. It is concluded that characteristics of the cooperative individual are not necessarily those of the cooperative man but are those of the cooperative woman.—*P. McMillan.*

8139. Tripi, Gabriele. (Psychiatric Hosp., Trapani, Italy) **Considerazioni sull'importanza dei fattori ambientali nella profilassi dell'aggressività: I. Films di violenza nel determinismo dell'aggressività.** [Considerations on the importance of environmental factors in the profile analysis of aggressiveness: I. Films of violence in determination of aggressiveness.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 557-561.—Reviews the role of violent movies in the origin of aggression.—*L. L'Abate.*

8140. Ziller, Robert C., et al. (U. Oregon) **The neutral in a communication network under conditions of conflict.** *American Behavioral Scientist*, 1969(Nov), Vol.

13(2), 265-282.—Investigated "persuasion in the presence of a neutral member and under varying conditions of tenure of the persuader," the effect of the neutral's position in the communications network, and the difficulty of decision-making. Ss were 48 new naval recruits in Exp. I and 83 volunteer male undergraduates in Exp. II. It is concluded that "the neutral widens the scope of conflict" by expanding it into the ethical domain and prolonging it. Results are examined in relation to their implications for a democratic sociopolitical form.—G. Steele.

Social Perception & Motivation

8141. Aronson, Elliot. (U. Texas) **Some antecedents of interpersonal attraction.** *Nebraska Symposium on Motivation*, 1969, Vol. 17, 143-173.—Reviews several years of experimental work on "what makes people like one another." People tend to like people who are close to them, agree with them, are similar to themselves, are "nice," who like them in return, whose needs interact with theirs, and who are competent. Visual perception (as opposed to nonvisual perception, e.g., the sense of touch) is mentioned as exercising a very conservative influence on our judgments of people as homely, funny-looking, ugly, pretty, etc. Comments by P. Zimbardo follow. (52 ref.)—J. M. Roberts.

8142. Barefoot, John C. & Straub, Ronald B. (Carleton U., Ottawa, Ontario, Canada) **Opportunity for information search and the effect of false heart-rate feedback.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 154-157.—Investigated the role of information search in the attribution of physiological states by manipulating the S's opportunity for information search following the presentation of false information about his heart-rate reactions to photographs of female nudes. 36 male undergraduates served as Ss. Consistent with the self-persuasion hypothesis proposed by S. Valins, the rated attractiveness of the slides was not affected by the false heart-rate feedback for Ss who were prevented from visually searching the slides. Ss who had ample opportunity to view the slides rated those slides accompanied by false information of a heart-rate change as more attractive than those slides which were not paired with a change in heart rate.—*Journal abstract.*

8143. Bergius, Rudolf; Werbig, Hans, & Winter, Gerhard. (U. Tübingen, Psychological Inst., W. Germany) **Urteile deutscher Arbeitnehmer über Völker in Relation zur Zahl ihrer ausländischen Bekannten: I. Theorie, Methode der Erhebung und kollektive Stereotypen.** [Judgments of German workers about other people in connection to the number of their foreign acquaintances: I. Theory, method and collective stereotypes.] *Psychologische Beiträge*, 1970, Vol. 12(2), 241-310.—Provides a short orientation regarding drive-dynamic, stimulus response, theoretical, and cognitive-theoretical aspects in order to explain the connection between the judgments of 800 German workers regarding people and the number of their foreign acquaintances. The method of questioning, selection of the sample, and the found stereotypes are discussed. (31 ref.)—*English abstract.*

8144. Dienstbier, Richard A. & Munter, Pamela O. (U. Nebraska) **Cheating as a function of the labeling of natural arousal.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 218-213.—Hypothesized that it is not emotional arousal per se which

influences one to inhibit or avoid cheating, but one's interpretation of the meaning and significance of that arousal. 105 naive undergraduates were told that this was a study of a vitamin supplement's effects on vision, and given 1 of 2 lists of side effects associated with the placebo pill. While waiting for the visual-perception task, Ss experienced failure on a vocabulary test, supposedly predictive of college success, and received an opportunity to cheat on the test by changing answers. It was anticipated that all Ss who considered cheating would experience some arousal, but Ss told to expect drug-induced side effects related to sympathetic arousal would not label their experienced arousal as fear or guilt, and would cheat more than Ss who anticipated benign side effects. Of Ss expecting arousal side effects, 49% cheated, as compared with 27% of the control Ss ($p < .025$). Sex differences and implications for theoretical approaches to emotion and conscience are discussed.—*Journal abstract.*

8145. Galper, Ruth E. (New York U.) **Recognition of faces: The role of expression.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1518.

8146. Geen, Russell G. & Stonner, David. (U. Missouri) **Effects of aggressiveness habit strength on behavior in the presence of aggression-related stimuli.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 149-153.—Tested and confirmed the hypothesis that reinforced Ss react more aggressively to violence-related words than do nonreinforced Ss. 24 male undergraduates were given either a verbal reinforcer or no reinforcer for delivering electric shocks to another person each time a light went on. Reinforced Ss increased the intensity of shocks delivered over a long series more sharply than did nonreinforced Ss. Reinforced Ss also subsequently gave more intense shocks than nonreinforced Ss in response to a verbal stimulus related to aggression. Nonreinforced Ss inhibited aggression in the presence of aggressive verbal cues. Results are discussed in terms of antecedent habit strength which increases the intensity of responses to stimuli related to aggression. (15 ref.)—*Journal abstract.*

8147. Hare, A. Paul. (Haverford Coll.) **The Conditional Personality Test: A crosscultural analysis.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 141-142.—Administered a personality test to Peace Corps volunteers in the Philippines and university students in the United States, Nigeria, and the Philippines in which Ss indicated their responses to persons who were dominant, positive, submissive, and negative with specified age, sex, and intelligence characteristics. Results indicate that across cultures, Ss are more active with a younger person or 1 of less intelligence, and more agreeable with persons whose interaction pattern is consistent with their age and intelligence. Negative behavior pulls a negative response. Quiet-active behavior shows a greater variation between national groups than critical-agreeable behavior.—*Author abstract.*

8148. Herrenkohl, Ellen M. (New York U.) **A study of the influence of two forms of defensive projection on the perception of hostility in others.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1537-1538.

8149. Kelley, Harold H. & Stahelski, Anthony J. (U. California, Los Angeles) **Errors in perception of intentions in a mixed-motive game.** *Journal of Experimental Social Psychology*, 1970(Oct), Vol. 6(4), 379-

400.—Instructed 338 female undergraduate Ss in playing a version of the Prisoner's Dilemma game (PDG). Then, faced with the prospect of interaction with an unspecified partner, each S expressed her intention about how the PDG relationship should develop. An experimental design was formed by placing together pairs of Ss having similar or different intentions. Unaware of each other's expressed intentions, the Ss judged them at several points during their interaction. Their behavior in the game and parallel judgments made by Os of the game provided the context for interpreting errors in their judgments. Results indicate that the degree of cooperativeness of intention of noncooperative players is usually judged more accurately than that of cooperative ones. Judgments of the latter vary as a function of the cooperativeness of the person with whom they are playing, and the errors tend to be assimilative. Of 2 possible interpretations of these errors, projection vs. influence, the evidence favors the latter. Cooperators are found to exhibit behavior similar to that of the persons with whom they are interacting. Consistent with these judgmental and behavioral data are reports from the cooperative members of mixed pairs (Coop-Noncoop) indicating that they have greater difficulty maintaining their intentions than do their partners, and that they are aware of the lesser responsibility they have for the course of the relationship. Results are also reported for trends over blocks of trials.—*Journal abstract.*

8150. Lieblich, Amia. (Hebrew U., School of Education, Jerusalem, Israel) **Reaction to the frustration of the other.** *Human Relations*, 1970(Aug), Vol. 23(4), 335-344.—Studied responses to the frustration or arbitrary frustration of the other in a dyadic relation. The O's response of pity, trying to help, and reproach were more intense than others. Additional information on the arbitrariness or justice of the other's frustration could change the O's attitude. When the other is reported to have a positive need, Os react sympathetically. If frustration is unjust, he is still regarded as good; but if the frustration is just, he is seen as bad, and the reaction pattern changes. The results support the claim that people believe in a just world where individual value and lot are linked. The real situation of the other are used to evaluate him and his value.—*W. W. Meissner.*

8151. Rosenthal, Ted L., Rogers, Cecil, & Hurt, Maure. (U. Arizona) **Magical child-care beliefs and sequence and recall effects in social perception.** *Human Relations*, 1970(Jun), Vol. 23(3), 191-199.—Studied the influence of recency vs. primacy effects on social perception of 346 college sophomores. Evaluations of the stimulus character (including poverty, racial intermarriage, mental retardation, and suicidal depressions) were compared with ratings based on belief in a variety of magical child-care practices. Strong recency effects were found. The magic-1st order produced less rejection than the magic-2nd order. Effects were ascribed to attention and forgetting as a function of stimulus-vividness and were maintained after a 4-wk delay.—*W. W. Meissner.*

8152. Steinmann, Anne; Doherty, Mary A., & Fox, David J. (Maferr Foundation, New York, N.Y.) **Perceptions of women religious regarding the female role.** *National Catholic Guidance Conference Journal*, 1970(Fal), Vol. 15(1), 43-54.—Ss were 176 students and faculty members. Nuns of 20 yr. standing, in this study, were volunteers from the faculty. 75 controls were undergraduate public college women, comparable in the

age to the student nuns; 51 business women controls had an average age of that of the 30 faculty member nuns. The Maferr Inventory of Female Values was administered to each S under 3 forms: self-perception, woman's own ideal, and woman's man's ideal. Results showed that women in religious communities who are devoted to higher education have a different perception of the female role than do business women who are not in a religious community. Nun college faculty members showed striking differences in their scores from young student religious, not only in self-perception but in their perception of an ideal woman. Results suggest that these nuns express feelings as women and as individuals rather than the feelings that are commonly ascribed to them.—*A. M. Cawley.*

8153. Swingle, Paul G. (McGill U., Montreal, Quebec, Canada) **Ethnic factors in interpersonal bargaining.** *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 136-146.—Involved 64 male Canadian post-graduate students whose 1st language was either English (EC) or French (FC) in the Prisoner's Dilemma (PD) game against a bogus O who was represented as either an EC or FC. $\frac{1}{2}$ the Ss expected to meet O after the experiment, while the other $\frac{1}{2}$ were assured of anonymity. As predicted, both EC and FC were more forgiving—cooperation (C) following O's unilateral defection (D)—toward FC Os. Overall levels of C responses did not reveal reliable differences. Although there was a general trend toward greater disruption by FCs playing against ECs in the anonymity condition, the overall data indicate greater trustworthiness (C following CC) and repentance (C following DC) when Ss were assured anonymity. An illustration of the PD is included. (French summary) (19 ref.)—*Journal abstract.*

8154. Talley, Richard W. (Smith, Barney, & Co., New York, N.Y.) **Dissonance and expectations on a shop floor.** *Human Relations*, 1970(Aug), Vol. 23(4), 361-369.—Discusses the effects of cognitive dissonance and expectations on the behavior and attitudes of personnel on a shop floor. Managers were given misinformation about the ability of 2 groups, and even after contradictory results were available in which the supposedly excellent group performed poorly, many reasons were provided for their inability to perform. The results are taken to support the theory of cognitive dissonance as a motivating factor in its own right.—*W. W. Meissner.*

8155. Taylor, Donald M. & Gardner, Robert C. (McGill U., Montreal, Quebec, Canada) **Ethnic stereotypes: Their effects on the perception of communicators of varying credibility.** *Canadian Journal of Psychology*, 1969(Jun), Vol. 23(3), 161-173.—A French-Canadian speaker tape-recorded 2 messages, 1 confirming, the other disconfirming, the appropriateness of the French-Canadian stereotype to himself. 1 message was heard by 96 undergraduates under different conditions of credibility produced by varying message intent and setting, and political belief. Ss rated the speaker on semantic differential scales assessing stereotypical and evaluative attributes. Ratings on the stereotypical dimension were influenced by message content and setting, whereas ratings on the evaluative dimension were primarily influenced by message content and political belief. Results suggest that a member of an ethnic group can, under some situations, modify stereotyped reactions to him, but that this tends to engender an unfavorable reaction in the listener. (French summary) (15 ref.)—*Journal abstract.*

8156. Warr, Peter B. & Haycock, Valerie. (U. Sheffield, Social & Applied Psychology Unit, England) **Scales for a British personality differential.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 328-337.—Outlines a classification of judgment situations which highlights the need for different investigations to examine different sets of response dimensions. A study is described which employed orthodox procedures to elicit adjectival qualifiers from 100 men and women in lower- and middle-class occupations, and to produce a usable set of personality differential scales. The factor structure of these scales is examined in 2 separate analyses. In both cases a 6-factor solution appears most appropriate, such that 2 variants of evaluation, potency and activity are present. The relevance of this finding for cross-cultural studies of personal judgment is discussed.—*Journal abstract.*

8157. Weiss, Robert F. & Miller, Franklin G. (U. Oklahoma) **The drive theory of social facilitation.** *Psychological Review*, 1971(Jan), Vol. 78(1), 44-57.—Extended the scope and power of the drive theory of social facilitation with learning theory models of drive. Existing theory employs the irrelevant drive paradigm, in which neither the initiation nor the termination of audience observation is contingent on the behavior of the S or on the onset of the CS. Extensions include escape and avoidance of audience observation, and the classical conditioning of symbolic audiences. 9 methods for varying the strength of audience-induced drive are developed, based on the model of learned drive, including extinction, summation, generalization, acquisition, and 5 forms of inhibition. (3 p. ref.)—*Journal abstract.*

COMMUNICATION

8158. Brady, Paul T. (Bell Lab., Holmdel, N.J.) **Effects of transmission delay on conversational behavior on echo-free telephone circuits.** *Bell System Technical Journal*, 1971(Jan), Vol. 50(1), 115-134.—Attempted to determine the effects of echo-free transmission delays of 600 and 1200 msec. on conversational behavior when Ss were unaware that delay was present. 16 pairs of male Ss conversed 10 min. each over an echo-free telephone circuit with zero delay and 10 min. each with 600-msec roundtrip delay; a 2nd group of 16 pairs conversed 10 min. each on zero delay and 1200-msec roundtrip delay. Ss noticed nothing unusual about the circuit, but the delay caused a statistically significant increase in frequency of confusions and in amount of both double talking (simultaneous speech from both speakers) and mutual silence. Analysis by means of an on-off pattern generating model revealed that Ss seem to make some adjustments in their speaking behavior; they tend to wait longer for responses and keep talking longer when interrupted. The 2 delay values of 600 and 1200 msec. produced virtually identical effects in the measures made here. All Ss were inexperienced with delay circuits; this experiment does not address itself to the possibility that experienced Ss might react differently to the delay. Further work will investigate the effects of training Ss to notice delay.—*Journal abstract.*

8159. Landy, Eugene E., Gordon, Robert L., Heavin, Sherry L., & Hood, William R. (Eds.) (San Fernando Valley State Coll.) **A critical analysis of "Transaction."** Norman, Okla.: U. Oklahoma, Inst. of Group Relations, 1968. 33p.

8160. Maier-Rothe, Christoph. (U. Pennsylvania) **Evaluation of some judgmental indices of measures of information, instruction and motivation conveyed by messages.** Washington, D.C.: U.S. Dept. of Commerce, National Bureau of Standards, Inst. for Applied Technology, 1968. iv, 32 p.

8161. Rogers, Everett M. *Diffusion of Innovations Research Report*, Michigan State U., 1968(Sep), No. 6-A, 36 p.

8162. Weakland, John H. (Mental Research Inst., Palo Alto, Calif.) **Anthropology, psychiatry and communication.** *American Anthropologist*, 1969(Oct), Vol. 71(5), 880-888.—Examines new concepts of communication derived from anthropological and psychiatric studies and their applications in both fields. Communication is discussed as: (a) interaction and behavior; (b) expression and influence; (c) codification and interpretation; and (d) multiple—having verbal, non-verbal, and contextual aspects. In psychiatry these principles provide a method of understanding "confused, mixed, and receiving conflicting behavior... as possibly a logical or appropriate response to receiving conflicting messages," e.g., understanding the language of schizophrenics. In anthropology these concepts provide a framework for analyzing relationships and social contacts, ritual and ceremony, myths, and kinship patterns, and for broadening linguistic studies. "Once attention is explicitly focused on their communicative aspect, all sorts of behavioral phenomena... can be observed, analyzed, and above all interpreted, in terms of 1 general conceptual framework," and communication and applicability of findings between fields is facilitated. (20 ref.)—S. Knapp.

Language

8163. Griffiths, Patrick. (National Inst. of Personnel Research, Johannesburg, South Africa) **Karaka relations and Chomsky's LAD.** *Psychological Scene*, 1968(Sep), Vol. 2, 61-64.

8164. Hiz, Henry. (U. Pennsylvania) **Referentials.** *Transformations & Discourse Analysis Papers*, U. Pennsylvania, 1968, No. 76, 37 p.

8165. Ismailov, B. **Yazyk i poznanie mira.** [Language and knowledge of the world.] Tashkent, USSR: Fan, 1969. 146 p.—Presents an analysis of the "dialectical interconnection of language and thought."—I. D. London.

8166. Liberman, A. M. (U. Connecticut) **The grammars of speech and language.** *Cognitive Psychology*, 1970(Oct), Vol. 1(4), 301-323.—The conversion between phonetic message and acoustic signal, i.e., speech, is a grammatical code, similar in interesting ways to syntax and phonology. Being more accessible to experiment, speech should, therefore, be an inviting object of study for those interested in the psychology of grammar. Experiments on speech have already provided some information about the psychological processes associated with the use of grammatical codes. Each of these codes speeds communication by delivering the information in parallel. But the gain in speed is achieved at the cost of a considerable complication, since it is in the nature of the codes that they restructure the information; as a result, the levels they link do not correspond in the number or shape of their segments. It is argued that questions about the uniqueness of language are more likely to be answered satisfactorily at the level of speech than

elsewhere. Studying language at the level of speech enables one to go beneath language behavior down to the mechanisms that underlie it. (38 ref.)—H. W. Hamilton.

8167. Liu, In-mao & Chuang, Cong-jen. (National Taiwan U., Taipei) [Scaling 1,200 Chinese characters for meaningfulness.] *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 33-52.—Divided 1200 Chinese characters into 4 equal sets. Ss were 2000 undergraduates, divided into 4 equal groups who wrote down the 1st associate and, at the same time, rated the association value by means of a 5-point scale. For each character, Ss were to respond within 10 sec. Data, based on $\frac{1}{2}$ of the Ss, were analyzed according to scale value, popular response, 2nd popular response, percentage of responses, and number of distinct responses to each character.—English summary.

8168. Nordenstreng, Kaarle. Toward quantification of meaning: An evaluation of the semantic differential technique. *Annales Academiae Scientiarum Fennicae*, 1969, Vol. B-161(2), 35 p.—Describes the factor model of "semantic space," and criticizes the applicability of some of the assumptions of this model to the semantic differential. Also, the nature of the "meaning" measured is examined. It is concluded that the meaning measured does not exhaust the total meaning of the concepts and is in fact largely obscure. This is less a reflection on Osgood's technique than on the general lack of theory in the area of language meaning.—S. G. Vandenberg.

8169. Park, Tschang-Zin. (U. Münster, Psychological Inst., W. Germany) *Linguistische Bedingungen für lautsymbolische Experimente*. [Linguistic conditions for phonetic symbolism experiments.] *Psychologische Beiträge*, 1970, Vol. 12(2), 227-240.—Investigates whether phonetic symbolism is disseminated universally in all natural languages or whether a specific appearance in definite languages occurs. The structural, semantic, and phonetic peculiarities of various languages, including linguistic sources, are discussed. The importance of phonetic symbolism in the development of psycholinguistics is stressed. (French & English summaries) (15 ref.)—B. A. Stanton.

8170. Rosentsveig, V. Yu. (Ed.) *Mashinnyi perevod i prikladnaya lingvistika*. [Machine translation and applied linguistics.] Moscow, USSR: USSR Ministry of Higher & Secondary Specialized Education, 1969. 239 p.—Presents a collection of 9 articles, which describe the semantics of natural language, oriented toward the automated solution of a number of applied problems. A supplementary bibliography of recent works on machine translation and applied linguistics is included. The collection constitutes Issue 11 of *Trudy Instituta inostrannykh yazykov imeni Morisa Toreza* [Transactions of the Thorez Institute of Foreign Languages].—I. D. London.

8171. Shevoroshkin, V. V. *Zvukovye tsepi v yazykakh mira*. [Sound-chains in the languages of the world.] Moscow, USSR: Nauka, 1969. 188 p.—Presents an analysis of sound-chains in different languages, leading to the development of methods which enable the identification of linguistic units in unknown languages.—I. D. London.

8172. Smith, Philip T. (Oxford U., England) *Two experiments with artificial languages*. *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 583-591.—Reports 2 experiments where 36 and 72

Ss, respectively, learned simple artificial languages which contained synonyms, i.e., there were 2 equally correct verbal responses paired with each "referent" in the language: "referents" were simple visual patterns. In Exp. I (a memory task), Ss performed better with material of low auditory discriminability than with material of high auditory discriminability when they used 1 synonym of each pair more often than the other; the reverse was the case when they used each synonym equally often. In Exp. II (a 2-person communication task with a noisy channel), the degree to which pairs of Ss tended to use the same synonym for the same meaning was found to be nonmonotonic with the noise level in the communication channel: Ss tended to use the same synonyms for moderately high noise and very low noise more often than they did for very high and moderately low noise. The concept of decision cost is used to explain these results. Decision cost is a complex function both of discriminability and of response bias, and it is proposed that changes in decision cost in response to changes in response bias are responsible for results. (17 ref.)—Journal abstract.

8173. Snyder, Frank W. & Wiggins, Nancy. (Bell Telephone Lab., Holmdel, N.J.) *Affective meaning systems: A multivariate approach*. *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 453-468.—Applied a 3-mode factor analysis to the semantic differential ratings by 100 Ss of 20 concepts on 76 bipolar adjectival scales. 4 scale factors, 5 concept factors, and 2 S factors emerged from the analysis. On the basis of the interrelationships among factors it is concluded that different types of Ss tend to utilize the basic scalar dimensions of meaning in different ways when applying these scales across concepts. This application of scale dimensions varied with the class of concept being rated. (31 ref.)—Journal abstract.

8174. Vereshchagin, E. M. *Psikhologicheskaya i metodicheskaya kharakteristika dvuyazychiya (bilingvizma)*. [The psychological and methods aspects of bilingualism.] Moscow, USSR: Moscow U., 1969. 160 p.—Presents a psycho- and sociolinguistic analysis of bilingualism.—I. D. London.

Psycholinguistics

8175. Hakes, David T. & Foss, Donald J. (U. Texas) *Decision processes during sentence comprehension: Effects of surface structure reconsidered*. *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 413-416.—Investigated the usefulness of relative pronouns as cues to the deep structure underlying self-embedded (SE) sentences. At the same time, the relative sensitivity of 2 measures of sentence-comprehension difficulty—paraphrasing and phoneme monitoring—were compared. 40 undergraduates heard SE sentences, $\frac{1}{2}$ of which had the relative pronouns deleted. The presence or absence of the relative pronouns in a particular sentence was counterbalanced across groups. Ss also heard right-branching sentences. It was found that presence of the relative pronouns led to significantly faster phoneme monitoring times and to marginally better paraphrasing (i.e., better comprehension) in the SE sentences. It is concluded that relative pronouns are effective cues, and that the phoneme monitoring technique is a better index of comprehension difficulty than the paraphrasing technique. Reasons for previous experimental discrepancies are discussed.—Journal abstract.

8176. Jenkins, James J. (U. Minnesota) **The psychology of man: Tomorrow.** *Psychological Scene*, 1968(Sep), Vol. 2, 53-67.

AESTHETICS

8177. ———. **Bibliography for 1968.** *Literature & Psychology*, 1968, Vol. 20(4), 141-217.

8178. Alexander, Charlotte. (New York U.) **The "stink" of reality: Mothers and whores in James Baldwin's fiction.** *Literature & Psychology*, 1968, Vol. 18(1), 9-26.—Suggests that in James Baldwin's fiction physical intimacy is the means to emotional fulfillment, but with it there is always risk and mundanity, a "stink" of reality which results from a loss of purity, a loss of the idealized image. His characters reveal an unconscious conviction that women are either mothers or whores, and the imagery "strongly depicting a kind of sexual attraction which in early experiences often threatens, and which can later lead to homosexuality, or inordinate fear of homosexuality, or unreasonable fear of and distaste for females..."—S. Knapp.

8179. Boldrini, Pieragiuseppina. (U. Turin, Graduate School of Psychology, Psycho-Pedagogy, & Pedagogy, Italy) **Rapporti tra emozione e significato nella musica con particolare riferimento alla teoria strutturalistica di Leonard B. Meyer.** [The relationships between emotion and meaning in music with particular reference to the structuralistic theory of Leonard B. Meyer.] *Rivista di Psicologia Sociale e Archivio Italiano di Psicologia Generale e del Lavoro*, 1970(Jan), Vol. 37(1), 83-97.—Reviews the structural theory of L. B. Meyer on the relationships between emotion and meaning in music from the viewpoint of Gestalt principles. Considerable agreement was found between the 2 theories. (French & English summaries)—L. L'Abate.

8180. Dörner, Dietrich. (Christian Albrechts U., Inst. of Psychology, Kiel, W. Germany) **Eine Informations-theoretische Methode zur Bestimmung der ästhetischen Wirkung von Flächenmustern.** [An information analytic method to estimate the esthetic effect of pictures.] *Psychologische Forschung*, 1970(Sep), Vol. 33(4), 345-355.—Shows "that multivariate information analysis can be used to separate pictures regarded as nice from pictures regarded as ugly. A picture may be considered as a set of picture elements. Each picture element can be classified with regard to 3 variables, namely 'vertical position,' 'horizontal position' and color tone." The statistical relations between these variables are characterized by multivariate information analysis which results in 2 parameters. These parameters are the interaction between the variables and a balance coefficient for the variables "vertical" and "horizontal-position." In respect to these parameters, pictures, which are regarded as nice by human Ss, are separable from ugly pictures. Nice pictures show significantly higher interactions and lower balance coefficients than ugly ones. The dispersion of interactions and balance coefficients is lower at nice pictures."—R. Gunter.

8181. Edenbaum, Robert I. (Temple U.) **"Babylon revisited": A psychological note on F. Scott Fitzgerald.** *Literature & Psychology*, 1968, Vol. 18(1), 27-29.—Discusses F. S. Fitzgerald's story "Babylon Revisited," as an unconscious attempt by Fitzgerald to mask his guilt for what he insisted was his role in his wife's illness. A detail of the story which concerns the

omission of an explanation of how the characters of Lorrain and Dunc obtained Peter's address is discussed as a manifestation of Fitzgerald's unconscious self-destructive impulse.—M. Maney.

8182. Hoyle, James F. (Oakland U.) **Sylvia Plath: A poetry of suicidal mania.** *Literature & Psychology*, 1968, Vol. 18(4), 187-203.—Demonstrates the significant relationship between manic excitement and certain symbolic aspects of the imagery in the poetry of Sylvia Plath. Particular emphasis is placed on the poem "Lady Lazarus" in which the poet describes 3 manic depressive attacks. It is suggested that her poetry will interest the psychological critic since it reflects her suicidal mania and suggests her later suicide.—B. A. Stanton.

8183. Laszlo, Ervin. (State U. New York, Geneseo) **Fostering musical talent.** *Journal of Aesthetic Education*, 1969(Jan), Vol. 3(1), 55-67.—Examines aesthetic education in music and attempts to determine what musical talent is. Talent in the listener, composer, and performer is discussed. It is concluded that it is the task of music education to guide the student in the discovery of music as a means to express feeling. "The technical informative aspects of musical education are necessary, but... subsidiary to the aesthetic factor."—G. Steele.

8184. Sandberg, A. (Norwalk Community Coll.) **Erotic patterns in "The Paradise of Bachelors and the Tartarus of Maids."** *Literature & Psychology*, 1968, Vol. 18(1), 2-8.—Analyzes this diptych by H. Melville to offer support for W. B. Stein's interpretation of the story which classifies it as "an exploration of impotency, a portrayal of a man retreating to an all male childhood to avoid confrontation with heterosexual manhood."—M. Maney.

8185. Schreiber, Annette. (Long Island U.) **The myth in Charlotte Bronte.** *Literature & Psychology*, 1968, Vol. 17(1), 48-67.—Traces and interprets the central theme of Charlotte Bronte's fiction as "the destructive and self-destructive fantasy of the neurotic women-protagonists." It is proposed that, through this theme Bronte accomplished "something unique and brilliant with the novel form." She "developed a psychic allegory that allowed her to record the stream of unconsciousness contrapuntally with the consciousness of the emotionally deprived and alienated woman." It is concluded that future analysis of her novels will reveal her "not only as a brilliant innovator within the Gothic tradition, but a direct forerunner of many modern techniques, insights and novelists..."—M. Maney.

8186. Siegel, Paul N. (Long Island U.) **"Miss Jessel": Mirror image of the governess.** *Literature & Psychology*, 1968, Vol. 18(1), 30-38.—Suggests that critical analyses of Henry James' *The Turn of the Screw* have thus far missed a most important fact, "the fact that in each of 4 appearances of the apparitional Miss Jessel, she faithfully and unfailingly mirrors the actions of the governess." This fact is discussed as proof that the hallucinationist reading of this novel "is no critical aberration or irresponsible fancy, no hallucination of the critics themselves. It is a reading which itself the text is contrived to suggest." It is further suggested that both the apparitionist and the hallucinationist readings are valid, and that this is purposeful ambiguity which is essential to the novel's effect of terror produced by not knowing what is shadow and what is reality.—M. Maney.

8187. Vol'kenshtein, M. **Stikhi kak slozhnaya informatsionnaya sistema.** [Poetry as a complex informational system.] *Nauka i Zhizn'*, 1970, Vol. 37(1),

72-78.—Argues that the informational content of a poem immeasurably transcends the sum of the information included in its separate aspects. A "holistic informational system" is involved, where the informational content of the poem includes new information, emerging under its influence in the consciousness of the receptor.—I. D. London.

8188. Weiss, Aureliu. (Tufts U.) **Aesthetic prejudices and the perception of ideas: An educational problem.** *Journal of Aesthetic Education*, 1969(Jan), Vol. 3(1), 79-84.—Presents examples from the field of theatrical aesthetics to illustrate the power of attributing to ideas "a significance which goes beyond the intention of those who formulated them," thus producing unfounded prejudices which "can be erected into sacrosanct principles and end by shackling the free inspiration of writers."

8189. Wood, Theodore E. **Thoughts on the teaching of music.** *Journal of Aesthetic Education*, 1969(Jan), Vol. 3(1), 93-105.—Examines "the current situation in serious music" and postulates that modern "experimental music fails to communicate" because of a lack of "notes in rationally meaningful patterns." It is concluded that music education would improve aesthetic judgment.

SMOKING & DRUG & ALCOHOL USE

8190. ———. **Control of the stimulant addiction problem.** *Medical Journal of Australia*, 1969(Nov), Vol. 2(21), 1036-1037.

8191. Cahalan, Don; Cisin, Ira H., & Crossley, Helen M. **American drinking practices: A national study of drinking behavior and attitudes.** *Monographs of the Rutgers Center of Alcohol Studies*, 1969, No. 6, 260 p.

8192. Casse, Robert M. (Parsons Coll.) **Use of a "freak out" control center.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 403-408.—Reports the rationale and initial results of a campus drop-in center for college students with drug problems. Outlined specifically are the center's policy on drugs, hospitalization procedure, staff and facilities, and supportive therapy techniques. Initial findings include the elimination of hepatitis and freak outs, 2 common symptoms of drug abuse. It is reported that the program has also been effective in combating the problem of a hallucinogen drug crisis and generally in sustaining human life. The establishment of a firm philosophical basis and the availability of professionals interested in cooperating in such an endeavor are some of the major prerequisites for the development of such a program.—R. H. Mueller.

8193. Kanner, Mildred E. & Dupong, William G. (New York U., Medical Center) **Alcohol problems: Study by industrial medical department.** *New York State Journal of Medicine*, 1969(Dec), Vol. 69(24), 3105-3110.—Describes work with 300 employees of a large company who had problems with alcohol. Each employee in this group received a medical work-up, facts about the immediate and long-term effects of alcohol, specific advice, and repeated counseling with follow-up visits to the medical department. The evolution of this program and the procedure followed in the medical department are described. An 80.3% rehabilitation figure is cited and the cooperation and help from other sources, e.g., AA, is acknowledged. It is noted that the financial investment of the company is paying dividends through improvement in quantity and quality of work, decreased

accident hazard, and prevention of premature retirement of skilled employees.—M. Maney.

8194. Kuehn, John L. (Louisiana State U.) **The student drug user and his family.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 409-413.—A review of 41 drug-related cases revealed relevant information regarding drug users and their families. The major traits of drug users include the tendency to live excessively in the present, an excessively passive and reactive position in interpersonal relationships, serious cognitive difficulties, inexplicable depression, study difficulties not attributable to reality problems or difficulties in the environment, unrewarding sexual behavior, repression and rationalization, and intellectualization and isolation. It is suggested that the cause of the problems is an arrested state of psychosocial development which appears to be related to the "alienated student syndrome" and the fact that family difficulties are commonly expressed as the problem area for drug users. Several suggestions are provided for dealing with drug users in the counseling situation.—R. H. Mueller.

8195. Wieder, Herbert & Kaplan, Eugene H. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Drug use in adolescents: Psychodynamic meaning and pharmacogenic effect.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 399-431.

PERSONALITY

8196. Ching, Alvin W. (U. Minnesota) **The scientific explanation of moral behavior.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1531-1532.

8197. Medlicott, R. W. (Otago U., Medical School, Dunedin, New Zealand.) **An examination of the necessity for a concept of evil: Some aspects of evil as a form of perversion.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 271-280.—Examines the religiophilosophical background of good and evil and the attitudes towards good and evil in the optimistic and pessimistic views of life, and presents evidence that there is a driven destructiveness with common features which embraces many aspects of what has been termed evil. This driven destructiveness ranks as a serious form of perversion. Fictional, historical, and clinical examples of evil as a perversion, are presented. (22 ref.)—*Author summary.*

8198. Shainess, Natalie. (Columbia U., Coll. of Physicians & Surgeons) **Is there a separate feminine psychology?** *New York State Journal of Medicine*, 1970(Dec), Vol. 70(4), 3007-3009.—Responds to questions raised by women's liberation groups and to current statements that there are no psychological differences between the sexes. Freud's theories about women are outlined with emphasis on penis envy, narcissism, masochism, and passivity. Subsequent challenges to these theories by E. Jones, K. Horney, and C. Thompson are mentioned. However, it is concluded that there are distinct psychological differences between the sexes. Men are actively penetrating and women are receptive, but receptivity is not to be equated with passivity; it is an "active and assertive expression of the mastery of her own life."—S. Knapp.

8199. Sinha, T. C. **On aloneness.** *Samiksa*, 1969, Vol. 23(1), 1-8.—Explores the sense of and psychological features of aloneness in relation to its characteristic

features in psychoses, psychoneuroses, and "normal people," and as a mechanism of ego adjustment on the part of the child separated from its mother. Such reactive or negative type aloneness is contrasted with a positive type in which "the ego is in a restful and calm state having no reactive functions.... In such conflict-free state of mind, the ego, though temporarily withdrawn from all its various functions, becomes pregnant with immense potentialities and possibilities of concentrated creativeness."—*T. N. Webster.*

PERSONALITY TRAITS & PROCESSES

8200. Angelini, Arrigo L., Bitencourt Lomonaco, José F., & Rosamilha, Nelson. (São Paulo, Brazil) **Motivo de realização e desenvolvimento econômico.** [Motivation for achievement and economic development.] *Revista Interamericana de Psicología*, 1970(Mar), Vol. 4(1), 33-41.—Studied 494 male and female adolescents 12-18 yr. of age who lived in 4 regions of Brazil which were characterized by different stages of industrialization. Using projective techniques and methods established by D. C. McClelland, a correlation was found between motivation for achievement and degree of industrialization of the Ss' environs. Male and female Ss were evaluated separately. It was generally observed that a higher motivation for achievement is found in areas which are more advanced industrially. However, no cause and effect relationships were speculated. (English & Spanish summaries)—*P. Hertzberg.*
8201. Biller, Henry B. & Barry, William. (U. Rhode Island) **Sex-role patterns, paternal similarity, and personality adjustment in college males.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 107.
8202. Farley, Frank H. (U. Wisconsin) **Further investigation of the two personae of extraversion.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 377-379.—Reports a study to (a) cross-validate the relationship between sociability and impulsivity-reflectiveness, and between each of these and adjustment; and (b) determine the relationship of sociability and impulsiveness to dissimulation and age. 290 Ss were administered the Eysenck Personality Inventory which was scored for impulsiveness, sociability, neuroticism, and lie factors. Results indicate that (a) sociability and impulsivity showed an overall positive correlation, but lower than that reported by S. B. Eysenck and H. J. Eysenck (see PA, Vol. 38:916); (b) impulsiveness was negligibly related to adjustment; (c) impulsiveness was more susceptible to dissimulation than sociability, and (d) the "2 faces of extraversion" were not strongly a function of age.—*P. McMillan.*
8203. Fletcher, R. & Dowell, L. (Texas A & M U.) **Selected personality characteristics of high school athletes and nonathletes.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 39-41.—Data for this study were obtained from 950 male college freshmen. The measuring instruments used were the EPPS and an Information Check List. Differences in personality traits between athletes and nonathletes were determined by use of the t-test. Results from these instruments indicate that athletes tend to score higher on the traits dominance and aggression than do nonathletes, while nonathletes scored higher in the personality trait order than the athletes.—*Author abstract.*
8204. Green, Jane N. (Personnel Selection Analysts, Minneapolis, Minn.) **The unity of the self-image.** *Individual Psychologist*, 1970(May), Vol. 7(1), 3-7.—"Until the self-concept is known, the true goals of the person cannot be understood.... A recognizable personality implies consistency of behavior.... While changing situations bring new goals, the organization of the unified self consistently selects that direction of the goal which it will pursue. The striving for unified inner and outer achievement is constant.... To say that an individual is inconsistent is a contradiction, for while the environment may change, under normal conditions the person is consistently himself."—*A. R. Howard.*
8205. Hampton, John D. (Oklahoma State U.) **Intolerance of ambiguity: A coping mechanism or mode of evaluation?** *Revista Interamericana de Psicología*, 1970(Mar), Vol. 4(1), 43-49.—In an effort to establish a criterion for Frenkel-Brunswick's postulated variable "intolerance of ambiguity," 322 students of both sexes in 3 age groups consisting of 3 ethnic classifications were administered 2 measures of intolerance of ambiguity and a modified California F Scale. Ambiguity tolerance was investigated both as a coping mechanism and as a mode of evaluation. With 1 exception, neither test correlated with the F Scale refuting the postulated construct validity of intolerance of ambiguity with authoritarianism. Neither tests of ambiguity tolerance correlated at any of the age levels. Reliabilities for the coping measure at all age levels were acceptably high; however, the reliabilities for the other measures were quite low. Results suggest that ambiguity tolerance is behaviorally manifested as a coping mechanism and is not a function of authoritarianism. (Spanish & Portuguese summaries) (21 ref.)—*Journal abstract.*
8206. Levitov, N. D. **Psikhologiya kharaktera.** [Psychology of character. (3rd ed.)] Moscow, USSR: Prosveshchenie, 1969. 424 p.—*I. D. London.*
8207. Muñoz, Leonardo; St-Jean, Heliette, & Marconi, Juan. **Sugestibilidad al dormir: Relación con sugestibilidad primaria y secundaria y otros rasgos de personalidad.** [Sleep suggestibility: Relationship with primary and secondary suggestibility and other personality traits.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Mar), Vol. 16(1), 45-52.—30 Ss were given the Sleep Suggestibility Test (SST) and their performance compared to a number of tests. It was found that sleep suggestibility correlates positively with IQ, last yr. of school, and the Body Sway Test. Ss who responded positively to the SST showed a greater response to a Release Test when a relaxing effect was suggested, as compared to the response without any suggestion of relaxation. SST was not found to be related to secondary suggestibility tests, the MPI, and Sears' Self Reference Questionnaire. The relationship between sleep suggestibility and hypnosis suggestibility is discussed.—*English summary.*
8208. Sherrill, David & Salisbury, J. L. (Syracuse U.) **Manifest anxiety, extraversion, and neuroticism: A factor-analytic solution.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 19-21.—Intercorrelated item responses from 241 undergraduates, using the 20-item Manifest Anxiety Scale and the 6-item Extraversion and Neuroticism scales (each modified to expand the traditional dichotomous response alternatives). The resultant matrix was transformed to a matrix of covariances and subjected to image analysis. A series of factor-analytic solutions based on item data supports reported correlations among the 3 scales. Manifest anxiety and neuroticism were found to be largely

confounded and both to be factorially independent of extroversion.—*Journal abstract.*

8209. **Sinha, T. C. Observations on anxiety.** *Samiksha*, 1968, Vol. 22(4), 160-166.—Anxiety results (a) when apprehension of danger, etc., is considered by the infantile, strongly narcissistic ego to be aggressive acts by external agencies, e.g., luck, fate, God, etc., against the sufferer; and (b) when the amount of aggression is considered unbearable or unacceptable by the ego. When pain, loss, etc., are unavoidable or unremediable, however, the ego diverts its attention from suffering to an expectation of an ensuing good, thus minimizing pain and holding pleasure as the final end. 2 cases are presented of anxiety produced by apprehension of the future after suffering misfortunes. The Ss believed that God had punished them and would punish them further; they remained anxious until they accepted that if more aggression came they could not effectively resist it. It is suggested that a life free of anxiety, a state similar to that claimed by the Yogis, is theoretically possible.—*T. N. Webster.*

8210. **Sugarman, Daniel A. & Freeman, Lucy. The search for serenity: Understanding and overcoming anxiety.** New York, N. Y.: Macmillan, 1970. xi, 355 p. \$6.95.

8211. **Taft, R. (Monash U., Melbourne, Australia) A note on the characteristics of the members of Mensa, a potential subject pool.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 107-111.—Conducted a questionnaire study of the characteristics of 159 male and 57 female members (mean age, 28) of the Australian branch of the international Mensa organization which requires a high performance on an intelligence test for entry. Data indicate that members were more creative, imaginative, unconventional, and less practical than a control group, and tended to be earlier born, and to come from less happy and harmonious family backgrounds than controls. The question is discussed of whether the characteristics found for Mensa members are related to their high intelligence or to the fact that they represent a group of persons who have voluntarily joined this exclusive group. A combination of both these factors seems to be the most likely explanation.—*Author abstract.*

8212. **Templer, Donald I., Ruff, Carol F., & Franks, Cyril M. (Carrier Clinic, Belle Mead, N.J.) Death anxiety: Age, sex, and parental resemblance in diverse populations.** *Developmental Psychology*, 1971(Jan), Vol. 4(1, Pt. 1), 108.

8213. **Van Zaig, Jon. (Duquesne U.) An investigation into "the open and closed mind."** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1524-1525.

Behavior Correlates

8214. **Altfeld, David A. (New York U.) Effects of personality and situational factors on sensitivity to hostile expressions.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1528.

8215. **Ancona, Leonardo. (Catholic U., Medical School, Rome, Italy) Fattori psicodinamici dell'aggressività.** [Psychodynamic factors of aggressiveness.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 507-528.—After reviewing neurophysiological, biochemical, and psychoanalytic perspectives on aggression, a theoretical synthesis of

dynamic aggressivity is presented, according to the viewpoints of Erikson, Mailloux, Hartmann, and the experimental contributions of the author and his collaborators.—*L. L'Abate.*

8216. **Dembroski, Betty G. & Johnson, Dale L. (Florida Presbyterian Coll.) Dogmatism and attitudes toward adoption.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 788-792.—Related M. Rokeach's notion of dogmatism, viewed as a system or network of beliefs and attitudes, to the area of adoption attitudes. Rokeach's Dogmatism Scale and an adoption attitude scale were administered to 113 undergraduates. Hypotheses that dogmatism would be positively related to intolerant attitudes toward adoption and areas related to adoption were almost wholly supported for the 61 males in the sample, but not the females. Results suggest that the emphasis on the maternal aspects of the feminine role in our society makes attitudes toward adoption an exception to Rokeach's theory of dogmatism.—*Journal abstract.*

8217. **Fischer, Edward H., Herschberger, Austin C., & Winer, David. (Connecticut Valley Hosp., Middletown, Conn.) The verbal reinforcement technique in personality research.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 79-89.—Studied 5 variables which theoretically relate to behavior under verbal reinforcement: self-esteem, task-involvement, E (role) difference, birth order, and family size. 2 experiments used 120 male undergraduates, naive Es, and controlled against informational discrepancy between reinforcement conditions. Results indicate that (a) negative reinforcement produced greater performance increments than positive reinforcement or nonevaluation, suggesting a psychological distinction between criticism and praise; (b) low self-esteem Ss tended to improve more with criticism than high self-esteem Ss; and (c) persons from small families responded more to evaluation and specifically to praise than large family Ss. Task-involvement, E, birth order, and social class variables showed no main effects and did not interact with verbal reinforcement. (27 ref.)—*Journal summary.*

8218. **Hekmat, Hamid. (Wisconsin State U., Stevens Point) Extraversion, neuroticism, and verbal conditioning of affective self-disclosures.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 64-69.—Examined the effects of neuroticism and extroversion in verbal conditioning of affective self-disclosures in 50 undergraduates on the basis of their scores on Eysenck's Personality Inventory. Ss were assigned to 4 experimental groups: neurotic-extroverts, stable-extroverts, neurotic introverts, stable-introverts, and a control group. Ss in experimental groups were reinforced with "good" for verbalization of affective self-disclosures. Controls received no reinforcement. Results indicate that introversion, and not neuroticism, facilitated conditioning processes. Neuroticism, however, did not interact significantly with extroversion on the conditioning of affective self-disclosures. Results also show that introverted Ss were more resistant to extinction than extroverted ones. Neuroticism, however, neither interacted with extroversion nor influenced extinction processes significantly. (15 ref.)—*Journal abstract.*

8219. **Izzett, Richard R. (State University Coll. New York, Oswego) Authoritarianism and attitudes toward the Vietnam war as reflected in behavioral and self-report measures.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 145-148.—Tested the

hypothesis that authoritarianism as measured by the California F Scale would be related to both behavioral and self-report measures of Ss' attitudes toward United States involvement in the Vietnam war. The F Scale and a 6-statement self-report questionnaire pertaining to the Vietnam war were administered to 131 undergraduates. 65 Ss actively demonstrated against United States involvement in the Vietnam war by not attending class on the day of the October 15, 1969 moratorium on the Vietnam war. In support of the hypothesis, these 65 Ss had significantly lower F-scale scores and had stronger anti-Vietnam war attitudes, as reflected in the self-report questionnaire.—*Journal abstract.*

8220. Kořaliková, Veronika. (Comenius U., Bratislava, Czechoslovakia) **Obráz o sebe v regulácii ľudského správania.** [Self-image in the regulation of human behavior.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 3-18.—Introduced the opinion that development and education make the image of oneself acquire a more important role in the regulation of behavior to explain forms of seemingly nonhomeostatic behavior which preserve or gain equilibrium, supporting *raison d'être* of the homeostatic theory in psychology. (Russian & German summaries) (26 ref.)—*English summary.*

8221. Petrò, Carlo. (Province of Milano Psychiatric Services, Italy) **Adgredior-aggressività.** [Adgredior-aggressiveness.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 547-556.—Reviews the contribution of Jung to the study of aggressive behavior.—*L. L'Abate.*

8222. Sager, Eric B. & Ferguson, Leonard W. (Ohio U.) **Person perception as a function of perceiver's position on a cold-warm dimension.** *Psychological Record*, 1970(Sum), Vol. 20(3), 321-325.—This article is 1 of a series by L. W. Ferguson, et. al. describing person-perception data secured by 377 simulated employment interviews. It is demonstrated that perception of others is a function of O's position on a cold-warm personality dimension. In describing others after an interview, 70 warm interviewers made the most frequent use of warm-related adjectives; 200 "intermediate" interviewers, the 2nd-most frequent; and 107 "cold" interviewers, the least.—*Journal abstract.*

8223. Scott, J. P. (Bowling Green State U., Center for Research in Social Behavior) **Biology and human aggression.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 568-576.—Defines agonistic behavior as a system of related behavior patterns having the common function of adaptation to situations of conflict between members of the same species. It is felt that biological bases for this kind of behavior do exist for the various species. It is equally probable, however, that because of man's unique genetic composition no direct analogies from any other species to man are justified. (34 ref.)—*Journal abstract.*

8224. Singh, Narayan P. (Delhi U., India) **Risk-taking and anxiety among successful and unsuccessful, traditional and progressive agricultural entrepreneurs of Delhi.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 301-308.—Randomly selected 80 successful and unsuccessful agricultural entrepreneurs in a study using 4 cells of a 2 × 2 factorial design, with 20 Ss in each cell. An adapted Hindi version of Bendig's Pittsburg revision of the MA scale for measuring anxiety and Kogan and Wallach's choice-dilemma procedure for measuring

risk-taking were administered to each S. Findings reveal that traditional Ss, whether successful or unsuccessful, exhibited higher anxiety scores and more extreme (high or low) risk-taking scores than progressive Ss, who showed moderate risk-taking scores. In the case of successful entrepreneurs, a positive nonsignificant trend of relationship between anxiety and risk-taking scores was obtained, but a significant inverse relationship was found in the case of unsuccessful entrepreneurs and successful-unsuccessful combined. (17 ref.)—*Journal abstract.*

8225. Sinha, T. C. **Further observations on aggression.** *Samiksa*, 1968, Vol. 22(3), 110-117.—Discusses the dynamics of certain forms of aggression, e.g., (a) retaliation against verbal attack, (b) reaction to jealousy, (c) reaction to refusal by a mother of a child's desire, and (d) reaction to frustration or failure in problem solving or work. The cause of aggressive reaction is seen as a retaliation against insult, or as a reaction to either a real or imagined aggression. Any expression of aggression, in trying to overcome resistance against wish fulfillment, is viewed as a reaction product.—*T. N. Webster.*

8226. Sinha, T. C. **Notes on aggression.** *Samiksa*, 1968, Vol. 22(2), 41-49.—Defines aggression as the expression of a particular type of wish or combination of wishes, directed either to destroy an S or to thwart any particular tendency in an S by force, or to modify or try to bring a situation under control by use of physical or mental force, e.g., physical punishment or mental disapproval of a child for his actions. Methods used to gain certain ends may be aggressive, even though the purpose of the acts is beneficial. Acts of aggression are seen in most mental disorders, e.g., suicide. Though aggression is basic and can be passively expressed, as in Ghandi's nonviolent movement, it is mostly used, normally or pathologically, in a reactive manner. While aggression, including unconscious aggression, plays an important role in most daily life situations, its objective measurement is difficult. For proper assessment of aggression the subjective attitude of the individual concerned must be examined. Considering the influence of aggression and counter-aggression at an early stage of a child's life, "the magnitude of the aggression of the reality apprehended by the child's ego and the basic ego strength are the 2 main factors which determine the primary reaction pattern of the ego."—*T. N. Webster.*

8227. Wallis, Brent. (U. Florida) **Repression-sensitization and the experimenter-subject relationship.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1576-1577.

INTELLIGENCE

8228. Bukvić, Aleksandar. **IQ norme za verbalnu seriju B. Stevanović.** [IQ norms for B. Stevanović's verbal series.] *Psihologija*, 1969(Sep), Vol. 2(2), 480-482.—Established that B. Stevanović's Verbal Series is composed of a test, the factor composition of which is defined by a single factor, and specified IQ norms for the population of high school graduates in Serbia, on a sample of 400 Ss. Norms are more rigorous than they would have been if they were established on a more representative sample. The over-all achievement of Ss on the Verbal Series can be expressed in terms of IQ values.—*English summary.*

8229. Halliday, T. C. **The intelligence enterprise.**

Delta, Massey U., New Zealand, 1970(May), No. 6, 10-15.—Proposes a model for approaching the problems in the study of intelligence, and emphasizes the need for a general theory of intelligence. The model is based on 4 questions: (a) Do people behave differently to others on certain performances? (b) What behavioral differences exist? (c) How do such differences vary? And (d) why are there such differences? The activities and methodological problems resulting from such questions are discussed. It is suggested that there is a need for a holistic approach which meets the following criteria: the theory should be (a) conceptually refined, (b) logically consistent, (c) verifiable, (d) falsifiable, and (e) generalizable.—R. Wiltz.

8230. Klingelhofer, E. L. (Sacramento State Coll.) **A note on language, school, and examiner effects on the performance of Tanzanian school children on Raven's Standard Progressive Matrices Test.** *Journal of Social Psychology, 1971(Feb), Vol. 83(1), 145-146.*—Reports that performance of Standard VII, (7th grade) children in 2 Tanzanian elementary schools on Raven's Standard Progressive Matrices Test was independent of language of administration (Swahili or English), school (urban or rural), or examiner effects.—*Author abstract.*

8231. Majumdar, P. K. **On aptitude tests: Classified type of test versus omnibus type of tests yielding multiple scores.** *Bulletin of the Council of Social & Psychological Research, Calcutta, 1968, No. 10-11, 16-21.*—Investigated the applicability and effectiveness of the omnibus type of assembled test battery in aptitude measurement. 2 matched groups of 75 Ss each were given Majumdar's Scholastic Aptitude Test. Group I took the test in subtest order; Group II was divided into 3 subgroups, 2 took the test in different subtest order and 1 took the test in omnibus form with the subtest items mixed and presented in order of difficulty. Results indicate that the "difficulty value of the sub-tests were to some extent functions of their positions in the test programme." The average difficulty of the omnibus type of test did not appear to differ from that of the other presentations. The advantages and disadvantages of both methods are discussed. It is concluded that the omnibus type is superior under certain conditions.—S. Knapp.

8232. McCall, Robert B. (Fels Research Inst., Yellow Springs, O.) **Intelligence quotient pattern over age: Comparisons among siblings and parent-child pairs.** *Science, 1970(Nov), Vol. 170(3958), 644-648.*—Compared 100 sibling and parent-child pairs with unrelated control pairs, matched for year of birth and parental education, to determine the relative heritability of the general level of IQ as opposed to that of the sequential pattern of IQ change over age (3-12 yr.). Data indicate greater similarity among related siblings relative to matched controls for general level than for pattern of IQ over age. Relationships between the IQs of children and that of their parents as children were not consistent across age.—*Journal abstract.*

8233. Ostijn, N. (Kon. Military School, Brussels, Belgium) **De invloed van de motivatie op de resultaten op de intelligentie-test "Progressive Matrices" van J. C. Raven.** [The influence of motivation on the results of the Progressive Matrices intelligence test of J. C. Raven.] *PMS: Tijdschrift voor Psycho-Medisch-Sociaal Werk, 1970, Vol. 16(3), 105-110.*—200 Belgian recruits who expressed an interest in receiving vocational guidance at the end of their military service were retested at that time. Their scores were compared with those

obtained at the time of their enlistment, when all recruits were tested. The mean score was 7.06 points higher on the 2nd occasion with a t of 15.28 ($p < .001$). It is suggested that the period of from 13-22 mo.; between the 2 examinations is too long to consider that memory of the earlier test, and discussion of difficult items could account for the improvement. Conversely, on the 2nd occasion the individuals were interested in an accurate assessment for the sake of being given individual advice.—S. G. Vandenberg.

8234. Palem, R. M. (Service de l'enfance inadaptée, Perpignan, France) **Réflexions sur l'intelligence, sa détérioration organique et leur mesure: Plaidoyer pour le quotient intellectuel verbal et les facteurs de caractère.** [Reflections on intelligence, its organic deterioration and assessment: Defense of verbal IQ and personality factors.] *Evolution Psychiatrique, 1970(Apr), Vol. 35(2), 453-463.*—Critically reviews the concepts of intelligence, deterioration, organicity, and verbal IQ, reiterating Chateau's stand against "the invasion of European psychology and psychopedagogy by American studies." Intelligence is seen as a value, to be included with "verbal thinking" (distinct from verbalism) in a scale of values, and the uneasiness arising from its measurement is due to the fact that "measurement of a value is an indecent and blasphemous act... a perversion of the spirit." A return to basics, continual criticism of tools, and a constant search for connections between clinical practice and neurophysiology (required for a rational approach to the problem of deterioration) necessitate rejection of intellectual consolation to prevent the formation of psychometric illusions. (English summary)—T. N. Webster.

8235. Spada, Hans F. (U. Vienna, Inst. of Psychology, Austria) **Intelligenztheorie und Intelligenzmessung.** [Theory and measurement of intelligence.] *Psychologische Beiträge, 1970, Vol. 12(1), 83-96.*—Delineates relationships between theory and measurement of intelligence and the possibilities of the application of probabilistic test theories. An analysis of 629 protocols of 3 intelligence tests shows that quantifications of intelligent behavior independent of population are possible on the basis of proportional or difference scales. Invariant intelligence dimensions are felt to exist. Tests scaled by Rasch's method generally meet the demands of classical quality criteria of test theory. This holds true in the case of power, and speed tests. (17 ref.)—*English summary.*

CREATIVITY

8236. Gusman, Lawrence J. (U. Michigan) **Some personality differences between creative and acceptive artists.** *Dissertation Abstracts International, 1970(Aug), Vol. 31(2-B), 913.*

8237. Kline, James A. (U. Colorado) **Creativity: Product, person, potential and motivation.** *Dissertation Abstracts International, 1970(Sep), Vol. 31(3-B), 1520-1521.*

8238. Krogus, N. V. **O psikhologii shakhmatnogo tvorchestva.** [On the psychology of creativity in chess.] Moscow, USSR: Fizkul'tura i Sport, 1969. 96 p.—Presents anecdotal materials on the psychology of chess, involving problems of thinking, attention, and time limitation.—I. D. London.

8239. Weissman, Philip. **Special problems of creative personalities in family relations.** *Israel Annals of Psychiatry & Related Disciplines, 1969(Apr), Vol. 7(1),*

1-8.—Outlines some special psychological considerations of creative people, e.g., the artist's capacity to utilize a desynthesizing or dissociative function by which he can undo the established and create original solutions. With regard to the question of the artist's need for sublimation in order to create, it is suggested that he employs another capacity to neutralize libido and aggression which become usable for creative purposes. It is believed that this formulation clarifies the clinical dilemma in which many people are found to be functioning creatively, regardless of and in the absence of the process of sublimation. Psychobiographical and clinical evidence is presented to show the wide variations of object relationships in creative personalities. It is concluded that these are of great significance in therapeutic work with creative personalities—be it psychoanalytic therapy, psychotherapy or any therapy utilizing relations in the family.—*G. Steele.*

PERSONALITY MEASUREMENT

8240. Althouse, Richard H. (U. Wisconsin, Medical School) **A semantic differential investigation of sexually symbolic concepts: Freud and Jung.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 507-512.—Masculine and feminine ratings, via the semantic differential, of various nouns hypothesized by Freud or Jung to represent masculine or feminine symbolism, were made by 67 male and 78 female undergraduates. 34 male and 34 female Ss received Freudian nouns; 33 male and 44 female Ss received Jungian nouns. While certain nouns were rated according to psychoanalytic theory, others were not. Some masculine concepts (nail file, balloon, noodle, bird) were rated feminine, and some feminine concepts (tunnel, trap door, box, case, garage, club, city, hill, cask, earth, whale, board, net) were rated masculine. Results suggest caution in accepting psychoanalytic criteria for sexual symbolism in the analysis of clinical material.—*Journal abstract.*

8241. Comrey, Andrew L. & Backer, Thomas E. (U. California, Los Angeles) **Construct validation of the Comrey Personality Scales.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 469-477.—Administered the Comrey Personality Scales, a personality test, and a biographical data inventory inquiring about past and present life circumstances to 209 undergraduates to investigate the construct validity of the Comrey Scales. Biographical data variables were correlated with scores on the 8 personality scales. Personality scale score estimates, based on examination of the respondents' biographical data responses, were also correlated with actual scale scores. The personality scales which received the best confirmation were social conformity vs. rebelliousness, and orderliness vs. lack of compulsion. Support for the construct validity of the other personality scales varied from moderate to negligible.—*Journal abstract.*

8242. Conde, V., Escribá, J. A., & Izquierdo, J. A. (U. Salamanca, Medical School, Spain) **Evaluación estadística y adaptación castellana de la escala autoaplicada para la depresión de Zung: I.** [Statistical evaluation and Spanish adaptation of Zung's Self-Rating Depression Scale: I.] *Archivos de Neurobiología*, 1970(Apr), Vol. 33(2), 185-206.—Tests the reliability and validity of some of the aspects of Zung's Self-Rating Depression Scale (SDS) results of 1965-1967, and

examines a 1968 sample of 300 males and 300 females of 14-60 yr. of age taken from 3 regions of Spain. Statistical results of the 17 graphs shown include: (a) a SDS mean of 45.6; (b) a standard deviation of 10 from total sample; (c) a mean SDS % of 44.2 for the male group; (d) a standard mean deviation of 9.1 for the male group; (e) a mean SDS % of 47 for the female group; and (f) a mean standard deviation of 10.6 for the female group. The difference between male and female means is statistically significant at the 1% level of confidence, and it is therefore proposed that sex is a variable that introduces important differences in the results.—*S. Maze.*

8243. Greif, Siegfried. (Freien U., Berlin, W. Germany) **Untersuchungen zur deutschen Übersetzung des 16 P.F.-Fragebogens.** [Investigation regarding the German translation of the 16 PF questionnaire.] *Psychologische Beiträge*, 1970, Vol. 12(2), 186-213.—Tested Form A of the authorized German translation of the 16 PF questionnaire using 415 16-24 yr. old Ss. Hints concerning Cattell's "suppressor structure" could not be found in this sample. The 16 scales can not be described as "functionally independent," but show a relatively high correlation. On the basis of the results of this investigation, it is concluded that Cattell's factors of 2nd order cannot be described as "factors of a higher order." (29 ref.)—*English abstract.*

8244. Jensen, John A. & Schmitt, John A. (Boston Coll., School of Education) **The influence of test title on test response.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 241-245.—Determined the extent to which responses to test items of the type frequently found in personality inventories would be influenced by the title associated with the test. The basic hypothesis was that Ss respond to the test title by developing a particular response set which will be reflected in the individual responses. An instrument was constructed and administered to 8 treatment groups totaling 294 undergraduates. Each administration differed primarily in the title each group's tests bore. The dependent variables were measures of the tendency to lie, respond defensively, answer carefully, and complete questions. Ss tended to lie and respond more defensively to titled tests than to a test having no title and administered under nonthreatening conditions. All other comparisons were not statistically significant.—*Journal abstract.*

8245. Lange, Donald E. (U. Victoria, British Columbia, Canada) **Validation of the orthogonal dimensions underlying the ICL and the octant constellations assumed to be their measure.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 519-527.—Investigated validity of the Interpersonal Check Lists (ICL) octant constellations and underlying interpersonal dimensions by inferential design. 4 role-played videotapes were produced so that the interpersonal behavior of the main character would illustrate the 4 poles of the ICL's 2 bipolar dimensions. 218 undergraduates viewed 1 of 4 tapes and described the main character by using an ICL Form IV. Resulting profiles from Ss seeing the same tape were pooled to form 4 groups, then statistically compared. Results support the original formulations of R. LaForge and R. F. Suczek (see PA, Vol. 30:5990).—*Journal abstract.*

8246. Maly, Joachim. (Vienna U., Austria) **Anwendung eines probabilistischen Testmodells zur Analyse von Persönlichkeitsfragebogen.** [Development of a probabilistic test model and the analysis of personality questionnaires.] *Psychologische Beiträge*,

1970, Vol. 12(1), 97-104.—Analyzed subscales of the Freiburg Aggression Questionnaire concerning their 1-dimensionality by means of a stochastic test model. Out of 14 tests only 7 met the demands of the model assumption. Lacking 1-dimensionality seems to result from internal group differences of age, sex, intelligence, and social status. In such groups tests measure different things. Classical criteria and given answer tendencies seem to be responsible for the lack of 1-dimensionality.—*English summary.*

8247. Sells, S. B., Demaree, R. G., & Will, Donald P. (Texas Christian U.) **Dimensions of personality: I. Conjoint factor structure of Guilford and Cattell trait markers.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 391-422.—Reports a taxonomic investigation of personality based on a matrix of 600 personality questionnaire items represented equally by marker items derived from the personality trait systems developed by J. P. Guilford and R. B. Cattell. Ss were 2550 airmen. The factor structure of the total matrix, with particular concern for the relative contributions and relations of the 2 sources, is emphasized. The correlations among items, and the rotated factor results derived from them, have demonstrated that analysis at the item level is highly destructive to the factors previously assembled without adequate concern for their loadings in large matrices in which a wide range of factors is known to exist. Results indicate a need for reclassification of at least 400 of the 600 source items with respect to the factors for which they were represented as markers for inclusion in the study. (23 ref.)—*Journal abstract.*

8248. Stewart, L. H. (U. California, School of Education, Berkeley) **Relationships between interests and personality scores of occupation-oriented students.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 31-38.—Administered the Interest Assessment Scales and the Omnibus Personality Inventory to 2458 undergraduates enrolled in occupation-oriented curricula. Multivariate analytical procedure indicated high relationship between the 2 instruments. However, some of the findings raise questions about the wisdom of attempting to use interest and personality scales interchangeably. (17 ref.)—*Journal abstract.*

Inventories

8249. Colston, Malcolm A. **The E and N scales of the EPI: Some further Australian data.** *Australian Psychologist*, 1969(Jul), Vol. 4(1), 59-61.—In view of J. F. Richardson's (see PA, Vol. 42:12992) report that the correlations between the Extraversion (E) and Neuroticism (N) scales of Forms A and B of the Eysenck Personality Inventory (EPI) were significantly negative, and that there is a marked imbalance of questions in favor of the melancholic quadrant (contrary to claims of H. J. Eysenck and S. B. Eysenck that there is no significant correlation between E and N, and that the EPI items are distributed approximately evenly in the melancholic and choleric quadrants) analyzed the results of EPIs administered to 557 military recruits. Analysis shows the correlation between E and N was $-.005$, agreeing with Eysenck and Eysenck; however, neither Richardson's finding of imbalance of the quadrants, nor Eysenck and Eysenck's claim of even distribution of melancholic and choleric quadrants, were confirmed by this study.—*T. N. Webster.*

8250. Koller, K. M. & Castanos, J. **The Eysenck**

Personality Inventory: Australian experience with normal and abnormal groups. *Australian Psychologist*, 1969(Jul), Vol. 4(1), 48-53.—Administered form A of the Inventory (assessing neuroticism and extroversion) to Australian and British university students, student nurses, office workers, prisoners, hospitalized alcoholics, and mental patients (neurotic, depressed, and schizophrenic). Results show: (a) Australian students more extroverted, English students more neurotic; (b) Australian alcoholics more neurotic, but no significant difference in alcoholic groups as to extroversion; (c) no significant difference between student nurses, office workers, and depressive groups in either of the dimensions; (d) Australian neurotic groups more neurotic than British; and (e) Australian schizophrenics more neurotic, but no significant difference between schizophrenic groups' extroversion. Though Eysenck has suggested that 4 or more lie scores should invalidate the test, the percentage of tests which would be rejected in the various groups tested (mean lie score from 2.28-5.13) ranged from 22.40% of the university students to 73.31% of the depression groups. It is suggested that an item analysis of the responses to the lie questions be made in the normal population, and that this should be compared with the abnormal population in order to reveal any significant differences.—*T. N. Webster.*

8251. Palmer, Robert D. (Veterans Administration Hosp., Brooklyn, N.Y.) **Psychopathology and seasonal preferences: An aspect of temporal experience.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 513-518.—Hypothesized that since seasonal changes serve to mark off the passage of time, one's feelings about the seasons can be viewed as a special case of one's attitudes toward time more generally, and as one point of entry into the individual's inner universe of experience. 55 male undergraduates rated the 4 seasons from best liked to least liked, and were administered the MMPI and 5 nonclinical scales. Results indicate that individuals differ in the feelings they invest in the seasonal context of their existence, and that these feelings are significantly influenced by the individual's emotional status. (17 ref.)—*Journal abstract.*

8252. Williams, Clive. (U. Queensland, Brisbane, Australia) **Meaningfulness of the Eysenck Personality Inventory Lie scale.** *Australian Psychologist*, 1969(Jul), Vol. 4(1), 54-58.—Compares results of the Eysenck Personality Inventory administered to 8 groups including Australian university students, Australian Army Personnel, and Ghanaian students, ranked in order of their mean Lie (L) scores and mean Neuroticism (N) scores, with a calculated rank order correlations (τ) between the 2 sets of ranks of $-.79$. With the Ghanaian group omitted, $\tau = .90$. Data are explained in terms of denial of aspects of experience by defensive persons, who therefore score low on N, while others, including uninhibited "normals," more frank and open to their experience, score high on N. Traditional use of the L scale is questioned and evidence suggested that N scores should not be interpreted without reference to L scores, while the value of a single cut-off point on the L scale to separate acceptable from unacceptable responses is considered of doubtful value.—*T. N. Webster.*

Projective Techniques

8253. Baker, Robert P. & King, Hollis H. (Presby-

terian-St. Luke's Hosp., Chicago, Ill.) **The relationship between the Repression-Sensitization scale and the Incomplete Sentences Blank.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 492-496.—Prior research with the Repression-Sensitization (R-S) scale has isolated certain differential behavior patterns in Ss scoring at the extremes of the scale. Thus D. Byrne's formulation of the R-S scale hypothesized a curvilinear relationship between the R-S scale and psychological adjustment. However, other research suggests that the relationship may be linear. Using Rotter's Incomplete Sentence Blank, College Form (ISB), it was hypothesized that there would be a linear relationship between the R-S scale and ISB. 204 undergraduates took both the R-S scale and ISB. No significant sex differences were obtained. While the correlation between the R-S scale and ISB was significant ($r = .59, p < .01$), results did not prove linearity, but there is insufficient evidence to support any other kind of relationship. (22 ref.)—*Journal abstract*.

8254. Fischer, Gerhard H. & Spada, Hans F. (U. Vienna, Inst. of Psychology, Austria) **Die metrische Analyse eines projektiven Formdeutetests.** [The metric analysis of a projective form interpretation test.] *Psychologische Beiträge*, 1970, Vol. 12(1), 65-82.—Investigated the question of whether and in what way quantitative statements on personality traits can be made by means of results of form interpretation tests, on the basis of 305 Holtzman test protocols. The 1-dimensional test of G. Rasch helped to isolate those test variables which could be used for setting up dichotomies of answer categories which corresponded to the assumptions of the model. It is suggested that those scoring variables which do not meet the demands of the model be eliminated.—*English summary*.

8255. Jernigan, A. J. (Veterans Administration Hosp., Dallas, Tex.) **Judging whether a patient is white or black by his Draw-A-Person Test.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 503-506.—Presented Draw-A-Person Test (DAP) protocols from 28 matched black and white adult male patients to 34 untrained and 17 trained judges who were asked to identify race of patient from his DAP. Average correct identification ranged from 53.8% (black judging black, not significant) to 62.9% (white judging white, $t = 6.43, p < .01$). White untrained judges were more accurate than black untrained judges ($t = 2.43, p < .05$). Black judges had more difficulty with black stimuli than with white stimuli, as did trained judges. The modest success achieved by both black and white judges adds minimal evidence to the body image hypothesis. Possible explanations are offered.—*Journal abstract*.

8256. Lunneborg, Patricia W. & Olch, Doris. (U. Washington, Bureau of Testing) **Sentence completion correlates of airline pilot attitude and proficiency.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 497-502.—Correlated sentence completion scores for dependency, anxiety, and hostility with sentence completion measures of good flying attitude and omissions for 300 male airline pilot candidates. The scoring-by-example method used with the 1st 3 variables was highly reliable and avoided scoring overlap. All sentence completion scores were also correlated with 15 traditional measures of pilot qualification, e.g., mechanical information and signal RT. While the proficiency measures were generally unrelated to the projective measures, a good attitude towards flying

was positively associated with coping (not omitting sentence completion items) and the extreme suppression of anxiety and hostility under stress. Civilian airline pilots appear similar to military pilots in their exaggerated display of good judgment.—*Journal abstract*.

8257. Prola, Max. (York Coll., Div. of Counseling & Student Development, City U. New York) **A re-evaluation of the motor inhibition: Fantasy hypothesis.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 477-483.—Because support for the hypothesis that motor inhibition stimulates fantasy is based entirely on changes in the Rorschach movement (M) response, the generality of the phenomenon is in doubt and was tested by observing the effect of restricted motility on TAT productions, scored for fantasy with the Transcendence Index. The influences of general activity level and daydreaming tendency also were studied, as well as the hypothesis that motor inhibition specifically affects only fantasy about movement. Ss were 60 male undergraduates. No change in movement fantasy, nonmovement fantasy, or total fantasy was found, suggesting that previous investigators may have overstated the case in inferring that total fantasy is stimulated by motor inhibition. Rather, some property specific to the M response may be involved, and some speculation about its nature is offered. (23 ref.)—*Journal abstract*.

8258. Starker, Steven & Goodenough, Donald R. **Effects of sleep state and method of awakening upon Thematic Apperception Test productions at arousal.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 188-194.—Hypothesized that abrupt awakenings from REM sleep would yield more dreamlike stories than gradual awakenings from that state; that such abrupt/gradual differences would be exclusive to the REM stories; and that REM stories would be more dreamlike than NREM stories. 16 male undergraduates were paid to spend 1 night each at the sleep laboratory. Ss were awakened 4 times for TAT stories, twice from Stage-2 NREM sleep and twice from REM sleep. 1 awakening from each sleep state was abrupt, the other gradual. Stories were analyzed by 2 "blind" raters with respect to several content and structural variables. Results disclose that stories produced following NREM abrupt awakenings differed from all others in being less bizarre, emotional, imaginative, and negative in affective tone. This finding suggests that a carry-over of NREM characteristics was facilitated by proximity to that sleep state. No detectable carry-over effect from REM sleep was noted. Results indicate that the method-of-awakening differences observed in dream recall are not the result of an ability-to-report artifact.—*Journal abstract*.

Rorschach Test

8259. Draime, Jacques. (U. Louvain, Belgium) **Le test de Rorschach: Application: Problèmes de dépouillement.** [The Rorschach test: Administration: Problems of interpretation.] *Revue de Psychologie et de Sciences de l'Education*, 1970, Vol. 5(3), 317-341.—Discusses recommended standard procedures with respect to preparation of the material, psychological preparation, testing procedure, and drawing conclusions. The last 2 each deal with specific problems and specific examples are given.—*S. S. Marzolf*.

8260. Dudek, S. Z. (U. Montreal, Quebec, Canada)

The artist as a person: Generalizations based on Rorschach records of writers and painters. *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 232-241.—Extends a former study by S. Z. Dudek (see PA, Vol. 43:14264) indicating that Rorschach records of 19 painters and 22 writers "present a picture consistent with the concept of the artist as possessing a high degree of imagination and a heightened capacity to regress 'in the service of the ego.'" The present study discusses personality characteristics of the artist based on a quantitative and qualitative analysis of the same Rorschach records. Characteristics evident from the analysis include originality, subjectivity and intensity of feeling, a highly intellectualized emotional vitality, responsiveness to inner needs, easy regression to more archaic ways of feeling and perceiving, desire for ego identity 1st through the act of creation and 2nd through being an artist, emphasis on spiritual values and a rejection of material ones, need for recognition as a special person, a desire to give birth to something new, a high degree of free-floating anxiety, "cathexis at the stage of oral aggression" (particularly for the writers), identification with the mother, and a deep sense (often unconscious) of suffering and anguish.—*P. McMillan*.

CLINICAL PSYCHOLOGY

8261. ———. **Digest of papers: Forty-seventh annual meeting American Orthopsychiatry Association, San Francisco, California—March 23-26, 1970.** *American Journal of Orthopsychiatry*, 1970(Mar), Vol. 40(2), 197-364.

8262. ———. **Neurophysiological and behavioral research in psychiatry.** *World Health Organization, Technical Report Series*, 1968, No. 381, 33 p.—Examines recent developments which have transformed the relationship between neurophysiology and psychiatry including: (a) the application of polygraphic techniques to the study of normal sleep and pathological alterations of consciousness, (b) the introduction of a wide range of psychopharmacological agents with profound effects on mental state and behavior, (c) the establishment of surgical procedures for the implantation of multiple indwelling electrodes in the human brain, and (d) the introduction of computer techniques in the analysis of data. The prospects for future research on the neurophysiological and behavioral aspects of mental disorders, with special attention to critical periods of development, learning techniques and primary prevention, sleep, high-risk groups, diagnosis and prognosis, and transcultural collaboration are examined. The value of a central agency to provide a clearing house for information is stressed. High priority is assigned to international collaborative research on critical periods of development to examine the effects of environmental factors on subsequent mental health and on high-risk Ss, by means of longitudinal neurophysiological studies. An example of a research project combining these 2 studies is included.—*Journal abstract*.

8263. Albee, George W. (Case Western Reserve U.) **The uncertain future of clinical psychology.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1071-1080.—Examines the forces operating to inhibit the growth of clinical psychology, including the location of clinical training in the graduate school, the incompatibilities between a science and a profession, and the in-

appropriateness of the psychiatric setting and medical model. Consideration of the cost of viable alternatives includes 4 possible courses: (a) perpetuation of the Boulder model, (b) development of separate professional schools of psychology, (c) effecting a new liaison with another major profession, and (d) abandonment of clinical psychology as a separate field. Because of the difficulties in financing professional training, and the impending increased demand for teachers of psychology, it is concluded that clinical psychology, as it has developed, may decline in strength and importance for the next few years.—*Author abstract*.

8264. Belsasso, Guido. (National Inst. of Neurology, Outpatient Services, Mexico City, Mexico) **The history of psychiatry in Mexico.** *Hospital & Community Psychiatry*, 1969(Nov), Vol. 20(11), 342-344.—Mexican psychiatry dates back to the pre-Hispanic Aztec society when highly advanced forms of psychiatry and psychotherapy flourished. The Spaniards introduced medicine which was a combination of Renaissance rational and academic medicine with superstitious folklore concerning diabolic possession of the afflicted. The 1st hospital for the mentally ill, San Hipolito, was founded in Mexico City in 1567. Mexican mental hospitals were run by religious orders until independence from Spain. In 1947, the 1st attempt was made to coordinate care of the mentally ill. Efforts were begun to expand and improve facilities and training programs. Mexico's problem is that doctors continue to seek their training or residencies outside of the country; of the 100 who have trained in psychiatry in the United States, only 46 have returned to Mexico to practice. It is concluded that Mexico should continue to improve and expand its training and treatment program, to encourage specialists to remain in the country, and to further improve the care of the mentally ill.—*M. Walker*.

8265. Bolzinger, A., Ebtinger, R., & Kammerer, T. (14 rue du Général Ferrié, Grenoble, France) **Approches cliniques et psychopathologiques de la notion de crise.** [Clinical and psychopathological approaches to the concept of fits.] *Evolution Psychiatrique*, 1970(Apr), Vol. 35(2), 431-451.—Examines the concept of "fits," or "attacks," represented in the classical vocabulary of both physician and psychiatrist. It carries rich and varied meanings which reflect various aspects of cultural and social life. It relates in particular to presuppositions of medical ideology concerning the phenomena of regression and cathartic abreaction. These latent concepts are compared with clinical observations on acute neurosis and psychosis studied in the light of psychoanalysis. (27 ref.)—*English summary*.

8266. Bourdon, Roger D. (U. North Carolina) **Imitation: Implications for counseling and therapy.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 429-457.—The potential that imitation learning holds for practical application in therapy and counseling appears to be significant. Research efforts to date on this phenomenon have been relatively few. These are discussed under the headings of social learning and imitation, vicarious learning, variations in imitation research, operant analysis of imitation, and imitation, counseling, and therapy. (4 p. ref.)—*P. D. Leedy*.

8267. Brill, F. (U. Tel Aviv Medical School, Mental Health Clinic, Israel) **The trauma: Theoretical considerations.** *Israel Annals of Psychiatry & Related Disciplines*, 1969(Apr), Vol. 7(1), 96-108.—Discusses trauma as a "test of psychiatric thought" on 3 levels:

(a) the relationship between understanding and explanation, and the need to distinguish between the two; (b) acute trauma and the problem of the posttraumatic neurosis; and (c) the trauma of existential crisis. A review of the definition and theories indicate a shallow specific theoretical orientation which fails to account for the various aspects of a traumatic experience. The need to understand "mental trauma in the context of a comprehensive psychopathological conception free from the bonds of physical-biological thinking" is emphasized. (24 ref.)—G. Steele.

8268. Buscaino, G. A., Spadetta, V., & Carella, A. (U. Bari, Clinic for Nervous & Mental Illness, Italy) **Il test di metilazione nella schizofrenia: Considerazioni su una casistica di 500 sperimentazioni.** [The methylation test in schizophrenia: Considerations based on experimentation with 500 subjects.] *Acta Neurologica*, 1969(Mar), Vol. 24(2), 113-118.—Describes a study of in-vitro methylating activity of the blood of 500 active schizophrenics, chronic or treated schizophrenics, patients with different psychiatric and neurological disorders, and controls. Results show a much higher methyl-transferase activity in active schizophrenics compared with other groups. A study of cerebrospinal fluid findings shows that $\frac{1}{2}$ the samples had definite methyl-transferase activity, but there is not a significant difference between active schizophrenics and other neurological or psychiatric patients. (19 ref.)—*English summary.*

8269. Charny, Israel W. (Guidance Consultants, Paoli, Pa.) **Individual and Family Developmental Review: Manual.** Los Angeles, Calif.: Western Psychological Services, 1969. 8 p.

8270. Chassin, J. B. (Hoffman-La Roche, Research Div., Nutley, N.J.) **Population and sample: A major problem in psychiatric research.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 456-462.—Discusses difficulties encountered in the application of statistics to research in psychiatry. Perhaps the most difficult problem is that of generalizing from sample to population. Fundamental issues are considered concerning this from a clinical and statistical viewpoint. It is advocated that, when feasible, statistics be applied to the detailed study of individual cases, as in the testing of hypotheses within Ss, rather than between groups of Ss.—*Journal abstract.*

8271. Coddington, R. Dean & Bruch, Hilde. (Ohio State U., Medical School) **Gastric perceptivity in normal, obese and schizophrenic subjects.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 571-579.—Describes a method testing the ability of humans to recognize an intragastric stimulus, i.e., fluid food introduced into the stomach with exclusion of other clues. The reliability and shortcomings of the method were evaluated in an experiment with 15 obese, 3 anorexic, 17 schizophrenic, and 18 mental defective Ss and 21 controls. Results indicate marked individual differences. Many controls were accurate in recognizing the stimulus, whereas Ss of abnormal body weight were significantly less accurate. It is noted that intelligence did not influence results. The hypothesis, that people who misuse the eating function in face of life stress are deficient in their ability to identify their bodily states, is confirmed.—*Journal summary.*

8272. Cohen, Wilbur J. **Revolution in mental health. Personnel Administration**, 1969(Mar), Vol. 32(2), 4-8.—Postulates that the decline in the number of patients in state mental hospitals is a result of innovations in

mental health programs. The use of psychoactive drugs, the development of community facilities for psychiatric care, and a change in community attitudes are emphasized. Industrial and managerial roles in the maintenance of emotionally disturbed persons in the community are examined.—G. Steele.

8273. D'Arcy, Elizabeth. (Alder Hey Children's Hosp., Liverpool, England) **Congenital defects: Mothers' reactions to first information.** *British Medical Journal*, 1968(Sep), Vol. 3(5621), 796-798.—Administered questionnaires to 694 mothers of infants with congenital defects to determine how, when, and from whom they were notified of the defect and their attitudes concerning it. Data were analyzed according to the type of defect. Results show that mothers attached great importance to a sympathetic and understanding approach, simple terminology, and truthful answers to questions.—G. Steele.

8274. Friedman, Joseph J. (Broome Co. Mental Health Services, Binghamton, N.Y.) **Conscience and its relation to sex.** *New York State Journal of Medicine*, 1970(Sep), Vol. 70(18), 2323-2327.—Presents 6 clinical cases to illustrate how problems of sex and conscience are interrelated. The development of the conscience is briefly traced, and the dynamics, treatment, and end results are briefly discussed. It is suggested that most problems of conscience and sex can be treated by an appreciative reward system.—*Journal summary.*

8275. Hersch, Paul D. (U. Connecticut) **The accuracy of clinical predictions as a function of feedback and hypothesis explication.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1538.

8276. Herzog, Elizabeth & Lewis, Hyman. (Children's Bureau, Div. of Research, Washington, D.C.) **Children in poor families: Myths and realities.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 375-387.—Presents popular fallacies concerning children and families that can obstruct effective services and interventions. Safeguards suggested against mistaking fallacy for fact include (a) skepticism about the single-barreled explanation or cure for serious problems, and (b) refusal to classify a child as beyond help because of a single unfortunate characteristic or circumstance. (32 ref.)—*Journal abstract.*

8277. Krakowski, Adam J. (Champlain Valley-Physicians Hosp., Medical Center, Plattsburgh, N.Y.) **Psychosomatic or comprehensive? The role of the physician in the total management of the patient.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 587-590.—Discusses the view that psychosomatic approaches and the comprehensive management of patients are similar in that they both deal with "psychogenic problems which are primary, concurrent with, or secondary to organic illness." The psychiatrist must, therefore, use an approach which emphasizes the concept that the patient is a mind-body entity. Illness is seen as a 2-way process having both psychosomatic and somatopsychic components. Effective use of this approach requires that the physician have a positive doctor-patient relationship and possess professional flexibility.—P. McMillan.

8278. Livingstone, John B., et al. (Beth Israel Hosp., Boston, Mass.) **A new multidisciplinary child clinic: Description of a research study and a report of clinical results.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 688-706.—Describes a multidisciplinary child clinic, the Team Clinic for Children, which is distinguished from traditional

child-guidance clinics in its (a) use of the same traditionally trained child psychiatrist, psychiatric social worker, child psychologist, and pediatrician constantly working as a team; (b) aim of arriving at a comprehensive evaluation and disposition in a single, 3-hr encounter with the child and parents; (c) structuring of team conferences during the session; and (d) active participation, in the session itself, of appropriate people from the community already involved with the child. A developing research study is described. Findings on the 1st 58 patients, primarily a mixed somatic and psychological symptom group, show a high rate of disposition completion (76%). The clinical method is described in detail using clinical examples from previous research. An appendix with codes of major observable problem areas and dispositional recommendations is included.—*M. Maney.*

8279. Marx, Otto M. (Boston U., Medical School) **What is the history of psychiatry?** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 593-605.—Contends that psychiatry is a medical specialty that has changed and will continue to do so under the influence of extramedical developments. But nonpsychiatrists writing psychiatric history will have to become acquainted with the practical problems with which psychiatry has had to contend. 4 modes of approach which are discussed in detail may be respectively labeled the evolutionist-enlightened, the progressive-psychoanalytic, the social-cultural, and the psychologic-ideational. Advantages and disadvantages of each approach are elucidated. (40 ref.)—*Journal abstract.*

8280. Maupomé, J. J. (Psychiatric Hosp. of Rabat-Sale, Morocco) **Sur quelques aspects de la psychiatrie marocaine.** [On some aspects of Moroccan psychiatry.] *Annales Médico-Psychologiques*, 1970(Jun), Vol. 2(1), 33-56.—Reviews the psychiatric problems and treatment resources of contemporary Morocco with a special emphasis on psychosocial determining factors. Hospital use and distribution are chiefly urban, although most of the population is rural and agricultural. The Moslem religion and North African sex roles and family structure are seen as primary forces in both the definition of illness and the expectations for care. Special problems are posed also by language, as few mental health professionals are native; a legacy of the nation's long colonial history. The widespread use of drugs (cannabis) and magical healing folk customs further complicate the appraisal of psychiatric issues. The physician is often seen not as one who cures, but as one who certifies the presence of illness. This assures a shift in the patients' social role and status, matters of great importance in the Moroccan culture.—*H. E. King.*

8281. McDermott, John F. (U. Hawaii, Medical School) **Divorce and its psychiatric sequelae in children.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 421-427.—Reports a study designed to (a) examine statistically the characteristics of children from divorced families seen at a university children's psychiatric hospital, (b) relate these characteristics to the divorce experience, (c) follow immediate reactions into later changes in character development, and (d) relate family disruption to an aspect of psychosocial disturbance in delinquent children. Data from intake records of 1487 children up to age 14 indicate that 116 were from divorced parents, 1349 from legally intact parents, and 22 from parents who were separated but not divorced. Results suggest that reactions to the divorce

experience persisted in Ss for some time. The largest subgroup showed a subclinical depressive period after the divorce. A high correlation was noted between S's symptoms and his image of the absent parent, suggesting identification with the parent as a method of dealing with the loss. The need for improved facilities for dealing with mental health components surrounding divorce is stressed, emphasizing the vulnerability of children at that time. It is concluded that a framework for protection of the rights and needs of children must be developed. (17 ref.)—*P. McMillan.*

8282. McNeil, Thomas F., Wiegerink, Ronald, & Dozier, J. Emmett. (Lafayette Clinic, 951 E. Lafayette, Detroit, Mich.) **Pregnancy and birth complications in the births of seriously, moderately, and mildly behaviorally disturbed children.** *Journal of Nervous & Mental Disease*, 1970(Jul), Vol. 151(1), 24-34.—Studied the histories of pregnancy and birth complications (PBCs) in the births of 61 children under treatment for a range of psychologically-related behavioral disturbances and 305 matched controls born in consecutive birth series in the same hospitals with disturbed Ss. Birth records were evaluated by an E who was unaware of the disturbed or control status of the S involved. Data were collected on the Birth Information Form which yielded consistent intercoder agreements of 95%. As compared with controls, there was a significantly greater number of disturbed Ss with a history of PBCs and of PBCs/Ss. Seriously disturbed Ss had slightly higher frequencies of PBCs than moderately to mildly disturbed Ss. Prematurity, problems concerning birth, and a persisting weak or delayed respiration were especially notable in the histories of the disturbed Ss. (37 ref.)—*Journal abstract.*

8283. Michal-Smith, Harold. **Rehabilitation of the mentally retarded blind: The past, present, and future.** *Rehabilitation Literature*, 1969(Jul), Vol. 30(7), 194-198.—Reviews historical attitudes toward the mentally retarded blind and discusses rehabilitation as including "the global aspects of total functioning." The questions of assessment, concept learning, self-differentiation, and motility are examined. The reactions of parents and sighted people to the mannerisms and the reactions of the retarded blind to the environment are discussed. Prevention of multiple handicaps is viewed as a present goal of medicine. It is concluded that attitudinal changes toward the multiple handicapped are necessary before they can be helped to reach their full potential.—*G. Steele.*

8284. Morozova, N. G. **Formirovanie poznavatel'nykh interesov u anomal'nykh detei.** [Formation of cognitive interests in nonnormal children.] Moscow, USSR: Prosveshchenie, 1969. 280 p.—Presents the findings of observational and experimental studies on the development and formation of cognitive interests in deaf, blind, visually handicapped, and mentally retarded children, and children with underdeveloped speech.—*I. D. London.*

8285. Musto, David F. (Yale U., Medical School) **History and psychiatry's present state of transition.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 385-392.—Examines psychiatry's present role confusion in light of similar periods of uncertainty in United States medicine during the 19th century. Because of the advances and growing influence of both community psychiatry and psychopharmacology, there is now "no 1 dominant view of the psychiatrist's role." The role of

Benjamin Rush in 18th century medicine and the influence of thomsonianism, eclecticism, the Paris school of research in medicine featuring new instruments and statistical methods, and the theory of homeopathy founded by Samuel Hahneman are discussed. The eventual development of an organic model of illness and function in the late 19th century is noted. It is suggested that historical perspective can be useful to contemporary psychiatry by offering a challenge "to keep free productive energy in the face of uncertainty, and to resist the lure of professional harmony achieved by theoretical or practical exclusiveness."—P. McMillan.

8286. **Schrager, Jules & Lindy, Janet.** (U. Michigan Hosp.) **Hyperkinetic children: Early indicators of potential school failure.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 447-454.—Identifies hyperkinetic children as a "population-at-risk" upon admission to kindergarten. A study is reported of 51 kindergartners identified as hyperkinetic, using behavioral criteria developed in an earlier test (e.g., being fidgety and restless, inattentive, hard to manage, and unable to sit still, pay attention, or take frustration), as measures. Results demonstrate that Ss were (a) absent from school more frequently, and (b) did remarkably less well on standardized tests of school readiness than their peers (N=56) rated nonhyperkinetic. Implications are discussed and suggestions made for the development of intervention programs.—*Journal abstract*.

8287. **Schwab, John J.** (U. Florida) **Comprehensive medicine and the concurrence of physical and mental illness.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 591-595.—Discusses mental and physical components of illness in patients based on experiences in a psychiatric consultation service and an epidemiologic study of a southeastern county. It is noted that when a patient has a concurrent illness, either the mental or physical portion may be neglected. Endocrine disorders, epilepsy, and brain tumors are cited as examples of illnesses which are frequently obscured by behavioral symptomatology. The close interplay between depressive symptomatology and gastrointestinal disturbances is noted, and depression is often "the earliest complaint expressed by patients later found to have carcinoma of the pancreas." It is concluded that (a) sociodemographic groupings are necessary for generalizing about symptomatology, and (b) a need exists for psychiatrists and other physicians to form effective working alliances in this area. (18 ref.)—P. McMillan.

8288. **Stevenson, Ian.** (U. Virginia, Medical School) **Assumptions of religion and psychiatry.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 41-50.—In comparing religion and psychiatry, it is concluded that the disciplines can be supplementary. The religious conviction that man can come to know himself as well as he can know other men is seen in relation to the psychoanalytic stress on self-analysis. (20 ref.)—O. Strunk.

8289. **Sutherland, Sandra & Scherl, Donald J.** (Metropolitan Mental Health Skills Center, Washington, D.C.) **Patterns of response among victims of rape.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 503-511.—13 18-24 yr. old victims of rape were seen, in most instances within 48 hr., by a mental health team. Followup of each revealed a similar sequence of reactions, falling in 3 distinct phases: (a) acute, including shock, disbelief, and dismay; (b) outward adjustment, containing a heavy measure of denial or suppression; and (c) integration and resolution. Understanding of this

pattern permits the design of supportive mental health intervention. (15 ref.)—*Journal abstract*.

8290. **Szasz, Thomas S.** (State U. New York, Upstate Medical Center, Syracuse) **Ideology and insanity: Essays on the psychiatric dehumanization of man.** Garden City, N.Y.: Doubleday, 1970. v, 265 p. \$1.95(paper).

8291. **Van Krevelen, D. A.** (Curium Pedological Clinic, Oegstgeest, Netherlands) **Über den Begriff der Psychopathie in der Kinderpsychiatrie.** [The concept of psychopathy in child psychiatry.] *Acta Paedopsychiatrica*, 1970(Feb), Vol. 37(2-3), 67-84.—The concept of psychopathy has a place in child psychiatry. It should be founded on psychopathology to prevent any association with standards of value. It is desirable to draw up a systematic typology, originating from disturbances of growth, regulation, and qualitative expression. Judging psychopaths should take 2 principles into consideration: even if they belong to the group of minus-variants, they always give proof of their positive qualities. Psychopathic children and adolescents should not be considered static individuals, influences of growth and dynamic moments being recognizable.—G. Rubin-Rabson.

8292. **Westman, Jack C., Cline, David W., Swift, William J., & Kramer, Douglas A.** (U. Wisconsin) **Role of child psychiatry in divorce.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 416-420.—Reports impressions of divorce gained from the perspective of child psychiatrists in a family court and a child psychiatry clinic. Divorce is seen as a family matter with impact beyond the divorced couples themselves, and affecting any children involved. Out of 148 consecutive divorce cases in a family court, 71% involved children. It is concluded that (a) professional aid in planning should extend beyond the divorce decree, (b) the divorcing parties should be helped to face openly the reasons for the divorce, (c) children's interests should be considered in custody and visitation arrangements, and (d) children should be helped with their own feelings concerning reasons for the divorce.—P. McMillan.

8293. **Wright, K. J.** (Middlesex Hosp., London, England) **Exploring the uniqueness of common complaints.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 221-232.—Regards "meaning" as a relational term which necessarily implies the existence of a personal frame of reference. 2 contrasting approaches to a person's statements about himself are then discussed. They are distinguished by their attitude to personal meanings. The 1st (extrospective) attributes meaning to isolated fragments of personal data from an external theoretical perspective; the 2nd (introspective) attempts to explore and make explicit the natural context of personal data, locating them within the person's own frame of reference. The relationship of such strategies to current conceptions of scientific method is briefly discussed. Theoretical considerations are illustrated by reference to symptoms and the kinds of meaning they might be deemed to have from the different approaches. Hinkle's "laddering" technique is described as a method which provides a way of exploring systematically aspects of a person's system of meanings. This is illustrated with examples taken from the investigation of an agoraphobic patient. The way in which the data yielded by the method can be used as a source of inferences about the person is also illustrated. Finally, the ambiguity in speaking of a person's frame of reference or system of meanings is underlined, and some possible uses and

limitations of the kind of method described are discussed.—*Journal summary.*

PERSONNEL

8294. Baruk, H. *La vie et l'oeuvre de Moreau de Tours.* [The life and work of Moreau de Tours.] *Annales Médico-Psychologiques*, 1970(Jun), Vol. 2(1), 27-32.—Presents a biographic sketch of Moreau de Tours, a pioneer in French psychiatry. His interests tended toward the physiological and biological, thereby lending balance to the early predominance given to moral causation of the behavior disorders by Pinel and Esquirol. His book on hashish, published in 1845, was a foundation stone for modern psychopharmacology. He is also known for his early interest in the problems of epilepsy and for the fruitful analogy he made between psychosis and the normal dream process. The Society of Moreau de Tours was formed in 1959 to honor his name and to further the study of psychopharmacology. The interests of the society have extended to psychiatric pharmacology in antiquity, histopathologic and biochemical investigation of mental disease, and experimental psychopathology in animal Ss.—*H. E. King.*

8295. Blake, Yvonne. *Clinical psychology as a career.* *Psychological Scene*, 1968(Sep), Vol. 2, 65-67.

8296. Boyarsky, Rose E. & Vance, Terry G. (Duke U.) *The use of role-play in psychotherapy training.* *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 35-40.—Beginning therapists were placed in a dyadic relationship which included mutual observation and criticism of techniques and role-playing sessions. Generally such a program was found to be of value in diminishing anxiety and developing techniques.—*A. Krichev.*

8297. Brodsky, Carroll M. (U. California, Medical School, San Francisco) *Decision-making and role shifts as they affect the consultation interface.* *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 559-565.—Reports on a 30-mo program of supplemental consultation services by psychiatric residents to 3 university hospital outpatients clinics: physical medicine and rehabilitation, neurology, and dermatology. Evaluation of the program was based on an integration scale (technical and social) and an acculturation scale. Results indicate that factors determining the acceptance and utilization of the psychiatric consultant are "not person-oriented but are determined by the types of decision that have to be made in a given clinic, by the system for making these decisions, and the effect that changes in the decision-making system will have on the clinic physician's role and consequently on his relationship with his patient." (19 ref.)—*P. McMillan.*

8298. Cattell, James P. (Jewish Memorial Hosp., New York, N.Y.) *Psychiatric emergencies in general practice: Reassessment.* *New York State Journal of Medicine*, 1970(Sep), Vol. 70(17), 2219-2223.—Defines a psychiatric emergency as any situation that jeopardizes the mental health and emotional equilibrium of the patient and that may be alleviated by immediate action. The precursors of acute psychiatric emergencies are often detectable if the physician is aware of the possibilities of an emergency developing. The physician's concept of himself as a person and as a professional man may or may not be advantageous, depending on the extent to which he allows value judgments to influence his thinking. The relatives of patients may be more

problematic or may have more pathologic conditions than the patients have. Awareness of this possibility and the need to deal with it are crucial. It is concluded that immediate action is the beginning of treatment.—*Journal summary.*

8299. Hall, John. (St. Andrew's Hosp., Thorpe, England) *Psychological manpower in the health service: Use or misuse.* *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 219-222.—Discusses the role of psychologists in the British Health Service. Critical problems in the use of psychological manpower are cited. It is argued that positive guidance must be given by the British Psychological Society immediately if the advancement of clinical psychology is to be promoted, and if the high standards of the Society are to be maintained.—*V. S. Sexton.*

8300. Hetherington, Ralph. (U. Liverpool, England) *Ethical problems in clinical psychology.* *Bulletin of the British Psychological Society*, 1970(Jul), Vol. 23(80), 204-206.—In the light of the psychologist's task to help the patient achieve what he wants to achieve in his own way, the ethical problems of kindness and consideration, privacy, and confidentiality are discussed. Most of these ethical problems resolve themselves when the basic principle of self-determination of the patient and of his final and full cooperation are recognized.—*V. S. Sexton.*

8301. Schuster, Daniel B. & Freeman, Edwin N. (U. Rochester, Medical School, Adult Psychiatric Outpatient Div.) *Supervision of the resident's initial interview.* *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 516-523.—Describes a procedure used to train 2nd-yr psychiatric residents in their initial interviews with patients in an adult outpatient clinic of a metropolitan medical center. The procedure involves the presence of the supervisor as an inconspicuous 3rd party in the interview situation. Instances of necessary intervention by the supervisor are described. Common problem areas encountered by the resident include (a) detection of latent psychotic trends, (b) handling of sensitive emotional issues, (c) being alert to medical complications, and (d) dealing with panicky and otherwise difficult patients. Illustrative case examples are included. (15 ref.)—*P. McMillan.*

8302. Sherman, Roger W. & Hildreth, Arthur M. (Johns Hopkins Hosp., Henry Phipps Psychiatric Clinic, Baltimore, Md.) *A resident group process training seminar.* *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 372-375.—Describes a useful teaching tool in a psychiatric residency, an ongoing group process seminar. In it residents learn to recognize and deal with the forces of competition, scapegoating, dependency, and helpless rage at the administration. Studying these forces makes it possible to understand and effectively counter similar processes in other groups, e.g., inpatient wards.—*Journal abstract.*

8303. Yenawine, Gardner & Arbuckle, Dugald S. (U. Massachusetts, Boston) *Study of the use of videotape and audiotape as techniques in counselor education.* *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 1-6.—Compares and contrasts the effects of using audiotape and videotape recording techniques on counselor trainee experiences within the counseling practicum. 14 undergraduates, in 2 groups, 1 using videotape, the other audiotape, were observed for 1 semester. Data were gathered primarily by the use of a counselor log. Differences in the use of the 2 approaches are noted. It is concluded that due to the relative

completeness of the recordings, videotape provides a more objective basis for the evaluation of counselor interviews than audiotape.—*Journal abstract.*

PSYCHOTHERAPY & ANALYSIS

8304. **Arata Andrea & Bevilacqua Arata, Piera.** *La psicoterapia nel trattamento dei caratteropatologici a condotta antisociale.* [Psychotherapy in the treatment of character disorders of antisocial behavior.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 371-377.—Psychotherapy in character disorders with antisocial behavior presents many difficulties, and failures are numerous. The attitude of society on such individuals has been to repress them and confine them in institutions under rigid discipline. It is necessary to 1st thoroughly investigate the structures and dynamics of the antisocial personality. The Ss are generally of average intelligence, characterized during formative years by irregular behavior, excessive restlessness, aggression, and consequently escape from the home, domestic theft, and precocious sexual activity, sometimes homosexual. The role of the psychiatrist in reform work is to help the S to resolve his interpersonal problems, and make the S well disposed toward other educators. 1st the psychiatrist must establish a valid interpersonal relationship with the S. The patient must choose, by his own will, to be helped, not simply to adjust to the rules of an institution. Group dynamics appear to be the best way to progress with character disorders of a delinquent type. (18 ref.)—A. M. Farfaglia.

8305. **Balestri, Luisa; Renzi-Guastalla, Bianca, & Tremelloni, Laura.** *Psicoterapia combinata in due casi di anomalia della condotta.* [Combined therapy in two cases of abnormal conduct.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 343-355.—Defines character disturbance as an entire clinical picture, characterized by abnormal conduct which shows up on an EEG. A 9- and a 14-yr-old S with serious behavior problems were studied. The younger S demonstrated aggressiveness, particularly toward his parents, e.g., he attempted to kill them. In sessions of psychotherapy, attended also by the mother, the therapist aimed at representing the "good authority." Regarding the psychotherapy of the mother, she succeeded in considering her child "ill" and not "naughty" and became less anxious and less authoritarian. The older S was melancholic and depressed and constantly exposed to family arguments. In both cases the psychotherapy of both S and parents was essential. A change in parent-child relations could take place on a mature basis. (31 ref.)—A. M. Farfaglia.

8306. **Banerji, Saradindu.** *Observations on psychoanalysis and existentialism.* *Samiksa*, 1968, Vol. 22(2), 50-72.—Presents a comparative study of psychoanalysis and existentialism, especially concerning human personality, and critically examines existentialist views from the analytical standpoint. An outline of Daseinanalyse and a pertinent case history are presented. A brief reply to the existentialist analyst's objections to Freudian analysis, and a psychoanalytical estimate of existential analysis are offered. A psychoanalytical explanation of the form assumed by existentialism in general is presented. (21 ref.)—T. N. Webster.

8307. **Benders, H.** (U. Nijmegen, Psychiatric Clinic, Netherlands) *Psychiatry and objectivity: Methods in the therapeutic use of movement, music and creativity.* *Psychiatria, Neurologia, Neurochirurgia*, 1969(Jul),

Vol. 72(4), 337-351.—Argues that a large number of specialists attending a sickbed obscures the personal responsibility concerning improvement or aggravation of the psychiatric patient's condition. A narcissistically colored scientific focus on profundity in the disciplines is cautioned against. It is suggested that the various disciplines should aim at (a) control and being-controlled, (b) an optimally systematic approach, (c) transferability of their activities, (d) analysis of what is being done, and (e) evaluation of what is achieved. It is demonstrated that movement, music and creative therapy must not be confused with occupational therapy, and an attempt is made to establish the extent to which these 3 types of therapy meet the demand for a scientific approach. In movement therapy, the method used in collecting data and their statistical analysis are inadequate and spurious. Music therapy is described as being on the right road; rhythm can be a safe starting-point of controlled investigation. In its impatience for objective standards of determination, creative therapy should not follow movement therapy on the tempting road of spurious research, but should remove the uncertainties about its own pretensions and start well-focused and perspicuous projects. The pictorial products of 3 patients are presented to illustrate some of the possibilities of creative therapy.—*Journal summary.*

8308. **Berlin, Irving N.** (U. Washington, Medical School, Div. of Psychiatry) *Crisis intervention and short-term therapy: An approach in a child-psychiatric clinic.* *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 595-606.—Describes efforts in understanding and teaching crisis intervention and brief therapy with families. 3 case examples are presented to illustrate learning experiences which led to the development of this model. The requirement of training in dynamic psychiatry is emphasized as a basis for understanding and applying lessons from ego psychology developed by Anna Freud, Erikson, Lindemann, and Caplan. (18 ref.)—*Journal summary.*

8309. **Bhattacharyya, Somnath.** *A case of conversion.* *Samiksa*, 1969, Vol. 23(1), 9-21.—Presents the case of a 21-yr-old woman who, while feeling sexual attraction toward her father, was repelled by sex, due to her strong superego (the internalized puritanical father) to which her incestuous leanings were unacceptable. Psychosomatic vaginal sphincter pain also rendered her vagina impenetrable to the phallus of her father. Projecting the blame onto the men in her sexual adventures, she debased all father figures, never really understanding her father hatred and projection defense before termination of treatment.—T. N. Webster.

8310. **Bonarius, J. C.** (U. Groningen, Netherlands) *Fixed role therapy: A double paradox.* *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 213-219.—Sketches with the help of an illustrative case the 3 phases of G. A. Kelly's "fixed role" therapy: 1st, a diagnostic analysis of the patient's construct system; 2nd, the creation of a role character completely different from the patient's personality, but fitting his life situation; and 3rd, the guidance of the patient by rehearsing role enactments during therapy sessions. The similarities and the differences with behavior therapy, Rogerian therapy, and psychoanalysis are discussed.—*Journal summary.*

8311. **Brigham, Fleda M.** (Kirkville Coll. of Osteopathy & Surgery, Mo.) *Masks as a psychotherapeutic modality: A hypothesis.* *Journal of the Amer-*

ican Osteopathic Association, 1970(Feb.), Vol. 69(6), 549-555.—A historical review of the literature demonstrates that since the earliest times, men have used masks to meet basic religious, psychological, and physiological needs. Examples of mask symbolism from Neolithic Europeans, Greeks, Romans, Africans, Eskimos, Indians, and Japanese are presented to substantiate the hypothesis that masks can be used as a psychotherapeutic modality. "Mask therapy is seen as an extension of natural behavior into the therapeutic environment as is psychodrama, play therapy, and other activities converted into forms of treatment." It is suggested that masks might be used as both a psychodiagnostic and preventive measure in mental illness. It is also suggested that criteria for mask therapy would be similar to criteria for all other forms of psychotherapy. More specific methods for the application of mask therapy in different age groups and disease entities are discussed. (52 ref.)—P. R. Shibelski.

8312. Carrera, Frank & Adams, Paul L. (U. Florida, Medical School) **An ethical perspective on operant conditioning.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 607-623.—Specifies certain values that govern child psychotherapy, and examines operant conditioning with respect to its place in child psychiatric practice, education, and research. The progression of the child's insightful learning during psychodynamically guided psychotherapy is contrasted with that during operant conditioning, and the therapist's personal advancement in self-insight during use of both approaches is discussed. The medical ethics of human experimentation and the legal concept of "best interests of the child" are proposed as codified schemata for ethically appraising the psychotherapeutic and operant methods. Within this framework, the psychotherapeutic and operant approaches are compared as to the place of symptoms, the therapist's personality and role, and the child's engagement in the process. Operant techniques showed 2 major pitfalls: (a) endorsement and subserving of parental valuations even when parental values may be illusory or in outright conflict with the child's best interests; and (b) transmission of a limited, mechanistic view of human interaction to child and family. Using case materials, it is demonstrated that the child psychotherapist's nondoctrinaire approach encourages a flexible and pragmatic readiness to serve the entire range of the child's interests. Thus he may at times utilize operant techniques in combination with techniques derived from other therapeutic traditions. (18 ref.)—*Journal summary*.

8313. Chartier, George M. (Arizona State U.) **A-B therapist variable: Real or imagined?** *Psychological Bulletin*, 1971(Jan), Vol. 75(1), 22-33.—Traces the development of research on A-B therapist "type" as an important variable in psychotherapeutic outcome. 2 sets of clinical studies which suggest that therapist type and patient characteristics interact in producing differential outcome are critically reviewed. Subsequent research, largely of an analog variety, is then evaluated with particular respect to the adequacy with which natural psychotherapy conditions have been approximated. It is argued that the extensive laboratory research has not increased understanding of the original phenomena and that the analog studies constitute a case of premature simplification, since the original clinical research provided an insufficient basis for the interaction hypothesis. (42 ref.)—*Journal abstract*.

8314. Chethik, Morton. (U. Michigan, Medical School) **The impact of object loss on a six-year-old.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 624-643.—Presents the case history of a 5-yr-old boy, tracing the events of the 10 mo. of analytic treatment preceding the death of his mother. The threat of disintegration of the self as an impediment to accepting death is stressed. The problems involved in mourning that this child presented and their implications for death and for young children in general are discussed.—M. Maney.

8315. Cima, Ettore; Montabbio, Enrico, & Venuti, Giorgio. **Esperienze psicoterapiche in soggetti con anomalie comportamentali to pio "caratteriale" e con lieve ritardo intellettivo.** [Psychotherapeutic experiments in Ss with abnormal behavior of "character disorder" nature and with slight intellectual retardation.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 388-399.—Based on the presuppositions that (a) a child has impulses and needs, e.g., to be socialized; (b) a child is situated in the "real" world, e.g., he must evaluate the "object" and adapt himself to it; and (c) a child is a person in a group, e.g., he must accept others and be accepted, an experiment was conducted with 8-12 yr. old institutionalized boys with an IQ of 75-85. Ss were divided into 3 groups according to the type of abnormal behavior—neurotic, prepsychotic, and psychopathic. Individual dialogues were held each wk. from 20-50 min. This type of psychotherapeutic treatment resulted in 3 phases: recognition, deconditioning, and conditioning. In the last phase, the neurotic S realizes he can love and be loved and accepts interpersonal relations and the integration in a group; the prepsychotic S accepts relationships outside himself and adapts himself if only to satisfy his own needs; and, the psychopathic S does not accept social integration. (18 ref.)—A. M. Farfaglia.

8316. DuPont, Robert L. (Dept. of Corrections, Washington, D.C.) **The impostor and his mother.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 444-448.—Reports a case history and a 2-yr course of psychoanalytical psychotherapy of an impostor treated in a prison. The psychodynamic findings emphasize the impostor's intense, ambivalent relationship with his mother from whom he was never psychologically separated.—*Journal abstract*.

8317. Feinberg, Daniel. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Preventive therapy with siblings of a dying child.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 644-668.—Presents brief therapy of 2 sisters of a dying child. The therapeutic technique dealt with the threatened loss by a forthright approach and attention to details of the reality situation. Immunizing discussions and allowance for catharsis without regression were encouraged, and transference material was interpreted where it related to object loss and might have induced sad effects. An empirical assessment of the therapy suggests that there was considerable immediate ventilative help at a time of great stress, with prevention of secondary behavioral complications or an outbreak of neurotic symptomatology. A brief 10-mo follow-up suggests that such supportive therapy, although it may help in the immediate manifestation of feelings, has little enduring effect on a child's capacity to sustain a prolonged mourning process. Implications of the material are discussed regarding: (a) the influence of sudden or protracted dying on grief and mourning, (b) how grief

differs in the event of parental bereavement as opposed to sibling bereavement, and (c) what constitutes normal as opposed to abnormal childhood grief or mourning.—*Journal summary.*

8318. Fiorini, Héctor J. (G. Aráoz Alfaro Polyclinic, Provincia de Lanus, Argentina) **Delimitación técnica de psicoterapias.** [Technical framing of psychotherapy.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 117-124.—Discusses the problem of utilizing in mental care institutions psychotherapeutic techniques which do not stem from clearly defined strategical models and which, on the contrary, combine technical resources belonging originally to different strategies (support, clarification, and transference techniques). Several parameters are mentioned which could establish a profile on any given psychotherapy as well as to fundament its specific procedures.—*English summary.*

8319. Friedenthal, Hebe & Madanes, Nidia. **Errores en el análisis de niños.** [Mistakes in child analysis.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 257-260.—Points out common mistakes in child psychoanalysis made by beginners: (a) underestimation of difficulties in treating children as compared to adults, (b) exaggeration of elements pertaining to the consulting room, (c) preconceptions about the symbolic meaning of toys given to the child, (d) use of interpretations which are made out of theoretical assumptions rather than out of the observation of the child, and (e) mistaken use of comments made by the supervisor. These problems are due to the lack of institutions where systematic knowledge could be acquired. Stresses the need for more investigation in psychotherapy, especially research on the type of content analysis of therapeutic interviews that would lead to identify interpretations that are harmless (and useless), mistaken, harmful, and correct.—*English summary.*

8320. Georgin, B. L. & Wagret, G. (1 bis, Cours du Parc, Dijon, France) **Notes sur la dialectique "fantasme-réel" et incidences en psychothérapie.** [Notes on the "fantasy-reality" dialectic and its effects in psychotherapy.] *Evolution Psychiatrique*, 1970(Apr), Vol. 35(2), 465-478.—Examines the dialectic relationships between reality and the fantasy life. These relationships are seen, above all, as antagonistic, but also as complementary; their necessity is evident in analyses of organizations in which there is a massive prevalence of 1 or the other. In "real" situations, as well as in the transference analytical situation, the bipolarity of reality and fantasy polarize a great number of psychodynamic phenomena according to a dialectic whole of varied significance. This dialectic, beyond the antagonistic confrontation of pressure from reality and fantasy, and also beyond their necessary association, can resolve itself either within the framework of the spontaneous development of the personality, or within the psychotherapeutic setting by the elaboration of impulses and maturation of the ego. These latter mechanisms make possible the emergence of creative spontaneity which enables the reality life to enrich the fantasy world and make its mark on the real world. (33 ref.)—*T. N. Webster.*

8321. Giordano de Zion, Mora. **La actitud fenomenológica en psicoterapia infanto-juvenil.** [Phenomenological attitude in psychotherapy of children and adolescents.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 135-141.—Sug-

gests a phenomenological attitude in the psychotherapeutic task, when dealing with children and adolescents, and gives examples based on psychoanalytic and phenomenological interpretations of cases treated by her, and part of a case treated and published by Melanie Klein. (20 ref.)—*English summary.*

8322. Glasserman, María R. **La psicoprofilaxis quirúrgica: Una técnica de prevención.** [Surgical psychoprophylaxis: A preventive technique.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 239-244.—Describes a preventive technique—surgical psychoprophylaxis—to be employed with both children and adults, individually or in groups, and aimed at preparing patients undergoing surgical intervention. The technique is dynamically oriented and consists of verbalizing and working through fantasies and anxieties related to the illness and the surgical intervention. Psychodramatic techniques, with graphic and play material, are also employed. Discusses the applicability of the technique in a wide variety of cases. (42 ref.)—*English summary.*

8323. Glasserman, María R. & Shuzki, Carlos E. **Psicoprofilaxis quirúrgica: Una investigación acerca de su efectividad.** [Surgical psychoprophylaxis: Research on its effectiveness.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 261-264.—4-12 yr. old children to be surgically treated for strabismus were randomly assigned to either of 2 groups: one received surgical psychoprophylaxis, and the other did not receive any preparatory therapy for the surgical intervention. Ss were evaluated before and after (in a follow-up interview) the surgical and therapeutic procedures with a psychodiagnostic evaluation and an ad hoc objective scale for anxiety. Results show that the group receiving surgical psychoprophylaxis adapted to the surgical intervention better than did the control group. Implications for the validity of surgical psychoprophylaxis are discussed.—*V. A. Colotta.*

8324. Glazer, Henry. **Investment of the spirit.** *Journal of Emotional Education*, 1969(Win), Vol. 9(1), 12-17.—Describes the operant philosophy of translating the ideal of service into reality which is practiced at the Institute for Emotional Education (IFEE). IFEE is a nonresidential therapeutic community. "At IFEE, emphasis is not placed merely on personality changes for the sake of healthy adjustment to the outside world." Instead, the client is directed toward a life of service. 2 illustrative cases are presented.—*B. A. Stanton.*

8325. Graff, Barry D. (Michigan State U.) **Group therapy and individual therapy: A comparison.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1536.

8326. Greenson, Ralph R. **The exceptional position of the dream in psychoanalytic practice.** *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 519-549.—Issue is taken with psychoanalysts who downgrade the importance of dream analysis. "The dream is an exceptional and unique production of the patient. It is his special creation but can only be fully understood if the analyst and the patient work together by means of the patient's free associations and the analyst's interpretations. To work effectively with a patient's dream the analyst must subordinate his own theoretical interests, his own personal curiosity, and attempt to make contact with what is living, accessible, and dominant in the patient's psychic life at the same time. He must associate empathically with the patient's life. Then he must

translate the pictures he gets from the patient's verbal rendering of the dream back into thoughts, ideas, and words. Finally, he must ask himself what of all of this will be valuable to the patient's conscious and reasonable ego and how he can say it effectively to the patient."—*J. Z. Elias.*

8327. Hartmann, Dora. **A study of drug-taking adolescents.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 384-398.

8328. Hawkey, Lawry. (Woodbury Down Child Guidance Clinic, London, England) **Case study of an adolescent girl.** *Journal of Analytical Psychology*, 1970(Jul), Vol. 15(2), 138-147.—Describes the treatment of an adolescent girl who was "full of fears particularly of anything happening to any member of the family An attempt has been made to show the setting in which treatment took place and to demonstrate both the method used and the patient's ability to respond to the treatment situation." S was in therapy for 4 yr., between the ages of 12-16. S was treated in a room also used for younger children, but never played with toys; however, she was able to use verbal communication. The treatment closely approximated adult therapy.—*P. Federman.*

8329. Hersen, Michel. (Fairfield Hills Hosp., Newton, Conn.) **The complementary use of behavior therapy and psychotherapy: Some comments.** *Psychological Record*, 1970(Sum), Vol. 20(3), 395-402.—Reports clinical evidence in support of the concurrent, successive, and complementary application of behavioral and traditional therapeutic techniques. The case histories reported point to the flexibility required in treating varied patient problems. Criticism is leveled at practitioners who maintain a particular therapeutic strategy only to be consistent with their theoretical underpinnings. It is argued that specific techniques are utilized most effectively when applied to specific difficulties in attainment of maximum benefit for patients. In the theoretical struggles that arise among practitioners of opposing camps, the patient should be of main concern. Empirical examination of the most effective treatment combinations appears warranted. (36 ref.)—*Journal abstract.*

8330. Hetrick, Suzanne H. (Kent State U.) **An analysis of "client"-"therapist" compatibility and its effect on transmissive and receptive communication in a psychotherapy analogue.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1538-1539.

8331. Kelly, Kerry. **A precocious child in analysis.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 122-145.

8332. Kernberg, Paulina F. & Rousey, Clyde L. (Menninger Foundation, Topeka, Kan.) **Variations in speech sounds during psychotherapy: An independent indicator of change.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 762-777.—Presents a psychotherapy case with an 8-yr-old boy whose diagnosis was pavor nocturnus and schizoid personality with borderline features to illustrate how changes in the patient may be assessed through changes in speech sounds and hearing patterns. It is suggested that "the development of a more precise and comprehensive analysis of speech-sound patterns and speech-sound disturbances contributes to the early identification and diagnosis of psychopathological conditions and provides an independent measurement of change in psychotherapy."—*M. Maney.*

8333. Kestenberg, Judith S. **Problems of technique**

of child analysis in relation to the various developmental stages: Prelateny. *Psychoanalytic Study of the Child*, 1969, Vol. 24, 358-383.

8334. Khan, M. Masud. (3 Hans Crescent, London, England) **Towards an epistemology of the process of cure.** *British Journal of Medical Psychology*, 1970(Dec), Vol. 43(4), 363-366.—Discusses the reluctance of psychoanalysts to use the concept of cure in their written work, and emphasizes the need for such a concept to be explored. Despite Freud's refusal to "be caught up with any sort of therapeutic evangelism, there is a definite and progressive theory of cure in . . . [his] writings." The work of Freud in relation to this aspect is discussed. Also Marion Milner's book, *The Hands of the Living God*, is discussed as the "only extensive and candid clinical account of the treatment and cure of a gravely ill and mad person that we possess in psychoanalysis."—*M. West.*

8335. Lassen, Carol L. (Yale U.) **Interaction distance and the initial psychiatric interview: A study in proxemics.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1542.

8336. Loewald, Hans W. **Psychoanalytic theory and the psychoanalytic process.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 45-68.

8337. Madanes, Nidia. **La inclusión de la realidad externa en la interpretación.** [Inclusion of the external reality in the interpretation.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 271-274.—Reviews part of the child psychoanalytic literature dealing with "external reality," concluding that the latter is often interpreted only as a projection of the inner feelings toward the object. In contrast, it is proposed that external reality should be included in interpretation, specially when the objective negative features of that reality reinforce the defense mechanisms of the child; otherwise, a distorted perception of reality is favored, and hence an impairment of ego functions. Clinical material is used to illustrate this position.—*English summary.*

8338. Maenchen, Anna. **On the technique of child analysis in relation to stages of development.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 175-208.

8339. Marshak, Mildred. (U. London, Inst. of Education, England) **Observations of the treatment of adolescents.** *Journal of Analytical Psychology*, 1970(Jul), Vol. 15(2), 123-137.—The ability for the adolescent to identify with parent-figures and thus with some aspects of society and its institutions is closed for many. Ego experiences do not allow them to feel real or alive. A number of observations about adolescents were made: (a) a need to communicate yet not be revealed, (b) relationship and dependence must not compromise separateness and independence, (c) preserve personality from violation and impingement, (d) a self that is immune from the reality principle, (e) loss of ego consciousness, and (f) communication is with "subjective objects" in distinction to the external world.—*P. Federman.*

8340. Meadow, Phyllis W. (New York U.) **The relative effectiveness of two educational techniques used in the extinction of maladaptive responses which block learning.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 918.

8341. Novick, Jack. **The vicissitudes of the "working alliance" in the analysis of a latency girl.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 231-256.

8342. Oates, Wayne E. (Southern Baptist Theological Seminary, Louisville, Ky.) **Your partnership in emotional therapy.** *Pastoral Psychology*, 1969(Mar), Vol. 20(192), 44-51.—Family members, neighbors, fellow employees, and even casual friends can, if they are willing and teachable, play key roles in the therapeutic process. Comprehensive emotional therapy is discussed in terms of recognizing the emotionally disturbed, mobilizing the therapeutic team, the place of pastoral care in the therapeutic team, and the care of uncooperative disturbed persons. These modes of outreach are related to theological relationships.—O. Strunk.

8343. Osorio, Luiz C. (Therapeutic Community Leo Kanner, Porto Alegre, Brazil) **Therapeutic agents in an inpatient community for children.** *Acta Paedopsychiatrica*, 1970(Feb), Vol. 37(2-3), 56-61.—Children are organized in groups of 6-8, and together with child care workers, constitute small families integrated among themselves and into the residential community, divided into 3 therapeutic agents: the patient, the therapist, and community activities. The patient may act as a therapeutic agent and the psychiatrist's activities are in the last instance determined by the social behavior of the patients. On the child care worker, the child will project his parent images; thus, the selection of these workers is of maximum importance. To make adequate use of the psychopedagogic methods in the community, it is essential to base the occupational program on the patient's own aptitudes and preexisting tendencies. The 4th element in the therapeutic community is the patient's immediate family. Few institutions have so far been able to integrate the family-member part of the therapeutic team.—G. Rubin-Rabson.

8344. Razin, Andrew M. (Columbia U., Teachers Coll.) **A-B variable in psychotherapy: A critical review.** *Psychological Bulletin*, 1971(Jan), Vol. 75(1), 1-21.—Reviews research on the A-B classification of therapists under differential clinical outcome, personal characteristics, and analog studies. Outcome work found As more effective with schizophrenics than Bs, whether A-B status was defined by therapy behavior or vocational interests. Later work found Bs more effective with neurotics. Most recent data point to the importance of improvement criteria (As seem more successful in effecting subjective relief, and Bs, in effecting impulse control). Personal characteristic studies find As more trusting, intropunitive, and tolerant of "inner" experiences and spontaneity; more field dependent and personally involved with patients; and more oriented to problem solving than Bs. Largely because of methodological problems, analogs have yielded conflicting data, but they do suggest that, in extended dyadic contact, "complementary" pairings (neurotics with schizoids) are more effective than "similar" pairings (neurotics with neurotics, schizoids with schizoids). It is concluded that As share with and communicate to schizophrenics awareness of idiosyncratic perceptions and that As are able to persuade schizophrenics to trust them. (50 ref.)—*Journal abstract*.

8345. Redfearn, J. W. (30 Devonshire Pl., London, England) **Bodily experience in psychotherapy.** *British Journal of Medical Psychology*, 1970(Dec), Vol. 43(4), 301-312.—Discusses the relationship between the body image and the actual body. The former can be meaningfully used and integrated with other personal experience and feelings, and built into the common language of patient and psychotherapist. This body

scheme is part of a larger whole, which is termed the coenesthetic body-world scheme of impulsive-affective experience. The actual body and bodily processes act on this at all levels of experience. As part of the coenesthetic mechanism, both primitive and less primitive bodily impulses and instinctual behavior patterns may, particularly when motor discharge is blocked, create corresponding imagery. Analysis of narcissistic defenses eventually tends to reach a prepersonal level where these bodily impulses with their corresponding images may be brought into relationships with the ego and the body, often within the transference relationship. A series of clinical examples is used to demonstrate these phenomena. These examples also show the main vicissitudes of narcissistic libido and its relationship with bodily disturbances and clinical practice. The main types of splitting and projection which are encountered, as well as possible ways of dealing with these splits, are discussed. A case is described in which actual work on the body is combined with psychotherapy, in an effort to deal with psychosomatic splitting.—*Journal summary*.

8346. Rossi, Romolo. **Equivalenti caratteriali di psicosi periodica bipolare: Problemi psicoterapeutici.** [Character equivalents of the bipolar period of psychosis: Psychotherapeutic problems.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 399-404.—Compared 2 cases. In the 1st there is a doubt concerning the endogenous phase, because of the impossibility of outlining dynamic movements from the concrete reality of the clinic. In the 2nd, which is a classical case of bipolar psychosis, there is no doubt, and the S administers the necessary drug himself. It is concluded that: (a) The endogenous modification phase of a bipolar type presents itself under the aspect of characteristic equivalents and is considered a psychotherapeutic problem. (b) The psychotherapeutic situation is the best for recognizing the endogenous equivalent because the psychiatrist has continuous and deep contact with the patient, and a precise graph of the changing phases can be traced. (c) The administering of antidepressive and neuroleptic drugs is essential in treating bipolar psychosis. The psychotherapeutic situation is the best to catch the moment of "shifting" from high to low. It is a mistake for the psychiatrist to refuse the assistance of drugs. (d) The psychotherapist must solve the problem in a doctor-drug-patient relationship. (24 ref.)—A. M. Farfaglia.

8347. Schwartz, Mildred R. (New York U.) **Affective communication in psychotherapy.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1550.

8348. Silber, Austin. (State U. New York, Downstate Medical Center, Brooklyn) **An addendum to the technique of psychotherapy with alcoholics.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 423-437.—Attempts to modify the approach to psychotherapy for the alcoholic patient. Since the attitude of the therapist toward alcoholism and his alcoholic patient is crucial, the manner in which the therapist should institute therapy is carefully outlined. Alcoholism as a symptom with its unique characteristics is defined, as is symptom formation in general. A therapeutic working compact between therapist and patient, and its similarity with the working alliance in psychoanalytical treatment, is discussed. The significance of the therapist's ego being lent in a prosthetic sense to repair damaged ego functions in the patient and to cement the therapeutic working compact is highlighted. The frequent finding of

a pathologically ill parent in the background of alcoholic patients seen in therapy is noted. The effects of this on the alcoholic and his treatment are discussed. Modifications of technique, based on an altered perspective are detailed. (32 ref.)—*Journal abstract.*

8349. Strupp, Hans H. (Vanderbilt U.) **Specific vs. nonspecific factors in psychotherapy and the problem of control.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 393-401.—Examines the relative contributions of specific techniques and such nonspecific factors as the patient's expectations and feelings of trust in determining psychotherapeutic outcome. It was hypothesized that changes due to specific techniques can be quantitatively and qualitatively differentiated from nonspecific influences. Difficulties in obtaining empirical support for this hypothesis are discussed. It is concluded that fruitful research must focus on both subjective and objective aspects of the individual's functioning.—*P. McMillan.*

8350. Tinstman, Shirley O. (U. Oklahoma) **Experimenter bias and the effects of psychotherapy.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1552-1553.

8351. Vera, Luis & Thieberger, Jorge. **Un estudio sobre deserción de pacientes: Experiencia de residentes en consultorios externos de un hospital psiquiátrico.** [A study of desertion of patients: Experience of residents in out-patient department of a psychiatric hospital.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Mar), Vol. 16(1), 57-61.—Reports a study on desertion by psychiatric patients carried out on all 1st admissions (N = 164) during July and August, 1968, in an Argentinian hospital. Overall treatment desertion percentage was 41%. Breakdown according to diagnostic categories yielded the following desertion percentages: psychoneurotics 50%; schizophrenics 33%; alcoholics 43%; epileptics 18%; and other 40%. The main causes for desertion were: unknown (18 Ss); lack of motivation (13 Ss); pathology (13 Ss); inappropriate handling (9 Ss); other (15 Ss). Suggestions are given to decrease desertion rates in psychiatric hospitals.—*V. A. Colotta.*

8352. Wolfenstein, Martha. **Loss, rage, and repetition.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 432-460.

8353. Zysman, Samuel. **Las psicoterapias breves: Elección o necesidad?** [Brief psychotherapies: Choice or necessity?] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 245-250.—Points out the need for placing brief psychotherapies, together with other techniques, on the basis of a common theoretical ground. In this way, a false opposition between "long" and "brief" psychotherapies is avoided, and each will take its proper place in the vast field of psychotherapies. This will allow the therapist to choose correctly among them all, according to the peculiarities of each case and the different indications, limitations, and advantages of the techniques. Discusses the basic characteristics to be exhibited by the doctor, the patient, and the procedure itself in order to better accomplish the therapeutic goals.—*English summary.*

Therapeutic Process

8354. Antonelli, Romano. **Commenti sulla motivazione psicoterapica nei caratteropatichi.** [Comments on psychotherapeutic motivation in patients with

character disorders.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 362-364.—The psychiatrist must try to understand the factor or factors which made the patient seek psychiatric help. A patient who accepts therapeutic treatment only because the rich wife threatens or because he hopes for clemency from the court cannot benefit from psychotherapy. The source of the anxiety is not discovered. A case is studied showing the patient making no progress until he recognized the exact moment and event which made him seek out psychiatric help. The question "Why does this person seek help?" is the 1st thing the psychiatrist must answer regarding the subjective perception of the anxiety.—*A. M. Farfaglia.*

8355. Bleichmar, Emilce D. **Terminación de análisis de niños: Contrato de terminación.** [Termination of child analysis: Contract of ending.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 265-270.—Describes psychoanalytic processes during treatment of children and at the moment of termination. The need for setting a contract of termination with the child is stressed. 3 situations that can arise are defined: (a) termination of analysis; (b) interruption by reasons not related to the analyst; and (c) interruption performed by the analyst himself. Illustrative clinical material is provided.—*English summary.*

8356. Brandt, Lewis W. (U. Saskatchewan, Regina, Canada) **Der nicht-beobachtende Teilnehmer: Die Integration des Rollenspiels in die Psychoanalyse.** [The non-observed participant: Integration of role playing in psychoanalysis.] *Schweizer Archiv für Neurologie, Neurochirurgie und Psychiatrie*, 1971, Vol. 108(1), 1-13.—Classical psychoanalysis requires a self-observing ego which many analysts have not yet developed. To assist its development the analyst may play the role of the superego, the ego-ideal, or introjected objects or he may side with the resistances. Infantile, negativistic, and/or aggressive analysts can thus concretely deal with their resistances in the person of the analyst. Their ego gains strength in this confrontation and they become amenable to interpretations which they previously rejected or could not make any use of. Some illustrative examples are presented from the author's practice. (French summary)—*English summary.*

8357. Harley, Marjorie. **On some problems of technique in the analysis of early adolescents.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 99-121.

8358. Hill, James A., Howard, Kenneth I., & Orlinsky, David E. (Inst. for Juvenile Research, Chicago, Ill.) **The therapist's experience of psychotherapy: Some dimensions and determinants.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 435-451.—Factor analytically derived 11 dimensions of therapists' experiences during psychotherapy sessions for a sample of 17 therapists. Ss completed a standard questionnaire after each of 8 or more sessions with 31 female patients. In general, the dimensions reflected experiences of (a) being helpful towards patients, (b) attempting to deal with difficult patients, (c) making nontherapeutic responses to patients, and (d) entrapment in personally distressing situations with patients. Personal-social characteristics of patients and Ss were examined as possible determinants of therapist experience. Among other characteristics, patients' employment and marital status, diagnosis, and previous treatment, influenced certain therapist experience dimensions—as did Ss' profession, marital status, and personal psychotherapy.—*Journal abstract.*

8359. Landfield, A. W. (U. Missouri) **High priests, reflexivity and congruency of client-therapist personal construct systems.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 207-212.—The psychology of "personal constructs" is a theory of theories which has ramifications for how we understand and interact with our fellow men. This theory is 1 alternative to those theoretical constructions which treat men as noncreative, reactive robots, whose worth is judged by how well they do what they are supposed to do. Working within this alternative theory of personal constructs, focus is placed on the implications of client-therapist congruency in the content and organization of their construct systems.—*Journal summary*.
8360. Mattsson, Ake. (U. Virginia) **The male therapist and the female adolescent patient.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 707-721.—Reviews the recent literature regarding the significance of the gender of the adolescent patient's therapist and presents 6 case studies from a male psychotherapist's work with pre- and early adolescent girls. It is concluded that "a male therapist may expect to do as effective psychotherapeutic work with an adolescent girl as with an adolescent boy." 2 exceptions to this are noted: (a) cases where the female S's tension and bewilderment caused by biopsychological changes make her especially anxious and embarrassed with a male therapist, and (b) cases where a sexualized relationship occurs early in treatment. It is further concluded that "the transference reactions seen in work with adolescents are not determined basically by the therapist's sex," and the "the male therapist can become the object of either father or mother transference which can be interpreted to his patient, whether the latter is male or female." (18 ref.)—*M. Maney*.
8361. Mintz, James R. (New York U.) **Dimensions of psychotherapy interaction and their relation to outcome.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1545.
8362. Mullen, John & Abeles, Norman. (Wisconsin State U.) **Relationship of liking, empathy, and therapist's experience to outcome of therapy.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 39-43.—Scored tape recordings representing samples of 396 recorded interviews from the completed cases of 36 clients for accurate empathy and liking. Each client was seen by a different therapist, and clients were divided into a successful and an unsuccessful therapy-outcome group based on changes of pre-post MMPI clinical scales. Results indicate that high liking and high empathy together did not predict successful outcome, though a post hoc analysis showed a positive relationship between high empathy alone and successful outcome. Results also indicate that inexperienced therapists were generally less empathic than experienced therapists. Finally, for experienced therapists, accurate empathy and liking were not related while the relationship for these variables was significant with inexperienced therapists. (19 ref.)—*Journal abstract*.
8363. Mullen, John A. (Michigan State U.) **An investigation of the variable of liking in therapy: Its relation to the variables of outcome, empathy, and therapist experience.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1546-1547.
8364. Older, Jules. (New York U.) **Pseudo-testing.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1547.
8365. Slater, P. (Inst. of Psychiatry, London, England) **Personal questionnaire data treated as forming a repertory grid.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 357-370.—Analyzed data obtained by giving a personal questionnaire to a patient on a series of occasions during treatment for a psychiatric disorder, using the standard program provided by the Medical Research Council Service for analyzing repertory grids. Results identify the plane where the greatest fluctuations occurred in S's mental state (including 72% of the total variation) and provide coordinates for mapping the very complicated course the fluctuations followed. Further analyses enabled changes after psychotherapy and occupational therapy to be compared. The complete procedure for collecting such data and submitting them to analysis offers interesting possibilities for monitoring a patient's progress and comparing his responses to different forms of treatment. It widens the range of psychological phenomena that can be brought within the range of measurement.—*Journal abstract*.
8366. Tupin, Joe P. & Overall, John E. (U. California, Medical School, Davis) **Further investigation of factors affecting outcome in a doctor's choice treatment setting.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 684-694.—Reports results of the 2nd phase of a study evaluating clinical procedures and applying these methods to a natural clinical setting. Ss were 451 consecutive admissions to an inpatient psychiatric service who had been hospitalized for at least 2 wk. Excluded from the study were Ss with diagnoses of mania and organic syndromes. A detailed history was obtained on each S, as well as demographic and background characteristics. Analyses compared treatment methods, major diagnostic groups, and selected demographic variables. Primary sources of variance in outcome ratings included alcohol, S's behavior, sex, clinical diagnoses, and the use of convulsive therapy. Results indicate that marital status and children were significant factors in response to antidepressants and major tranquilizers. Overall differences in drug effects were conspicuously small, however. There was no statistically significant confirmation that "response to different major types of drug treatments was specific to broad clinical diagnostic categories."—*P. McMillan*.

Group Therapy

8367. Bleichmar, Hugo B. (Prof. G. Araoz Alfaro Polyclinic, Provincia de Lanus, Argentina) **El sistema familiar: Teoría de la técnica de psicoterapia.** [The family system: Theory of the technique of psychotherapy.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 148-154.—Examines the various subsystems that integrate the family therapeutic group and the relations between them. The different kinds of interpretations the therapist can make, and the role played by transference interpretations within the family as a whole are discussed. The family is conceptualized as an open system and a gradient is suggested to indicate the amount of permeability present in the families concerning their interchange with the therapist, as a representative of the exogroup. (15 ref.)—*English summary*.

8368. Bruyning, F. **Voorlopig ontwerp van een kader voor het beschrijven en plannen van gezinstherapie.** [Introductory design with reference to

outlining and planning for family therapy.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Sep), Vol. 25(8), 533-559.—Attempts to analyze some aspects of conjoint family therapy from the viewpoint of planned-change theory. This planned change consists of 3 phases: explorative, operational, and appraisal. Explorative consists of the study of the interaction of family members. This is described by the power function of each member, what form of behavior is considered to be normal by each member and by other members of the group, and the cohesiveness of the family as measured by the concern of each member for the welfare of the others. Operational consists of management planning, such as identifying the factors within and without the family system that could cause or alleviate the family disruption. It also includes the choice of strategic and tactical devices to improve the family climate. Appraisal includes the evaluative techniques. These phases are illustrated by case study. The systematic design of the study is described as being apropos to the therapy of an individual or a group, regardless whether the theory of the therapist emphasizes psychoanalysis, learning or transactional theories.—*A. J. Ter Keurst*.

8369. Clark, James V. (U. California, Graduate School of Business Administration, Los Angeles) **Task group therapy: I. Goals and the client system.** *Human Relations*, 1970(Aug), Vol. 23(4), 263-277.—Discusses the organization and functioning of "task group therapy," with its focus on interactional systems rather than on intrapsychic dynamics. Patterns of interaction are described, particularly the self-defeating behavior which characterizes task groups facing the most uncertainty. This behavior is self-defeating for group members' needs to relate satisfactorily to their task and each other. The associated incongruent double-bind communication patterns are strikingly similar to those seen in severely disturbed families.—*W. W. Meissner*.

8370. D'Angelo, R. Joseph. (United States International U., San Diego, Calif.) **Relationships among agreement with therapist and self-concept changes.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1532.

8371. de Paz, Lea R. **El juego reglado en la dinámica grupal.** [The ruled games in group dynamics.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 251-256.—Suggests that the use of games—with their corresponding rules—in group psychotherapy with children and adolescents, provides valuable insights about changes in relationship, self- and others recognition, growth of responsibility, and possibilities of an adaptive control. An interpretation is given of the appearance and use of ruled games by children, in Piagetian, developmental terms, and psychoanalysis. (19 ref.)—*English summary*.

8372. Fisko, Adam. (Illinois Inst. of Technology) **Vicarious vs. participant group psychotherapy of underachievers.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 912.

8373. Fraas, Louis A. **The patient-corpsman within a milieu therapy setting: A further approach to the manpower shortage.** *Military Medicine*, 1970(Nov), Vol. 135(11), 1011-1013.—A therapeutic milieu used in an overseas Army psychiatric center proved ineffective in reducing the number and extent of acting-out ward behavior. In order to combat this, psychiatric patients who were posing character problems were encouraged to

act as corpsman during their hospital stay. In this capacity, they were to engage other psychiatric patients and be partially responsible for their treatment. This procedure demonstrably reduced the frequency of acting-out behavior in this setting.—*G. A. Chum*.

8374. Gagnon, Jacques. (Mental Health Clinic of 13eme Arrondissement, Paris, France) **La psychothérapie analytique de groupe chez les préadolescents.** [Analytical group psychotherapy of preadolescents.] *Laval Médical*, 1969(Dec), Vol. 40(10), 1028-1036.—The fundamental criteria of psychoanalysis are found in analytical group psychotherapy. The neutral attitude of the therapist, his attention oriented toward seeking the common unconscious phantasm and his position of interpreting transference favors the elaboration of a vertical relationship over lateral transferences. During the prepubertal period impulsive drives are poorly differentiated. Physical and intellectual inferiority is compensated for by the spontaneous make up of the group. Behavior disorders and neuroses observed during this period are also poorly differentiated. Child therapists have adapted several formulas and derived from their ecological training therapies based on attitudes, abreaction, or interpretation of transference. Whatever the method, group therapy appears to satisfy the social need of preadolescents. These individuals encounter a certain difficulty in conceptualization; for this reason an approach using play, drawing, and other modes of expression is favored. It remains only for the therapist to impart to the technique his tastes and personality making him more effective.—*English abstract*.

8375. Gendzel, Ivan B. (Stanford U. Hosp., Palo Alto, Calif.) **Marathon group therapy and nonverbal methods.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 286-290.—Outlines the structure of a 24-hr encounter group (marathon) meeting. The number of participants ranged from 14-18 and initially consisted of either couples or singles. Nonverbal methods were felt to be effective in circumventing verbal barriers, conceptualizing and verbalizing new and unusual experiences, and providing much relevant information. The majority of 100 participants responding to a questionnaire immediately after their marathons felt they had benefited from the experience and that the nonverbal methods had contributed. A follow-up meeting several wk. after the marathon helped to provide closure to the experience. (17 ref.)—*Journal abstract*.

8376. Hatcher, Nolan C. (Auburn U.) **Two methods of group psychotherapy with hospitalized psychiatric patients.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1536-1537.

8377. Hurewitz, Paul. (Herbert H. Lehman Coll., City U. New York) **Ethical considerations in leading therapeutic and quasi-therapeutic groups: Encounter and sensitivity groups.** *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 17-20.—While therapeutic groups of a traditional nature are normally directed by professionals required to adhere to various legal and ethical standards, thereby protecting the "customer," new quasi-therapeutic groups often do not have such leaders. It is suggested that such groups should be covered by their own ethical standards so as to protect the public from false advertising, harmful experiences, and the freedom of choice to stay or leave. (15 ref.)—*A. Krichev*.

8378. Langsley, Donald G., Flomenhaft, Kalman, & Machotka, Pavel. (U. California, Medical School, Davis)

Followup evaluation of family crisis therapy. *American Journal of Orthopsychiatry*, 1969(Oct), Vol. 39(5), 753-759.—6-mo follow-up evaluations of 150 family crisis therapy cases and 150 hospital treatment cases demonstrate that those treated as outpatients do as well as the hospital cases. Social functioning is maintained equally in both groups. Patients are less likely to be rehospitalized if admission was avoided initially.—*Journal abstract*.

8379. Mastropaulo, Camillo & Vannucci, Liliana. **Indicazioni, limiti e prime esperienze personali in tema di terapia di gruppo nella dissocialita' minorile.** [Indications, limits, and primary personal experiences on the subject of group therapy in the dissociation of minors.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 337-343.—Important limitations in the psychotherapy of adolescents are (a) the hesitant acceptance of psychotherapeutic rapport on the part of youth; (b) possible harm which can be exercised on the part of adults, e.g., ill prepared educators; and (c) the particular pathology of the adolescent. A study was conducted at an institute for minors during 1 yr. with 41 adolescents who had an IQ >80. Ss were examined through neurological testing, psychiatric interview, and interview with 1 or both parents, and then were divided into 3 groups, according to age and length of time at the institute. Each group, composed of 7-8 youths, attended 1 weekly sitting with 1 or 2 psychotherapists. The intervention of psychotherapy was not authoritarian and techniques were used which were imperceptible to the S, thus eliminating the emergence of a "Leader." The therapist recognized as an authoritarian leader without a punitive role could begin a constructive dialog making them accept the nature of their conflicts. There gradually took place an inversion of identity, and an acceptance of the ethical principles toward a positive role in the society. (15 ref.)—A. M. Farfaglia.

8380. McKinley, Cameron K., Ritchie, Agnes M., Griffin, Darrell, & Bondurant, William. (U. Texas, Medical School, Galveston) **The upward mobile Negro family in therapy.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 710-715.—Describes experiences while working psychotherapeutically with 3 middle-class Negro families who had been initially referred for multiple impact family therapy, as part of an original research sample. Striking similarities in family structure and functioning were noted. It was found that the families were seriously disorganized and poorly integrated, though superficially "intact." Marital relationships also revealed differences from white middle-class family counterparts in terms of role definition. Sibling relationships were judged weak, with each sibling being primarily concerned with his own welfare. Difficulties in communication and understanding between therapist and patients were noted. However, a role reversal adaptation of psychodrama techniques was unexpectedly effective in weakening the barrier between white therapist and black families.—P. McMillan.

8381. McPherson, F. M. & Walton, H. J. (Royal Edinburgh Hosp., Scotland) **The dimensions of psychotherapy group interaction: An analysis of clinicians' constructs.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 281-290.—7 experienced clinicians observed at least 25 meetings of a psychotherapy group and then described the intragroup interactions of the patient members, using repertory grid technique. A principal component analysis of the

combined grids isolated 3 main independent dimensions, differentiating group members who are assertive and dominant from those who are passive and submissive; who are emotionally sensitive to other members as opposed to insensitive; and who hinder rather than aid the attainment of group goals. (35 ref.)—*Journal summary*.

8382. Moreno, J. L. (Moreno Inst., Beacon, N.Y.) **The triadic system, psychodrama-sociometry-group psychotherapy.** *Group Psychotherapy & Psychodrama*, 1970(Vol. 23(1-2)), 16.—Presents a brief statement of Moreno's merger of group psychotherapy, psychodrama, and sociometry into a single system.—A. Krichev.

8383. O'Connell, Walter E. & Hanson, Philip G. (Veterans Administration Hosp., Houston, Tex.) **The protagonist in human relations training.** *Group Psychotherapy & Psychodrama*, 1970(Vol. 23(1-2)), 45-55.—36 protagonists were found to have considerable improvement in a number of areas of self-esteem and interpersonal relationships as compared to 36 non-protagonists who went through the same psychodrama sessions. Some errors in the research design are noted with plans for future improvement.—A. Krichev.

8384. Rubes, Jaromir. [Public psychodrama in Prague.] *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 57-59.

8385. Warner, G. Douglas. (1010 Woodland Way, Hagerstown, Md.) **The didactic auxiliary chair.** *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 31-34.—Describes the use of the didactic auxiliary (empty) chair in psychodrama and points out its use as a warm-up device or as a progressive learning instrument. It is seen as being especially valuable for public sessions and special group meetings.—A. Krichev.

8386. Zumpe, V., Veltin, A., & Krüger, H. (U. Münster, W. Germany) **Die verbale Kommunikation in der therapeutischen Gruppe.** [Verbal communication in the therapeutic group.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Jul), Vol. 20(4), 139-146.—Investigated the verbal actions of mental patients in group sessions on a ward organized as a therapeutic community. Results show that (a) discussion participation by Ss was more intensive in smaller groups of 15-18 than in larger groups, (b) more topics were discussed by groups of chronic Ss than by Ss with shorter hospitalization, and (c) the number of topics discussed was independent of the number of group participants. The differing behavior of changing discussion leaders had no effect on discussion participation. However, it did influence the number of topics suggested for discussion.—*English summary*.

Behavior & Conditioning Therapy

8387. Ball, Thomas S. (Pacific State Hosp., Pomona, Calif.) **Training generalized imitation: Variations on an historical theme.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 135-141.—Relates some contemporary work on imitation training conducted by behavioral therapists to historic contributions. It is argued that recent work on imitation training fails to include even a cursory acknowledgement of the contributions of J. M. Itard and R. Seguin. The work of these 19th century pioneers anticipated the general aspects of imitation training and its technical specifics. Seguin's "mimical generalization" encompasses the modern definition of generalized imitation. In a speech

training program corresponding closely to those of O. I. Lovaas and D. M. Baer, Seguin faded physical prompts much as they did. In his "method of insensible gradation," Itard not only anticipated Skinnerian successive approximations, but applied it clinically, precisely as did W. Isaacs, while restoring speech in a mute catatonic. Itard's letter connection task remains perhaps the most rigorous test of generalized imitation ever devised.—*Journal abstract.*

8388. Bartz, Wayne R. & Loy, Donald L. (DeWitt State Hosp., Auburn, Calif.) **Using love in behavior therapy.** *Hospital & Community Psychiatry*, 1970(Oct), Vol. 21(10), 333-334.—Successful behavior therapy results are often attributed to factors other than those embodied in reinforcement learning theory. 1 such argument is that results may be due to the love the patient receives from the therapist(s). Behaviorists are aware of the value of human warmth and praise but differ from therapists who give unconditional love in that the former apply love in a systematic, consistent manner (e.g., positive reinforcement given for desirable behavior). It is not attention that is the important variable but the contingencies between behavior and reinforcement. Love becomes an important factor only when the S has been conditioned to enjoy human contacts and affection. Attention given indiscriminately may actually maintain maladaptive behavior.—*R. B. Sivley.*

8389. Bergold, J. B. (U. Munich, W. Germany) **Ziele und Methoden der Verhaltenstherapie.** [Goals and methods of behavior therapy.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Jul), Vol. 20(4), 153-162.—Briefly delineates the most important methods of behavior therapy. The goal of behavior therapy is not just the modification of specific false behavior patterns, but attempts to aid the patient in achieving improved control over his own behavior. Treatment is conducted in 2 phases: behavior analysis and behavior modification. The behavior analysis is the presupposition for drafting the treatment plan. During this phase data are collected which provide a check on the effectiveness of the behavioral modification phase. The procedures in behavioral therapy can be divided roughly into 3 categories. The selection of a procedure is dependent upon the functional context within which the false behavior pattern occurs.—*English summary.*

8390. Carter, Robert D. & Stuart, Richard B. (U. Michigan, School of Social Work) **Behavior modification theory and practice: A reply.** *Social Work*, 1970(Jan), Vol. 15(1), 37-50.—Points out certain misconceptions contained in criticisms of behavior modification theory and practice. It is argued that the behavioral approach has been empirically demonstrated to be effective in altering problem behavior and that, because of its close ties to experimental psychology and its insistence on operational specificity and conceptual parsimony, it offers decided advantages over more traditional psychodynamic approaches. Specific issues are discussed, and it is proposed that behavioral psychology can deal adequately with all important aspects of complex human behavior.—*Journal abstract.*

8391. de Moor, W. **Gedragstherapie: Een algemeen overzicht.** [Behavior therapy: A review.] *Gawein*, 1969(Dec), Vol. 18(2), 79-117.—Attempts to provide an overview of behavior therapy. The discussion is organized around the questions of "What is the essence of behavior therapy?" and "What characterizes a behavior therapist?" Particular attention is given to the

Dollard-Miller tradition, and the classical and operant conditioning therapies, within historical framework. The most important of the techniques is based on classical conditioning principles and the specific contributions of the behavioristic approach are considered in more detail. (104 ref.)—*English summary.*

8392. DeResi, William J. (U. Utah) **A conditioning approach to the treatment of bruxism.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1532-1533.

8393. Farmer, R. G. (U. New South Wales, Kensington, South Australia) **The team approach in gaining therapeutic experience in eclectic behaviour therapy.** *Australian Psychologist*, 1970(Jul), Vol. 5(2), 157-163.—The eclectic behavior therapist must endeavor to be eclectic even within his own discipline, and should not only be aware of, and be willing to apply in practice, findings from research in the area of behavior therapy itself, but should also consider developments outside this domain. In developing a training program to produce this kind of therapist, with heavy undergraduate emphasis on learning theories, psychophysiology, and research methodology, the most effective way to give postgraduate training in eclectic behavior therapy is to involve the trainee from the beginning, even in fairly difficult cases, in a team approach to therapy. Such a team, consisting of 2 experienced behavior therapists and 8 trainee therapists, functioning in a school of applied psychology is described. Team members usually meet only when the need arises, but also have more formal meetings to discuss theoretical issues; this interaction between team members can form a vital part in the training of eclectic therapists. Examples cited of this team approach in training include treatment of a school phobic boy, applying group desensitization techniques to a group of women with sex disorders, and aversion therapy of alcoholics.—*T. N. Webster.*

8394. Krasner, Leonard. (State U. New York, Stony Brook) [Token economy as a prototype of a behavior modification program.] *Gawein*, 1969(Dec), Vol. 18(2), 118-129.—Describes the history and the basic principles of token economy as being a prototype of behavior modification. It is explained how token economy utilizes the findings of operant conditioning and of experimental and social psychology systematically in directly modifying the behavior of disturbed and "normal" individuals. In a token economy program the emphasis is not on the extinction of undesirable behavior, but on the reinforcement of desired behavior and on the development of personal responsibility. A token program involves the designation of certain behaviors as desirable, hence reinforcing; a medium of exchange, the token; and the back-up reinforcers. The current disease model in psychopathology is rejected, replacing it with a social learning model. As in all forms of therapy, value questions play a part in any token economy program. (16 ref.)—*English summary.*

8395. Liberman, Robert. (National Inst. of Mental Health, Washington, D.C.) **Terapia conductual de familias y de parejas.** [Behavior therapy of couples and families.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(2), 161-182.—A behavioral and learning approach to couple and family therapy involves 3 steps: (a) specifying in concrete terms the problematic behavior or lack of behavior in or between members of the unit; (b) doing a functional analysis of the problem behavior(s) in

which the environmental and interpersonal contingencies maintaining the behavior(s) are elucidated; and (c) developing and experimenting in an empirical way with various techniques derived from principles of learning (e.g., reinforcement and modeling) so that alterations can be made in the interpersonal milieu that will enable more adaptive and satisfying behavior patterns to substitute for the problematic ones. The key to successful couple or family therapy, whatever the theoretical positions of the therapists, can be found in the changes made in the interpersonal consequences of the member's behavior. (23 ref.)—*English abstract.*

8396. LoPiccolo, Joseph. (Yale U.) **Effective components of systematic desensitization.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1543.

8397. Ramírez, Fortunato. (Clínica Psiquiátrica, Medical School, Montevideo, Uruguay) **Integración de un procedimiento de psicoterapia de tipo dinámico-conductual.** [Integration of a dynamic-behavioral psychotherapeutic method.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 125-134.—Describes a new therapeutic method combining dynamic and behavioral procedures. The 3 successive stages are (a) Schultz' autogenic training, (b) Wolpe's reciprocal inhibition therapy, and (c) inhibition by means of morbid patterns (developed by the author). The main contention is symptom elimination, as achieved by behavioral therapy, and should be supplemented by additional, dynamic treatment, aimed to achieve "insight" in the patient.—*English summary.*

8398. Rey, E. R. (Max Planck Inst. für Psychiatrie, Munich, W. Germany) **Anwendungsbeispiele der Verhaltenstherapie bei der Behandlung von Psychosen.** [Examples of the application of behavior therapy in the treatment of psychoses.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Jul), Vol. 20(4), 162-168.—Discusses behavior therapy in the rehabilitation of psychotics, particularly schizophrenics, and gives illustrative examples from the literature. The treatment of various symptoms, especially thought disturbances in more acute patients, are described. It is possible to achieve improvement in chronic patients by means of a ward setup using behavior therapy. However, these treatment techniques require an attitude adjustment on the part of the therapists regarding their patients.—*English summary.*

8399. Sturm, Thomas E. (U. Minnesota) **The systematic use of positive reinforcement in the treatment of functionally mentally ill adult outpatients.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1552.

8400. Tunner, W. (U. Munich, W. Germany) **Allgemeine theoretische Grundlagen der Verhaltenstherapie.** [General theoretical bases of behavior therapy.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(Jul), Vol. 20(4), 147-153.—Attempts to bring therapeutic modification of behavior disturbances under experimental control. Learning principles from classical and operant conditioning are delineated which belong to the fundamental understanding of behavioral therapy considerations. Reference is made to various therapeutic methods. (17 ref.)—*English summary.*

8401. Yates, Aubrey J. (U. Western Australia, Perth) **La definición de terapia conductual.** [The definition of behavior therapy.] *Revista Latinoamericana de Psicología*, 1970, Vol. 2(2), 113-122.—Critiques Eysenck's definition of behavior therapy as "the attempt to alter

human behavior and emotion in a beneficial manner according to the laws of modern learning theory," and offers an alternative definition which stresses the application of the experimental method to the study of the individual patient. It is argued that this definition more adequately represents those features of behavior therapy which clearly distinguish it from other therapies which may also make use of learning theory. (20 ref.)—*English abstract.*

Special & Adjunctive Therapy

8402. Ceccarelli, Giorgi & Capani, Ruggero. **Prime esperienze di tecnica sociodrammatica nel trattamento dei caratteropatolici.** [Beginning experiments with sociodramatic techniques in the treatment of character disorders.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 369-371.—Sociodramatic concepts are based on the principle that each individual maintains the roles that govern his behavior and, thus, condition his relationship with others. In sociodramatic experiments, a purely recreative situation is transformed into a situation through which the Ss can act out different roles, releasing tensions and thereby determining why he tends to isolate himself. The theatrical situations are a repetition of normal life, an expression of the desires of the community, and a representation of personality analysis. 2 cases of defensive and aggressive women were studied. They were hostile to therapeutic help but gladly participated in the representations. They chose roles opposite their general behavior, thereby expressing their repressed tendencies to roles in a society judged hostile through an immature idealization.—*A. M. Farfaglia.*

8403. Crosa, Giuseppe. **Il training autogeno nel trattamento dell'caratteropatie.** [Autogenic training in the treatment of character disorders.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 381-384.—Asserts that the autogenic training of Schultz is beneficial in the treatment of character disorders by confronting the profound psychological dynamics of the S and his profound neurological dynamics. The treatment of these 2 factors is considered the greatest value of Schultz' technique. It offers precise reference points by which the doctor can reach the patient, and has pliability in adapting to the clinical situation. The therapist can stress the somatic neurological mechanisms as well as the profound psychological dynamics. The autogenic state, like the hypnotic trance, is characterized by a condition of passivity which facilitates the acceptance of induced suggestions which influence behavior.—*A. M. Farfaglia.*

8404. Fusswerk-Fursay. **Crédibilité ou faculté de croire.** [Credibility or faculty to believe.] *Annales Médico-Psychologiques*, 1970(Jun), Vol. 2(1), 1-25.—Presents 2 case histories centering on distortions of belief treated by hypnoanalysis; 1 a state of pathological jealousy, the other of persecutory delusion. Belief is held to be neither an intellectual process nor a direct affective experience. It represents a determining element of psychic life in itself which must find an autonomous place alongside intelligence and affectivity in the study of personality. When faulty beliefs learned in infancy, based on fear and sex drives, come into conflict with current situations the problems cannot be resolved by cognitive analysis alone, but only by exposure and reeducation of the originally faulty belief systems.—*H. E. King.*

8405. Miura, Momoshige & Usa, Shin-ichi. (Tottori U., Yonago City, Japan) **A psychotherapy of neurosis:**

Morita therapy. *Psychologia: An International Journal of Psychology in the Orient*, 1970(Mar), Vol. 13(1), 18-34.—Describes the origins of Morita therapy, the theory of "nervosity," classification and statistics of nervosity, principles of Morita therapy, practice of Morita therapy, recovery by Morita therapy, and criticism of Morita therapy. Nervosity is classified into 3 main overlapping headings corresponding to neurasthenia, anxiety neurosis, and phobia. The method aims to change an underlying hypochondriac temperament and destroy the psychic interaction in which the patient is caught. 4 stages of treatment are described. Japanese therapists recognize many points of similarity between Morita therapy and Frankl's logotherapy. (109 ref.)—*R. D. Nance.*

8406. **Morris, Freda.** (U. California, Neuropsychiatric Inst., Los Angeles) **Mutual hypnosis: A specialized hypnotic induction technique.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 90-94.—A hypnosis instructor of mental health professionals recommends that the technique of mutual hypnosis be used with certain students who are unable to respond to other induction techniques.—*M. V. Kline.*

8407. **Segel, Harold J.** (Psychology Inst., Northridge, Calif.) **Psychotherapy vs. hypnotherapy in the treatment of sex problems.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 128-130.—Reports the differential effectiveness of psychotherapy and hypnosis in treating impotence in a small number of clients.—*M. V. Kline.*

8408. **Small, Joyce G., Small, Iver F., Perez, Helio C., & Sharpley, Patricia.** (Indiana U., Medical School, Indianapolis) **Electroencephalographic and neurophysiological studies of electrically induced seizures.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 479-489.—Identified similar interictal EEG findings in 85 patients who received bilateral or unilateral ECT treatment. Recordings during the seizures revealed significant differences between these treatment modalities with lateralized emphasis of seizure discharges and absence of postictal isoelectric activity with unilateral stimulation. Interictal evoked response data did not show consistent right-left asymmetries with electrical stimulation on either 1 or both sides of the head, but early peak latencies of averaged responses to light and sound stimulation tended to increase during ECT with maximal changes after the 5th treatment. Unilateral convulsive treatment seemed to be as therapeutically effective as bilaterally induced seizures in terms of clinical condition on follow-up, although more symptoms of psychiatric illness were evident in the unilateral group at the time of termination of the treatment series. Bilateral ECT was definitely associated with more memory loss, confusion, and impaired test performance than unilateral ECT. Interictal neuropsychological evaluations did not confirm simple or direct relationships between decrements in verbal and nonverbal functions and the side of electrical stimulation. Observations are discussed in light of current literature on this subject. Apparent relationships between ictal physiology and subsequent behavioral and psychological manifestations are considered. (27 ref.)—*Journal abstract.*

8409. **Tanfani, Leonardo & Carletti, Gianfranco.** **Osservazioni sul trattamento di soggetti caratteropatologici in una comunità di Emmaus funzionante da focolaio post-cura.** [Observations on the treatment of subjects with character disorders in a community of Emmaus

functioning as a post-cure center.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 405-417.—Describes a work community instituted in Italy in 1962 for the destitute where they could recover and utilize scrap material, e.g., iron and paper. In 1963 individuals from a psychiatric hospital were also included; they received room, board, clothing, and a small weekly sum. There are 3 basic rules in the free community: you must earn your food through working; your past life does not count; and the common goal is to aid anyone in need. Any member may leave the community whenever he wishes. 23 20-65 yr. old patients with character disorders were studied. All had serious personality problems, e.g., lack of a sense of reality, hyper and hypoevaluation of his ego, a lack of ethical sense, affective indifference, and many behavior problems resulting from alcoholism. Although at the beginning the program lacked an efficient administration and a qualified nurse to administer drugs, both are now present. 10 Ss did progress favorably toward their eventual reintegration in society. Many, however, had personality problems which were not conducive to self-discipline.—*A. M. Farfaglia.*

8410. **Wickram, Ian.** (Peoria Mental Health Clinic, Ill.) **Goals and some methods in psychotherapy: Hypnosis and isolation.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 95-100.—Hypnosis and isolation may be effective procedures for manipulating the emotions of "hope" and "anxiety" which are probably the emotions most relevant to the process of changing human behavior.—*M. V. Kline.*

Drug Therapy

8411. **Bobon, D. P., Devroye, A., Goffioul, Lucienne, & Pinchard, A.** (U. Liège, Psychiatric Clinic, Belgium) **Le pimozide: Seize mois de follow-up.** [Pimozide: Sixteen months follow-up.] *Acta Neurologica et Psychiatrica Belgica*, 1968(Dec), Vol. 68(12), 888-894.—36 of the 55 patients included in the pilot study of pimozide were followed up, as outpatients, for 16 mo. It is concluded that pimozide ranked among the most clinically useful incisive neuroleptics. The dosage required was similar to that of haloperidol but its duration of action was at least 24 hr. after a single oral dose. Side effects and toxicity due to pimozide were unusually low. Pimozide is recommended for the long-term maintenance therapy of chronic delusional psychotics, especially those handicapped by the side effects of other neuroleptics. Relapse occurred in all 10 Ss who were not given pimozide. (Dutch & German summaries)—*English summary.*

8412. **Bolt, A. G. & Forrest, I. S.** (Veteran's Administration Hosp., Palo Alto, Calif.) **Metabolic studies of chlorpromazine induced hyperpigmentation of the skin in psychiatric patients.** *Aggressologie*, 1968(Mar), Vol. 9(2), 201-207.—Explored the nature of the interaction between the reactive compounds melanin and chlorpromazine. In vitro it was shown that chlorpromazine or 7-hydroxychlorpromazine interact with human melanoprotein in the presence of light. This was demonstrated by ultraviolet spectroscopy, electron paramagnetic resonance spectrometry, and conductimetric titration. In vivo studies involved the urinary excretion of chlorpromazine metabolites in patients with and without hyperpigmentation of the skin. Ss with this side effect excreted unconjugated 7-hydroxychlorpromazine derivatives at a higher rate. The distribution of chlorpromazine and its metabolites in the autopsied

viscera of comparable groups of Ss deceased after chronic drug administration, showing that all Ss stored moderate amounts of chlorpromazine and 7-hydroxychlorpromazine, as well as the demethylated derivatives of these compounds in the viscera. However, the O-glucuronides, derived from 7-hydroxychlorpromazine and its demethylated derivatives were present in trace amounts only in lung and liver. A biochemical mechanism for hyperpigmentation of the skin is postulated for this rare side effect of chronic chlorpromazine therapy. (27 ref.)—*Journal abstract.*

8413. Brown, William T. (U. British Columbia, Vancouver, Canada) **A comparative study of three hypnotics: Methypylon, glutethimide, and chloral hydrate.** *Canadian Medical Association Journal*, 1970(Mar), Vol. 102(5), 510-511.—Carried out a controlled study to evaluate the hypnotic potentiality of methypylon (300 mg.), glutethimide (500 mg.), and chloral hydrate (1000 mg.) on 50 inpatients experiencing long-standing insomnia. Ss ranged from 21-60 yr. old, the sexes were equally represented, and the clinical diagnoses were psychoneurosis, reactive depression, or anxiety reaction. The experimental design allowed for the exclusion of placebo reactors before the initiation of the main trials. No difference in effectiveness of maintaining sleep could be established among the 3 hypnotic agents, indicating that at the usual levels of statistical significance, all 3 agents were equally effective as hypnotics. However, a significant trend ($p = .05$) was found for methypylon to be the most effective and chloral hydrate to be the least effective of the 3 drugs in maintaining sleep. Methypylon was found statistically ($p = .05$) to be the fastest sleep-inducing agent, whereas glutethimide proved to be the slowest of the 3 hypnotics with respect to sleep induction time. French summary.—*Journal abstract.*

8414. Brugmans, J. (Janssen Pharmaceutica, Beerse, Belgium) **A multicentric clinical evaluation of pimozide: Preliminary report.** *Acta Neurologica et Psychiatrica Belgica*, 1968(Dec), Vol. 68(12), 875-887.—Reports results of the Belgian contribution to an international double-blind study on the efficacy and side effects liability of a neuroleptic, pimozide. A single dose of pimozide had potent and incisive antipsychotic properties, notably against autism, delusions, hallucinations, and social maladjustment. Extrapyramidal effects, hypnosedation, and autonomic effects were negligible or absent at therapeutic dosages. Pimozide is not indicated for patients requiring chemical restraint, but is likely to be the drug of choice for the maintenance therapy of existing or potential outpatients, particularly those for whom mental alertness and manual dexterity are important. (French, Dutch, & German summaries)—*Journal summary.*

8415. Campinho Pereira, J. L. & Cantalice Lipke, P. R. (Central Army Hosp., Neurological Clinic, Rio de Janeiro, Brazil) **Tratamento dos estados depressivos da involução: Emprêgo da monochloroimpramina.** [Treatment of involutive depressive states: Introduction of monochloroimpramine.] *O Hospital*, 1969(Aug), Vol. 76(2), 719-724.—Studied 26 47-65 yr. old female depressives who had not responded to previous medications and whose depression seemed to have been brought on by menopause. Ss showed no serious cardiovascular alterations. Ss received monochloroimpramine in 25-mg tablets. The most effective dosage was 75 mg/day, and did not exceed 150 mg/day.

Results show total remission of symptoms in 21 Ss and excellent drug tolerance. It is concluded that monochloroimpramine is a highly effective antidepressant with outstanding ansiolytic properties. (English summary)—P. Hertzberg.

8416. Cancro, Robert & Wilder, Russell. (U. Connecticut) **A mechanism of sudden death in chlorpromazine therapy.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 368-371.—Presents a case report that offers some insight into why sudden deaths in psychotic patients taking phenothiazines occur. It is felt that the combination of vasodilatation with the hypotensive effects of phenothiazines might explain some of the unexpected deaths. (16 ref.)—*Journal abstract.*

8417. Collard, J. (U. Liège, Belgium) **Le nitrazepam, un ansiolytique dérivé du chlordiazepoxide (librium), et sa place dans le spectre des psychorelaxants diazépiniques.** [Nitrazepam, an ansiolytic derived from chlordiazepoxide (librium), and its place in the spectre of psychorelaxants diazépiniques.] *Acta Neurologica et Psychiatrica Belgica*, 1969(Dec), Vol. 69(12), 1038-1047.—Studied nitrazepam (mogadon), a diazepam derived from chlordiazepoxide (librium), generally used as a sleep inductor, in diurnal treatments, as an antagonist of psychic tension and neurotic anxiety. From this viewpoint, only diazepam (valium) was qualitatively superior and nitrazepam determined less asthenia. Nitrazepam can serve as a substitute when diazepam is intolerated or becomes less active. The place of nitrazepam in the spectrum of psychorelaxing drugs (minor tranquilizers) of the diazepam series is defined, according to 2 opposite poles (sedation and anxiolysis) and to its main related compounds: Ro 4-9253, chlordiazepoxide, oxazepam, and diazepam. (17 ref.)—*Author summary.*

8418. Cronheim, Georg E. (Riker Lab., Northridge, Calif.) **Theoretical and practical approach to drug research analysis.** *Military Medicine*, 1970(Nov), Vol. 135(11), 1021-1027.—Many of the drugs currently being used today have come on the market within the last 30 yr. These drugs may be classified into 2 types: those with a previously unknown activity, and those with a previously known activity but for which a new activity has been found. Drugs with a new activity pose a particular problem in determining their effects and side effects with present governmental restrictions on the use of such drugs. 1 of the problems is that tests for the side effects of new drugs often produce a high number of false positives. A 2nd problem is that legislated standards of acceptance are slow to change and often new methods of evaluation must be made extant to evaluate new drugs.—G. A. Clum.

8419. Dehing, J. **Studies on the psychotropic action of Tegretol.** *Acta Neurologica et Psychiatrica Belgica*, 1968(Dec), Vol. 68(12), 895-905.—Evaluates the psychotropic action of tegretol (carbamazepine) in 58 psychiatric inpatients of whom only 7 were known to have epilepsy. Results indicate that tegretol has a proper psychotropic action which manifested itself clearly in 22 of the 50 Ss who had taken the drug at least 1 mo. This action became evident usually within 2 wk. and essentially improved character defects, e.g., aggressiveness, outbursts of rage, and disturbing behavior. The best results are obtained in the most severely affected patients and in those suffering from epilepsy or psychopathic personality. Tegretol has less effect in schizophrenics and little or no effect in patients with senile or arteriosclerotic

dementia and in idiots. Side effects, occurring mainly in elderly patients, can be avoided by using progressively increasing doses. (French & German summaries) (21 ref.)—*Journal summary*.

8420. DeJong, Russell N. (U. Michigan, Medical School) **Neurologic complications of drugs with primary action on nervous system.** *New York State Journal of Medicine*, 1970(Jul), Vol. 70(14), 1857-1965.—Examines the therapeutic implications and the dangers and side effects of: hypnotics and sedatives, major and minor tranquilizers, antidepressants and cerebral stimulants, and anticonvulsants. Discussion stresses neurologic manifestations and is limited to those drugs which are best known and most widely used or advertised. (56 ref.)—*M. Maney*.

8421. DeSilverio, Robert V., et al. (Philadelphia General Hosp., Pa.) **Perphenazine-amitriptyline in neurotic depressed outpatients: A controlled collaborative study.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 322-329.—Compared the combination of perphenazine-amitriptyline to each of its constituents in a double-blind study conducted with 138 depressed and anxious-depressed neurotic outpatients. Irrespective of drug, general practice patients improved the most, clinic patients somewhat less, and private psychiatric patients the least. Drug differences were limited to a few significant and borderline significant effects present only at 2 wk. and indicated that perphenazine produced the greatest improvement at this period.—*Journal abstract*.

8422. DiMascio, Alberto & Demigian, Edward. (Boston State Hosp., Mass.) **Antiparkinson drug overuse.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 596-601.—Presents evidence from various studies indicating that antiparkinson drugs are being overused. 2 commonly held practices were considered and found unwarranted: the prophylactic prescription of antiparkinson drugs, and their extended prescription for the term of pharmacotherapy. It is suggested that antiparkinson drugs should be prescribed only after extrapyramidal side effects occur, usually for a period not to exceed 3 mo.—*Journal summary*.

8423. Eade, N. R. & Renton, K. W. (McGill U., Montreal, Quebec, Canada) **Effect of monoamine oxidase inhibitors on the N-demethylation and hydrolysis of meperidine.** *Biochemical Pharmacology*, 1970(Jul), Vol. 19(7), 2243-2250.—The administration of meperidine to patients being treated with a MAO inhibitor (I) can produce lethal reactions of unknown etiology. Inhibition of microsomal degradation of meperidine has been suggested as the explanation of these reactions. The kinetics of the inhibition of N-demethylation and hydrolysis of meperidine by 6 MAOI and β -diethylaminoethyl diethylpropylacetate hydrochloride (SKF-525A) are described. The hydrazine MAOI, phenelzine and iproniazid, d- and l-amphetamine, and SKF-525A, were competitive inhibitors of meperidine N-demethylation, while pargyline and tranlycypromine were noncompetitive inhibitors. The hydrolysis of meperidine was inhibited only by pargyline and the inhibition was competitive. The possibility that inhibition of both N-demethylation and hydrolysis of meperidine may be involved in the etiology of the adverse reactions which occur between the MAOI and meperidine is discussed. (33 ref.)—*Journal abstract*.

8424. Fabiani, F., Martini, P., & Franceschi-Biagiotti, F. (Arezzo Hosp., Italy) **Osservazioni cliniche e**

psicometriche sull'effetto terapeutico di un'associazione GABA-1-glutamina-aspartati-piridossalfosfato in un gruppo di spiconevrosicli neurastenici. [Clinical and psychometric observations in neurathenic psychoneurosis after treatment by an association GABA-1-glutamin-aspartates-pyridoxal-phosphate.] *Rivista di Neurobiologia*, 1969(Jan), Vol. 15(1), 35-62.—Reports clinical and psychometric results observed in a group of psychoneurotic-neurathenic Ss treated by an association GABA-1-glutamin-aspartates-pyridoxal-phosphate. Normalization of the anxiety index is underlined. (17 ref.)—*English summary*.

8425. Fielding, J. M., Mowbray, R. M., & Davies, Brian. (U. Melbourne, Victoria, Australia) **A preliminary controlled study of doxepin ("sinequan") as an antianxiety drug.** *Medical Journal of Australia*, 1969(Oct), Vol. 2(17), 851-852.—A factorially designed trial of doxepin showed it superior to placebo in relieving anxiety symptoms in 6-day hospital Ss, age 22-40 yr. old. A similar trial using 6 matched Ss showed that both doxepin and diazepam relieved anxiety symptoms. Ratings for anxiety were made from each S's main presenting symptoms and MA Scale scores. The value of controlled early clinical trials of new antianxiety agents and placebos is emphasized.—*Journal abstract*.

8426. Gadecki, W. & Majewski, J. (State Hosp. for Nervous & Mental Diseases, Locborow-Starigard, Poland) **New observations on atropine coma treatment in psychoses.** *Polish Medical Journal*, 1969, Vol. 8(6), 1515-1517.—Discusses the use of atropine coma therapy. Since it was observed that Ss' sensitivity to the drug usually decreases after several treatments, high doses (600-2000 mg.) were used in 12 cases. Normalization of pulse, blood pressure, respiration, and body temperature indicated that high doses were better tolerated than low doses. Good results were obtained with high atropine doses in 5 cases of endogenous depression and in 1 case of persistent prurigo suffering from a catatonic syndrome, where the S's cutaneous condition was markedly improved. It is concluded that the atropine coma technique might be improved by: (a) decreasing the number of comas to 10, (b) extending the duration of comas to 10-12 hr., and (c) considerably increasing the dosages as soon as the 1st signs of lowered sensitivity to the drug are apparent.—*Journal abstract*.

8427. Guy, William, et al. (George Washington U., Biometric Lab.) **A data processing system for psychotropic drug evaluation.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 454-463.—Describes the Biometric Laboratory Information Processing System (BLIPS), developed to display and analyze data generated from psychotropic drug trials. To increase comparability across trials, the system employs a standard assessment battery and produces standard—but comprehensive—data output. The selection of drugs, populations, and research procedures, however, are wholly determined by the individual investigator. A minimum of constraints are imposed upon the users by the system, permitting wide latitude in the choice of research designs. Nonstandard assessment data can also be processed. Data analyses provided for a given study are nonjudgmental and the final appraisal of results resides with the investigator. The services of BLIPS are available free to individual investigators conducting clinical psychotropic drug trials. (29 ref.)—*Journal summary*.

8428. Hesbacher, Peter T., et al. (U. Pennsylvania)

Setting, patient, and doctor effects on drug response in neurotic patients: I. Differential attrition, dosage deviation, and side reaction responses to treatment. *Psychopharmacologia*, 1970, Vol. 18(2), 180-208.—Diazepam was compared to placebo and phenobarbital sodium in a double-blind study with 472 anxious psychoneurotic patients. Patients were treated in a medical clinic, general practice, or private psychiatric practice. The treatment setting was as important as the medication in producing a treatment response. Compared to phenobarbital patients, diazepam patients more often completed the study, followed prescribed dosage, and reported fewer side reactions. Diazepam patients did not differ from placebo patients in dosage intake or side effects, only in higher completion rate. Clinic patients dropped out and deviated from dosage more than private patients. General practice patients reported the most and private psychiatric patients reported the least side effects. (42 ref.)—*Journal abstract*.

8429. Hesbacher, Peter T., et al. (U. Pennsylvania) **Setting, patient, and doctor effects on drug response in neurotic patients: II. Differential improvement.** *Psychopharmacologia*, 1970, Vol. 18(2), 209-226.—Compared to placebo, both diazepam and phenobarbital produced more clinical improvement in a study with 472 anxious psychoneurotic patients. In general practice the 2 active drugs were equally effective. In private psychiatric practice the choice treatment was diazepam; in the medical clinic, phenobarbital. The differences depended upon patient behavior patterns, social class, and a medical (rather than a psychiatric) orientation to treatment. Diazepam was regarded as the treatment of choice for middle social class populations, and general practice and private psychiatric practice; phenobarbital represented the treatment of choice for low social class medical clinic patients.—*Journal abstract*.

8430. Kühne, G. E., Grünes, J. U., & Pelliccioni, R. (Martin Luther U., Clinic & Polyclinic of Psychiatry & Neurology, Halle-Wittenberg, E. Germany) **Zur Differentialtypologie psychopathologischer Basissyndrome.** [On the differential typology of psychopathologic basis syndromes.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Aug), Vol. 22(8), 281-289.—Diagnosis of psychopathological states is reportedly improved by closer differentiation between simple "basic tendencies" and their combined forms designated as basic syndromes. Effects of butaperazine therapy is evaluated in relation to resolution of pathological basic syndromes involving affect and activity. (22 ref.)—*K. J. Hartman*.

8431. Lapolla, Anthony & Jones, Harry. (Camarillo State Hosp., Calif.) **Placebo-control evaluation of desipramine in depression.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 335-338.—Conducted a double-blind clinical trial to compare the effectiveness of desipramine and placebo in newly hospitalized patients. Analysis of data from 74 Ss (34 on desipramine, 40 on placebo) showed that in Ss with endogenous depression, the response to desipramine was superior to response to placebo as early as the 5th day of treatment; in Ss with neurotic (reactive) depression, no significant differences in response were found.—*Journal abstract*.

8432. Lipman, Ronald S., et al. (National Inst. of Mental Health, Chevy Chase, Md.) **Validation of the MacAndrew-Rosen Drug Therapy Scale.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 680-683.—Presents data from 3 sources to support the validity of

the MacAndrew-Rosen Drug Therapy Scale in a study involving 12 psychiatrists and 267 patients. Results indicate that: (a) psychiatrists selected from the community as drug enthusiastic scored reliably higher on the scale than psychiatrists selected as nondrug enthusiastic, and (b) both patients' and observing psychiatrists' ratings of doctor drug enthusiasm, after the initial patient visit, were reliably correlated with the treating doctors' MacAndrew-Rosen Drug Therapy scores.—*Journal summary*.

8433. Madalena, J. Caruso; Pasin, Alfredo J., & Bern, Jann. **Estudo duplo-cego com a doxepina na ansiedade neurótica.** [A double blind study with doxepin on neurotic anxiety.] *O Hospital*, 1969(Aug), Vol. 76(2), 651-657.—Studied 30 Ss (in 3 groups of 10 each) with neurotic anxiety with and without somatization for 30 days. Group A received placebo; Group B, diazepam; and Group C, doxepin. Dosages were fixed and varied only according to individual side effects. Doxepin in 25-mg tablets and diazepam in 5-mg tablets were administered 3-6 times/day. Results, based on Hamilton's Anxiety Rating Scale, showed that in symptomatic remission, marked, and slight improvement, doxepin was slightly more effective than diazepam and was better tolerated. Drowsiness was observed in all Group C Ss, but was accompanied by excitation and anticholinergic effects in Group B Ss. (English summary) (19 ref.)—*P. Hertzberg*.

8434. McCabe, Michael S., Reich, Theodore, & Winokur, George. (Washington U., Medical School) **Methysergide as a treatment for mania.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 354-356.—Treated 12 patients with acute mania with doses of methysergide that had been reported to be effective. Only 1 S recovered; all the others required further therapy. Possible reasons for the failure of methysergide to terminate the manic episode are discussed.—*Journal abstract*.

8435. Morales Belda, F. J. & Hardo de la Cruz, Thomas. (Alcohete Psychiatric Hosp., Guadalajara, Spain) **Evaluación clínica de la acción del tiotixeno (P-4657 B) en el tratamiento de la psicosis alcohólica.** [Clinical evaluation of the action of thiothixene (P-4657 B) in the treatment of alcoholic psychosis.] *Actas Luso-Españolas de Neurología Psiquiatría*, 1968(Sep), Vol. 27(4), 537-543.—Tested the effects of thiothixene, a new neuroleptic, on 15 36-67 yr. old males with alcoholic psychosis. 8 Ss completed a 6-mo treatment period and 1 remained under treatment for 9 mo. The other Ss did not complete the treatment program. Effective dosage varied between 30-60 mg/day. In 1 S, almost complete remission was obtained with 15 mg/day. In general, thiothixene had a beneficial effect on alcoholic psychosis, ranging from light to marked improvement in 10 Ss. Its effect on the symptoms was summarized, noting significant action on autism, disinterest in work, hyperactivity, and disorientation. In 2 Ss, side effects of hypersalivation and parkinsonism were observed. However, excellent gastrointestinal tolerance and the absence of hepatic, renal, and hematologic toxicity were noted. (English & French summaries)—*P. Hertzberg*.

8436. Murphy, Dennis L., Colburn, Robert W., Davis, John M., & Bunney, William E. (National Inst. of Health, Bethesda, Md.) **Imipramine and lithium effects on biogenic amine transport in depressed and manic-depressed patients.** *American Journal of Psychiatry*,

1970(Sep), Vol. 127(3), 339-345.—Used platelets obtained from 15 patients before and during treatment with imipramine and lithium to determine whether the effects of these drugs suggested by animal studies to be involved in cell membrane transport could be identified in these human cells. Imipramine was found to inhibit and lithium to stimulate amine transport in platelets, confirming that the cellular effects of these drugs in man are similar to their effects on brain cells from animals. (34 ref.)—*Journal abstract.*

8437. **Orlandi, Orlando V. & Vaisman, Jayme.** (U. Game Filho, Medical School, Rio de Janeiro, Brazil) **Experiência com nova forma de Mandrix nas perturbações do sono da criança.** [Experiment with a new form of Mandrix in sleep perturbations of the child.] *O Hospital*, 1969(Dec), Vol. 76(6), 2011-2017.—Discusses the use of a new form of mandrix composed of 62.5 mg. metaqualone and 6.25 mg. chlorhydrate of difenidramine in 1 tablet. 7 girls and 3 boys, 6-14 yr. old, with sleep disturbances, were administered placebo for 7-10 days and then mandrix for 10 days. Comparisons show that time of sleep onset averaged 31.7 min. with placebo, and 11.8 min. with mandrix. Mandrix was also effective in inducing a tranquil sleep and did not disturb the Ss' awakening. Excellent tolerance was noted. Dosage was geared to each Ss' weight and varied between $\frac{1}{2}$ and 1 tablet/day.—*P. Hertzberg.*

8438. **Platman, Stanley R.** (South Beach Psychiatric Center, Brooklyn, N.Y.) **A comparison of lithium carbonate and chlorpromazine in mania.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 351-353.—Treated 13 manic patients with lithium carbonate and 10 manic patients with chlorpromazine in a double-blind, randomly selected drug trial. Lithium carbonate proved superior to chlorpromazine on all 6 parameters selected from an objective rating scale. The problems militating against a valid research trial utilizing these medications in this type of patient are discussed.—*Journal abstract.*

8439. **Scardino, Joseph.** (St. Vincent's Hosp., New York, N.Y.) **Lithium in affective disorders.** *New York State Journal of Medicine*, 1970(Mar), Vol. 70(5), 638-642.—Reviews the literature and discusses the lithium ion historically, psychopharmacologically, and physiologically. The clinical application, advantages and disadvantages, and the contraindications are examined. (21 ref.)

8440. **Sprague, Robert L., Barnes, Kenneth R., & Werry, John S.** (U. Illinois, Children's Research Center) **Methylphenidate and thioridazine: Learning, reaction time, activity, and classroom behavior in disturbed children.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 615-628.—Studied 12 emotionally disturbed underachieving boys in a special education class who served as their own controls in a 3-factor study: drug (methylphenidate, thioridazine, and placebo), dosage (low and high), and number of stimuli displayed. Methylphenidate significantly increased correct responding, decreased RTs and hyperactivity, and significantly increased attention and cooperative behavior in the classroom. (44 ref.)—*Journal abstract.*

8441. **Talbott, John A.** (St. Luke's Hosp. Center, New York, N.Y.) **Phenothiazine toxicity in pool shark.** *New York State Journal of Medicine*, 1970(Jun), Vol. 70(12), 1671-1672.—Presents a case report of a 60-yr-old patient "whose life was focused around his skill at billiards and who became depressed when this skill was compromised

by the neurologic side-effects of phenothiazine medication. The resolution of the depression depended... on the adjustment of medication and treatment of the side-effects, [and] on the re-establishment of his ego-enhancing skill." It is emphasized that "psychopharmacologic agents can cause symptoms resembling neurologic or psychiatric illnesses in psychiatric or nonpsychiatric patients, that interference of highly valued skills or talents in borderline patients can result in acute emotional disturbances, and that consideration should always be given to restoring a person's normal life balance to resolve this crisis."—*M. Maney.*

8442. **Teichmann, H. & Knaape, H. H.** (U. Rostock, Neuroclinic for Neuropsychiatric Children, E. Germany) **Die Leistungen antriebsgeminderter, leicht ermüdbarer Normalschulkinder unter Aponeuron im Arbeitsversuch.** [The performances of easily tiring normal schoolchildren with reduced drive under aponeuron in a trial.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Aug), Vol. 22(8), 298-304.—Administration of 50 mg. daily of aponeuron failed to produce statistically significant improvement over untreated students in a 60-min Pauli test of arithmetic. Subjective feelings of less fatigue after the test favored the drug rather than a placebo.—*K. J. Hartman.*

8443. **Van der Velde, Christiaan D.** (Norwich Hosp., Abraham Ribicoff Research Center, Conn.) **Effectiveness of lithium carbonate in the treatment of manic-depressive illness.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 345-351.—Reports on the responses to lithium carbonate of 75 manic-depressive patients. Lithium carbonate was found to be highly effective in the acute manic state but without merit in the treatment of acute depression. Its efficacy was inversely related to age. Response to the drug varied in some Ss; a positive response at 1 time was no guarantee for a similar response in subsequent trials. The possibility of different biochemical states underlying similar clinical states is discussed.—*Journal abstract.*

8444. **Vega, C. Morales; Pérez, A. Concepción, & Puente, J. Lequerica.** (San Francisco, Javier Psychiatric Hosp., Pamplona, Spain) **El metronidazol como tratamiento de aversión en el alcoholismo crónico.** [Metronidazole as a treatment of aversion in chronic alcoholism.] *Archivos de Neurobiología*, 1970(Apr), Vol. 33(2), 171-183.—Administered metronidazole to 30 chronic alcoholics in dosages of 750 mg. (divided 3 times throughout the day) for a minimum of 2 mo. and 500 mg/day after a 3-mo period. Ss chosen for this experiment were volunteers desiring cure and were capable of self-criticism. It was believed they would continue their medication after initial treatment. The follow-up period varied from 2-14 mo. The leucocyte count of Ss was taken prior to treatment and once every 20 days (by using the leucocyte formula) for the purpose of testing asymptomatic and temporary leucopenias and/or neutropenias. 28 cases had had from 1-6 previous admissions to the hospital, 1 had 12, and 1 had none. It is concluded that metronidazole is an "effective drug devoid of unpleasant secondary effects and produces a psychophysical aversion to alcoholism." This treatment was successful on 29 Ss, and failed with 1. (French & English summaries)—*S. Maze.*

8445. **Young, Edwin.** (Wolston Park Hosp., Wacol, Queensland, Australia) **Hospital experience with fluphenazine enanthate.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 705-709.—Describes the use

of fluphenazine enanthate (25 mgm., with repeat injections at 14-day intervals) in the treatment of 43 chronic schizophrenic and 60 mentally retarded patients. Results indicate that 51% of chronic schizophrenics and 22% of mentally retarded Ss showed improvement in behavior above their previous treatment level. Approximately 30% of all Ss experienced extrapyramidal reactions which were readily controlled by benzhexol and did not appear to be related to age or dosage. Side effects from previous phenothiazine treatment (weight gain, skin changes) disappeared. Advantages of the drug in convenience of administration, saving of time, and overall economy are noted. (15 ref.)—*Journal summary*.

8446. Yvonneau, M. (Vauclaire Psychiatric Hosp., France) **Le carbonate de lithium en thérapeutique psychiatrique.** [Lithium carbonate in psychiatric therapeutics.] *Evolution Psychiatrique*, 1970(Apr), Vol. 35(2), 407-429.—The relative failure of contemporary expensive chemotherapies to prevent relapses of manic-depressive psychosis, and the revived interest in various countries in lithium salts for this indication, led to trials with lithium carbonate for over a yr. In an experience with 26 cases of psychotic excitation, 13 manic-depressive patients improved in a proportion of 70% of manic dominance, and 66% depressive. 4 Ss in 14 appeared to have escaped relapses. Transitory complications (asthenia, vomiting, etc.) were generally controlled. A careful selection of candidates for lithium treatment is mandatory: collapsus (1 fatal case in a patient with cachectic Huntington's disease) and coma were observed in the visceraally damaged (heart, kidneys, brain) as well as in the aged. Procreation was advised against during the treatment period. A general review of treatment and practical indications on procedures are offered. It is concluded that lithium salts is a beneficial, though nonemergency, drug which is basic in periodic psychoses, should be duly supervised, and is inexpensive to administer. (43 ref.)—*English summary*.

HOSPITAL CARE & INSTITUTIONALIZATION

8447. Azoubel Neto, David & Azoubel, Lenise L. **Desenvolvimento espontâneo de um jornal de pacientes et su influência na formação de um ambiente terapêutico em um hospital diurno.** [A spontaneous development of a patients' newspaper and its influence to establish a therapeutic environment in a psychiatric day hospital.] *Acta Psiquiátrica y Psicología de América Latina*, 1970(Jun), Vol. 16(2), 142-147.—Describes the spontaneous appearance and development of a patients' newspaper in a psychiatric day hospital in Brazil. The function of the publication is emphasized as a means of communicating feelings and criticisms of the patients about the medical personnel and about themselves. The encouragement and support of the continuity and progress of patients' newspapers is suggested.—*English summary*.

8448. Bonn, Ethel M. (Ft. Logan Mental Health Center, Denver, Colo.) **A therapeutic community in an open state hospital: Administrative-therapeutic links.** *Hospital & Community Psychiatry*, 1969(Sep), Vol. 20(9), 269-278.—States that social learning and teaching provide the core and essence of social therapy as the means of helping patients progress at Fort Logan Mental Health Center. Emphasis is on as much freedom for patients and staff as they can handle. The main value of the therapeutic community is that it provides frequent

opportunities for staff and patients to learn from each other. Each treatment team, comprised of staff and patients, uses a variety of person-to-person modalities designed to meet the needs of the patients. Decision making and treatment planning are based on the contributions of the entire team. Problems are, of course, unavoidable, i.e., self-deception of an entire team regarding its accomplishments. If a team's subjective estimates of its worth are not reflected by objective measures of its performance, it eventually will become dependent on having "enemies" to account for its inadequacies. The administration is likely to become the "enemy."—*M. Walker*.

8449. Davenport, Harold T. & Werry, John S. (U. British Columbia, Vancouver, Canada) **The effect of general anesthesia, surgery and hospitalization upon the behavior of children.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 806-824.—Compared the behavior of 145 United States and Canadian 1-15 yr. olds undergoing tonsillectomy to that of sibs or normal controls. Behavioral data was obtained by a questionnaire administered to mothers of Ss before surgery and 2 wk. later. Contrary to the findings of several recent studies, no significant evidence of post-hospitalization upset was found, nor were differences discovered between the Canadian and the United States groups. (16 ref.)—*Journal abstract*.

8450. Dershowitz, Alan M. (Harvard U., Law School) **The psychiatrist's power in civil commitment: A knife that cuts both ways.** *Psychology Today*, 1969(Feb), Vol. 2(9), 43-47.—Civil commitment has been placed nearly exclusively in the hands of psychiatrists. This abdication of responsibility by the courts has occurred without public debate and in spite of the inconsistency and inaccuracy of opinions concerning commitment. To relieve the present injustices the law should become more precise concerning socially unacceptable acts. Instead of asking the vague question of whether the person is likely to be dangerous to himself and/or others, the courts could then ask what the person might do and how likely it is that he would do it. Commitment would then be handled as the legal decision it is.—*E. J. Posavac*.

8451. Eggert, Delmer C. & Price, Josephine. (Mental Health Inst., Mt. Pleasant, Ia.) **Family-planning services in a mental hospital.** *Hospital & Community Psychiatry*, 1969(Sep), Vol. 20(9), 283-286.—Describes an institute which initiated a family-planning program in conjunction with the local planned parenthood center. No extra staff or money were involved. Patients attending the program included both men and women. There was impressive group therapy during question and answer periods. The program resulted in both emotional and physical benefits for the women. The chances of the additional stress of an unplanned pregnancy being added to the burden of emotional disturbance have been decreased and cancer detection procedures initiated. Soon a program was started for teen-age patients which has proven successful in helping this group to better understand and cope with sexual drives. This is of considerable significance considering that most mental hospitals have a high proportion of impulsive, often promiscuous youngsters—a very high-risk group for out-of-wedlock pregnancies. From the institute's experiences, it is concluded that family-planning services do belong in a mental hospital.—*M. Walker*.

8452. Fürstenau, P., Stephanos, S. F., & Zenz, H.

(Psychosomatic University Clinic, Giessen, W. Germany) **Erfahrungen mit einer Gruppentherapeutisch geführten Neurotikerstation.** [Experiences with a group therapeutically managed neurotic ward.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(May), Vol. 20(3), 95-104.—Reports group therapy experiences in a neurotic patient ward. The basic psychoanalytic concepts of the patient and his treatment are discussed. The functions and approaches of the ward staff (physician, nursing personnel, structural therapist), the group psychotherapist, and the research psychologist are outlined. Special emphasis is placed on utilizing the psychotherapeutic capabilities of the nurses and on collective decisions by the ward staff in regard to accepting patients. Findings on the activities of the staff in the ward conference, results of a test investigation at the beginning and end of stationary treatment, and hypotheses on the clinical course during treatment are also presented.—*English summary.*

8453. Hansen, Steven V. (Milwaukee Psychiatric Hosp., Adolescent Day Care Program, Wauwatosa, Wis.) **Impact of adolescent patients on a psychiatric hospital.** *Hospital & Community Psychiatry*, 1969(Nov), Vol. 20(11), 331-334.—Many adolescents in a psychiatric hospital exhibit destructive tendencies, e.g., physical property, mores, and traditions, which cause difficulties in maintaining an optimal therapeutic milieu for them and the adult patients. Among the problems related to adolescent patients are (a) the need to closely monitor their number in relationship to the number of adult patients; (b) the impact on the nursing staff, i.e., too much permissiveness vs. extreme control and authoritarianism; (c) the drug problem; and (d) the tendency of adolescents to run away. Nevertheless, the process of dealing with the special problems of adolescents often improves the entire hospital milieu. It is recommended that in the treatment of adolescents the relationship of the patient to staff workers be emphasized, with the therapist using each new relationship to effect intrapsychic changes. Because of the peer group's great importance in adolescent culture, group therapy is especially effective. And since most adolescents will return to their families, family therapy is another by-product of the adolescent program.—*M. Walker.*

8454. Kleban, Morton H., Lipton, Mortimer B., & Lawton, Mortimer P. (Norristown State Hosp., Pa.) **Staff communications on the admission service of a state mental institution.** *Pennsylvania Psychiatric Quarterly*, 1970(Spr), Vol. 10(1), 41-48.—Attempts to clarify the nature of staff communication so that objective feedback could be provided to the medical and treatment staffs about the nature of their communications. Each of 93 employees rated his level of communication with every other employee in the admission service. The communication system is shown to be hierarchical in structure. The "diagnostic" or "professional" cluster (dominated by supervisory psychiatrists) remains relatively remote from the "patient care cluster" (directed essentially by the nursing staff), suggesting a separation based on professional class. It is concluded that while a hierarchy is necessary for efficient management of an admission service, the gap between the 2 clusters actually is a bar to efficiency if information cannot cross the gap.—*M. Walker.*

8455. Malmquist, Carl P. (U. Minnesota, Inst. of Child Development) **The delinquent and the insane: Right and adequacy of treatment.** *American Journal of*

Orthopsychiatry, 1970(Apr), Vol. 40(3), 388-396.—Recent court decisions have opened the question of whether the rights of offenders are being transgressed when they are involuntarily committed to mental institutions. The question is part of the fundamental moral issue of how to balance society's right to protection against the individual's right to freedom. The mental health professions are directly involved in the issue through the question of adequacy of treatment. It is suggested that 1 of the necessary tasks of the behavioral sciences is to clarify for courts, agencies, and the lay public what feasible criteria for treatment may be, as well as the limitations present in current therapeutic techniques, so that the judiciary may be helped to make judgments that properly balance public safety and individual rights.—*Journal abstract.*

8456. Martin, Morgan. (Norwich Hosp., Conn.) **Unitizing a public mental hospital.** *Hospital & Community Psychiatry*, 1969(Sep), Vol. 20(9), 287-289.

8457. Mudd, Samuel; Loeb, Armin; Lasky, David, & Laucks, S. Philip. (Harrisburg State Hosp., Pa.) **A systems study of the rehabilitation process at Harrisburg State Hospital.** *Pennsylvania Psychiatric Quarterly*, 1970(Spr), Vol. 10(1), 5-26.—Deals with the committee reports and recommendations by administrative representatives, clinical department heads, non-supervisory personnel, and patient representatives selected by their peers, concerning rehabilitation planning at a state hospital. By October, 1970 the proposed rehabilitation system should approach a level of development that provides for the identification and specification of patient needs in terms of rehabilitation program profile (RPP) categories. These needs directly establish the system program requirements that set staff training requirements. The total system is coherent in that patient needs, as spelled out by the RPP, specify program and staff development requirements and also articulate through these same behavioral terms with community resources. The system will have built-in evaluation processes which will allow for the overall administration of the system with reference to the budgetary criteria and for system adaptation to new demands imposed on the system by the community, the department of welfare, or other systems.—*Journal abstract.*

8458. Muzekari, Louis H. (Philadelphia State Hosp., Male Rehabilitation Unit, Pa.) **The induction process: A method of choice in intrainstitutional transfer.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 419-422.—Examined the effects of a non-traditional (gradual) vs. a traditional (abrupt) intrainstitutional transfer procedure. It was hypothesized that a gradual transition procedure would be useful in allaying the stress and regression noted in patients who were changed from primarily custodial to treatment-oriented wards, and facilitate early involvement in treatment. An induction group experience consisted of 16 biweekly sessions which each gradually inducted S was required to attend. These sessions were begun prior to S's actual transfer to the unit and continued after his transfer to the rehabilitation unit. Contrary to expectation, the number of Ss who became acutely disturbed within 3 mo. following transfer, and were subsequently returned to their former wards, was comparable for both gradual and abruptly transferred Ss. Therefore, instances of transfer trauma are to be expected regardless of the transfer procedure. However, comparisons between the 2 groups on measures of social

behavior support the utility of the gradual induction process as being instrumental in counteracting the interpersonal isolation of the chronic psychotic by facilitating group participation and promoting increased awareness of unit residents and staff.—*Journal abstract.*

8459. Roncal, Rogelio B. (Middletown State Hosp., N.Y.) **Chronically ill, self-sustaining patients in a state mental hospital.** *New York State Journal of Medicine*, 1970(Sep), Vol. 70(18), 2328-2331.—Presents clinical observations and conclusions drawn after 1 yr. of a state hospital program which separated the chronically ill, self-sustaining patients into a separate unit. 4 approaches to the treatment of these patients are discussed: (a) adjustment of dependency needs, (b) assistance in acquiring a new philosophy of life, (c) help in eradicating the fear of uselessness and loneliness, and (d) encouragement in recognizing and maintaining a goal in life. Psychotherapy, occupational or avocational activity, group therapy, and drugs or physical methods are suggested as useful techniques in achieving motivation and organization within the framework of a personal relationship. The valuable contribution that can be made by the ward attendant in the rehabilitation of these patients is noted.—*Journal summary.*

8460. Schiff, Samuel B. (Ft. Logan Mental Health Center, Denver, Colo.) **A therapeutic community in an open state hospital: Administrative framework for social psychiatry.** *Hospital & Community Psychiatry*, 1969(Sep), Vol. 20(9), 259-268.—Describes a center founded in 1962 as a pioneering and unorthodox institution which was and is a model for state institutions. The center's opening was characterized by excitement, innovativeness, and high commitment by the staff. However, staff problems arose concerning the use of power, delegation and retrieval of authority, and the difficulties of defining areas of responsibility. Management at the center has sought to implement the treatment program without imposing undue restraints. However, one's view of the amount of constraint may depend on his position in the hierarchy of the institution. Problems for management arose in dealing with the public and elected officials over hospital procedures and funding. It is felt that 1 of the major deficits in the institution's 8-yr history was the lack of well-organized, effective long-range management and current evaluation planning processes after initiation of the treatment programs. The staff and administrators still consider the program to be experimental, but it is considered to be highly successful.—*M. Walker.*

8461. Segal, Bernard E. (Dartmouth Coll.) **Hierarchy and work dissatisfaction in a Chilean hospital.** *Social Forces*, 1969(Dec), Vol. 48(2), 193-202.—Interviewed professional and nonprofessional staff members who had daily contact with in-patients at a major hospital. Members of both groups who reported that physicians were hard to approach were less satisfied with their work, in particular feeling that they were less able to exert much control over it. Professionals feeling less able to control their work reported more frequent thoughts of quitting, and of their work being unrewarding. Such associations occurred among nonprofessionals as well, but in addition they seemed more troubled by having to put up with errors that other subordinates had committed. Findings are considered in the light of whether respondents had traditionalistic or modernistic orientations. (22 ref.)—*Journal abstract.*

8462. Sorosky, Arthur D., Rieger, Norbert L., &

Tanguay, Peter E. (Camarillo State Hosp., Children's Treatment Center, Calif.) **Furnishing a psychiatric unit for children.** *Hospital & Community Psychiatry*, 1969(Nov), Vol. 20(11), 334-336.

8463. Stern, Roy. (Temple U. Hosp.) **Standard operating procedures and institutionalization on the psychiatric unit.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 744-750.—Discusses 4 specific areas—suicide precautions, isolation, privileges and drug addiction—in which institutional psychiatric units apply standard operating procedures. It is suggested that such standard procedures limit operational flexibility, and create an environment in which the staff is prone to treat "behavior" rather than treating people. Energies usually applied toward standard operating procedures could better be directed toward better communication systems and development of affective and relational aspects in the unit.—*Journal abstract.*

8464. Wing, J. K. & Brown, G. W. (U. London, England) **Institutionalism and schizophrenia: A comparative study of three mental hospitals: 1960-1968.** Cambridge, England: Cambridge U. Press, 1970. xiii, 260 p. \$12.50.

PSYCHOANALYTIC INTERPRETATION

8465. Bennet, E. A. (London U., Inst. of Psychiatry, England) **What Jung really said.** New York, N.Y.: Schocken, 1970. 186 p. \$1.95(paper).

8466. Blum, Harold P. **Maternal psychopathology and nocturnal enuresis.** *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 609-619.—Psychological determinants of nocturnal enuresis are many and diverse. This paper focuses on maternal influences. Analysis of a mother of 3 enuretic daughters revealed unconscious conflicts over her own intense desires to wet. These conflicts were multidetermined and involved ambivalent childhood relationships with several figures, including her enuretic sister, her stillborn twin brother, and her father and grandfather. She played out her conflicts by having her daughters wet for her. Thus, she could enjoy wetting without awareness or apparent responsibility. With the help of her husband she was able to organize a urinary household in which her daughters were stimulated and rewarded for their enuresis. The mother's fostering of her children's enuresis began during their prephallic toilet training and continued beyond the urethral phase into later childhood.—*Journal summary.*

8467. Chouinard, Timothy. (Forest Park Coll.) **The symbol and the archetype in analytical psychology and literary criticism.** *Journal of Analytical Psychology*, 1970(Jul), Vol. 15(2), 155-164.—Common principles of interpretation and the coherent vocabulary among literary critics seems to be lacking. An archetype is defined as a symbol which is significantly pervasive in traditional literature. Symbols are either descending or ascending. A descending symbol is the literary unit of expression used by a writer who would not think of any image he used as symbolic. An ascending symbol is one which is individually and consciously formed as an allomorphic content of an ambiguous archetypal form. Therefore, all archetypes are symbolic but not all symbols are archetypal.—*P. Federman.*

8468. Fordham, Michael. (1 St. Katharine's Precinct, Regent's Park, London, England) **Reply to Plaut's "Comment."** *Journal of Analytical Psychology*, 1970(Jul), Vol. 15(2), 177-181.—Replies to a comment by A. Plaut

on "not incarnating the archetype." The term archetype was omitted from M. Fordham's previous article because technique was considered a manifestation of ego functioning. Issue is taken with Plaut's comments that "there is a place for the analyst to incarnate an archetypal image" and that an analyst would "be wiser to reject."—P. Federman.

8469. Frank, Alvin. **The unrememberable and the unforgettable: Passive primal repression.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 48-77.

8470. Greenacre, Phyllis. **The fetish and the transitional object.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 144-164.

8471. Greenacre, Phyllis. **Youth, growth, and violence.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 340-359.

8472. Grossman, William I. & Simon, Bennett. **Anthropomorphism: Motive, meaning, and causality in psychoanalytic theory.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 78-111.

8473. Hamilton, James W. (Yale U., Medical School). **Object loss, dreaming, and creativity: The poetry of John Keats.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 488-531.

8474. Hinojosa, Armando. **La tragedia de Edipo.** [The Oedipus tragedy.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1968, No. 10, 32-43.—Argues that Freud, in his analysis of the Oedipus tragedy, extracted only those elements which suited his theory of castration, and presents an analysis which takes the drama as a whole in order to demonstrate the presence of a more universal theme. This analysis views Oedipus, not as representative of a particular man, but as an example of a universal situation pertinent to the human condition which all men suffer, the vacillation and doubt of the desire to leave parents and return to them. Thus, Oedipus typifies the image of what man is from birth to maturity, the latter of which is reached through painful suffering and a struggle that is pursued not against others, but against one's own inner emotions and obstacles. Self-respect is thus attained, guilt is eliminated, and human weakness is accepted along with human strength.—S. Maze.

8475. Kadinsky, David. **The meaning of technique.** *Journal of Analytical Psychology*, 1970(Jul), Vol. 15(2), 165-176.—Examines the meaning of technique in analytical psychology. Technique is a representation of a certain aspect of personality, the part that is mechanical, habitual, based on fact. This aspect of personality cannot be grasped by intellectual concepts. Thus, the appearance of the symbol.—P. Federman.

8476. Lowenfeld, Henry & Lowenfeld, Yela. **Our permissive society and the superego: Some current thoughts about Freud's cultural concepts.** *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 590-608.—"Freud's ideas about the development of civilization and its dilemma between freedom and restriction of drives... have been remarkably confirmed by the events and the change of the cultural climate of the last 50 yr. Sexual freedom has, in accordance with Freud's conception of repression, considerably transformed the manifestations of the neuroses; however, it has not produced greater mental health but only new neurotic constellations. The lesser repression of infantile sexuality has, as he feared, reduced the control of aggression... The task of 'reconciling men to civilization' is not made easier through the liberation of drives. In a period

of cultural stability, the infantile, irrational demands of the superego which conflicted with the mature superego could be worked out in the analytic process. The protecting and controlling function of the superego could be left to the influence of the surrounding society. The present cultural chaos confronts psychoanalysis with entirely new tasks..."—J. Z. Elias.

8477. Lupton, Mary J. (Morgan State Coll.) **The dark dream of "dejection."** *Literature & Psychology*, 1968, Vol. 18(1), 39-47.—Applies psychological concepts to an earlier version of S. T. Coleridge's "Dejection: An Ode," entitled "Verse Letter" to reconstruct the latent thoughts behind the final version. Childhood experiences and personal events leading up to the "intense psychic experience" objectified in the poem are analyzed in terms of an unsolved Oedipal conflict and regression to the fantasy of oral gratification. (20 ref.)—M. Maney.

8478. Maccoby, Michael. **Una interpretación psicoanalítica de los votos de castidad, pobreza y obediencia.** [A psychoanalytic interpretation of the vows of chastity, poverty, and obedience.] *Revista de Psicoanálisis, Psiquiatría y Psicología*, 1968, No. 10, 22-31.—Within the context of humanistic psychoanalysis and, in particular, Fromm's theory that man's character is shaped by the relationship between corresponding regressive (pathologic) and progressive (healthful) psychic forces, it is proposed that: (a) the vow of poverty is tied to an attitude toward things and refers to the polarity between love of life and destructiveness, (b) the vow of chastity is related to an attitude toward people and refers to the polarity between love and narcissism, and (c) the vow of obedience is related to an attitude toward the law and power and refers to the polarity between liberty and symbiosis. Implications of this interpretation for character structure and intrapsychic conflict are discussed. It is concluded that psychoanalysis could provide a more refined and reliable means of aiding those who have responsibility over the younger members of the religious community to recognize the signs of regression and pathology and to realistically evaluate how the taking of vows will affect the mental health of the individual involved.—M. Maney.

8479. Meers, Dale R. **Contributions of a ghetto culture to symptom formation: Psychoanalytic studies of ego anomalies in childhood.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 209-230.

8480. Meissner, W. W. (Massachusetts Mental Health Center, Boston) **Notes on identification: I. Origins in Freud.** *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 563-589.—Discusses the origins and formulations of the concept as provided by Freud. The following types are delineated: "1) Dream identification: a form of condensation in dreaming by which the S's ego represents itself as other figures in the dream's manifest content. 2) Hysterical identification: the assimilation of a property or symptom of an object by the S as an expression of a resemblance derived from a common element which remains unconscious... 3) Primary identification: the original and primitive form of emotional attachment to an object prior to any object which regressively replaces the abandoned object relation by introjection of the object. Oral incorporation is again appealed to as a model but in a different sense, as dictated by the precedence of an object cathexis... 5) Partial (secondary) identification: a form of identification based on the perception of a common quality which does not

depend on an object relation. The mechanism does not involve introjection and pertains to the development of structure within the ego. It is an important mechanism in character formation and in group formation . . ."—J. Z. Elias.

8481. Novick, Jack & Kelly, Kerry. **Projection and externalization.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 69-95.

8482. Peto, Andrew. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Terrifying eyes: A visual superego forerunner.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 197-212.

8483. Pumpian-Mindlin, Eugene. (U. Oklahoma, Medical Center) **Vicissitudes of Infantile omnipotence.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 213-226.

8484. Smith, Edward W. (Georgia State U.) **The fascinating toothpick: A study in phallic symbolism.** *International Journal of Symbolism*, 1970(Apr), Vol. 1(3), 21-25.—Throughout history man has engaged in the symbolic handling of the phallus, usually with flourish and rituals. The nearly universal occurrence of this phenomenon, in juxtaposition with the universal taboos respective of the phallus bespeaks the awe, the wonder, the fascination, even the fear which men feels when confronted by this unique organ. It appears that man required an attenuated contact with the phallus, through a symbol, whereby he gains a degree of control while maintaining a safe distance from the real phallus. This can be seen as a case of perpetual partial desensitization. A blatant version of such a ritual is provided by the hunter of the raccoon who takes as his trophy, to be used as a toothpick, the bone from the penis of his prey, in the patois, the "cooncock."—*Journal abstract*.

8485. Solnit, Albert J. (Yale U., Child Study Center) **A study of object loss in infancy.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 257-272.

8486. Steingart, Irving. **On self, character, and the development of a psychic apparatus.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 271-303.

PSYCHODIAGNOSIS

8487. ———. **Variation in psychiatric diagnosis.** *British Medical Journal*, 1968(Dec), Vol. 4(5631), 595.—Reviews various attempts to provide a diagnosis and classification system which will allow valid inter-O comparisons. A monograph by M. Shepherd, J. Cooper, E. Brooke, and T. Lin (see PA, Vol. 43:9845) on variation in psychiatric diagnosis is discussed. Their analysis of case histories and videotaped psychiatric interviews revealed 3 types of O disagreement derived from: (a) clinical observation and perception, (b) inferences drawn from observation, and (c) nomenclature and nosological systems. It is suggested that computers might be of value in the investigation of the diagnostic process.—G. Steele.

8488. Berger, Josip; Marinkov, Milica; Stojanović, Ljubinka, & Aleksić, Zdenka. **Hipoteza o slojevima kao teorijski okvir predikacije uspeha rehabilitacije neurotičara.** [The levels hypothesis as a theoretical framework for the prediction of outcome in the treatment of psychoneurotics.] *Psihologija*, 1969(Sep), Vol. 2(2), 421-431.—Attempted to predict the outcome of treatment of a group of psychoneurotics, assessed by 3 different kinds of indicators representing 3 levels of personality. The Index of Social Competence (ISC), the

WAIS, and a personality assessment from Rorschach protocols, were hypothesized to represent different levels of personality on the overt (surface) to the covert (deep) dimension. 73 psychoneurotics were tested at the beginning of a treatment and rehabilitation program. After 2 yr. of treatment each S was assessed on his successful return to job, family, and social practices. Results confirm the hypotheses. The indicators operationally defined as surface (ISC) and in-between (WAIS) had significant predictive validity, while the assessment of the Rorschach protocols did not. It was found that the validity of the Rorschach personality assessment was in accord with the length of clinical experience. It is concluded that the levels hypothesis represents a stimulating and adequate frame of reference for further validation studies of clinical psychodiagnostic batteries. It is assumed that a more sophisticated multimethod-multicriterion design arranged according to the levels hypothesis could be even more fruitful.—*English summary*.

8489. Člen, Jozef. (Comenius U., Bratislava, Czechoslovakia) **Deduktívna a indukívna metóda v psychodiagnostike.** [Deductive and inductive method in psychodiagnostics.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 61-81.—Discussed the importance in diagnostic work of evaluating the role played by symptoms in the whole system of personality. Present classification and nomenclature of mental disorders were considered insufficient for accurate diagnosis. Application of some time-saving tests, i.e., the tapping test as an indicator of brain lesions, was suggested and thoroughness in diagnostic procedure was emphasized. (Russian & German summaries)—*English summary*.

8490. Dey, P. K., Chatterjee, B. K., Rakshit, P., & Majumdar, A. **Electroencephalographic characteristics in abnormal brain functions.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967, No. 8, 5-12.—Analyzed EEGs of schizophrenics, mental deficient, delinquents, psychopaths, and mongols (Total N=19) with eyes open and closed, with sound stimulation, and with hyperventilation. 2 types of physiological defects were revealed: maturational defects and cleavage in the cortical-subcortical feedback system. It is concluded that these defects are responsible for the impairment of normal learning processes and give rise to behavior disorder.—*Journal abstract*.

8491. Espenak, Liljan. (New York U., Medical School) **Movement Diagnosis Tests and the inherent laws governing their use in treatment: An aid in detecting the lifestyle.** *Individual Psychologist*, 1970(May), Vol. 7(1), 8-13.—Describes the Movement Diagnosis Tests and discusses their value in the application of psychomotor therapy.—A. R. Howard.

8492. Fernández M., Octavio. **La importancia de una teoría psicopatológica para entender la nosología psiquiátrica en la adolescencia.** [Importance of a psychopathological theory to understand the psychiatric nosology in adolescence.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969, Vol. 15(3), 233-238.—Criteria are proposed for the development of a psychiatric nosology for adolescents on the basis of a logical approach of intersection—as opposed to an approach of inclusion. A still incomplete theory is proposed, correlating age, sex, and pathology, that can be used as a basis for a nosology specific for adolescents.—*English summary*.

8493. Freud, Anna. The symptomatology of childhood: A preliminary attempt at classification. *Psychoanalytic Study of the Child*, 1970, Vol. 25, 19-41.
8494. Frijling-Schreuder, E. C. Borderline states in children. *Psychoanalytic Study of the Child*, 1969, Vol. 24, 307-327.
8495. Ginsberg, Aniela. (Pontifícia U. Católica, São Paulo, Brazil) *Tentativa de Validação externa de Métodos para o estudo da personalidade*. [Experiment of external validation of methods for personality study.] *Revista de Psicologia Normale Patológica*, 1969(Jan), Vol. 15(1-2), 3-93.—Attempted to validate personality assessment methods by experimentally induced changes in Ss' behavior. Excitation and inhibition were studied in 2 student groups of 84 females and 40 males, using the Rorschach, Benn-Rorschach, and Myokinetic Psychodiagnostic (MKP) technique of Mira and Lopez. Anxiety was studied in 80 male and 85 female students, 18-28 yr. old, using the Holtzman Inkblot Test (Forms A and B) and 2 intelligence tests. Rigidity was studied in 20 adult priests, 25 13-14 yr. old boys, and 10 epileptics, using 2 intelligence tests, the Berg Test, Luchins Water Jug Test, the Rorschach, and the MKP. The Rorschach yielded the highest level of significance for indices of excitability and anxiety. It also separated anxious neurotics from controls and excited depressive maniacal psychotics from normals. The mean secondary deviations in the MKP were significantly different for anxious neurotics and normal controls. The utility of the rigidity index was proved with the epileptics. Some validity indications for anxiety and excitation were found in the Behn-Rorschach and in the Inkblot Test. (English & French summaries) (24 ref.).—P. Hertzberg.
8496. Gordon, Adrien V. & Gregson, R. A. (U. Canterbury, New Zealand) *The Symptom-Sign Inventory as a diagnostic differentia for paranoid and non-paranoid schizophrenics*. *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 347-356.—Suggests a transformation for certain Symptom-Sign Inventory items which will produce a brief, powerful, discriminating tool for differentiating between paranoid and nonparanoid schizophrenics and normals. A factor analysis of the data of a reference group of 9 male and 9 female paranoid and 9 male and 9 female nonparanoid schizophrenics produced factors which apparently bear a closer relationship to previously reported psychotic factors than to G. A. Foulds' theoretical set-intersection model of functional psychosis. (26 ref.).—*Journal abstract*.
8497. Harman, Charles E. & Raymond, Christopher S. (Pacific Medical Center, Inst. of Neurological Sciences, San Francisco, Calif.) *Computer prediction of chronic psychiatric patients*. *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 490-503.—Evaluates a computer clustering procedure for predicting the outcome of psychiatric patients. Premorbid and performance evaluations of 356 Ss were obtained during hospitalization. Active treatment led to a relatively high discharge rate. The clustering procedures led to successful predictions of outcome adjustment levels which differed significantly for 3 schizophrenic groups. Performance clusters correlated higher than premorbid adjustment with outcome adjustment. (26 ref.).—*Journal abstract*.
8498. Hayward, A. E. (Glenside Hosp., Bristol, England) *The 16-PF and a general psychiatric factor*. *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 382-383.—Examined the scores obtained among a psychiatric population on the following 2nd-order factors of the 16 PF: neuroticism, anxiety, introversion-extroversion, tough poise, and independence. Ss were 84 patients whose disorders "covered most of the psychiatric spectrum" but excluded those with organic etiology or a verbal IQ below 90. Results confirm the impression of high interrelatedness among the 2nd-order factors and indicate that information obtained by the 16 PF relates to features common to all psychiatric patients. It is concluded that the test "cannot be used directly to discriminate between patients in terms of their personality characteristics."—P. McMillan.
8499. Hertz, D. (Hadassah U. Hosp., Jerusalem, Israel) [The problem of the borderline psychiatric diagnosis.] *Harefuah*, 1970(Sep), Vol. 79(6), 258-260.—The diagnosis of "borderline case" has not been officially recognized in the psychiatric nomenclature. The definition has been used in those cases in which no manifest psychotic symptoms were found. Clinicians use the diagnosis of "borderline" when confronted with difficulty in defining with certainty the existence of psychosis or neurosis, when the clinical findings suggest tendencies toward both entities. This difficulty explains the multiple diagnoses used to define this condition, such as "ambulatory schizophrenia," "hidden psychosis," or "pseudoneurotic schizophrenia." Presented is a survey of the different diagnostic attitudes in the literature, critically comparing the behavioristic approach with the psychodynamic orientation.—*English abstract*.
8500. Katan, Maurits. *A psychoanalytic approach to the diagnosis of paranoia*. *Psychoanalytic Study of the Child*, 1969, Vol. 24, 328-357.
8501. Kielmanowicz, Raquel. *El grupo diagnóstico de niños en un servicio hospitalario*. [Children's diagnostic group in a hospital service.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Mar), Vol. 16(1), 53-56.—Describes the simultaneous, but separate, conduction of diagnostic groups of children and their parents. Children's groups make use of play material and interpretation aimed to each child's insight into his problem; parents' groups are based on interpretation aimed to obtain the parent's insight on his child's abnormal behavior. The following points of the diagnostic group are discussed: fundamental objectives, general working framework, characteristics of the group, diagnostic, and interpretation.—V. A. Colotta.
8502. Kurtz, Richard M., Weech, Alexander A., & Dizenhuz, Israel M. (Washington U.) *Decision-making as to type of treatment in a child psychiatry clinic*. *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 795-805.—Studied what factors influence diagnosticians' judgments when making recommendations. 28 families seeking treatment were rated on numerous variables, which were then factor analyzed. 2 clusters of variables emerged, a social factor and an ego factor. The social factor variables deal with the S's recognition that he has an emotional problem and his capacity to seek professional help; they are inversely correlated with social class. Ego factor variables are generally intrapsychic but also deal with issues of human rapport. Social factor variables were the most reliable in predicting whether an S would receive long- or short-term treatment.—*Journal abstract*.
8503. Lipke, Paulo R. *Prognóstico das psicopatias*.

[Prognostic of psychopaths.] *O Hospital*, 1969(Aug), Vol. 76(2), 561-565.—Discusses the importance of considering social, economic, and cultural bases for psychopathology. It is proposed that man's social character is conditioned by his socioeconomic climate. Man's capacity for causing social change to best suit his needs is considered basic to the family situation which is society's principal agent. Since man's social existence is thought to determine his perception of reality, it is proposed that future diagnoses of mental illness should be made through examining the patient's social structure.—P. Hertzberg.

8504. McQuitty, Louis L., Banks, Richard G., & Frary, Jewel M. (U. Miami) **Submatrices of interassociations for scoring interrelatedness within matrices as an index of psychological disturbance.** *Multivariate Behavioral Research*, 1970(Oct), Vol. 5(4), 479-488.—Describes a method whereby a matrix of interassociations between individuals can be divided to yield a submatrix which can in turn be used to score the degree of interrelatedness of the parent matrix. The method can be applied to determine the significance of the difference between the interrelatedness of 2 or more parent matrices. The method is applied to a small study of 8 normal and 8 disturbed subjects.—*Journal abstract*.

8505. Meikle, Stewart & Gerritse, Richard. (Foothills Hosp., Calgary, Alberta, Canada) **A comparison of psychiatric symptom frequency under narrative and check list conditions.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 379-382.—Investigated the effect of the frequency with which descriptive items are used when a check list is substituted for the usual narrative history. Results suggest that rather than resulting in a loss of descriptive information the check list produced a sizable increase in the use of such terms.—*Journal abstract*.

8506. Peverill, Jack A. (U. Minnesota) **A scale for identification of learning disability using the Personality Inventory for Children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1548.

8507. Phillips, J. P. (U. Hull, England) **A further type of personal questionnaire technique.** *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 338-346.—Describes a questionnaire for an individual psychiatric patient to scale changes in the severity of his symptoms similar to the method of M. B. Shapiro. For each symptom statements are devised representing graded levels of severity, and an ordinal scaling of the statements is obtained from the patient. When a scaling of the current level of the symptom is required, the questionnaire is administered by presenting each of the statements to the patient in turn, and asking him whether he feels better or worse than indicated by it. After every administration the responses, which may be either consistent or inconsistent, are scored. Consistent responses constitute an ordinal scaling of the current severity of the symptom; inconsistent ones (the possibility of which affords a check on reliability) are scored by a method similar to that of P. Slater for dealing with pair comparison preference judgments. Other procedures for dealing with inconsistent responding are described, and a scheme for computer scoring briefly reported. An illustrative case study is included. (18 ref.)—*Journal abstract*.

8508. Placido, Sagù. **Valutazione mediante il test di Rosenzweig dell'indicazione psicoterapeutica in un caso di caratteriale cicloide.** [Evaluation by means of

the Rosenzweig test for psychotherapeutic indication in a case of cycloid character disorder.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 367-369.—Studied a case of cycloid character disturbance to show the prognostic evaluation that can be accomplished through a psychological examination. Psychotherapeutic treatment was encouraged from the favorable indications after the Rosenzweig Picture-Frustration Study. Certain facts of the test foretold the results, e.g., the positive value of the "need-persistence" responses and the study of tendencies of the personality subjected to the prolongation of the frustrating situation. The psychodiagnostic examination provided useful facts about personality structure.—A. M. Farfaglia.

8509. Reynolds, A. G. & Pylyshyn, Z. W. (Dartmouth Coll.) **Stylostatistics of various psychiatric groups.** *Language & Speech*, 1970(Jul), Vol. 13(3), 194-198.—Used 30 nonsyntactic stylostistical measures of language performance in an attempt to differentiate 53 psychiatric patients. The 30 variables were analyzed by 1-way analysis of variance and covariance, with the WAIS IQ as the covariate. Only 5 of these measures showed discriminatory ability; schizophrenics reliably displayed longer words and more variability in word length, and neurotics showed a paucity of usage vocabulary size.—*Journal abstract*.

8510. Thoresen, Paul W. (Marquette U.) **The use of self description in identifying and predicting students who seek help with their emotional problems.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1552.

8511. Voigt, Walter H. (Ohio U.) **Assessment of organic brain impairment in a psychiatric population.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1553.

8512. Wagner, Edwin E. & Hoover, Thomas O. (U. Akron) **Intra-protocol plate failures: An investigation of Rorschach card meaning.** *Journal of Projective Techniques & Personality Assessment*, 1970(Dec), Vol. 34(6), 484-486.—33 Ss designated as neurotic, character disorders, and schizophrenic or preschizophrenic, were found who had IQs of average or better, but who exhibited exactly 2 failures on the Rorschach. Analysis of the pairs of card rejections revealed a disproportionate number of Card IX failures and a clustering among Plates IV, VI, VII, and IX. (20 ref.)—*Journal abstract*.

8513. Yen, Yi-shiu. (National Taiwan U., Taipei) **On the modified BRS.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 101-111.—Describes a modification of the "basic Rorschach score" (BRS) of C. Bühler, K. Bühler, and D. W. Lefever, for use in Taiwan. Ss were 100 schizophrenics (Group S), 50 neurotics (Group P), and 50 normals (Group N). The modified BRS was established by computing the X_i differences between the S-N, S-P, and P-N groups. The weight and positive and negative values of the items were determined by the level of significance of statistical results with reference to the diagnostic consequence of each item, the BRS of Bühler, the modified BRS of Y. Kataguchi, and clinical experience.—*Journal abstract*.

BEHAVIOR DISORDER

8514. Berk, Richard A. & Adams, Joseph M. (Johns Hopkins U.) **Establishing rapport with deviant groups.** *Social Problems*, 1970(Sum), Vol. 18(1), 102-117.—Under the best conditions, participant observation

poses problems in which complex human and methodological considerations are inextricably entwined. Among the most problematic of these considerations are the necessary processes by which the investigator establishes and maintains rapport with his Ss. If there exists a large gap in social background between the investigator and his Ss and if the Ss are unusually hostile and suspicious, gaining ongoing rapport often becomes an especially formidable task. This paper draws on the field experiences of the authors as long-term participant-observers of juvenile delinquents and drug addicts, in order to present useful suggestions for handling some of the problems that typically arise in the attempts to establish rapport with distrustful groups that also differ considerably in life style, presumably, from the typical social scientist.—S. L. Warren.

8515. Esler, Harold. **Agresividad, depresión y enajenación.** [Aggressiveness, depression and alienation.] *Revista de Psicoanálisis, Psiquiatria y Psicología*, 1968, No. 10, 14-21.—Examined 100 adolescents institutionalized under maximum security because of extremely aggressive behavior and acting out, and discusses unconscious depression as the underlying cause for such behavior. Ss vacillated between deep unconscious depression causing conscious intolerable pain, and insensitivity. Characteristics included fear and inability to make friends, narcissism and its constant pampering, identity problems and their symptoms, anguish of being castrated, longing for the security of the womb, feelings of emptiness, and paranoia of being hurt. Compensating mechanisms were expressed by a great appetite for food and cigarettes, the use of drugs, driving at high speed, and growing long hair and beards. Group therapy proved more effective than individual therapy, and the hours at which the sessions were held were significant. It is emphasized that progress made during treatment must be maintained in a social environment outside the institution. Love, rigid control, interaction with other people, and the cultivation of a sense of security and confidence in the therapist are suggested as remedies for depression, alienation, and aggressiveness.—S. Maze.

8516. Flynn, William R. (U. California, Medical School, Los Angeles) **Frontier justice: A contribution to the theory of child battery.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 375-379.—Asserts that child abuse is often dependent upon structural and dynamic elements within the adult. 2 cases are reported of mothers who beat 1 of their children. It is concluded that defective defense structures of the ego are frequently responsible for child abuse, and that abusing parents tend to project their anger onto their children, while denying and repressing it in themselves.—*Journal abstract*.

8517. Lovibond, S. H. (U. New South Wales, Kensington, South Australia) **Pure and applied psychology: Towards a significant interaction.** *Australian Psychologist*, 1970(Jul), Vol. 5(2), 120-140.—Outlines advantages of the development of close links between clinical and experimental psychology, citing the works of J. Dollard, N. Miller, J. Masserman, J. Wolpe, and B. Skinner as approaches to development of the experimental foundations of clinical psychology. Operant procedures provide only a very limited base for clinical practice. 2 major considerations in the selection of a theoretical system to serve as the starting point for the experimental analysis of behavior disorders are (a) the system should permit appropriate weight to be given to

central integrating processes; and (b) it should permit advances in many areas of general experimental psychology to be utilized in dealing with the problems of disturbed behavior, criteria at present best met by general behavior theories which make use of neuropsychological concepts. The author's own work and that of his students in the field of behavior disorders is outlined to illustrate the possibilities of interaction between pure and applied psychology in aversion therapy, systematic desensitization, desensitization with relaxation, study of punishment or passive avoidance procedures, and the role of secondary reinforcement in punishment.—T. N. Webster.

8518. Ranzato, Francesco P. **Trattamento psicoterapico del caratteropatici con tendenze criminose.** [Psychotherapeutic treatment of character disorders with criminal tendencies.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 364-366.—The lack of a valid paternal figure, the formation of the personality in an atmosphere without affection or educational directives, and consequently the incomprehension of people, and unwholesome company are the causes in some patients of antisocial tendencies and criminal impulses. A case of a 24-yr-old male is studied. The most difficult problem is that the "bad father" image may be transferred to the psychotherapist, and he can even become the object of the crime. 1st this image of the "bad father" was constructed for the S and then destroyed in order to make the patient an integral man.—A. M. Farfaglia.

8519. Schmauk, Frank J. (Norristown State Hosp., Pa.) **Punishment, arousal, and avoidance learning in sociopaths.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 325-335.—Investigated the relationships among different kinds of punishment, autonomic arousal, subjective anxiety, and avoidance learning in primary sociopaths. 90 male Ss consisting of 30 primary sociopaths (PSs), 30 neurotic sociopaths (NSs), and 30 normal controls (NCs) were selected and assigned, on the basis of 10 from each group, to 1 of 3 punishment conditions: physical punishment (PP—shock), tangible punishment (TP—loss of money), or social punishment (SP—E saying "wrong"). Ss were run in an avoidance learning procedure, and measures of autonomic arousal and subjective anxiety were obtained concurrent with performance in the learning task. Under the PP and SP conditions, the PS group scored significantly below the NC group in anticipatory arousal, subjective anxiety, and avoidance learning. Under the TP condition, the PS group showed significant increases on these 3 measures and scored at approximately the same level as the NC group. (23 ref.)—*Journal abstract*.

8520. Sharma, U. D. **Aggression and dermatoglyphics.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1968, No. 10-11, 12-15.—Investigated the relationship between dermatoglyphics, aggression in 9 Bengali-speaking 9-14 yr. olds from an institution for behavioral disorders. Each S was rated on a 5-point scale for inner and outer aggression. The dermatoglyphics were examined by measuring the epidermal thickness in terms of ridge-counts and the cushioning in terms of the tension on the water logged state of the cells. Results suggest that epidermal skin thickness bears little relationship with aggression, and that the cushioning has a negative relation with aggression toward the self.—*Journal abstract*.

8521. Sutker, Patricia B., Gil, Sandra H., & Sutker, Louis W. (Tulane U., Medical School) **Sociopathy and**

serial learning of CVC combinations with high and low social content ratings. *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 158-162.—Hypothesized that sociopaths, being socially more adroit and more responsive to affective and exciting stimuli, would demonstrate faster acquisition than nonsociopaths for CVCs rated high in terms of social content. A low and a high social CVC list were prepared, with scaled meaningfulness values held relatively constant for both. 12 sociopaths and 12 nonsociopaths practiced on each of the 2 lists. The Shipley Institute of Living Scale and the MMPI were administered prior to the learning task. Results indicate that sociopaths performed significantly better on the high social list than did nonsociopaths and significantly better on the high social list than on the low. Nonsociopaths demonstrated no significant difference in speed of acquisition for the 2 lists. Findings suggest that sociopaths are indeed responsive to social stimuli, and that such stimuli are intrinsically more rewarding than those of low social content.—*Journal abstract*.

Drug Addiction

8522. Bellizzi, John J. (St. John's U., Jamaica, N.Y.) **Legal prescription of narcotics.** *New York State Journal of Medicine*, 1970(Jun), Vol. 70(12), 1677-1680.—Reviews the provisions outlined in the New York State Public Health Law and Pamphlet 56 to clarify those conditions under which physicians may make narcotics available to both nonaddict and addict patients. The cooperation of all physicians, other practitioners, and pharmacists is urged in relation to the administration, prescribing, and dispensing of narcotic drugs.—*M. Maney*.

8523. Lombardi, Donald N. (Seton Hall U.) **The special language of the addict.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 51-52.—1 ancillary technique which can be utilized in understanding the symptomatology, dynamics, and etiology of the addict is the vernacular used by him. Such words as high, loaded, turned on, junkie, stuff, crap, garbage, dope, fix, spike, bag, beat, burned, and busted point to the essential life style of the addict as dependent, lacking in social interest, and a person who finds the world a hostile and dangerous place.—*O. Strunk*.

Alcoholism

8524. Albuquerque Fortes, José R. **Psilocibina e alcoolismo crônico.** [Psilocybin and chronic alcoholism.] *Arquivos da Coordenadoria de Saúde Mental do Estado de São Paulo*, 1966(Jan), Vol. 32(1), 5-129.—Studied the effects of psilocybin on 30 adult male chronic alcoholics. The methodology is described and studies provided. The results of the experiment are followed by 11 conclusions. (106 ref.)—*R. H. Gillis*.

8525. Alonso Fernández, Francisco. (Medical School, Sevilla, Spain) **Alcoholismo y desarrollo en España.** [Alcoholism and development in Spain.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 155-163.—Presents a survey of epidemiological research on alcoholism. It is noted that: (a) there has been a gradual increase in the percentage of alcoholics admitted in several psychiatric hospitals over the last 2-3 decades; (b) there seems to be an increase in

the number of alcoholics from S. to N. in Spain; and (c) more than 50% of youngsters under 20-yr-old consume alcoholic beverages. The cultural and dynamic aspects of alcoholism are discussed. (73 ref.)—*V. A. Colotta*.

8526. Andrade, Oswald M. **Tratamento moderno do alcoolismo e do "delirium tremens": Considerações médico-forenses.** [Modern treatment of alcoholism and of delirium tremens: Medical-forensic considerations.] *O Hospital*, 1968(Sep), Vol. 74(3), 729-749.—Discusses alcoholism from historical, sociological, psychological, and clinical viewpoints. Alcoholism is defined according to different types of drinkers and different phases of dependency. Progressive symptoms leading to delirium tremens are described, and treatment suggestions, based on the work of an alcohol emergency clinic, are made. Surveys of the population show that the incidence of alcoholism is great enough to pose a public health problem on an international basis. The relation between alcoholism and crime is considered regarding the Brazilian penal code. (30 ref.)—*P. Hertzberg*.

8527. Block, Marvin A. (State U. New York, Medical School, Buffalo) **Alcohol: Man and science.** *New York State Journal of Medicine*, 1970(Nov), Vol. 70(21), 2732-2740.—Examines the nature of alcohol as a drug, detailing its effects upon the metabolism and various internal organs. The positive and negative effects on the economy are also considered. Statistics are presented on the shortened life expectancy of alcoholics; automobile casualties; percentages of drinkers by age, religion, economic status, and education; and per capita consumption of liquor, wine, and beer. Alcoholism is discussed as an illness, and the need for revision of social attitudes toward the alcoholic is emphasized. Approaches to its prevention by early detection, and education as to the uses and abuses of alcohol are outlined.—*S. Knapp*.

8528. Finkel, David A. (U. Massachusetts) **Temporal gradient of reinforcement and temporal gradient of punishment differences between alcoholics and non-alcoholics.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1535.

8529. Reed, Archie. (Alcoholic Rehabilitation Center, Avon Park, Fla.) **Using a tape recorder in counseling alcoholics.** *Pastoral Psychology*, 1969(Dec), Vol. 20(199), 45-49.—The use of a tape recorder as a therapeutic and educational aid is both unlimited and exciting. Techniques and examples are presented.—*O. Strunk*.

Suicide

8530. ———. **Prevention of suicide.** *Public Health Papers*, 1968, No. 35, 84 p.

8531. Carrasco, Santo-Domingo; Carrasco Gómez, J. José, & Alonso, Adela. (Marqués de Mondéjar, Madrid, Spain) **La tentativa de suicidio: Estudio de un grupo de 94 tentativas de suicidio.** [Suicide attempts: A study of a group of 94 attempted suicides.] *Archivos de Neurobiología*, 1970(Apr), Vol. 33(2), 131-169.—Completes a previous article by the authors on psychiatric aspects of suicide attempts of 94 11-74 yr. olds admitted to a Spanish Social Security General Hospital. The analytical-descriptive method was used to interpret the results in percentage of the group sampled vs. those of the general population. "The demographic data showed 3 Maxima of frequency at 20, 40, and 60 yrs. of age with different distribution for sex and civil status." Suicide

attempts of young females and middle aged males seemed to differ. It is proposed that suicide attempts (a) are a culturally determined creation of today's sophisticated society which include a variety of factors, and (b) conditions the possibility of reversibility. Family and individual case histories were studied whereby alcoholism, drug dependence, and homosexuality predominated. Past and present motivations as well as the final results of the attempts are discussed, and it is argued "that suicide attempts are an often unavoidable end to an irreversible situation that is independent of the Ss own consciousness of personal motivations and purposes." The Rorschach test data, 3 childhood suicide attempts, and the various aspects of medical and psychiatric assistance are examined.—S. Maze.

8532. Denner, J. Lee. (U. Kansas, Medical Center, Kansas City) **Management of suicide attempt.** *New York State Journal of Medicine*, 1970(Jun), Vol. 70(12), 1666-1667.—Discusses the "difficult task" often left to the physician in ascertaining and clarifying the meaning of a suicide attempt for both the patient and important others in his life. It is stressed that each incidence of suicidal communication "must be carefully and individually appraised," and that the physician must not only see and call by name the undistorted reality, but "he must also set in motion those steps which will 1 day make that life-affirming reality... felt by the patient."—M. Maney.

8533. Hippler, Arthur E. (U. Alaska) **Fusion and frustration: Dimensions in the cross-cultural ethnopsychology of suicide.** *American Anthropologist*, 1969(Dec), Vol. 71(6), 1074-1087.—Reviews the literature and outlines directions in which a systematic and comprehensive theory of suicide can be developed which would explain the cross-cultural variation in forms and rates. Borrowing theoretical formulations from psychology, suicide is considered as (a) a desire for fusion—a return to a pleasant state with the mother, and (b) as aggression—intra- and extrapunitive behavior. The interrelationship of child rearing, social structure, and cultural values in a number of cultures is examined as determining the method and frequency of suicide. (65 ref.)—S. Knapp.

8534. Mende, W. (U. Tübingen, Neuro-clinic, W. Germany) **Rechtliche Konsequenzen des Suizides.** [The civil-legal consequences of suicidal acts.] *Psychiatria Clinica*, 1970, Vol. 3(2), 108-113.—The civil- and criminal-legal consequences of suicidal acts depend largely on their motivation. The motives themselves are in turn influenced by their legal and political consequences. Thus the motivations for the recently increased suicides and suicidal attempts of young people which often appear not very convincing, can be better understood if the sociopsychological background to these suicidal events are taken into consideration. That there exists such a mutually conditioning and characterizing relationship becomes apparent in the sacrificial suicides, e.g., self-burning. The motivations for such suicidal acts are only partly transparent.—English summary.

8535. Miller, Dorothy H. (Scientific Analysis Corp., San Francisco, Calif.) **Suicidal careers: Case analysis of suicidal mental patients.** *Social Work*, 1970(Jan), Vol. 15(1), 27-36.—Made a case analysis of 25 suicides to find common factors in their social-psychological perspectives. Evidence points to the development in these persons of a rigid heroic self-image unsupported by significant others. When seriously threatened by a crisis,

these persons are led to kill themselves rather than give up their private hero image.—Journal abstract.

8536. Sanborn, Donald E., Casey, Thomas M., & Niswander, G. Donald. (Arthur P. Noyes Inst. for Neuropsychiatric Research, Concord, N.H.) **Suicide: Seasonal patterns and related variables.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 702-704.—Reports data on the seasonal incidence and patterns of suicide in New Hampshire from 1956-1968. Suicides were compared with the total number of other deaths, psychiatric admissions to a local hospital, and barometric pressure for each of the 4 seasons during the 13-yr period. Results are as follows: (a) suicides correlated positively with admissions but not with barometric pressure and other deaths; (b) admissions correlated positively with suicides and other deaths, and negatively (but with lower significance) with barometric pressure; and (c) other deaths were not significantly correlated with suicides and barometric pressure.—P. McMillan.

Crime

8537. Cloninger, C. Robert & Guze, Samuel B. (Washington U., Medical School) **Female criminals: Their personal, familial, and social backgrounds: The relation of these to the diagnoses of sociopathy and hysteria.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 554-558.—Describes characteristics of convicted female felons in a study involving 34 whites, 30 Negroes, 1 American Indian, and 1 woman of mixed descent. Data indicate that Ss were characterized by marked parental deprivation, psychopathological disturbance, and other severe disturbances in all areas of life. Poor school performance, school delinquency, poor job records, running away from home, periods of wanderlust, frequent fights, sexual maladjustment, prostitution, repeated marital discord, and poor performances as mothers were frequent. It is concluded that female criminals with sociopathy and with hysteria apparently come from similar backgrounds and have similar life styles, except for the features that are part of the diagnostic criteria for the 2 disorders.—Journal abstract.

8538. Cloninger, C. Robert & Guze, Samuel B. (Washington U., Medical School) **Psychiatric illness and female criminality: The role of sociopathy and hysteria in the antisocial woman.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 303-311.—Performed a systematic psychiatric study with a group of 78 convicted women felons. All Ss received at least 1 psychiatric diagnosis. Sociopathy, alcoholism, drug dependency, hysteria, and homosexuality were encountered more frequently than would be expected in the general female population. Sociopathy or hysteria was found in 80%; a 20 times greater prevalence of hysteria than is found in the general population was the most striking finding. Results of this study confirm other work suggesting that there is a significant association between sociopathy and hysteria.—Journal abstract.

8539. Falek, Arthur; Craddick, Ray, & Collum, Julius. (Georgia Mental Health Inst., Div. of Human Genetics, Atlanta) **An attempt to identify prisoners with an XYY chromosome complement by psychiatric and psychological means.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 165-170.—Evaluated 25 prisoners, 6 ft. in height and over, who had less than normal intelligence and were detained in maximum security

institutions for dangerous or violent acts, to identify those who seemed to fit the reported criteria of persons with an XYY chromosome karyotype. A psychiatric interview and the MMPI were used as measures. Chromosome analysis of these Ss revealed no such individual. However, cytogenetic study of a tall prisoner with severe acne persisting into adulthood indicated the presence of the XYY chromosome pattern. This S, however, did not fit the psychiatric or psychological criteria for those with an XYY chromosome anomaly. A complete case study is included. A method of determining the proper criteria to concentrate persons with XYY chromosome karyotype in a prison population is discussed.—*Journal abstract.*

8540. Fray, Pierre. (U. Toulouse, Medical School, France) **Crimes et délits par réactivité primitive.** [Crimes and offenses by primitive reactivity.] *Annales Médico-Psychologiques*, 1970(May), Vol. 1(5), 701-718.—Classifies crimes as acts arising from an interaction of the total person with his life circumstances, behaviors that are learned and habitual, or as paradoxical isolated reactions to events by an individual not otherwise given to criminal behavior. It is suggested that offenses of the latter kind may usefully be seen as short-circuit, primitive defensive reactions which resemble reflex behavior more than preplanned and organized behavior. The offenses of infanticide, arson, or sudden murder, and infant-kidnapping are often of this type. Case histories support the idea that explosive, nonelaborated and unpremeditated acts may be carried out by neurotic individuals as a primitive catastrophic reaction to a sudden crisis in their life situation.—*H. E. King.*

8541. Haesler, Walter T. (Saxerriet Prison, Psychological Service, Switzerland) **Offender therapy in a Swiss prison.** *International Journal of Offender Therapy*, 1968, Vol. 12(3), 127-132.—Describes Saxerriet near Zürich, an open prison for 120 selected 1st offenders, built in 1964. Since 1966 it has had a psychological service which offers group and individual therapy both to inmates and their wives, and closely cooperates with the prison staff. Case histories of 4 successfully treated criminals are related.—*Journal summary.*

8542. Halleck, Seymour L. (U. Wisconsin) **The psychiatrist and the legal process.** *Psychology Today*, 1969(Feb), Vol. 2(9), 25-28.—The psychiatrist's role in determining whether a defendant was responsible for his acts is based on a false understanding of his area of competence. Value judgments, not knowledge, determine the content of his testimony. The psychiatrist is also forced into an approach which conflicts with his treatment methods since patients are assumed to be responsible. Practical injustices exist too, e.g., it is not humane to send a defendant to a state mental hospital. It is suggested that a better approach would have the court decide whether the accused committed the act and the psychiatrist help "to diagnose, treat and rehabilitate all classes of offenders."—*E. J. Posavac.*

8543. Laplante, Jacques. (U. Laval, Quebec, Canada) **Les effets psychologiques de la détention.** [The psychological effects of imprisonment.] *Laval Médical*, 1969(Dec), Vol. 40(10), 1057-1061.—Surveys briefly experiments from literature on perceptual isolation and sensory deprivation, the pathological effects of hunger in humans, and the behavioral effects of affective deprivation in monkeys. A parallel is drawn between these phenomena and the deprivation of prisoners, which involves loss of freedom, lack of emotional relationships,

prohibition of possessions and services, and loss of heterosexual relationships with resultant homosexual practices. The prisoner's life is monotonously regulated down to its last detail. Cultural indigency and a feeling of being degraded, as well as early and late development of psychoses, are further products of imprisonment. Reform measures with a rehabilitative purpose are outlined. (19 ref.)—*T. N. Webster.*

8544. Marcus, Anthony M. (U. British Columbia, Div. of Forensic Psychiatry, Vancouver, Canada) **Encounters with the dangerous sexual offender.** *Canada's Mental Health*, 1970(Sep), Vol. 18(5), 9-14.—Presents an in-depth study of the dangerous sexual offender using a group approach. 10 prisoners participated. Data obtained from a full psychological test battery, social history, and biography revealed a profile of the dangerous sexual offender which emphasized "an extremely negative self-image." Videotape playback was used, allowing "the individuals far more clearly to see himself as others see him." 14 factors of dangerousness were confirmed. It is concluded that the group method effectively reveals accurate information for parole, evaluation, and treatment.—*G. Steele.*

8545. Money, John. **Use of an androgen-depleting hormone in the treatment of male sex offenders.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 165-172.—Medroxyprogesterone acetate, an androgen-depleting hormone, offers some promise in the treatment of male sex-offender disorders. Its effect on the genital function is that the penis becomes unable to have an erection, semen is not produced, and orgasm does not occur. The antecedent to treatment is usually some type of life crisis arising from sexual behavior. A case illustration with a bisexual transvestite patient under long-term follow-up study is presented.—*E. B. Jaffa.*

8546. Schmideberg, Melitta. **Techniques of offender therapy in Britain and U.S.A.** *International Journal of Offender Therapy*, 1968, Vol. 12(3), 119-126.—Discusses the rationale, aims, and techniques of offender therapy and adduces case material to illustrate points. The prime aim is to adjust the offender to society, utilizing both the positive and negative incentives provided by society and inherent in his particular situation. The reverse technique of group therapy, different members of the staff collaborating on 1 case and utilizing the latent helpfulness in the community and family, is described.—*Journal abstract.*

Juvenile Delinquency

8547. Cassel, Russell N. & Blum, Lawrence P. (U. Wisconsin-Milwaukee) **Computer assist counseling (COASCON) for the prevention of delinquent behavior among teenagers and youth.** *Sociology & Social Research*, 1969(Oct), Vol. 54(1), 72-79.—Discusses delinquency as the unsatisfactory development of an ego-ideal compatible with the culture. It is suggested that at the beginning of junior high school, a comprehensive assessment be made of all teenagers with Ego-Ideal and Conscience Development Tests (EICDTs). The content and development of the EICDTs are described. Research with Computer Assist Counseling (COASCON) is reviewed and the success of this approach examined in terms of improved EICDTs scores. (22 ref.)—*S. Knapp.*

8548. Deeths, Adele. (Charila Foundation, San Francisco, Calif.) **Psychodrama crisis intervention with delinquent male drug users.** *Group Psychotherapy*

& *Psychodrama*, 1970 (Vol. 23(1-2)), 41-44.—Presents the case history of the use of psychodramatic techniques in an attempt to break through the traditional "gaming" procedures designed to keep others away and to shut off real feelings. Participants were 6 male adolescent drug users.—A. Krichew.

8549. Haesler, W. T. (200 Witikonstr., Zürich, Switzerland) **Psychotherapie bei Delinquenten während des Strafvollzuges.** [Psychotherapy of delinquents during infliction of punishment.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970 (May), Vol. 20(3), 104-114.—Psychotherapy for delinquents under penal law is still critically lacking in Switzerland. However, since 1964 a progressive institution for 118 1st time delinquent offenders has been in operation in Saxerriet, Saint Gallen Canton. This is an open-door institution, and over 1/2 of the inmates are sexual offenders. Therapy consists of 2 group sessions of 75 min. each, plus individual therapy. Analysis-oriented therapy has proved useful in the resocialization of inmates, as illustrated by 3 brief case studies. The use of behavioral therapy with sexual delinquents is recommended. (22 ref.)—*English summary.*

8550. Kuenstler, William H. (U. Houston) **Differential effects of positive and negative social reinforcement on juvenile delinquents and Sunday school students.** *Dissertation Abstracts International*, 1970 (Sep), Vol. 31(3-B), 1541-1542.

8551. Mukerji, Biren. **Juvenile delinquency in West Bengal.** *Samiksa*, 1968, Vol. 22(3), 87-100.—Traces the rise in juvenile delinquency in Calcutta, India from the prewar period, through World War II into the postwar years, and discusses delinquency (a) as a world-wide problem, and (b) as a result of poor socioeconomic conditions. The role of overcrowding, broken homes, unhealthful youth associations, truancy, poverty, and heredity are examined with respect to delinquents in West Bengal. Needs and methods of prevention and rehabilitation on a professional level, among which community social and health services are paramount are outlined.—T. N. Webster.

8552. Orgel, Samuel Z. **Delinquency.** *Samiksa*, 1968, Vol. 22(3), 81-86.—Considers 2 types of delinquents: those receiving too little genuine love but an excess of indulgence; and those with conflicts normal to the child's development of emotional attachment, especially to deviations or distortions of Oedipus complex attitudes. The social maladjustments of the 2nd type are discussed from the aspect of (a) ego development, (b) rebellion against parental demands and hostility, (c) development of defenses against impulses, (d) the child's tendency to displace his object relationships from emotionally important people to less important or even indifferent persons in the case of transitory maladjustments, and (e) complete suppression of phallic masturbation in serious cases. With a megalomaniac denial of external controls, indicating a lack of internal controls, "... superego development must wait on the growth of the rudiments of the ego." The delinquent's need for love and gratification is distorted into a need to hate and rebel. It is concluded that the delinquents' denial that the adult world, or the "establishment" has any right over them results in acting out, masking the "deficiencies of the ego.... This chronic acting out hinders the further development of the ego by attempting to circumvent reality rather than deal with it."—T. N. Webster.

8553. Rhodes, A. Lewis & Reiss, Albert J. (Florida

State U.) **Apathy, truancy and delinquency as adaptations to school failure.** *Social Forces*, 1969 (Sep), Vol. 48(1), 12-22.—Found 3 types of deviance in 12-18 yr. olds to be related to grades received in English. The relationships between English grade and apathy, truancy, or delinquency are shown to be largely independent of these controls: age, sex, reading skill, intelligence test score, occupational level of family, socioeconomic composition of school, and mother's educational aspiration for the S. Sex and educational aspiration of S tend to specify the degree of association between English grade and delinquency. Alternative explanations for the strong relationship between school failure and deviance are proposed. (21 ref.)—*Journal abstract.*

8554. Satten, Joseph; Novotny, Elizabeth S., Ginsparg, Sylvia L., & Averil, Stuart. (Menninger Foundation, Topeka, Kan.) **Ego disorganization and recidivism in delinquent boys.** *Bulletin of the Menninger Clinic*, 1970 (Sep), Vol. 34(5), 270-283.—A follow-up study of 162 boys released from a midwestern correctional institution in 1964 indicated that a meaningful association existed between level of ego disorganization and the boys' involvement in criminal activities after release from training school. "The formulation that many delinquent boys have major ego disorganization is supported by the finding that 21 boys in this sample (about 13%) were hospitalized in a mental institution since release from the training school.... It appears that a structured corrective environment is not enough to bring about lasting improvement in social behavior in boys with major ego disorganization... most of these boys do not benefit appreciably from incarceration in a reform school or prison.... the research findings reported in this paper suggest that it should be possible to screen out those juvenile offenders most likely to become habitual criminals. These boys could then be provided a treatment program specifically aimed at modifying ego functioning in a special structured setting. The premise is that early diagnosis of ego defects combined with some early remedial treatment rather than later incarceration should result in the rehabilitation of many more of these boys."—J. Z. Elias.

8555. Stein, Kenneth B., Vadum, Arlene C., & Sarbin, Theodore R. (U. California, Berkeley) **Socialization and delinquency: A study of false negatives and false positives in prediction.** *Psychological Record*, 1970 (Sum), Vol. 20(3), 353-364.—Investigated 2 types of predictive errors, false negatives and false positives, in the Socialization (So) scale of the CPI to determine if they existed as stable groups or whether they merely reflected random error. 27 pairs of delinquent (D) and nondelinquent (ND) Ss matched on low scores on the So scale and 33 matched pairs of high scorers were studied in relation to 41 psychological and social variables. In a secondary analysis 27 pairs of high and low So scale scoring NDs, and 57 pairs of high and low So scoring Ds were compared on the same 41 variables. The number of significant differences in the primary analysis far exceeded the amount expected by chance. The secondary analyses again reveal the diagnostic utility of the So scale. However, the use of a moderator variable, Legal and School Difficulty scale, in combination with the So scale improved prediction to the criterion. It is concluded that the false negatives and false positives "cannot be discounted merely as products of random error," and that they form definite groups. (31 ref.)—*Journal abstract.*

Homosexuality & Sexual Deviation

8556. Berest, Joseph J. **Report on a case of sadism.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 210-219.—Defines sadism, classifies sadism according to degrees, and discusses the psychodynamics of sadomasochism. A case study of a model sadist is presented and analyzed.—E. B. Jaffa.

8557. Hoenig, J., Kenna, J., & Youd, Ann. (Memorial U., St. John's, Newfoundland, Canada) **A follow-up study of transsexualists: Social and economic aspects.** *Psychiatra Clinica*, 1970, Vol. 3(2), 85-100.—Evaluated the social adjustment brought about by change of name and National Insurance Card of 53 transsexualists. There seemed to be some improvement in work adjustment and some fall off in criminal activity. There was, however, no reduction in the number of Ss on National Assistance.—M. West.

8558. Maitra, Amal K. & Banerjee, Dipali. **Homosexual practices in institutionalised neglected adolescents: Intra-family dynamics and thematic phantasy.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967, No. 8, 13-19.—Investigated various sociological and psychological factors in 20 male adolescents (age 12-15) in a reformatory school in India who actively engaged in homoerotic practices. 20 inmates who did not take part in such activities served as the control group. Intensive clinical interviews were made and 6 selected TAT cards were administered to all Ss. Significant differences were found for S's relations to mother, father, and siblings, with indifference and hostility predominating. Feelings of depression, frustration, anxiety, and aggression reached significance ($p < .05$). Ss also differed from the controls in assumed sex role, symbolic content (sex), self-concept, and social set.—*Journal abstract.*

8559. Mandel, K. H. (U. Munich, Inst. of Psychology, W. Germany) **Probleme und Ansätze der Verhaltenstherapie bei männlichen Homosexuellen.** [Problems and initiation of behavior therapy with male homosexuals.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(May), Vol. 20(3), 115-125.—Discusses the problems of aversive conditioning of homosexual responses while considering the literature on behavior therapy in male homosexuals. Among the aversive methods developed to date, covert sensitization, as described by J. R. Cautela (see PA, Vol. 40:5586) is the most acceptable. The most important task in the treatment of homosexuals is establishing a stable heterosexual partner relationship. To accomplish this, a precise analysis and elimination of avoidance responses along with cultivation of erotic-sexual reactions to specific female stimulations is necessary. Visual stimulations play an important role in this process since it is through them that the chain of sexual interactions is elicited. These problems have been previously neglected in behavior therapy. A difficult aspect in the treatment of homosexuals is the development of a feeling of love for the heterosexual partner which is free of subliminal anxiety. (61 ref.)—*English summary.*

8560. Money, John & Brennan, John G. **Heterosexual vs. homosexual attitudes: Male partners' perception of the feminine image of male transsexuals.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 193-209.—Examined the nature of the erotic partnership between 7 male transsexuals and their male partners. It was found that 5 of the male partners were younger than

the transsexuals who looked younger than their age, possibly because of the shift to a feminine hormonal balance. Partners were educationally and vocationally underachievers, but vocational reliability improved from the relationship. 5 of the relationships have existed from 4-5 yr.; 2 were terminated by divorce. All 7 were heterosexually experienced; 2 had homosexual experiences. Transsexuals project feminine cues to attract the erotic attention of a normal male. Problems in a transsexual marriage include coital adequacy of the surgically constructed vagina, interpersonal problems, and community and family acceptance.—E. B. Jaffa.

8561. Porter, Howard K. (Michigan State U.) **Prison homosexuality: Locus of control and femininity.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1549.

MENTAL DISORDER

8562. Alpert, Murray & Silvers, Kenneth N. (New York U., Medical School) **Perceptual characteristics distinguishing auditory hallucinations in schizophrenia and acute alcoholic psychoses.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 298-302.—Compared via a questionnaire the characteristics of auditory hallucinations experienced by 45 schizophrenics and by 18 patients with alcoholic hallucinosis. The alcoholics' hallucinations were localized in space and had a greater frequency than those of the schizophrenics; the frequency was relatively independent of emotional state. The schizophrenics' hallucinations had a cognitive taint, were poorly localized, and showed a sensitivity to emotional arousal. (19 ref.)—*Journal abstract.*

8563. Arioni, Bianca M., Reda, Giancarlo, & Lalli, Nicola. **Le frustrazioni precoci e le alterazioni della personalità.** [Precocious frustrations and personality changes.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 423-437.—A. M. Farfaglia—Defines psychopathic personality and the term constitutional psychopath, which involves hereditary factors and the environment in which a person begins his life. Several studies are presented to support the definition. Over a 6-yr period 335 adolescents with character disorders were observed. It was found that 11 elements were always present, e.g., obedience to a hedonistic principle, lack of a sense of guilt, normal intelligence, etc. 6 experiments involving baby animals which were taken away from the mother are referred to. In 100 adolescent girls, 50 had character disorders and 50 suffered from psychosis or neurosis. Of the 1st group, 23 had been in children's homes, 28 had disturbed mothers, 22 had disturbed fathers, and 13 were without a father. Of the 2nd group, only 4 had been in children's homes, 18 had disturbed mothers, 6 had disturbed fathers, and 6 had no father. Institutions, absence of parents, and disturbed parents were more frequent in patients with character disorders. (15 ref.)

8564. Bartemeier, Leo H. (Seton Psychiatric Inst., Baltimore, Md.) **Constitutional factors in the psychiatric history.** *Bulletin of the Menninger Clinic*, 1970(Sep), Vol. 34(5), 264-269.—The whole problem of hereditary predisposition, both healthy and unhealthy, is given scant attention "now that we have learned so much about the acquired factors in personality development and in psychopathological formations. We seem to be fascinated by these precious insights derived from Freud's discoveries, and we ignore all that he learned

about the inherited predispositions and their influence in the development of mental illness." The need for exploring the patient's family background is stressed.—J. Z. Elias.

8565. Castaldo, Vincenzo & Shevrin, Howard. (Union U., Medical Coll., Albany, N.Y.) **Different effect of an auditory stimulus as a function of rapid eye movement and non-rapid eye movement sleep.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 195-200.—Stimulated 10 male 28-36 yr. old psychiatric patients by a specially arranged auditory stimulus during REM and NREM sleep. This stimulus can elicit primary and secondary process levels of responses. Analysis of the sleep reports showed that the stimulus influenced the content of NREM reports on a conceptual level—which is assumed to be related to secondary process thinking—while for REM reports this effect was not present. Results support the hypothesis of different levels of thought organization associated with REM and NREM sleep.—*Journal abstract*.

8566. Chethik, Morton & Fast, Irene. (U. Michigan, Medical Center) **A function of fantasy in the borderline child.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 756-765.—Describes borderline children as having made a partial commitment to the independent reality of the external world, but whose integration with external reality is markedly incomplete. Work with a patient group of 8 children focuses on their commitment to the narcissistic world of the pleasure ego, as expressed in the children's fantasies. This illusory world contains the seeds of further maturity and provides the libidinal base for further commitment to reality. The therapist, by actively participating in and encouraging the elaboration of the fantasies can (a) understand and work through "the fears that make the child cling so obdurately to the illusionary world," and (b) interject a representation of the external world through his presence. (21 ref.)—*Journal abstract*.

8567. Cohen, Melvin & Klein, Donald F. (Hillside Hosp., Glen Oaks, N.Y.) **Drug abuse in a young psychiatric population.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 448-455.—Divided 70 psychiatric patients with a history of drug abuse into 3 groups representing a continuum of involvement with drugs and compared them with 35 age and sex matched non-drug-using patients. Results indicate that heavy drug-users were more likely to be character disorders than psychotic, and were of higher intelligence than non-drug-users.—*Journal abstract*.

8568. De Martis, Dario. (U. Cagliari, Sardinia, Italy) **Aspetti psicoterapeutici delle caratteropatie.** [Psychotherapeutic aspects of character disorders.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 328-333.—The concept of character disorders has extraordinary dimensions if the following points are considered: (a) abnormal personalities involves a vast section of pathology; (b) the concept of reactive formation covers a great area of human motivation and behavior; (c) in every neurotic or psychotic situation, the study of character represents a very important aspect of the emotional system of the patient; (d) a bipolarity of neurosis and character disorders can be recognized in every patient. Thus, when a psychotherapist excludes character disorders, he commits an error of judgment because any patient he may treat is involved in character problems. The following are fundamental observations concerning psychotherapeutic treatment of character disorders: (a)

the classical relation "tête-à-tête" between doctor and patient has considerable limitations in the treating of character disorders; (b) this can be substituted by a group, e.g., psychotherapist and assistants; (c) "the biological conclusion... is that the therapeutic attitude should abandon the traditional neutrality and apply itself as a group... dedicated to an activity which shouldn't be of a directive nature."—A. M. Farfaglia.

8569. Frighi, Luigi. **Osservazioni sulla psicodinamica delle caratteropatie.** [Observations on the psychodynamics of character disorders.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 323-328.—How one's character is formed depends on his habits of adapting to the exterior world and to instinctive impulses. Character is an adjunct of the ego, and it depends on neutralized energy for maintaining its functions efficiently and for solving its conflicts with the internal and external world. Concerning the question of character, an anthropological dimension reveals (a) psychoemotive organization; (b) the connection between development and conflicts; (c) the balance between impulsion and means of expression; and (d) the efflorescence of juvenile crisis and its privileged forms in their relations with the ego. The development of character is related to the nature of energy put in motion. Since mental energy comes from impulses, one must study the relationships between the intensity of the energy required by the defenses and that of the instinctive exigencies applied to the various phases of maturation.—A. M. Farfaglia.

8570. Fusswerk-Fursay. **Crédibilité ou faculté de croire.** [Credivity or ability to believe.] *Annales Médico-Psychologiques*, 1970(May), Vol. 1(5), 665-699.—Reviews philosophic treatment of the faculty of belief, regarding belief as indispensable to human life. As the term often is used to mean religious belief only, an attempt is made to illustrate that the same basic concept, sometimes labeled faith, conviction, suggestibility or trust, is central to an understanding of human psychology. Janet realized the fundamental nature of belief-process and gave it a central position in his theory of the origins of psychopathological behavior; as did Bernheim in his work on suggestibility. Several case histories are presented in which hypnoanalysis is used to restructure the abnormal beliefs of schizophrenic and other mental patients.—H. E. King.

8571. Giberti, Franco. (U. Genoa, Italy) **Rilevi generali e nosografico-clinici sul problema delle cosiddette "caratteropatie."** [General and clinical-nosographical facts on the problem of the so called character disorders.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 315-323.—The term "character disorder" is used (a) in the study and classification of personality, especially in French psychology; (b) in psychoanalysis concerning character neurosis; (c) in illnesses of organic origin, e.g., cerebral deterioration; and (d) in recent psychopharmacological contributions. In clinical studies the term is found in classical cases and borderline patients as well as in abnormal stereotypes of the 20th century. "It touches all 4 sides of a quadrilateral which has so-called normality at its base and neurosis, psychosis, and the psycho-organic syndrome at the other 3 sides." Different psychotherapeutic methods have contributed to the study of character disturbance resulting in (a) exactness of biological roots and somatic participation, (b) better discrimination between apparent psychotic behavior (internal conflict syndrome) and antisocial behavior, (c) more accurate evaluation of the sociopathic-psycho-

pathic structure, (d) greater exacting of social environment from case work studies, and (e) realization of how social learning can influence psychopathic behavior. (48 ref.)—*A. Farjaglia*.

8572. **Huffman, Robert E.** (Veterans Administration Hosp., Topeka, Kan.) **Which soldiers break down: A survey of 610 psychiatric patients in Vietnam.** *Bulletin of the Menninger Clinic*, 1970(Nov), Vol. 34(6), 343-351.—Covering the period May 1965–April 1966 analysis is presented in terms of sources of referral, military rank, racial and educational backgrounds, suicide attempts, and combat fatigue.—*J. Z. Elias*.

8573. **Klerman, Gerald L. & Paykel, Eugene S.** (Yale U., Medical School) **Depressive pattern, social background, and hospitalization.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 466-478.—Reports differences in depressed patient groups admitted to 3 facilities in the same area—the psychiatric ward of a general hospital, a mental health center, and a state mental hospital. Ss were studied by interview, rating scales, and self-report questionnaires. Major differences were found among the 3 facilities regarding social class and other related social indices. The general hospital admitted Ss of highest social class, the state mental hospital patients of lowest social class, with the mental health center intermediate. Clinical differences were less striking but suggested a higher incidence of endogenous depression in general hospital Ss with an even higher incidence in Ss subsequently admitted to a clinical research ward. The state mental hospital group showed a particularly high incidence of recurrent illnesses. Results contrast with previous findings that when out- and inpatients are compared a continuum of degree of hospitalization can be demonstrated, in which the main distinguishing features are clinical rather than socio-demographic. Findings emphasize the heterogeneity of depression and the need for caution in generalizing from selected samples of depressives in clinical and biological research. It is suggested that, within a single level of hospitalization, social factors are the most important. (20 ref.)—*Journal abstract*.

8574. **Laplanche, Jacques.** **L'incendiaire.** [The pyromaniac.] *Laval Médical*, 1969(Dec), Vol. 40(10), 1062-1072.—Groups analyses of the pyromaniac according to 4 major categories: general theories, psychoanalytical theories, theories of neuroses and psychoneuroses, and special theories. This diversity of opinions, based on everyday experience, calls attention to the difficulty of dealing with the problem of the pyromaniac. It also teaches us the danger of considering the action of fire-setting as a disease; it is more a symptom revealing different diseases. (33 ref.)—*English summary*.

8575. **León, Carlos A.** (U. del Valle, Cali, Colombia) **El diablo y el almanaque.** [Satan and the calendar.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 105-115.—Analyzed change in content of psychopathological hallucinations and delusions as a function of time. Clinical histories of 2 groups (1000 Ss each) of patients admitted to the San Isidro Psychiatric Hospital in Colombia were compared. Admission dates for 1 group were from August 1956 to September 1959 (Period I), for the other from August 1964 to January 1966 (Period II). Statistical analyses show that Ss from Period I had a greater occurrence of supernatural elements, e.g., Satan, while those from Period II had more natural elements, e.g., communication media, police, government agents, etc. Women

tended to show supernatural content more than men in both periods. It is concluded that differences in time periods are reflected in the content of hallucinations and delusions of psychiatric patients. (28 ref.)—*V. A. Colotta*.

8576. **Lewis, Frederick.** (U. Houston) **Relationships between changes in future time perspectives and psychopathology.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1542-1543.

8577. **Martin, A., et al.** (U. Paris at the Sorbonne, France) **Analyse d'un phénomène de double système linguistique chez une délirante interprétative.** [Analysis of a double linguistic system phenomenon in an interpretatively delirious person.] *Annales Médico-Psychologiques*, 1970(Jun), Vol. 2(1), 57-66.—Analyzes the delusional system of 1 patient in detail for its psychopathological interest and for the reminder it offers of the psychological development of all language systems. A method, called "psychonomatology," was developed to "explain mathematically" the significance of sounds and letters and to show the importance of this for individual human destiny, i.e., the influence of a person's name on his life. A linguistic analysis combined with a clinical history of the S's developing psychopathology, illustrate the utility of the system as a protective device for coping with affective crises. The genuine affective elements of language, well-known to professional writers and speakers, are acknowledged. The faulty premise of the delusion lay in the neglect of these in favor of a computational basis for discovering the significance of speech for behavior.—*H. E. King*.

8578. **Matthews, Arthur R.** (Illinois Enforcement Commission, Chicago) **Observations on police policy and procedures for emergency detention of the mentally ill.** *Journal of Criminal Law, Criminology, & Police Science*, 1970(Jun), Vol. 61(2), 283-295.—"This paper was presented as a lecture to police executives who attended the Law Enforcement Policy Development Seminar held by the Law Enforcement Study Center of the Social Science Institute of Washington University, St. Louis at Bromwoods, Missouri, March 7, 1968. The aim of the study was exploratory, to discover and identify the actual practices of the police and other agencies of criminal justice administration in use from state to state in dealing with the mentally disabled." Procedures used to move apparently mentally ill persons from the community to some place where care may be had are discussed and some of the implications of these practices for professional police policy are discussed.—*R. Gunter*.

8579. **McCordick, Sharon M.** (U. Colorado) **Moral reasoning and guilt in adjusted and maladjusted adults.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1544.

8580. **Miller, Peter M. & Drennen, William T.** **Establishment of social reinforcement as an effective modifier of verbal behavior in chronic psychiatric patients.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 392-395.—Paired a social stimulus ("good") with positive biological reinforcement (candy, brownies, cigarettes) over a series of sessions for 3 wk. in an attempt to establish "good" as an effective modifier of verbal behavior in 60 white male chronic psychiatric patients. A pre- and posttreatment verbal conditioning task was used to assess changes in animal noun operant rate as a consequence of the conditions present during this intervening period. Control groups receiving only the social stimulus during treatment (Group C₁, N=15), only biological reinforcement pre-

sented noncontingently (Group C₂, N=15), and receiving no intervening treatment (Group C₃, N=15) were used. Only the experimental group and C₂ Ss significantly improved their performance scores. They also showed a marked decrease in suspicious verbalizations and an increase in positive affect.—*Journal abstract.*

8581. Morris, Larry E. (12th U.S. Air Force Hosp., San Jose, Calif.) **"Over the hump" in Vietnam: Adjustment patterns in a time-limited stress situation.** *Bulletin of the Menninger Clinic*, 1970(Nov), Vol. 34(6), 352-362.—During 1966, 225 noncombatant patients at the Air Force Hospital at Cam Ranh Bay, Vietnam, were studied with particular reference to the kinds of adjustment reactions they manifested during the time-limited stress situation readily provided in Vietnam. Within this framework, psychiatric disability manifests itself in a diphasic curve. The 2 phases of this curve are discussed with reference to time of onset, etiology, clinical manifestations, treatment, and outcome. Emphasis is placed on the depressive reactions of the 2nd phase, particularly the relationship of the onset of illness to the midpoint and the recovery from illness once the midpoint has been reached.—*Journal summary.*

8582. Plag, John A., Arthur, Ransom J., & Goffman, Jerry M. (U.S. Navy, Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Dimensions of psychiatric illness among first-term enlistees in the United States Navy.** *Military Medicine*, 1970(Aug), Vol. 135(8), 665-673.—Of 11,000 Navy enlistees followed through the course of their 1st enlistment, 5.5% were admitted to the sick list for psychiatric problems, while an additional 3.2% were discharged for emotional problems. Individuals with psychiatric problems were found to have more physical illness and to achieve fewer promotions. Psychiatric patients differed from the control Ss in that they had completed fewer years of schooling, scored lower on the Armed Forces Qualification Test, had more feminine interests, fewer siblings, and more expulsions from school.—*G. A. Clum.*

8583. Pylyshyn, Zenon W. (U. Western Ontario, London, Canada) **Clinical correlates of some syntactic features of patients' speech.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 307-316.—Describes the 1st phase of a research program directed at the mechanization of segmentation and classification of units of psychiatric interview text. A unit called an assertion is defined on the basis of a finite verb fulcrum. Statistics were gathered on the use of various assertion introducers and of various forms of the finite verb, and analyzed in relation to the patients' clinical features. The ability of such statistics to discriminate between diagnostic groups was compared with the discriminating power of such general style features as total number of spoken words, frequency of certain key words, type-token ratio, and frequency of certain paralinguistic phenomena. As a group the syntactic scores were much more sensitive discriminators of diagnostic category than the general style indices. Particularly sensitive indices were the frequency of: the perfect phase form of the finite verb, qualifying subordinators as assertion introducers, the passive voice, and occurrence of formally defined category of verb called the "state" and the "achievement" verb.—*Journal abstract.*

8584. Rayne, James T. (U. Connecticut) **The effect of perceived attitudes on expectancy for punishment by psychiatric patients.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1549.

8585. Ridges, A. Pauline & Harper, P. (U. Liverpool, England) **Pink spot: Is it a drug artefact?** *Psychiatry Clinica*, 1970, Vol. 3(2), 101-107.—Surveyed urine samples containing pink spot of 296 disturbed patients and found that drugs are not a requisite for pink spot production. Although drugs do not enhance the production of pink spot, they increase the difficulties in assessment and can in certain cases be identified on the chromatograph, e.g., chlorpromazine and thioridazine. A chromatographic abnormality which may be associated with antiparkinson therapy is reported.—*Journal summary.*

8586. Rushing, William A. (Vanderbilt U.) **Two patterns in the relationship between social class and mental hospitalization.** *American Sociological Review*, 1969(Aug), Vol. 34(4), 533-541.—A review of research on social class and mental illness suggests the hypothesis of 2 patterns: (a) a discrete relationship with the lowest class having a higher rate than all others but with little difference in rates for other classes; and (b) a continuous relationship, with rates systematically increasing with each drop in class status, but with an extremely large increase for the lowest class. Findings for 4650 21-65 yr. old male 1st admissions to 3 state hospitals over a 10-yr period support this hypothesis. Alternative interpretations of the relationship between social class and mental illness are considered. Since most interpretations posit a discrete pattern, they will have to be modified or extended to account for both patterns. (28 ref.)—*Journal abstract.*

8587. Schaeffer, Dirk L. (U. Alberta, Edmonton, Canada) **Patterns of premorbid and symptom behaviors in schizophrenic and depressed women.** *Journal of Nervous & Mental Disease*, 1970(Jun), Vol. 150(6), 449-465.—Conducted a multivariate analysis of the interrelationships of 10 factors of premorbid functioning and 4 factors of symptom behavior (derived from an original pool of 137 variables) on 100 schizophrenic and 100 depressed female mental patients. Differences in the patterns of interrelations of background with symptom factors delineated classical patterns linking backgrounds characterized by withdrawal to symptoms of apathy and paranoia in schizophrenics, and withdrawal and childhood rejection to dysphoria in depressed women. Moreover, the background factor of withdrawal appeared to account for most of the relationships ascribed to variables of parental discord by previous investigators. (20 ref.)—*Journal abstract.*

8588. Steiner, J., Jarvis, M., & Parrish, J. (U. London, Inst. of Psychiatry, England) **Risk-taking and arousal regulation.** *British Journal of Medical Psychology*, 1970(Dec), Vol. 43(4), 333-348.—Reports 3 experiments which illustrate some of the difficulties of experimental measures of risk-taking and which cast doubt on the validity of many of the methods usually used. After promising results in a pilot study using 12 medical students, 2 further experiments failed to show a relationship between an experimental measure of risk-taking and personality variables, or to distinguish between 25 psychiatric patients and 25 controls. On the basis of interview ratings of risk-taking, it was possible, however, to discriminate between 18 obsessional patients and 18 surgical controls, since the obsessional group was rated as significantly less risky. Moreover, at least among the surgical group, the ratings were related to scores on several of the scales of the MMPI. Data from the interview suggest reasons for the failure of the experimental measure since about a quarter of the Ss

adopted unusual attitudes to the task which invalidated it as a measure of risk-taking. Results of the ratings support a hypothesis put forward in which states of high arousal are predicted to be associated with low levels of risk-taking. (52 ref.)—*Journal summary*.

8589. **Sutker, Patricia B.** (Tulane U., Medical School) **Vicarious conditioning and sociopathy.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 380-386.—Examined electrodermal activity as a measure of vicariously instigated autonomic conditioning in a time-delay paradigm, using electric shock to a model as the UCS. 12 male uninstitutionalized diagnosed sociopaths were selected on the basis of previous diagnosis, MMPI responses, and a review of case histories. 12 male volunteer undergraduates were also administered the MMPI and served as controls. Results indicate that the sociopaths did not evidence a significant increase in electrodermal activity in anticipation of the UCS. The sociopaths, however, did produce specific GSRs of significantly greater magnitude to the presentation of the UCS than did the nonsociopaths.—*Journal abstract*.

8590. **Trillat, E.** (Maison Blanche Psychiatric Hosp., Neuilly-sur-Marne, France) **Regards sur l'hystérie.** [Hysteria.] *Evolution Psychiatrique*, 1970(Apr), Vol. 35(2), 353-364.—Traces the history of views on hysteria including those of (a) Charcot, whose clinical method was, as Freud noted, unsuited to purely psychological material; (b) Janet, interested in mechanisms, e.g., amnesia's relation to anesthesia and concluding that hysteria is a type of natural hypnosis, and its symptoms natural suggestions; (c) Babinski, whose neurological definition of hysteria left too many vital questions unanswered; and (d) Freud, whose clinical psychoanalytical method with respect to the neuroses was as revolutionary as that of the pathologists who had previously overthrown the clinical medical approach of the 18th century.—*T. N. Webster*.

8591. **Trivedi, M. M.** **The border line patient.** *Samiksha*, 1968, Vol. 22(2), 73-80.—Illustrates Melitta Schemideberg's concept of "a clinical entity . . . bordering (a) on normality, (b) on the neurosis, (c) on the psychogenic psychosis, and (d) on psychopathy," by presenting a case of borderline personality, a 32-yr-old male physician referred for dextroamphetamine addiction, impotency, and fits. A constant feature in the history was depersonalization and alienation, but no delusions or other psychotic features were noted. More asocial than antisocial, the S was totally unable to form any stable identification, develop object relations, or reciprocate feelings, except in sadomasochist relationships with his wife and mother. Lack of superego development was traced to lack of parental, particularly maternal establishment of prohibitions, and the father's failure to institute a proper oedipal situation. New methods to treat such patients are suggested.—*T. N. Webster*.

8592. **Vidal, Guillermo; Orlansky, Dora, & Smulever, Mario A.** **Desamparo infantil y trastorno mental.** [Childhood bereavement and mental disorders.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Mar), Vol. 16(1), 62-66.—The hypothesis that a higher degree of early childhood abandonment increases the severity of eventual mental disorder later in life, was explored in a study of early family background of 921 mental patients. A correlation was found between (a) psychopathy and early broken homes (by divorce), (b) psychosis in women and intact homes, (c) psychosis in men and broken homes and inversely with orphanage, (d) psychosis and

large families, and (e) psychopathies and small families. The finding that broken homes by divorce seem to be more associated with mental disorders than the lack of 1 or both parents due to death is emphasized. (English ref.)—*English summary*.

8593. **Vidal, Guillermo; Prece, Graciela, & Smulever, Mario.** **Convivencia y trastorno mental.** [Family structure and mental disorders.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Mar), Vol. 15(1), 55-65.—Studied family size, birth order, and family integrity for each of a sample of 1322 psychiatric patients. It was found that neurotics showed smaller families, 1st birth order positions, and intact families, whereas psychotics showed larger families, later birth order positions (only female patients; male psychotics did not show this latter difference), and intact families.—*English summary*.

8594. **Weiss, Morris & Burke, Autheta.** (Hawthorn Center, Northville, Mich.) **A 5- to 10-year followup of hospitalized school phobic children and adolescents.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 672-676.—Little difficulty resuming school after hospitalization was experienced by 14 8-16 yr. old children given residential treatment for school phobia. In fact, they became earnest school workers. Their social adjustment, however, reflected some degree of isolation, and their original psychological status remained unchanged.—*Journal abstract*.

Neurosis & Emotional Disorder

8595. **Chaudhury, Anjali.** **A case of hysteria.** *Samiksha*, 1968, Vol. 22(3), 101-109.—Describes a 28-yr-old woman whose hysteric attacks are seen as an escape from guilt feeling associated with intense oedipus desire, the predominating symptom being acute anxiety concerning being unable to sleep, while actually suffering from insomnia. Fear of sexual involvement during sleep, unwillingness to be deprived of her oedipal sex fantasy during sleep, and fear of missing loved persons during sleep were involved in the mechanism of her insomnia and other disorders.—*T. N. Webster*.

8596. **Christozov, Christo & Dascalov, Dimitre.** (Psychiatric Clinic, Faculty of Medicine, Sofia, Bulgaria) **Corrélations clinico-électroencéphalographiques des terreurs nocturnes et du somnambulisme chez les enfants.** [Correlations between clinical and electroencephalographical findings in children with night terrors and somnambulism.] *Acta Paedopsychiatrica*, 1970(Feb), Vol. 37(2-3), 61-67.—Among 50 girls and 100 boys under 18 yr. of age affected by night terrors and somnambulism, etiological factors (psychotrauma, cerebral inflammatory processes, prenatal damage, brain damage, and intellectual overburdening) could be demonstrated in 49. An EEG was done in 240 cases. In 5, the result was normal, in 25 focal anomalies were shown, and in 120 there were diffuse anomalies of a great variety. From the etiopathogenetic viewpoint, pavor nocturnus and somnambulism are nonspecific. They may be associated with epilepsy, with or without clinical signs. In the majority of cases the origin is psychogenic.—*G. Rubin-Rabson*.

8597. **Friedman, Alfred S.** (Philadelphia Psychiatric Center, Pa.) **Hostility factors and clinical improvement in depressed patients.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 524-537.—Hypothesized that changes in aggression and hostility would be significantly correlated with clinical improvement in

depressed patients. The Buss-Durkee Inventory was used to measure hostility and aggression and yielded scores under the following subtypes: assault, indirect aggression, negativism, verbal hostility, resentment, suspicion, and internalization of anger. Ss were 534 depressed inpatients who were part of a larger 10-hospital collaborative study, and 98 nondepressed controls drawn from the community. 213 depressives completed all evaluation measures during the 7-wk study period. Results show significantly less verbal hostility and more resentment among depressives than controls. Depressives, upon improvement, showed even less verbal hostility than when depressed. The relevance of the various findings to psychoanalytic theory is discussed. (21 ref.)—*P. McMillan*.

8598. Kornhaber, Arthur. (27 The Terrace, Katonah, N.Y.) **The stuffing syndrome.** *Psychosomatics*, 1970(Nov), Vol. 1(6), 580-584.—Deals with the identification and delineation of the stuffing syndrome as a distinct clinical entity. The diphasic nature of eating patterns in the depressed patient is discussed, and it is shown that the anorexia phase of depression is preceded by a hyperphagic compensatory phase which is a sign of impending depression. A therapeutic approach, including close structure by the physician, and psychopharmacological attack upon the syndrome of hyperphagia and withdrawal, is outlined.—*Journal summary*.

8599. Marks, Isaac M. (Inst. of Psychiatry, London, England) **Agoraphobic syndrome: Phobic anxiety state.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 538-553.—Reviews the clinical features of the agoraphobic syndrome. Data is discussed from a study of 2000 agoraphobics (mean age of onset, 28) throughout Britain who belonged to a correspondence club called the Open Door. A table showing questionnaire replies from 900 female club members is included. The syndrome typically affects young adults, is commoner in women, and runs a fluctuating course over several years, though short-lived episodes are not common. The syndrome is characterized by a cluster of phobias centering around going into public places and is often accompanied by other nonphobic symptoms, e.g., free-floating anxiety, mild depression, depersonalization, and mild obsessions and compulsions. 2 case histories are described, and a table showing comparative features of published series of phobias is included. (50 ref.)—*Journal summary*.

8600. McNeil, Elton B. (U. Michigan) **Neuroses and personality disorders.** Englewood Cliffs, N.J.: Prentice-Hall, 1970. viii, 176 p.

8601. Sarnoff, Charles A. **Symbols and symptoms: Phytophobia in a two-year-old girl.** *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 550-562.—Presents the case of a 27-mo-old child who was treated psychoanalytically because of bad dreams. The relationship between symbol and a symptom is discussed. "Symbols are the basis of culture and civilization as well as neurotic symptoms." *J. Z. Elias*.

8602. Sirota, Milton. (State U. New York, Downstate Medical Center, Brooklyn) **Urine or you're in: An ambiguous word in its relation to a toilet phobia in a two-year-old.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 252-270.

8603. Spiegel, Rose. (William Alanson White Inst., New York, N.Y.) **Cólera, furia, y agresión en los estados depresivos.** [Anger, rage, and aggressiveness in state of depression.] *Revista de Psicoanálisis, Psichi-*

atria y Psicología, 1968, No. 10, 54-65.—Discusses how anger, rage, and acting out in depressed patients function as a mask for depression and presents 3 case studies to illustrate the different manifestations of this masking and the various objects of anger. Differences between anger and rage are examined (rage being more violent). Anger is to rage what sorrow is to depression. Both can be verbal or expressive, and show signs of manic-depression, hostility, anxiety or guilt. A low level in productive activity, corporal movement and thought processes are results. It is assumed that sadistic aggressiveness can become necrofilic aggressiveness. The search for an underlying depression by the therapist is suggested as a means of unmasking anger, rage, and acting out.—*S. Maze*.

8604. Tolpin, Marian. **The infantile neurosis: A metapsychological concept and a paradigmatic case history.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 273-305.

8605. Tonks, Clive M., Paykel, Eugene S., & Klerman, Gerald L. (U. Leeds, England) **Clinical depressions among Negroes.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 329-335.—Tested the concept that depressions among Negroes are associated more with somatic complaints and less with guilt and suicidal trends. A comparison was made of 31 Negro and 187 white depressed patients. Initial comparisons, controlled for social class, showed differences on 6 individual symptom ratings. Further analysis indicates that the principal difference lay in generally less severe illness among Negro patients rather than less specific features. Possible explanations are discussed. (23 ref.)—*Journal abstract*.

Psychosis

8606. Assael, M. & Winnik, H. Z. (Hebrew U., Hadassah Medical School, Jerusalem, Israel) **Electroencephalographic findings in affective psychoses.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 695-701.—Investigated EEG records of selected patients to determine the relationship, if any, between EEG pattern and clinical diagnosis. Data were obtained from records of 100 45-60 yr. old Ss, who had no history of present or past cerebral lesions and had not received ECT in the last 12 mo. Results indicate (a) a correlation between abnormal findings in EEG records and the occurrence of depressive phases in affective psychoses, their simultaneous appearance, and EEG reversibility accompanying the fading of the morbid clinical phase; and (b) "the focus of functional disorders invariably pointing to the temporal lobe as 1 of the principal sites of elaboration or reflection of affects in depressive psychoses." 3 illustrative case histories, with EEG samples for 2 of them, are provided. (30 ref.)—*P. McMillan*.

8607. Fischman, D. A., Meltzer, Herbert Y., & Poppel, R. W. (U. Chicago) **Disruption of myofibrils in the skeletal muscle of psychotic patients.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 503-515.—Performed skeletal muscle biopsies on 83 human Ss, including 42 who were acutely psychotic and 10 normal controls. Biopsies were examined by light and electron microscopy for evidence of skeletal muscle pathological abnormalities. In 16 acutely psychotic Ss, and in 4 of 9 chronically schizophrenic Ss, substantial disruption of myofibrillar architecture was noted. The most common myofibrillar alteration was an extensive spreading of

Z-band material, and, in 4 acutely psychotic Ss, the deposition of crystalline rod-body inclusions similar to those found in cases of nemaline myopathy. The specificity of these alterations in muscle structure and the possible relevance to psychiatric disease is discussed. (45 ref.)—*Journal summary.*

8608. Guyotat, Jean. (Neurologic Hosp., Lyon, France) **Aspects du narcissisme dans les psychoses: Réflexions à partir d'expériences de thérapie institutionnelle et de certaines chimiothérapies.** [Aspects of narcissism in psychoses: Considerations based on experience with institutional therapy and certain types of chemotherapy.] *Evolution Psychiatrique*, 1970(Apr), Vol. 35(2), 321-342.—Summarizes the development of the psychoanalytical concept of narcissism, and explores those aspects of the psychotic's narcissism which affect staff members, including psychiatric trainees, with respect to their own narcissism, defense mechanisms, and reactions. It is stressed that through the narcissism of the staff member, the narcissism of the psychotic can be approached and the patient treated. Cathexis of thought by the psychotic, during his struggle against self-division, influences the thoughts of staff members. Both patient's and staff's idealization processes during the development of a narcissistic object relationship by the psychotic are examined according to their structuring function or disturbing effects (depression, suicide attempts, or runaways). By study of the psycholeptic or psychodysleptic effects of antidepressive chemotherapy, further clarification of the narcissistic function of the psychotic can be accomplished.—*English summary.*

8609. Meltzer, Herbert Y. & Engel, W. King. (Pritzker Medical School, U. Chicago) **Histochemical abnormalities of skeletal muscle in acutely psychotic patients: II.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 492-502.—Reports results of a histochemical examination of muscle biopsies of 52 acutely psychotic patients and 5 family members. Data indicate that 22 psychotic Ss of all diagnostic types had significant myopathic changes by biopsy. 2 additional Ss had borderline abnormalities. An alkaline phosphatase reaction was particularly useful in identifying abnormal fibers as they were darkly stained. The myopathic changes were present in various patients shortly after the onset of psychosis, and were detectable for as long as 12 mo. after an acute psychotic episode in some Ss. Phenothiazine medication could not be correlated with the presence of myopathic changes. The intensity of myopathic changes was correlated with the peak serum creatine phosphokinase activity in acutely psychotic male Ss but not in females. 1 of 5 chronically schizophrenic Ss, 2 of 22 nonpsychotic hospitalized psychiatric Ss, and none of 7 nonpsychotic drug-abuse Ss had myopathic changes by biopsy. 1 of 4 nonpsychotic relatives of acutely psychotic patients had borderline myopathic changes by biopsy. 2 parents, who had histories of acute psychoses, had biopsies which were definitely abnormal. (26 ref.)—*Journal summary.*

8610. Meltzer, Herbert Y. & Moline, Ronald. (Pritzker Medical School, U. Chicago) **Muscle abnormalities in acute psychoses.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 481-491.—Monitored the activities of creatine phosphokinase (CPK) and other enzymes in the serum of acutely psychotic patients and their relatives, chronically psychotic patients, and neurotic patients as part of a comprehensive search for

evidence of myopathy in acutely psychotic patients. Results indicate increased activity of CPK in 44 of 64 acutely psychotic Ss of all diagnostic types and in 31 of 75 parents or siblings of these Ss. 7 acutely psychotic Ss had persistently increased activity of CPK. Increased aldolase and aspartate aminotransferase activities were found in 25 of 43 and 9 of 50 acutely psychotic patients, respectively. No increases in the activity of serum lactic dehydrogenase, phosphohexose isomerase, malic dehydrogenase, glutamic dehydrogenase, and isocitric dehydrogenase were observed. Increased activity of serum CPK was found in 1 of 8 chronic schizophrenics and in 2 of 22 nonpsychotic psychiatric Ss. Total CPK activity, subcellular distribution of CPK isoenzyme type of CPK, and total glycogen were normal in muscle biopsy specimens from acutely psychotic Ss. No creatinuria was present. (62 ref.)—*Journal summary.*

8611. Müller, C. & Ciompi, L. (Eds.) **Senile dementia.** Bern, Switzerland: H. Huber, 1968. 149 p.—Presents and discusses each of a collection of papers read at the 1967 International Symposium on Senile Dementia, held at Lausanne, Switzerland.—*J. D. London.*

8612. Reich, Theodore & Winokur, George. **Postpartum psychoses in patients with manic depressive disease.** *Journal of Nervous & Mental Disease*, 1970(Jul), Vol. 151(1), 60-68.—Examined 20 bipolar manic depressive mothers and 29 female family members who had children and an episodic affective disorder with respect to their postpartum state. The frequency of postpartum breakdowns was significantly greater than the frequency of nonpuerperal episodes during the period at risk of 15-80 yr. and during the childbearing years. Postpartum episodes followed 30% of births of the patient group and 20% of the births of the family group. 40% of the patients with children and 41% of the family members with children and affective disorder had a postpartum episode. These rates are much higher than population rates. After the 1st episode of manic depressive illness, the rates for postpartum illness were 50% in the patient group and 25% in the family group, suggesting that careful observation and early treatment is indicated. 83% of postpartum episodes occurred during the 2 mo. following parturition and symptoms during these episodes were similar to nonpuerperal manias and depressions. (23 ref.)—*Journal abstract.*

8613. Richman, Joseph & White, Harvey. (Albert Einstein Coll. of Medicine, Yeshiva U.) **A family view of hysterical psychosis.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 280-285.—Reexamined the phenomenon of hysterical psychosis in view of the newer family concepts of psychiatric disturbances. In 4 patients studied, the illness was associated with anxiety related to death, aggression, and actual object loss; every patient was suicidal; and the psychotic symptoms were family syndromic. The psychosis was of special relevance to dominant family problems, themes, myths, and fantasies. It is concluded that family factors are crucial to the understanding of the development of this disorder. (25 ref.)—*Journal abstract.*

8614. Robbins, Michael D. **On the psychology of artistic creativity.** *Psychoanalytic Study of the Child*, 1969(Vol. 24), 227-251.

8615. Rossi, R. & Delmonte, P. (U. Genoa, Inst. of Psychiatry, Italy) **Die cycloide Psychose in den italienischen diagnostischen Modellen.** [Cycloid psychosis in Italian models of diagnosis.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Aug), Vol.

22(8), 289-293.—Reports results from 45 Italian psychiatrists who each completed the Overall and Gorham Brief Psychiatric Rating Scale (BPRS) for conceptually representative cases of each of 12 functional psychoses. According to the authors the Italian model is quite different from a German one for cycloid psychoses. Italian psychiatrists are apparently agreed that cycloid psychosis is a depression syndrome with some paranoid symptoms. (18 ref.)—*K. J. Hartman.*

8616. Schulte, W. & Mende, W. (Eds.) **Melancholie in Forschung, Klinik und Behandlung.** [Melancholy: Research, clinical picture, treatment.] Stuttgart, W. Germany: Georg Thieme, 1969. 236 p.—Presents a collection of articles, based on papers presented at a 1968 congress on depressive psychoses, held at Baden-Baden, West Germany. 7 categories are discussed: (a) course, genetics, and clinical picture; (b) quantitative evaluation; (c) transcultural aspects; (d) psychodynamics and psychotherapy; (e) biochemistry; (f) pharmacotherapy; and (g) social psychiatric aspects.—*I. D. London.*

8617. Wadson, Harriet S. & Bunney, William E. (National Inst. of Mental Health, Lab. of Clinical Science, Bethesda, Md.) **Manic-depressive art: A systematic study of differences in a 48-hour cyclic patient.** *Journal of Nervous & Mental Disease*, 1970(Mar), Vol. 150(3), 215-231.—Presents a blind study of spontaneous art productions in the manic-depressive psychosis, focusing on changes in pictorial expression associated with intrapsychic changes occurring in the disease. A 40-yr-old female patient with rapid and dramatic mood swings (alternating mania and depression every 24 hr. with no interim normal period) was studied. The evaluation of the pictures is divided into a study of form and affect, and a study of content. Different pictorial characteristics of color, linear style, configurations, organization, and affect were hypothesized to be associated with each phase of the illness. A sample of S's pictures was selected based on independent nursing staff behavioral ratings of mania and depression. Using a blind rating procedure, 7 judges rated each picture "manic" or "depressed," using these characteristics as a guide. Results indicate that use of the hypothesized characteristics enabled judges to improve their determinations of mania or depression at a statistically significant level. The most frequent recurrent themes and symbols in the patient's art work from each phase of the illness are presented. Speculations concerning their psychodynamic significance and their pictorial and symbolic interrelationships are discussed.—*Journal abstract.*

Schizophrenia

8618. Aminev, G. A., Bairamova, L. K., & Nikitina, E. V. (Kazan U., USSR) **K matematiko-lingvisticheskomu analizu sintaksicheskogo yarusu rechi bol'nykh shizofreniei.** [A mathematico-linguistic analysis of the syntactic aspect of speech in schizophrenics.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 408-413.—Utilized the written production of 23 paranoid schizophrenics during emerging remission in the analysis. The number of nonprojective syntactic structures in the written speech of schizophrenics did not differ from the normal, i.e., the law of projectivity of language was observed in the written speech of Ss exhibiting the paranoid form of schizophrenia. The processes of

"sequential synthesis" in speech activity, which are characterized by the number of dextrodirected syntactic connections predominate both in schizophrenics and in normals over the processes of "alerting synthesis." The processes are characterized by the number of levodirected syntactic connections; although in schizophrenia this predominance is expressed less markedly. Differing from the case for schizophrenia, the distribution of syntactic connections in normals approximated the exponential. The length of syntactic connections in schizophrenia was significantly higher than that in the normal state, providing an objective index of the presence of a certain clumsiness in the syntactic structure of the written speech of schizophrenics—explainable by postulating a "tendency to more prolonged fixation of individual words in speech transformation in operative memory." (English summary)—*I. D. London.*

8619. Barrass, B. C., Coult, D. B., Drysdale, A. C., & Marjot, D. H. (Chemical Defence Establishment, Salisbury, England) **Inhibition and activation of caeruloplasmin by extracts from the urine of schizophrenic patients.** *Biochemical Pharmacology*, 1970(May), Vol. 19(5), 1675-1679.—Extracts of 24-hr samples of urine from male schizophrenic patients accelerated the caeruloplasmin-catalyzed oxidation of noradrenaline but inhibited the oxidation of 5-hydroxytryptamine; these effects were not observed with extracts prepared in an identical manner from the urine of male preoperative patients or staff controls. The oxidation of noradrenaline by caeruloplasmin was inhibited by extracts of urine from some members of each group and the oxidation of noradrenaline by cupric ions was catalyzed by some of these urine extracts.—*Journal abstract.*

8620. Cameron, John L. (Chestnut Lodge Research Inst., Rockville, Md.) **Symbolism in the treatment of schizophrenia.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 257-263.—Presents clinical material to illustrate various aspects of schizophrenic symbolism. The minute interactions occurring in the interplay between the therapist and his patient are emphasized. The "merging and obscuring" of the schizophrenic's identity is also examined.

8621. Carter, Ross E. (Michigan State U.) **Rorschach signs, thinking disorganization, and withdrawal in process and reactive schizophrenics.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1531.

8622. Chatterjee, Tarit K. **A study of the personality of the parents of the schizophrenics.** *Samiksha*, 1969, Vol. 23(1), 22-48.—Studied the pathogenic role of parental personality traits in the development of childhood schizophrenia. The personality structures and family dynamics of 25 pairs of Indian parents of schizophrenics were examined by open-ended interview, Rorschach, and TAT, which were evaluated by a specially devised rating scale. The mothers of schizophrenic children (as contrasted with controls) were found to be (a) aggressive, though superficially friendly, with an unconscious tendency to deny their rage-complex; (b) satisfied with themselves, possessive of their children, experiencing conflict about giving, desiring to live a parasitic existence while meeting their own personal needs; (d) unaware of their own hostility; and (e) desiring to control their children. They also felt deprived and insecure, experiencing others as hostile. The fathers of schizophrenic children were revealed as weak family figures, insecure in their masculinity, and handling their

hostile impulses by projection; brought up under unusually strict conditions, they also saw the environment as hostile. (70 ref.)—*T. N. Webster.*

8623. Cheng, Fayu & Huang, Kue-hwa. (National Taiwan U., Taipei) **Conditioning of alpha rhythm blocking with schizophrenics.** *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 24-32.—Examined "the conditionability of schizophrenics" through the use of EEG responses to the combination of a tone and a light. 13 17-45 yr. old schizophrenic patients were compared with 17 19-30 yr. old undergraduates in the conditioning alpha wave to a tone stimulus of 2-sec duration. By combining the anticipatory and CRs in the conditioning and test trials, respectively, differences between the 2 groups were found. 2 schizophrenics and 7 normals had 3 consecutive CRs without statistical support for differentiating them. This negative experimental fact may have resulted from the instability of the alpha wave. The measuring ration method and the subjective observation method are not adequate to study conditioning of EEG. (17 ref.)—*Journal abstract.*

8624. Ehler, Betty J. (U. Iowa) **Attributed maternal childrearing histories of adult male schizophrenics and performance under task-irrelevant censure.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1533-1534.

8625. Ekstein, Rudolf & Caruth, Elaine. (Reiss-Davis Child Study Center, Los Angeles, Calif.) **Levels of verbal communication in the schizophrenic child's struggle against, for, and with the world of objects.** *Psychoanalytic Study of the Child*, 1969, Vol. 24, 115-137.

8626. Fagan, Joen & Woodward, June. (Georgia State U.) **Comparison of the graphic differential and the semantic differential with schizophrenics.** *International Journal of Symbolic*, 1970(Apr), Vol. 1(3), 57-61.—A 5-concept semantic differential and a parallel graphic differential were administered to 25 hospitalized schizophrenics and 25 college student controls. The results for both groups on both tests are clearly similar on the evaluative factor. Both the normals and schizophrenics were consistent within groups on potency, but only normals showed parallel semantic and graphic differential responses on activity. The results suggest that the graphic differential may be a measuring instrument of choice with schizophrenic Ss, and further studies with this instrument are strongly recommended.—*Journal abstract.*

8627. Fischer, Edmundo. (Inst. Nacional de Salud Mental, Buenos Aires, Argentina) **Biogenic amines and schizophrenia.** *Psychosomatics*, 1970(Sep), Vol. 11(5), 495.—Describes a quantitative colorimetric assay of bufotenin in the urine of 113 normal controls, 86 acute untreated schizophrenics, and 45 medicated or chronic schizophrenics. Results indicate that controls produced a mean value of 3.5 µg% of bufotenin compared to 16.6 µg% for acute schizophrenics. Only 26.6% of medicated schizophrenics eliminated quantities comparable to the acute group.—*P. McMillan.*

8628. Gittelman-Klein, Rachel; Klein, Donald F., Blumberg, Arnold G., & Levenstein, Sidney. (Hillside Hosp., Glen Oaks, N.Y.) **Relationships of the mecholyl test, premorbid asocial functioning, and long term outcome in schizophrenia.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 301-306.—Attempted to determine whether magnitude of mecholyl response is related to premorbid characteristics and/or long term outcome in nonchronic

schizophrenics. In a study of 46 schizophrenics, ratings of premorbid asocial functioning were correlated with outcome. However, both of these patient characteristics were independent of the magnitude of a mecholyl-induced drop in systolic blood pressure. Similar results were obtained when the schizophrenic sample was combined with 33 nonschizophrenic Ss, suggesting that diagnostic variation among studies cannot account for contradictory results regarding the relationship between mecholyl response, process-reactive schizophrenia, and long-term outcome. (27 ref.)—*Journal abstract.*

8629. Hoffer, Axel & Pollin, William. (Massachusetts Mental Health Center, Boston) **Schizophrenia in the NAS-NRC Panel of 15,909 veteran twin pairs.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 469-477.—Studied the incidence of schizophrenia in a sample of 15,909 twin pairs born in the United States between 1917 and 1927, in which both twins had served in the armed forces. 338 of the pairs were found with 1 or both diagnosed schizophrenic. In 225 pairs of established zygosity, the "corrected pairwise concordance rates were 15.5% in monozygotic twins and 4.4% in dizygotic twins." Overall incidence of schizophrenia in this sample (1.1%) was similar to that found in the general population and was no higher in the monozygotic than dizygotic group. It is concluded that genetic factors appear to play a limited role in the origin of schizophrenia, although the role that is played is significant because of the consistently higher morbidity within the monozygotic group. (30 ref.)—*P. McMillan.*

8630. Inderbitzin, Lawrence B., Buchsbaum, Monte, & Silverman, Julian. (St. Elizabeths Hosp., Washington, D.C.) **EEG-averaged evoked response and perceptual variability in schizophrenics.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 438-444.—Obtained average evoked responses (AER) to 4 intensities of light and performances on a kinesthetic figural aftereffects perceptual task and the Witkin Rod and Frame apparatus from 11 paranoid and 12 nonparanoid schizophrenic patients. AER variability was correlated with perceptual performance, accuracy, and variability. Performance measures did not yield statistically significant differences between the 2 groups; however, more stable AERs, particularly at higher intensities, were found in the paranoid group. These findings, combined with other AER reports in the literature, suggest that the high performance variability reported in schizophrenics may result at least partly from variability in the perceptual process. (20 ref.)—*Journal summary.*

8631. Kingsley, Victoria C. (New York U.) **The effects of the double blind conflict and sex of the experimenter on the conceptual functioning and visual discrimination of male good and poor premorbid schizophrenics.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1541.

8632. Klonoff, Harry; Fibiger, Christopher H., & Hutton, Gordon H. (U. British Columbia, Div. of Psychology, Vancouver, Canada) **Neuropsychological patterns in chronic schizophrenia.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 291-300.—Studied the psychiatric and psychological status of 66 chronic schizophrenics over an 8-yr period. These variables, as measured by the Malamud and Sands psychiatric rating scale and the WAIS, respectively, showed significant improvement during this period. The Halstead-Reitan test battery and several other neuropsychological tests reported to be sensitive to CNS

deficit were administered to the same group. With the exception of the sentence repetition test, the neuropsychological test performance of Ss was grossly impaired. Reliability measures were obtained using a test-retest technique and indicate that the test battery was highly reliable. The performance on the neuropsychological tests was found to be related to psychiatric status, certain demographic variables, and drug regime. The tests appeared to be more sensitive to the severity of the schizophrenic process than to the presence or absence of neurological deficit. (27 ref.)—*Journal abstract*.

8633. Laury, Gabriel V. (Suffolk County Family Court, Hauppauge, N.Y.) **A schizoid life style.** *New York State Journal of Medicine*, 1970(Nov), Vol. 70(22), 2809-2814.—Presents 7 case histories of compensated schizophrenic individuals. Factors, e.g., the right life style and the right career, may enable these individuals to function adequately in society. The adjustment, however, is vulnerable to any change in inner or outer life: loss of loved ones, financial reverses, illness, surgery, pregnancy, or emigration. In the event of breakdown, speedy and energetic treatment is recommended to return them to society before they adapt to institutional life. It is suggested that thorough knowledge of the mechanisms which enable the compensated schizophrenic to lead a nearly normal life will aid in the treatment of more seriously ill schizophrenics.—S. Knapp.

8634. Lichtenberg, Philip & Norton, Dolores G. (Bryn Mawr Coll.) **Honesty, trust, equality in the treatment of schizophrenia: An analysis of "I Never Promised You a Rose Garden."** *Pennsylvania Psychiatric Quarterly*, 1970(Spring), Vol. 10(1), 33-40.—The treatment of schizophrenia is explored on the basis of an analysis of the novel, *I Never Promised You a Rose Garden*. The novel is a sensitive and detailed presentation of the true experiences involved in the treatment and tentative return to the outside world of a hospitalized female adolescent schizophrenic. The experiences of the author are divided in terms of improvement and deterioration and are presented in tabular form. The experiences signaled out as particularly positive or therapeutic were honesty and truth in communication between people, trust and loyalty in social relations, and personal equality between individuals. These experiences were generally related to the tasks of treatment and confined to the relation of the patient to her therapist and other patients, rarely to other hospital staff members. It is concluded that the experience of the subject is relevant to most treatment of schizophrenia.—M. Walker.

8635. McPherson, F. M., Barden, Valerie, & Buckley, Felicity. **The use of "psychological" constructs by affectively flattened schizophrenics.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 291-293.—Tested 3 groups of 15 Ss: affectively flattened schizophrenics, nonflattened schizophrenics, and normals. Each S gave the main difference between the people in 5 pairs of photographs. Results confirm previous findings by F. M. McPherson, et al. (see PA, Vol. 44:21288) that affective flattening in schizophrenics is associated with their relatively infrequent use of psychological constructs when differentiating among people in photographs and an increase in the use of background constructs.—*Journal summary*.

8636. McPherson, F. M. & Buckley, Felicity. **Thought-process disorder and personal construct**

subsystems. *British Journal of Social & Clinical Psychology*, 1970(Dec), Vol. 9(4), 380-381.—Examined the effects on thought-process disorder when different classes of construct are used to indicate the same elements. 12 schizophrenics and 12 normal controls (students or hospital staff) rated 8 photographs of people according to psychological and to physical construct versions. Results show that on the psychological construct versions normals and schizophrenics were significantly differentiated from each other, but on the physical versions there were no significant differences. It is concluded that thought-process disorder affects different construct subsystems in varying amounts. This finding emphasizes the importance of the content of thought upon the degree of thought-process disorder.—P. McMillan.

8637. Ritvo, Edward R., et al. (U. California, Neuropsychiatric Inst., Los Angeles) **Increased blood serotonin and platelets in early infantile autism.** *Archives of General Psychiatry*, 1970(Dec), Vol. 23(6), 566-572.—Employed a highly reliable method of determining whole blood serotonin levels to obtain data from normal controls and 24 hospitalized children with documented cases of early infantile autism. Blood platelet determinations were done simultaneously on both populations. Results indicate the following: (a) both blood serotonin and platelet values were inversely related to age in the normal population; (b) mean serotonin levels and platelet counts were significantly higher in age-matched groups of autistics than in controls; and (c) mean serotonin/platelet values were not significantly different between age-matched groups of autistics and controls. However, there was a significantly greater variability of serotonin/platelet values within the youngest group of age-matched Ss compared to that of controls (24-47 mo.). This appears to be related to a significantly greater variability of platelet levels in autistic children. (24 ref.)—*Journal summary*.

8638. Romel', T. E. (Inst. of Psychiatry, Moscow, USSR) **Techenie periodicheskoi shizofrenii po dannym otdalennogo katamneza.** [Course of periodic schizophrenia according to the data of remote catamnesis.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 430-435.—Studied remote catamnesis of cases of periodic schizophrenia, disclosing (a) the major characteristics regularly marking the psychosis, (b) its course, and (c) the features of its outcomes. 37 male and 118 female 34-75 yr. olds (onset of psychosis, 12-40 yr.; duration, 20-56 yr.; hereditary predisposition in 71 families; psychopathy in 37 families) were observed. Most cases retained throughout the psychosis the phasic character of its course. Complications of the attacks did not occur. A reduction of productive symptomatology was observed. With the onset of the psychosis in puberty, infantilism was often encountered. A certain increase in frequency and duration of the attacks was observed in the involutional period. With respect to the frequency and character of the attacks in the remote stage of the psychosis, all cases were divided into 3 groups—those with complete absence of attacks, those with pronounced attacks, and those with a "continuous" type of the psychosis. Personality changes were more strongly expressed in the last 2 groups. (English summary) (49 ref.)—I. D. London.

8639. Roosen, C. J. **Het proces-reactief continuüm binnen de schizofrenie.** [The process-reactive continuum within schizophrenia.] *Nederlands Tijdschrift voor de*

Psychologie en haar Grensgebieden, 1970(Sep), Vol. 25(8), 497-532.—Presents a review of the literature. Results from experimental studies indicate that process and reactive schizophrenia are the ends of a continuum that indicate the prognosis of relief with reactive indicating the better prognosis. Patients at the process end are characterized by field-dependency in the inability to proceed beyond the literal interpretation of communication, avoidance of social behavior, improper behavior in the hospital, personality rigidity, and by the gradual onset of the illness. The patients at the reactive end are characterized by traits that are counter to those of the process type. The social milieu of the patient, the male patient being dominated by his mother, being unmarried, and the residence of the patient being in urban areas are correlated with process schizophrenia, with the 1st condition being the most significant. Several scales are described. The Phillips and the Elgin Prognostic scales were found to be the most exact and predictive of progress. (English summary) (4 p. ref.)—A. J. Ter Keurst.

8640. Smith, Edward E. (U. Wisconsin) **Short-term memory impairment in chronic schizophrenics.** *Canadian Journal of Psychology*, 1969(Apr), Vol. 23(2), 114-126.—Assessed the short-term memory capacities of 4 chronic, schizophrenic and 4 nonschizophrenic psychiatric patients who served as controls. The information to be remembered was presented both visually and verbally and was later probed for—after a variable interval—by either visual or verbal cues. Schizophrenics and controls did not differ with respect to which type of cue retrieved more of the information, suggesting that the modality in which the information was stored was the same for both groups. However, schizophrenics were markedly inferior to controls regarding both the initial acquisition of information and the maintenance of it in storage. (French summary)—*Journal abstract*.

8641. Sturm, Israel E. (Veterans Administration Hosp., Northport, N.Y.) **An attempt to dramatize the "double-blind" hypothesis of the schizophrenogenic family.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 55-66.—Presents a script which dramatized the "double-blind" theory of the etiology of schizophrenia. 2 family scenes were portrayed, 1 schizophrenogenic, the other not. Both sketches were involved with the problem of parents with a daughter who had come home too late from a party the night before. In neither family was anyone too likeable or pleasant. The only inappropriate element in the schizophrenogenic sketch was the incongruity of dialogue, gesture, and mood in the light of the context upon which the parents should have been focusing. Although the script was dramaturgically primitive, its enactment and evaluation could permit direct apprehension of the theoretical phenomenology of such morbid interaction and provide a concrete point of departure for discussions of the schizophrenogenic family interaction hypotheses of other theorists.—*Author abstract*.

8642. Sulestrowska, H. (Medical Academy, Danzig, Poland) **Studies on the causes of diagnostic and prognostic difficulties in childhood schizophrenia.** *Polish Medical Journal*, 1969, Vol. 8(6), 1505-1514.—Analyzed 30 cases of childhood schizophrenia with 1st admission to the hospital occurring below 10 yr. of age. Follow-up observations were conducted for at least 2 yr. and 1/2 of the cases were followed up for more than 9 yr. The diagnostic criteria of childhood schizophrenia and

the relation of this disease to organic brain damage are discussed. (32 ref.)—*Journal abstract*.

8643. Van Dyke, William K. (U. Iowa) **Effects of response-contingent and nonresponse-contingent censure on the reaction time of schizophrenic patients and non-psychiatric, medical outpatients.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1553.

8644. Watson, Stanley J. (U. Iowa) **Speech monitoring behavior of process and reactive schizophrenic individuals under filtered voice delayed auditory feedback.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1554.

8645. Watt, N. F., Stolorow, R. D., Lubensky, Amy W., & McClelland, D. C. (Harvard U.) **School adjustment and behavior of children hospitalized for schizophrenia as adults.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 637-657.—Compared the childhood public school records of 30 nonmigratory, hospitalized schizophrenic adults with those of 90 matched control children presumed to have become normal adults. It is concluded that a substantial proportion of children destined to be schizophrenic as adults can be identified by their behavior in public school before they break down. Boys showed primary evidence of unsocialized aggression and girls of over-inhibition. (37 ref.)—*Journal abstract*.

8646. Yeakel, Mary H., Salisbury, Lloyd L., Greer, Stephen L., & Marcus, Leonard F. (Walter Reed Army Medical Center, U. S. Army Medical Biomechanical Research Lab., Washington, D.C.) **An appliance for autoinduced adverse control of self-injurious behavior.** *Journal of Experimental Child Psychology*, 1970(Oct), Vol. 10(2), 159-169.—Describes an appliance designed to control the self-injurious behavior of a 14-yr-old female autistic child. The appliance, which is worn like a bonnet or hat, delivers an adverse electric shock to the arm of the patient whenever the head is struck either by the patient himself or some extraneous inanimate object. 2 methods of operating the switching mechanism and an inflatable, completely protective, device are also discussed.—*Journal abstract*.

8647. Zenevich, G. V. **O skheme otsenok urovnei iskhodov pri shizofrenii.** [On a scheme for assessing outcome levels in schizophrenia.] *Zhurnal Nevropatologii i Psikiatrii*, 1970, Vol. 70(3), 414-417.—Presents a modification of an assessment scale to indicate the level of outcome after therapy for schizophrenia. The changes proposed dealt with the clinical picture, and the level of rehabilitation in work and in social contacts. 6 groups of schizophrenics are distinguished (3 of which have 2 subgroups each), ranging from 1 group promising full recovery to another showing a worsening of symptoms. (English summary)—I. D. London.

Schizophrenia Treatment

8648. Bagster-Collins, Richard D. (U. Maryland) **The application of a kinesthetic work modality program to the behavioral modification of chronic psychiatric patients.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1528-1529.

8649. Branković, Zorica. **Psihoterapija duboko regresiranih schizophrenih pacijenata do izlaženja iz autističke faze.** [Psychotherapy of deeply regressed schizophrenic patients until their emergence from autistic phase.] *Psihologija*, 1969(Sep), Vol. 2(2), 475-

479.—Attempts to relent the effects of prolonged hospitalization on regressive schizophrenia in the course of a psychotherapeutic procedure. The main objective was emergence from the autistic phase, and the basic principle was to deal with not the personality but its passive-receptive attitudes. The fact that the status of regression is not an authentic quality of the past and was structured in accordance with the experiences of former feelings of security, accompanied by unavoidable burdens of prepsychotic provocations provides a starting point. Therapy is directed at: (a) the annulment of the link between autism and the elaborate forms of the fear of commitment, and (b) the control of the development from regression to the stage for which objectal relations are compensated. A modified form of play-therapy is employed. This procedure was used in the parallel individual psychotherapy of 2 autistic female patients with similar premorbid histories, clinical features, and courses of hospitalization. Results of the treatment are discussed. Effects of the treatment were verified by routine psychodiagnostic techniques.—*English summary.*

8650. Clark, Mervin L., et al. (U. Oklahoma, Medical Center, Oklahoma City) **Chlorpromazine in chronic schizophrenia: Behavioral dose-response relationships.** *Psychopharmacologia*, 1970, Vol. 18(3), 260-270. Administered orally fixed daily doses of chlorpromazine (CPZ), in amounts of 150, 300, and 600 mg., to 71 female 21-60 yr. old chronic schizophrenic inpatients for 24 wk. while psychiatric and ward behavioral responses were monitored at regular intervals. Within the dose range used response was shown to be dose related, particularly early in treatment (4-12 wk.). CPZ in the amount of 150 mg./day was an effective dose relative to placebo, but was generally less effective than 300 or 600 mg./day. Little difference in clinical response was demonstrable from 300-600 mg. doses, except in the frequency of side effects and possible speed of onset or therapeutic effects, both being greater in the 600-mg. group. (17 ref.)—*Journal abstract.*

8651. Crase, George E. (National Inst. for Mental Health, Bethesda, Md.) **Tardive dyskinesia in schizophrenic patients treated with psychotropic drugs.** *Aggressologie*, 1968(Mar), Vol. 9(2), 209-218. Describes a collaborative study of 7 hospital populations of chronic schizophrenics randomly assigned to 4 drug regimes at different dose levels. Approximately 500 Ss. aged 20-56, were assessed for the presence of tardive dyskinesia over a period of 12 mo. The final assessment revealed that 27% of Ss exhibited manifestations consistent with this neurological disorder. Symptoms localized in the oral region were higher in older Ss, but chorea, athetosis, and dystonia of the extremities decreased after 50. Moderate symptoms fluctuated in severity between assessments, whereas sustained and more severe manifestations persisted unchanged. Approximately 400 Ss were assessed for long-term effects of the 4 drug regimes on the incidence of dyskinesia. Ss who had been on a high dose regime (2000 mg./day of chlorpromazine) exhibited more dyskinesia than those on lower dosages, or placebo. This was particularly significant for Ss over 40. Data on the total intake of psychotropic drugs for periods up to 12 yr. were also available for 73 Ss. For this group, no relationship was found between dyskinesia and total intake of neuroleptics. In the majority of Ss, dyskinetic symptoms were conspicuous, but not such as to cause severe impairment or discomfort. Methodological problems of relating manifestations of tardive dyskinesia to drugs are discussed.—*Journal abstract.*

8652. Halpern, Werner I. (Rochester Mental Health Center, Children & Youth Div., N.Y.) **The schooling of autistic children: Preliminary findings.** *Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 665-671.—Presents a model whereby structured language training represents the educational core in teaching small groups of young autistic children. Language acquisition in a clinical classroom facilitated public school entry for a significant number of previous noncommunicators. 15 children under 7-yr-old with partial or total failure in the use and comprehension of verbal symbols were studied. (20 ref.)—*Journal abstract.*

8653. Holden, J. M. & Holden, U. P. (St. Louis State Hosp. Complex, Mo.) **Weight changes with schizophrenic psychosis and psychotropic drug therapy.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 551-561.—Reports changes in weight patterns in relation to psychopathology, diagnosis, and age in a group of 22 male chronic schizophrenics treated over a prolonged period of time with placebo, chlorthalidone, and thioridazine, alone and combined. Results indicate that variations in appetite, motor activity, or agitation were not consistently associated with changes in weight. Significant relationships were shown, however, between increases in weight and improvement of psychotic symptomatology, and decreases in weight and worsening of symptomatology. Various mechanisms to explain weight changes with psychosis are discussed, but findings suggest that changes in weight are an expression of the basic illness. Only paranoid Ss gained weight with chlorthalidone. Hebephrenic Ss gained more weight with individual treatment than any other group, and this with chlorthalidone and thioridazine combined. With chlorthalidone, the older the patient, the greater the tendency to gain weight. With thioridazine and combined treatment, however, the greater gains in weight occurred in younger Ss. It is noted that weight changes were correlated inversely with hemoglobin and hematocrit shifts. These variations could also have been associated with variations in intensity of psychosis. (36 ref.)—*Journal summary.*

8654. Madalena, J. Caruso. **Ensaio preliminar sobre o biperideno injetável no tratamento das crises neurodislépticas induzidas por drogas neurolépticas.** [Preliminary study with injectable biperiden in the treatment of neurodisleptical crises induced by neuroleptics.] *O Hospital*, 1969(Aug), Vol. 76(2), 497-500. Studied the effects of biperiden (B) in doses of .005 gm. in 21 16-49 yr. old chronic schizophrenic males. Neurodysleptic crises were induced in 13 Ss by fluphenazine enanthate and in 8 Ss by prochlorperazine. IV injections of B resulted in the complete disappearance of crises in 1 min. for 63% of the Ss and in 2 min. for 37%. Effects from intramuscular injections of B occurred in 7.5 min. The duration of antineurodysleptic effects was an average of 10 hr. Excellent tolerance was observed in all Ss. (English summary)—P. Hertzberg.

8655. Martin, Garry L. & Pear, Joseph J. (St. Paul's Coll., U. Manitoba, Winnipeg, Canada) **Short term participation by 130 undergraduates as operant conditioners in an ongoing project with autistic children.** *Psychological record*, 1970(Sum), Vol. 20(3), 327-336.—An earlier, intensive, summer project by G. L. Martin (see PA, Vol. 43:2872) resulted in an effective therapy program for autistic children. The only assistance for continuing the program during the academic term was from 4 undergraduates skilled in operant conditioning (each available for 2 hr/wk) and under-

graduates enrolled in the author's courses. Under these conditions, a program was developed that maintained daily therapy sessions with autistic children, while giving training to inexperienced undergraduates. The children's progress was measurable, and the involvement of a large number of undergraduates in a structured therapy and research program appears to be very feasible. Data pertaining to the training of the undergraduates are presented, and variables thought to be important to the success of the program are discussed. (16 ref.)—*Journal abstract*.

8656. Prien, Robert F., DeLong, Samuel L., Cole, Jonathan O., & Levine, Jerome. (George Washington U., Biometric Lab.) **Ocular changes occurring with prolonged high dose chlorpromazine therapy: Results from a collaborative study.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 464-468.—Treated approximately 210 19-55 yr. old chronic schizophrenic patients in a 6-mo multihospital collaborative study with high doses of chlorpromazine (2000 mg/day). Controls, in 3 groups of approximately 210 each, were treated with low doses of chlorpromazine (300 mg/day), placebo, or physician's choice of medication. Results of ophthalmologic examinations indicate that the high doses produced opacities in the lens, posterior cornea, and anterior cornea. These ocular changes were significantly related to photosensitivity, suggesting that Ss developing photosensitivity should receive a slit-lamp examination of the lens and cornea. Follow-up examinations 6-9 mo. after the study indicate relatively little improvement in lenticular and posterior corneal change, and suggest that anterior corneal lesions are reversible. (17 ref.)—*Journal summary*.

8657. Ramsay, R. A., et al. **Nicotinic acid as adjuvant therapy in newly admitted schizophrenic patients.** *Canadian Medical Association Journal*, 1970(May), Vol. 102(9), 939-942.—Conducted a placebo-controlled, comparative 6-mo clinical study to test the hypothesis that nicotinic acid or nicotinamide as adjuvant medications have a beneficial therapeutic effect over and above the effect which can be achieved by the administration of phenothiazine drugs alone. Results from 30 acute and subacute 19-51 yr. old newly admitted schizophrenic Ss show no statistically significant therapeutic difference between the active treatment and the placebo groups. It was shown that Ss in the placebo group received a lower total daily amount of phenothiazine drugs than those on either of the active substances. Furthermore, it was noted that the addition of the active substances did not reduce the number of days of hospitalization. (French summary)—*Journal abstract*.

8658. Singh, Man M., De Doo, Lilla V., & Kline, Nathan S. (Bronx State Hosp., N.Y.) **Weight as a correlate of clinical response to psychotropic drugs.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 562-570.—Presents data from a longitudinal study of 14 male schizophrenic patients to correlate weight changes with changes in the clinical condition produced by a phenothiazine and a MAO inhibitor. Results indicate that: (a) Drug induced changes in schizophrenia showed a fairly consistent relationship to clinical response, significant weight gains (over 10 kg. in 6 mo.) being associated with a relatively good response, and small or no weight gains with poor response. (b) Both weight gain and clinical improvement tended to reach a plateau after 3-6 mo., suggesting that in cases who fail to respond in 6 mo. of medication, a longer trial is unlikely to prove successful. (c) Sudden

withdrawal of a phenothiazine seemed to be attended with a rather rapid decline in weight and clinical condition in Ss who showed gain in these respects when receiving the drug. (d) When a phenothiazine was started or stopped, the initial weight change was sometimes such that a change in caloric intake by itself was an inadequate causal explanation. In 2 cases where daily caloric intake was estimated, the weight loss in the 1st 3 wk. after withdrawal of the drug was greater than could be attributed to changes in caloric intake. (e) The mechanism of phenothiazine induced weight changes is poorly understood. Different possibilities, with supportive evidence are discussed. (17 ref.)—*Journal summary*.

PSYCHOSOMATIC DISORDER

8659. Brisset, Charles. (Clinic, 23 Rue Pradier, Ville-D'Avray, France) **Hystérie et psychosomatique: Les rapports de la structure et de l'histoire.** [Hysteria and psychosomatic disorders: Structural and historical relationships.] *Evolution Psychiatrique*, 1970(Apr), Vol. 35(2), 377-404.—Views the relationships between hysteria and psychosomatic disorders as a discontinuous variation of activity of impulse representation by fantasies. The repression of impulses produces a neurotic situation, in which hysteria occupies a major position. Repression of hysterical expression is a social and cultural fact that produces psychosomatic situations. Studying psychosomatic recoveries makes it possible to follow the opposite process, in which the therapist, inducing by his presence a renewal of fantasy activity, enables the patient to liberate his impulses and tolerate their expression by arranging a "real" neurotic situation basically hysterical because of its temporary transference expression. The physician is the most active agent in the repression of hysteria and hysterical impulses, even if the latter are temporary. Mutation of the psychosomatic fact is, therefore, a result of the present technological state of medicine.—*English summary*.

8660. Caston, Joseph; Cooper, Lowell, & Paley, H. W. (Mt. Zion Hosp., San Francisco, Calif.) **Psychological comparison of patients with cardiac neurotic chest pain and angina pectoris.** *Psychosomatics*, 1970(Nov), Vol. 11(6), 543-550.—Reports that 8 patients with cardiac neurotic chest pain had characteristics similar to those of 50 patients with angina pectoris with respect to history, symptom features, and in patterns of personality test data (MMPI), therefore making differentiation difficult. Differences were represented by the frequency of hyperventilation-associated symptom sequelae, the predominance of women, and psychological need for pain in the cardiac neurotic group. Hyperventilation may provide, physiologically, chest sensations which serve as a sensory nidus which is further elaborated into pain (as opposed to purely psychogenic pain). Over-breathing may also operate as a somatic prototype for oral-incorporative trends in response to intrapsychic or external stress, a hypothesis which conforms to the notable presence of oral-dependent strivings in cardiac neurotics. (37 ref.)—*Journal summary*.

8661. Crisp, A. H. (St. George's Hosp. Medical School, London, England) **Some psychosomatic aspects of neoplasia.** *British Journal of Medical Psychology*, 1970(Dec), Vol. 43(4), 313-331.—Neoplasia in the adult covers a number of different disease processes in the adult alone, each with many and possibly overlapping dimensions of causation. Several other factors are also found correlated with such disease but

are completely unrelated or not relevantly related to it in terms of cause or effect. Psychosomatic research is often mindful of these pitfalls, however, really central questions have yet to be asked. If cancer is not just the product of an isolated encounter, albeit chronic, between an external pathogen and an individual, then what are these predetermined constitutional factors created by what has gone before not only genetically but also by what has become built in to that individual's internal mind-body organizations, adaptations and maladaptations? (5 p. ref.)—*Journal summary*.

8662. Johnson, William G. (Catholic U. of America) **The effect of prior-taste and food visibility on the food-directed instrumental performance of obese individuals.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1539-1540.

8663. Savastano, Helena. **Perfil emocional constritivo de pacientes ulcerosos através do índice perfil de emoções de Plutchik.** [Constrictive emotional profile of ulcerative patients according to Plutchik's Emotional Profile Index.] *Revista de Psicologia Normal e Patológica*, 1969(Jan), Vol. 15(1-2), 129-136.—Tested 19 male and 6 female adults (mean age of 38) with ulcers. 18 Ss were Brazilian and 7 were of other nationalities. Results were analyzed according to age, sex, and nationality, and were compared to those of controls. Plutchik's Emotional Profile Index was proved valid and 2 hypotheses were confirmed: (a) emotional profiles of ulcerative Ss differed from controls, and (b) emotional profiles of ulcerative Ss were constrictive and ambivalent. Literature on the nature and psychosomatic origins of ulcers is reviewed. (English & French summaries)—*P. Hertzberg*.

CASE HISTORY

8664. Koluchová, Jarmila. (Palacky U., Olomouc, Czechoslovakia) **Hluboká a dlouhodobá psychická deprivace dětí v rodině.** [Severe mental deprivation of long duration in two children in a family.] *Psychológia a Patopsychológia Dietäta*, 1970, Vol. 5(2), 161-170.—Presents an unusual case of mental deprivation in 2 male monozygotic twins who had lived with their father and stepmother in total social isolation, concealed from the public, from the age of 18 mo. until the age of 7. The stepmother showed psychopathic traits, was extremely hostile toward the Ss, and had often locked them in a dark unheated room, starved, and cruelly chastised them. When removed from the family, Ss suffered from acute rickets, severe psychomotor and speech retardation, and had the mental development of a 3 yr. old and the speech of a 2 yr. old. After 1 yr. of treatment at a home for preschool children, Ss were placed in a foster family. Follow-up showed that mental development was progressing fast and speech was improving. Each Ss' MA was that of a 7 yr. old, they were in 1st grade and were being transferred from a special to a normal school, and the sequelae of deprivation in the emotional and social sphere had abated. Further follow-up is being undertaken to determine to what extent mental deficiency passes, and to study the long-term effects of severe deprivation on personality formation. (Russian summary)—*English summary*.

8665. Lazare, Aaron & Klerman, Gerald L. (Harvard Medical School, Boston, Mass.) **Camptocormia in a female: A five-year study.** *British Journal of Medical Psychology*, 1970(Sep), Vol. 43(3), 265-270.—Describes a

5-yr course of a female who developed camptocormia during a depressive illness. Camptocormia, or functional bent back, is a conversion reaction seen predominantly in soldiers. The symptom has rarely been reported in females. Verbatim interview material is presented to illustrate the nature of the conversion process as a defense against, as well as an expression of, instinctual impulses. Reports of camptocormia in men are reviewed to understand the maleness of the symptom. It was speculated that castration anxiety and homosexual panic are important issues in the development of the symptom in men. The lesser importance of castration anxiety in women together with the absence of a situation such as the army may account, in part, for the lower incidence of camptocormia in women. The case report supports the supposition that there is a high incidence from severe ego pathology in patients suffering from camptocormia. (17 ref.)—*Journal summary*.

8666. Lindenauer, Geoffrey G. (Inst. for Emotional Education, New York, N.Y.) **The other side of anger.** *Journal of Emotional Education*, 1969(Win), Vol. 9(1), 4-11.—Presents a case study of an 8-yr-old boy, who manifests frustration from an inability to communicate in frequent temper tantrums. The case study is used to illustrate how a child can "be taught methods of communicating his frustrations and handling it in a manner that is acceptable to society."—*S. Appelle*.

8667. Loffreda, Enrique. (Prof. Aroaz Alfaro Polyclinic, Provincia de Lanus, Argentina) **Síndrome de Gilles de la Tourette.** [Gilles de la Tourette syndrome.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Jun), Vol. 16(2), 164-172.—Describes a case of Gilles de la Tourette syndrome present in a 13-yr-old male who had presented tics for the last 3 yr. and speech disturbances during the last yr. Treatment was psychoanalytically oriented, lasted for 9 mo., and succeeded in a drastic reduction of the symptoms (confirmed at 1-yr follow-up). Improvement was quantified: there was a marked decrease of S's compulsive linguistic disturbances. It is argued that the disease is the result of short circuit type of dissociation of aggressive impulses; and the dynamic and economic character of this defense are discussed. (23 ref.)—*English summary*.

MENTAL HEALTH & REHABILITATION

8668. ———. **Mental Health Research Institute Annual Report, 1967.** Ann Arbor, Mich.: U. Michigan, Mental Health Research Inst., 1967. 87 p.

8669. ———. **WHO Expert Committee on Medical Rehabilitation: II. World Health Organization Technical Report Series**, 1969, No. 419, 23 p.—Stresses that "each victim of a disabling disease or accident needs to be treated, rehabilitated, and reinstated in society by the most favourable medical, social, educational, and vocational procedures." Various forms of rehabilitation are defined. The organization of medical rehabilitation services is examined. The legal, administrative, and financial aspects of such services, the establishment of specialist medical rehabilitation centers, and the relationship between rehabilitation and related services are discussed. The functions, education, and training of the various members of the rehabilitation team: specialists in rehabilitation medicine, nursing staff, physiotherapists, occupational therapists, prosthetists and orthotists, and speech therapists are reviewed.—*G. Steele*.

8670. Anderson, George C. (Academy of Religion &

Mental Health, New York, N.Y.) **Pastoral psychology: The next 20 years: In relation to mental health.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 63-68.—Sweeping revolutionary changes in concepts concerning mental health and current problems in organized religion will bring about unforeseen implications in both psychiatry and pastoral psychology. Trends in religion may shape pastoral psychology as much as pastoral psychology may influence religion. Religion in cooperation with the new psychiatry may determine the major trends in the future of pastoral psychology.—O. Strunk.

8671. **Bey, Douglas R. & Smith, Walter E.** (Franklin Ave. Medical Center, Normal, Ill.) **Mental health technicians in Vietnam.** *Bulletin of the Menninger Clinic*, 1970(Nov), Vol. 34(6), 363-371.—Attempts "to describe the important work of paramedical personnel as members of a mental health team in a combat zone. The suggestion will be made that paramedical personnel might fill an equally significant role in civilian community mental health programs.... The Army has found that these paramedical specialists have been able to function effectively in a variety of mental health roles."—J. Z. Elias.

8672. **Castro, Gonzalo A.** **Perspectivas futuras en investigaciones socio-culturales aplicadas en salud mental.** [Future perspectives in socio-cultural investigations applied in mental health.] *Acta Psiquiátrica y Psicológica de América Latina*, 1970(Mar), Vol. 16(1), 33-38.—Questions whether or not there is a difference between what is called "basic research" and "applied research," and exemplifies what could be called, "evaluative perspective." It is suggested that the future perspectives in "applied" sociocultural research in the mental health field should be of the evaluative type. (18 ref.)—English summary.

8673. **Colbach, Edward M. & Parrish, Matthew D.** **Army mental health activities in Vietnam: 1965-1970.** *Bulletin of the Menninger Clinic*, 1970(Nov), Vol. 34(6), 333-342.—Provides "an overview of U.S. Army mental health activities in the Vietnam combat zone from the escalation of mid-1965 to the significant de-escalation of mid-1970.... Despite the increased casualty rate in recent months, it is obvious that the American soldier in Vietnam has generally been psychologically healthier than his counterpart in previous wars." Psychiatric casualty statistics and treatment techniques are presented.—J. Z. Elias.

8674. **Gerdine, Marjorie W. & Bragg, Robert L.** (145 Lantern Ridge Rd., New Canaan, Conn.) **Referral patterns among mental health agents in three suburban communities.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 841-849.—Demonstrates differences among disciplines both in preferences for existing referral resources and in perceptions of most urgently needed future services. A total of 777 questionnaires were distributed to physicians, clergymen, nurses, and school personnel living or practicing in the 3 communities. 42% were returned. Information was elicited on: (a) where persons with emotional problems are referred, (b) the major obstacles in making referrals, and (c) the future needs in local mental health programs. There were significant differences among all of the major professional referral groups on all of the variables. The consideration of such attitudes is seen as fundamental in planning community-oriented programs.—*Journal abstract*.

8675. **Goldberg, Richard T.** **Rehabilitation research**

as a specialization. *Rehabilitation Literature*, 1969(Mar), Vol. 30(3), 66-70.—Demonstrates that rehabilitation research is a separate new branch of behavioral sciences "in that it presupposes a basic knowledge and sensitivity to the problems of adaptation to disability and handicap." The orientation of rehabilitation research is illustrated in a discussion of the questions to which it addresses itself. Limitations of research design are discussed, and the need for development of a rehabilitation theory is emphasized. (17 ref.)—G. Steele.

8676. **Harris, James R.** (U. Pennsylvania, Medical School) **Poverty, mental health, and the church.** *Pastoral Psychology*, 1969(Nov), Vol. 20(198), 45-48.—The community mental health movement can be an effective vehicle for all religious denominations in the country to become once more an integral part of the social mechanism for dealing with problems of poverty. Specific ways in which community mental health centers and the churches can unite their forces are mentioned.—O. Strunk.

8677. **Hunter, Harold R. & Katz, Alfred H.** (U. California, School of Public Health, Los Angeles) **Insurance for mental health care.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 464-469.—Reports that demand from employee groups, e.g., United Auto Workers, United Steel Workers, and the Federal Employees, as well as the increasing acceptance and availability of community mental health centers is leading to a sizeable increase in the populations covered by psychiatric insurance and the scope of services offered. This is true of commercial insurance companies and Blue Cross and Blue Shield plans. Whether this increase will greatly affect utilization, or out-of-pocket expenditures for psychiatric care, cannot be determined; however, the trend toward collective financing of psychiatric insurance under labor, employer, and other group auspices is clearly established.—*Journal abstract*.

8678. **Jorgensen, Gary Q., Janzen, Frederick V., Samuelson, Cecil O., & McPhee, William M.** (U. Utah) **Interpersonal relationships: Factors in job placement.** *Regional Rehabilitation Research Institute Bulletin, U. Utah*, 1968(Mar), No. 3, 101 p.

8679. **Kauff, Priscilla F.** (New York U.) **The relationship of the meaning of work, social competence, and social desirability to work behavior of the vocationally disabled mental patient.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1540.

8680. **Keith, Robert A.** (Claremont Coll.) **Physical rehabilitation: Is it ready for the revolution?** *Rehabilitation Literature*, 1969(Jun), Vol. 30(6), 170-173.—Examines parallels between the fields of mental health and physical rehabilitation concluding that "the rehabilitation center as presently constituted must be altered." It is suggested that social science methods be applied to rehabilitation environments, social organization and roles, and treatment methods. It is felt that the sick role model should be abandoned in favor of a more independent motivational model. Home environments, patient oriented facilities, task oriented therapy, and total environmental usage are proposed as alternatives to the present situation.—G. Steele.

8681. **Morrice, J. K.** (Ross Clinic, Aberdeen, Scotland) **The doctor's role and the needs of the community.** *Pastoral Psychology*, 1969(Dec), Vol. 20(199), 41-44.—Psychiatry is in the process of considerable change. Mental health workers are abandoning

their long preoccupation with the patient as an individual who has something wrong "inside" him. The new look asserts that men can learn to make healthier choices. But first a society which cares needs to be constructed, a task which is not only the concern of doctors and nurses, teachers and ministers, but of all mankind.—O. Strunk.

8682. Rubino, Agostino. (U. Palermo, Clinic for Nervous & Mental Diseases, Italy) *Igiene mentale dell'aggressività: Possibilità operative per la promozione e tutela della sanità mentale*. [Mental hygiene of aggressiveness: Operative possibility for the promotion and education of mental sanity.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1968(Sep), Vol. 29(5-6), 529-546.—Prevention and avoidance of aggressive behavior can be obtained by considering aggression in its natural settings: family, school, sexual education, and preparation for a productive use of leisure time.—L. L'Abate.

8683. Smith, Colin M. *Mental health developments in Saskatchewan*. *Canada's Mental Health*, 1970(Sep), Vol. 18(5), 15-20.—Reviews the changes in Saskatchewan mental health programs during 1960-69. The emphasis is on a community program with follow-up and outpatient care providing an alternative to institutional care. A new psychiatric plan is proposed which involves community involvement, coordination, participative management, regionalization, comprehensiveness, competition, feedback, and concern for people. The recruitment, retention, and training of qualified personnel is discussed. It is concluded that programs in childhood psychiatry, mental retardation, forensic psychiatry, alcoholism and nonmedical use of drugs, and services for the aged need to be more fully developed in order to supply complete mental health services for the region.—G. Steele.

8684. Wolfensberger, Wolf. (Nebraska Psychiatric Inst., Omaha) *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 291-297.—Discusses the "normalization principle" formulated by Scandinavian workers in mental retardation which aims at eliciting and maintaining culturally normative behavior and using culturally normative means to this end. The principle is simultaneously simple and comprehensive, and it can constitute a unifying ideology for all human management areas. It provides guidance for decisions from the lowest clinical to the highest systems levels. Some specific implications for psychiatry are discussed.—*Journal abstract*.

8685. Wright, G. N., Reagles, K. W., & Butler, A. J. (U. Wisconsin, Rehabilitation Research Inst.) *An expanded program of vocational rehabilitation: Methodology and description of client population*. *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1970, No. 11, 160 p.—Describes elements of the Wood County Project, a large-scale research and demonstration effort to examine the feasibility of and guidelines for expanding rehabilitation services to all handicapped people (see G. N. Wright, K. W. Reagles, and A. J. Butler, PA, Vol. 45:Issue 4). An overview of the methodology of the project includes a description of the experimental and control areas designated, the research design of the investigation, and the instruments used to assess the impact of rehabilitation services. The clients who were Ss are described in terms of selected pre-rehabilitation demographic variables and other information. The general characteristics common to all client

handicap subgroups in the project are listed. Characteristics differentiating the subgroups are also described in terms of sex, age, source of referral, marital status, onset of disability (time), automobile licensing and possession, employment status, highest grade completed, and educational achievement.—*Journal abstract*.

8686. Wright, George N., Reagles, Kenneth W., & Butler, Alfred J. *The Wood County Project: An expanded program of vocational rehabilitation*. Madison, Wis.: U. Wisconsin, Rehabilitation Research Inst., 1968.—Attempted "to assess the potential benefits of vertical and horizontal caseload expansion on rehabilitation clients, intra-agency processes, and the local community. Wood County, Wisconsin, was selected as the area for expansion; the principal control area was Eau Claire County, similar to Wood County demographically and geographically. The experimental agency was given sufficient staff and funds to expand vertically to serve all medically disabled persons eligible under existing criteria, and horizontally to serve the culturally disadvantaged. Sources of data were: (a) published research instruments, (b) unpublished instruments developed by... [the] staff, (c) quasi-objective community measurements, and (d) Wisconsin DVR [Division of Vocational Rehabilitation] client records. 5 client groups were compared: for Wood County, physically, mentally, and culturally handicapped; for Eau Claire County, physically and mentally handicapped. The client characteristics were organized in 3 sets of variables; demographic, vocational, ability." Results indicate that the "underlying thesis of the Project—established (traditional) techniques of state rehabilitation agencies can be effectively applied to a much broader range of unemployed and underemployed people—was found valid."—M. Maney.

8687. Zinberg, Norman. (Harvard U., Medical School, Boston, Mass.) *The mirage of mental health*. *British Journal of Sociology*, 1970(Sep), Vol. 21(3), 262-272.—Confusion of psychological illness with biological illness has partially resulted from the mistaken equation of psychological development (an augmented natural process that is in some important ways dependent on the choices made by the individual) with biological development. Notwithstanding this crucial difference between biological and psychological development, a medical model of mental illness should not be discarded entirely, since some mental disorders (such as schizophrenia) entail lack of participation in society that is comparable to severe physical sickness. The psychoanalyst's emphasis on the necessity to understand an individual's emotional disturbance leads to consideration of all things pertaining to the patient: biology, family, clan, culture, humanity. Any standard of mental health thus becomes individual and relational: dependent on culture, surroundings, and time of life. In this light human strength is seen as a process of individual adaptation to changing situations. Unfortunately this emphasis on flexibility runs counter to human desires for definition and certainty (e.g., contemporary American utopianism). But those in the helping professions must try to dissociate themselves from goals like perfect community health that they know to be excessive.—K. G. Shaver.

COUNSELING & GUIDANCE

8688. Ayer, M. J., Wright, G. N., & Butler, A. J. *Counselor orientation: Relationship with respon-*

sibilities and performance. *Wisconsin Studies in Vocational Rehabilitation Monograph*, 1968, No. 10, 55 p.—Establishes the existence of relationships between a counselor's professional orientation—whether relationship, situation, bipolar, or neutral—and his attitudes toward selected professional responsibilities and development. Responsibilities include such areas as eligibility determination and employment placement, and development includes in- or outservice educational needs and service orientation and indoctrination procedures. The study also tested the relationship between counselor orientation and client case performance data (referral source, major disability, and reason for not being accepted for services). The research described validates a model developed to measure the professional orientation of rehabilitation counselors (see W. S. Sather, G. N. Wright, and A. J. Butler, PA, Vol. 45:Issue 4). A counselor with an "ideal" orientation, it was determined, would combine the characteristics of both the "relationship" and "situation" orientations, acknowledging the impact of the environment and external factors on his client's behavior as well as the importance of personal and internal factors and interpersonal relationships in shaping his client's behavior.—*Journal abstract*.

8689. Benningfield, Milo F. (Bethany Methodist Church, Houston, Tex.) **The time factor in multiple-interview counseling.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 20-23.—For counseling situations in which more than 1 interview is called for, setting a time limit for the individual sessions generally makes for the most productive use of the minister's time and that of his counselee. Factors which interfere with this kind of responsible counseling include curiosity, escape from responsibilities, masochism, and an insatiable need to feel important.—*O. Strunk*.

8690. Buxbaum, Robert E. (San Antonio State Hosp., Tex.) **The unconscious: Your assistant minister.** *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 49-54, 70.—Argues for the experience in psychoanalytic therapy as a necessity for pastoral counselors.—*O. Strunk*.

8691. Clinebell, Howard J. (Southern California School of Theology, Claremont) **Pastoral psychology: The next 20 years in pastoral counseling.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 28-35.—Pastoral counseling will find its fuller usefulness when understood as a focused, life-releasing relationship. The future of this art will depend on the way pastoral counselors will be able to use the following unique aspects of pastoral counseling: (a) pastoral counseling is done in the matrix of a variety of complementary, life-enhancing function; (b) done in the undergirding context of pastoral care; (c) able to go to people and make help available without a formal invitation; (d) direct connection with a considerable number of interpersonal systems (marriage, families, groups, etc); (e) can be with people in many of the emotionally dangerous situations (birth, sickness, aging, etc.); (f) wealth of lay helping-potential at hand; (g) has major responsibility for education as well as counseling; (h) is identified as the leader of a group with a heritage of convictions, beliefs, and values; and (i) stands with a concern for the larger systems of society's structure.—*O. Strunk*.

8692. Dayringer, Richard. (Baptist Memorial Hosp., Kansas City, Mo.) **A learning-theory approach to pastoral counseling.** *Pastoral Psychology*, 1969(Mar), Vol. 20(192), 39-43.—Notes 8 factors to be used in selecting counselees. Once a counselee is selected, it is

necessary to know that the business of counseling is to correct the unacceptable mental and emotional habits the neurotic has learned. Pastoral counselors should keep abreast of the learning-theory approach to counseling.—*O. Strunk*.

8693. Friedman, Sam. (Youth Opportunity Center, Oakland, Calif.) **Role-playing in a youth employment office.** *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 21-26.—A group counseling program set up in a youth employment office to assist urban, minority, disadvantaged youth included role-playing techniques so that the youth would learn more about themselves and their potential employers. The effects on 6 of the youths are described.—*A. Krichev*.

8694. Lauver, Philip J., Kelley, Jan D., & Froehle, Thomas C. (Indiana U., School of Education) **Client reaction time and counselor verbal behavior in an interview setting.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 26-30.—Investigated the effects of 15-sec client response latencies on the speech and silence behavior of 4 experimentally naive graduate students who were counselor-trainees in advanced training. The coached client used the longer response latency during the middle 15-min period of the 45-min interview. Differences in counselor behavior across periods significant at or above the .05 level were noted for 1 speech and 2 silence variables. Results indicate that a coached client was able to effect change unobtrusively in the speech and silence behavior of counselors.—*Journal abstract*.

8695. Maes, Wayne R. (Ed.) **Counseling: A venture in human freedom.** *Bureau of Educational Research & Services Bulletin, Arizona State U*, 1968(Mar), No. 25, 61 p.

8696. Milliken, Robert L. & Kirchner, Regis. (DARTEC House, Meriden, Conn.) **Counselor's understanding of student's communication as a function of the counselor's perceptual defense.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 14-18.—Investigated the threat element of a counselee's verbal expressions on the counselor's recall in an experiment with 39 graduate students. Results show that more anxious counselors were less accurate in their ability to recall words spoken and feelings expressed in simulated interviews. Total objective test scores, obtained from the Institute for Personality and Ability Testing Anxiety Scale Questionnaire, combining results of 4 affective states (anxiety, anger, positive affection, and typical normal emotions), yielded statistically significant results. 2 discrete states, anger and minimal affect, showed impairment of recall of counseling data.—*Journal abstract*.

8697. Mitchell, Kenneth R. (U. New South Wales, Student Counseling & Research Unit, Sydney, Australia) **Shapiro's single case repeated-measure design applied to the individual client in counselling.** *Australian Psychologist*, 1969(Jul), Vol. 4(1), 20-36.—Attempted to determine the practicability of applying Shapiro's design in a counseling setting, and whether individual-centered research could produce results psychologically meaningful to either counseling practitioner or E. The design was applied to a male 1st-yr university student who had failed all his courses, but wished to continue his studies. Directive counseling was carried out over a 12-wk period, with 2 sessions/wk, in blocks of 2, through systematization of anxiety responses, and with supportive discussions of vocational goals. Results show

that: (a) directive counseling produced an over-all significant improvement, (b) no immediate effect of directive counseling was apparent, (c) the delayed effect of directive counseling was that of significant improvement, and (d) early counseling sessions produced more improvement than later sessions. Generalizations based on the results are: a directive counseling session sets in motion a delayed improvement process which lasts at least for several days, and a series of directive counseling sessions sets in motion a regular, delayed improvement process that does not reverse its direction as time goes on. Therefore, not only is it practicable to apply a single case repeated-measure design in a counseling setting, but a counseling experiment on a single case can produce results which are psychologically meaningful, useful to counseling practitioner and investigator.—*T. N. Webster.*

8698. **Wiksten, De Forrest.** *The power of pastoral counseling as the work of the Holy Spirit.* *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 28-32, 40-42.—Discusses pastoral counseling in terms of man's longing for relatedness, the limitations of insight, and faith as the object of counseling. If the pastoral counselor is to maintain his balance and professional integrity, he needs to be in touch with the unassailable power of his calling and the immutable confidence of his pastoral practice.—*O. Strunk.*

Marriage & Family

8699. **Corsini, Raymond J.** (Family Education Center, Honolulu, Hawaii) *The elbow and feet technique.* *Individual Psychologist*, 1970(Nov), Vol. 7(2), 47-52.—Details the successful counseling of 1 family by the application of Adlerian concepts. The importance of how the counselor reacts to his own uncertainty is apparent.—*A. R. Howard.*

8700. **Kaufman, Philip K.** (Drug Abuse Committee, Queens County Medical Society, New York) *Marihuana: The watched pot.* *New York State Journal of Medicine*, 1970(Jul), Vol. 70(13), 1793-1798.—Presents a counseling case study which involved a 20-yr-old female, her parents, and their family doctor. Different viewpoints of those involved in the drug problem are discussed, stressing the different attitudes between generations with regard to marihuana.—*M. Maney.*

8701. **Scheinfeld, Daniel R., Bowles, Dorcas; Tuck, Samuel, & Gold, Reuven.** (Inst. for Juvenile Research, Chicago, Ill.) *Parents' values, family networks, and family development: Working with disadvantaged families.* *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 413-425.—Reports and evaluates a strategy for working with disadvantaged families whose preschool children are showing signs of slow development. Parents are 1st interviewed concerning their child-rearing values. A series of concrete activities commensurate with the parents' own value system are then introduced into family life. Through this process new kinds of exchanges develop within the family, and parents' ideas concerning child-rearing become more developmental. Parents are then enlisted to help develop other families within their social network. The open-ended interview schedule is included.—*Journal abstract.*

8702. **Stein, Calvert.** *Practical family and marriage counseling.* Springfield, Ill.: Charles C Thomas, 1969. xiv, 341 p. \$12.50.

Social Casework

PHYSICAL HANDICAP

8703. **Donlon, Edward T.** (Syracuse U.) *Identification and categorization of descriptive terms in the evaluation of deaf-blind children.* *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1533.

8704. **Frumkin, R. M., Sakata, Robert, & Wilson, Milton E.** *Sex and attitudes toward eight major disabilities.* *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 240-242.—32 graduate students preparing for a career in rehabilitation counseling ranked 8 major disabilities in the order such disabilities might be felt to be disturbing to them if they had them. No statistically significant consensus within the total group was found. Rankings within the sex groups indicated significant consensus among the males but not the females. Results strongly suggest that differential attitudes may center around the matters of sexual identification and beauty more readily than practical considerations.—*E. B. Jaffa.*

8705. **Goodman, Elizabeth M.** (U.S. Office of Education, Bureau of Education, Washington, D.C.) *Vocational education for the handicapped: A cooperative approach.* *Rehabilitation Literature*, 1969(Jul), Vol. 30(7), 199-202.

8706. **Ludwig, Edward G. & Collette, John.** (State University Coll. New York, Fredonia) *Disability, dependency, and conjugal roles.* *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 736-739.—Compared 2 groups of disability applicants and their wives, 1 in which applicants were dependent on their wives in activities of daily living and 1 in which they were not, to examine the effects of dependency on conjugal roles, household decision-making, and interaction with friends and relatives. Data indicate that (a) dependent husbands and their spouses spent more time together and less time with friends and relatives, and (b) dependent husbands were less likely to be involved in decision-making and more likely to reflect conjugal role flexibility.—*Journal abstract.*

8707. **Pekny, Lisolette.** (U. Innsbruck, Children's Clinic, Austria) *Die Rolle des Spiels beim bewegungsbehinderten Kind.* [The role of play activities in the mobility-handicapped child.] *Heilpädagogische Werkblätter*, 1970(Sep), Vol. 39(5), 241-247.—Examines the question of how far the behavior of the mobility-handicapped child can be positively modified through play activities, and what role can be ascribed to such play. Special problems and difficulties for such children are discussed, and therapeutic principles for them are presented.—*R. F. Wagner.*

8708. **Shontz, Franklin C.** (U. Kansas) *Physical disability and personality: Theory and recent research.* *Psychological Aspects of Disability*, 1970(Jul), Vol. 17(2), 51-69.—Agrees with previous studies of the literature that there is no evidence to support the hypotheses that many forms of somatic disability are associated with particular forms of personality or that the extent of the psychological effects of disability are proportional to the severity of the disability. Theoretical alternatives are available, but are infrequently applied in research. Basic personality structure appears to be stable even when somatic change is severe. Absence of anxiety is usually interpreted as evidence of denial, but it may be a sign of good and realistic adjustment in many cases.

Negative emotional experiences are associated with improvement in somatic status as well as with the onset of disability or disease; the crucial factor seems to be change in an enduring somatic state, rather than illness or health. (8 p. ref.)—*Journal abstract.*

8709. Uhlig, George E., Trotter, Ann B., Gozali, Joav, & Tesch, Mary J. (U. Wisconsin, Milwaukee) **Self-actualization in hospitalized disabled and non-hospitalized adults as measured by the Personal Orientation Inventory.** *Psychological Aspects of Disability*, 1970(Jul), Vol. 17(2), 83-85.—Compared groups of 30 physically disabled and 60 nondisabled male veterans to determine if physical disability affected perceived self-actualization as measured by Shostrom's Personal Orientation Inventory (POI). Hospitalized disabled; temporarily disabled and hospitalized; and nondisabled, nonhospitalized veterans did not differ significantly on any of the POI scales. The theoretical assumption that physical disability hampers growth toward self-actualization was not supported.—*Journal abstract.*

Blindness & Visual Disorder

8710. Feinsod, M., Rowe, H., & Auerbach, E. (Hebrew U., Hadassah Medical School, Jerusalem, Israel) [The diagnostic and prognostic value of electrophysiological examinations of the visual system.] *Harefuah*, 1970(Sep), Vol. 79(6), 249-251.—Reports 5 cases which demonstrate the clinical value of the combined examination of the electroretinogram and the average visual evoked potential of the visual cortex in the differential diagnosis of visual disturbances. The combined examination is especially valuable when the patient is uncooperative because of age, intelligence, state of consciousness, or malingering. The 1st patient was thought to be suffering from hysterical amblyopia and the 2nd to be a malingerer. However, the electrophysiological test showed both to have organic disturbances. The other 2 patients were referred with the diagnoses of retinitis pigmentosa and of traumatic lesion of the optic nerve, respectively. The normal findings of the electrophysiological tests in these 2 patients were essential in reaching a final diagnosis of psychiatric disturbance. The 5th patient suffered from severe cerebral damage, especially to the occipital lobes. Despite the fact that the examinations were carried out during a 6-wk period of unconsciousness, the electrophysiological tests indicated that it was likely that the patient would be able to see, which proved correct after the patient regained consciousness.—*English abstract.*

8711. Gardiner, Peter; MacKeith, Ronald, & Smith, Vernon. (Guy's Hosp., London, England) **Aspects of developmental and paediatric ophthalmology.** London, England: Spastics International Medical Publications, 1969. 128 p. \$6.

8712. Goldman, Herbert. **Psychological testing of blind children.** *American Foundation for the Blind, Research Bulletin*, 1970(Aug), No. 21, 77-90.—Reviews the literature concerned with intelligence testing of blind children, emphasizing the need for predictors of academic achievement. (28 ref.)—*W. E. Collins.*

8713. Lauer, Harvey. (Veterans Administration Hosp., Hines, Ill.) **Personal reading machines: How they work, what they can do.** *New Outlook for the Blind*, 1969(Nov), Vol. 63(9), 257-261.—Describes early experiences with 3 new reading machines: the Visotoner, the Visotactor B, and the Cognodictor. All 3 machines

convert print into a combination of auditory and tactile stimuli which can be used by blind persons for reading. These machines can also be of use in reading numerals, italicized letters, and symbols used in foreign languages.—*P. R. Shibelski.*

8714. Lievens, S. (State U., Ghent, Belgium) **Het persoonlijkheidsonderzoek bij blinden.** [Personality assessment of blind persons.] *PMS: Tijdschrift voor Psycho-Medisch-Sociaal Werk*, 1970, Vol. 16(3), 111-122.—Briefly reviews 9 projective tests and 7 objective personality tests that have been used with the blind. (24 ref.)—*S. G. Vandenberg.*

8715. Lipton, Edgar L. **A study of the psychological effects of strabismus.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 146-174.

8716. Vaughan, Herbert G. & Schimmel, Herbert. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Feasibility of electrocortical visual prostheses.** *American Foundation for the Blind, Research Bulletin*, 1970(Aug), No. 21, 1-47.—Outlines the basis for the possibility of building a high-density prototype visual prosthesis of 4,000-10,000 points within 3 yr. System considerations and a system design are presented. (23 ref.)—*W. E. Collins.*

8717. Wills, Doris M. **Vulnerable periods in the early development of blind children.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 461-480.

Deafness & Hearing Disorder

8718. Ewertsen, H. W., Nielsen, H. Birk, & Nielsen, S. Scott. (Bispebjerg Hosp., Copenhagen, Denmark) **Audio-visual speech perception: A preliminary report.** *Acta Oto-Laryngologica*, 1969(Jun), Suppl. 263, 229-230.—Varied independently 2 parameters (picture and sound level) by means of a video-recorder connected to a speech audiometer and a television set. The communication score of 100 hearing disordered patients was found in relation to the visual perception, to the auditive perception, and to a combination of both. In Ss with medium lipreading ability, there was a fairly good correlation between this ability and the reduction of their hearing loss measured in decibels. A small group seemed to have a special capacity of combining vision and hearing.—*Journal abstract.*

8719. Kearney, Jacqueline E. (U. Queensland, Brisbane, Australia) **Verbalization tests.** *Australian Psychologist*, 1970(Jul), Vol. 5(2), 164-176.—Discusses the extent to which the lack of speech facility limits the availability of "internal language" and handicaps deaf children in their capacity for concept formation. An experiment using a variation of 1 of the Queensland Test item types to investigate the use of such language in a small sample of deaf Ss is reported. Ss were 15 deaf 8 yr. olds. Indications on this limited sample are that internal language is in fact used and that mastery of such language facilitates problem solving.—*Journal abstract.*

8720. Osborne, J. Grayson. (Utah State U.) **Behavior modification with a deaf student: A case study.** *Psychological Aspects of Disability*, 1970(Jul), Vol. 17(2), 71-78.—Illustrates the usefulness of operant conditioning for behavior modification with deaf youth even when total classroom or dormitory control is not possible, and long delays between responses and reinforcement are necessary. A 15-yr-old deaf student was the S for a behavior modification experiment. The experimental task was to increase the frequency of

certain desirable responses, and to decrease the frequency of a class of undesirable responses through earning and forfeiting points. Points were totaled once daily, and every Friday the S was allowed to choose activities for the weekend based on the number of points earned during the wk. Results show significant changes in the desired directions in those response classes most heavily weighted with points. The amount of academic work increased significantly while undesirable behavior significantly decreased. Those responses producing the fewest points showed no systematic changes.—*Journal abstract.*

SPEECH DISORDER

8721. Bednářová, V. **Psychoterapeutický efekt u chlapce s příznakem zajakávaní sa.** [Psychotherapeutic effects with a young boy with symptoms of stuttering.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(2), 179-180.

8722. Edgren, B., Leanderson, R., & Levi, L. (Royal Caroline Inst., Lab. for Clinical Stress Research, Stockholm, Sweden) **A research programme on stuttering and stress.** *Acta Oto-Laryngologica*, 1969(Jun), Suppl. 263, 113-118.—Describes a series of experimental stressor exposures in which groups of stutterers (N = 49) had to expose their speech disturbance in public. Ss' self-rated emotional reactions were compared with their sympatho-adrenomedullary stress reactions, as reflected by urinary excretion of catecholamines. The effect of iteration of the experimental situation and the influence of psychotropic drugs were also studied.—*Journal abstract.*

8723. Gutiérrez Gómez, Diego. (Psychiatric Hosp. of the King, Madrid, Spain) **Interpretación de la ausencia del lenguaje en psiquiatría infantil.** [Interpretation of the language absence in infantile psychiatry.] *Archivos de Neurobiología*, 1969(Jan), Vol. 32(1), 51-64.—Classifies speech defects in children into 3 primary groups: (a) physical defects (motor or sensory), (b) symbolization difficulty (comprehension or verbal expression), and (c) arrangement difficulty (intellectual, emotional, or psychotic). Illustrative case histories are presented for each type in an attempt to delineate areas of difficulty in diagnostic procedures. Cases which pose the greatest difficulties involve deaf mutes. 4 cases are presented which illustrate children having normal IQs who were mistaken by both parents and physicians as being psychotic. Suggestions are offered for means of making more accurate diagnoses. (French summary)—*English summary.*

8724. Lecours, A. R. & Lhermitte, F. (Hôpital de la Salpêtrière, Paris, France) **Phonemic paraphasias: Linguistic structures and tentative hypotheses.** *Cortex*, 1969(Sep), Vol. 5(3), 193-228.—"Normal and aphasic language segments have been described as clusters of strings of units the less complex of which participate in the structuration of the more complex ones, thus realizing a system of several hierarchized levels of integration. A procedure for analysis of phonemic transformations has been outlined: it includes a method for quantifying similarity and proximity relations between phonemes participating in the structuration of a more complex segment; and a description of transformations by reference to a mathematical model. It has been shown that the sensitivity of a given phoneme to aphasic transformation is a direct

function of the degree of its similarity to other phonemes appearing in its immediate vicinity. Hypothetical considerations have been discussed concerning the physiological mechanisms subserving normal and abnormal production of phonemic sequences. It has been suggested that simulation experiments might lead to better understanding of the physiopathology of phonemic jargon aphasia."—*R. Gunter.*

8725. Lyapidevskii, S. S. & Seliverstov, V. I. (Eds.) **Vospitanie i obuchenie detei s rasstroistvami rechli.** [Training and teaching children with speech disorders.] Moscow, USSR: Prosveshchenie, 1968. 248 p.—Presents a collection of 9 articles, projecting a "complex of therapeutico-pedagogical measures," directed toward overcoming severe speech disorders in preschool children.—*I. D. London.*

8726. Mann, Mary B. & Chubrich, Ronda C. (State U. New York, Buffalo) **Binaural stimulation of aphasic patients: Effects on oral reading.** *New York State Journal of Medicine*, 1970(Nov), Vol. 70(22), 2815-2817.—Investigated H. G. Birch's findings that auditory stimulation decisively improves the verbal performance of aphasics. 18 predominantly expressive aphasics were tested under 3 rotated conditions: no auditory stimulation, white noise, and pure tone. Ss read aloud 3 sets of reading materials composed of lists of 10 words from 1-3 syllables long and 7 sentences from 3-16 words long. The differences in the 3 conditions were not statistically significant, although 5 Ss who scored below 20% correct responses did improve, and 2 Ss showed qualitative improvements under the pure tone condition. The previous findings are not supported, but it is suggested that auditory stimulation may be of use with patients who have great difficulty with language.—*S. Knapp.*

8727. Ostwald, Peter F. (U. California, Medical School, Berkeley) **The psychiatrist and the patient who stutters.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 317-324.—Discusses the practical clinical management of patients with severe and persistent speech fluency disturbances called stuttering. The fundamental causes of this symptomatic disorder are not known. There is evidence for constitutional and maturational factors, but little support for any specific epileptogenic or psychogenic etiology. The disorder is more frequent among males, and if it persists past adolescence, patients may withdraw from social contacts or make undesirable personal adjustments requiring psychiatric attention. Symptom reduction often is best accomplished by speech therapists. If psychotherapy is attempted, the focus should be on immediate breakdowns in behavior, similar to brief psychotic crises, in which infantile and preverbal processes are exposed. The primary goal of any therapy is to reduce the fear of stuttering. Group therapy helps with the stutterer's dependency, rigidity, and megalomaniac defenses, especially in the sphere of speech behavior. There is no "cure" for stuttering, only a gradual shift in the direction of better rhythm, greater expressiveness, less redundancy, and calmer pausing in speech. (24 ref.)—*Journal abstract.*

8728. Pravdina, O. V. **Logopediya.** [Logopedics.] Moscow, USSR: Prosveshchenie, 1969. 304 p.—Presents a textbook on speech disorders for defectological departments in pedagogical universities.—*I. D. London.*

8729. Rau, E. G. & Sinyak, V. A. **Logopediya.** [Logopedics.] Moscow, USSR: Prosveshchenie, 1969. 128 p.—Presents a manual for logopedic students and

trainers, operating under conditions of the "mass preschool institution."—*I. D. London.*

NEUROLOGICAL DISORDER

8730. Asch, Morton J. (Veterans Administration Hosp., Martinez, Calif.) **The psychologist in the spinal cord injury center.** *Psychological Aspects of Disability*, 1970(Jul), Vol. 17(2), 79-82.—A questionnaire survey of 7 Veterans Administration Spinal Cord Injury Centers in 1969 indicated that the activities of psychologists have not changed significantly since a similar survey was completed in 1963 by M. J. Asch. Crucial patient problems, as perceived by psychologists, also changed little except for an increase in concern for vocational problems and a concomitant decrease in regular, gainful employment.—*Journal abstract.*

8731. Barbeau, Andre. (U. Montreal, Quebec, Canada) **Parkinson's disease: Recent advances in treatment.** *New York State Journal of Medicine*, 1970(Oct), Vol. 70(19), 2437-2443.—Summarizes rationale and results of research on Parkinson's disease. The observations of a low-dopamine content in the brain and urine of parkinsonian patients led to the use of the precursor L-dopa in therapeutic trials. Between 1961 and 1966, both oral and iv routes were utilized and some effects were noted on akinesia and rigidity. When higher oral doses of dopa were introduced in 1967, the sustained beneficial action of this drug on parkinsonian signs and symptoms was proved positively, but a number of troublesome side-effects were revealed, the worst of which were hypotension and a variety of abnormal involuntary movements. Results from 100 patients treated with an average daily oral dose of 4.8 gm. of L-dopa are presented, and new potentiators and future avenues of investigation are reviewed. (50 ref.)—*Journal summary.*

8732. Barlow, John S. (Massachusetts General Hosp., Boston) **Vestibular and non-dominant parietal lobe disorders: Two aspects of spatial disorientation in man.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 667-673.—Considers 2 basic forms of spatial disorientation in man and discusses analogies to certain man-made navigational systems developed in recent years. Disorientation resulting from the vestibular organ, at the sensory receptor level, and the nondominant parietal lobe, at the central integrative level, are cited. Spatial orientation, following loss of vestibular functioning, is largely recovered, whereas in disease of the nondominant parietal lobe, recovery may be incomplete or totally lacking. These points are considered in relation to the normal and possibly abnormal functions of navigational systems which also possess "sensory-receptors" and "central integrative mechanisms" within their structures. Schematic diagrams and illustrative case history examples are provided. (15 ref.)—*P. McMillan.*

8733. Beck, Leah; MacKay, Mary, & Taylor, Reginald. (Columbia-Presbyterian Medical Center, Coll. of Physician & Surgeons) **Methylphenidate: Results on children's psychiatric service.** *New York State Journal of Medicine*, 1970(Dec), Vol. 70(23), 2897-2902.—Reports a double-blind experiment with methylphenidate (ritalin) to determine the site of action and the specific target symptoms. Case histories are presented for each of 8 inpatients, 8-12 yr. old with neurophysiologic immaturity and abnormal EEGs. Behavior and learning were evaluated by teachers and ward personnel; and

EEGs, WISC, Rorschach test, Bender-Gestalt Test, Goodenough Test, Raven Progressive Matrices, an adaptation of Piaget's stories, and neurologic tests for incoordination and cerebral dominance were administered. No untoward side effects were observed. 5 Ss showed substantial improvement in performance, and 4 Ss showed fewer EEG abnormalities. Findings suggest that methylphenidate has some effect on the bioelectric activity of the brain, and an organizing effect on behavior enabling Ss to respond to a hierarchy of stimuli. (15 ref.)—*S. Knapp.*

8734. Botez, M. I. (Prof. Dr. Gh. Marinescu State Hosp., Bucharest, Romania) **Aphasia: A multidisciplinary approach.** *European Neurology*, 1970, Vol. 3(1), 50-62.—Presents clinical observational data from 260 patients with surgically verified intracranial expanding processes and from 30 patients with cerebrovascular disease. A multidisciplinary approach is used to analyze and comment on the data from the neurophysiological, neurocybernetical, and psycholinguistic viewpoint. Topics dealt with include: (a) self-facilitation and facilitation as a temporal and spatial summation phenomenon, (b) the possibility of evaluating the liminal threshold of verbal communication in aphasics, (c) the importance of the starting point in carrying out verbal tasks, (d) the problem of discriminating the message as an auditory and cognitive event, (e) the mode of transmission of semantic information in aphasics, and (f) the role of noise in encoding and decoding of verbal messages. (16 ref.)—*Journal summary.*

8735. Crosby, Allan R. (11515 W. North Ave., Wauwatosa, Wis.) **The use of the Self-Rating Depression Scale after traumatic injuries.** *Journal of the American Osteopathic Association*, 1969(Nov), Vol. 69(3), 269-270.—Investigated psychological response to traumatic injury in 50 patients who had sustained acute trauma to the spinal and paraspinal structures. Ss were investigated during a 6-mo period using the Zung Self-Rating Depression Scale which provides a quantitative measurement of depression and a rapid method (5 min. for testing and scoring) for the assessment of depression. 40 Ss (80%) had scores above 43 (normal score = 24-43), while 70% of the Ss scored 50 or higher. A high score indicates depression of clinical significance. Results indicate that the frequency of depressive symptoms in patients with traumatic injury is high. It is concluded that aggressive, prompt treatment by the attending physician, or appropriate referral, should effect the best prognosis.—*Journal abstract.*

8736. Dunn, Dennis J. (U. Maryland) **Adjustment to spinal cord injury in the rehabilitation hospital setting.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 911-912.

8737. Ettlinger, G. & Moffet, A. M. (Inst. of Psychiatry, London, England) **Learning in dysphasia.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 465-474.—Compared the performance of 27 dysphasic and 59 nondysphasic patients (many of whom had verified unilateral cerebral lesions) on tests of: sentence learning, sentence recall, rhythm learning, rhythm recall, word finding, and of nonverbal intelligence. In Exp. II, a small group of dysphasic Ss was taught to repeat a sequence of 5 names of objects (immediately after failing to name these 5 objects), and was then tested for the ability to name the objects which previously could not be named. It was found that the dysphasic Ss were significantly impaired at sentence learning, sentence recall, and word

finding, but showed only a trend towards impairment at rhythm learning and not even a trend at rhythm recall nor on the test of nonverbal intelligence. In Exp. II it was found that learning a sequence of object names facilitates, but generally does not ensure perfect performance at, object naming. Findings suggest that there might coexist 2 disabilities in dysphasia: verbal learning and verbal recall. (French & German summaries)—*Journal abstract*.

8738. Filatova, A. D. *Nekotorye osobennosti narusheniĭ motoriki i myshechnogo tonusa v zavisimosti ot strukturno-biologicheskikh svoĭstv neĭroektodermal'nykh opukholei visochnoi doli*. [Some features in disturbances of motor behavior and muscular tonus as a function of the structuro-biological properties of neuroectodermal tumors of the temporal lobe.] *Problemy Neirokhirurgii*, 1969, No. 2, 118-124. —Presents a clinico-EMG study of 82 cases, showing that in benign neuroectodermal tumors of the temporal lobe, disturbances of motor behavior and muscular tonus are chiefly subclinical in the early period and are disclosed only through the EMG. Later, a clinically expressed motor pathology ensues, as a result of the involvement of adjacent structures in the pathological process.—I. D. London.

8739. Fot, K., Richard, J., Tissot, R., & De Ajuriaguerra, J. (Bel-Air U., Psychiatric Clinic, Geneva, Switzerland) *Le phénomène de l'extinction dans la double stimulation tactile de la face et de la main chez les déments dégénératifs du grand âge*. [The phenomenon of extinction in the double tactile stimulation of the face and hand with degenerative dementia of old age.] *Neuropsychologia*, 1970(Nov), Vol. 8(4), 493-500. —Tested 35 patients with senile degenerative dementia with simultaneous tactile stimulation of the face and hand after they had responded correctly to a series of simultaneous stimuli of symetric body parts (both hands; both cheeks). Results show that the extinction phenomenon described by others in young children, in hemiplegics, and in demented patients, is part of the clinical pictures in degenerative dementia, appearing early in the process. The extinction phenomenon always occurs in the hand while facial stimulation is always perceived and correctly localized. It is slightly more frequent in homolateral stimulation (i.e., right hand-right cheek; left hand-left cheek) than in heterolateral stimulation (right hand-left cheek; left hand-right cheek). S's level of disintegration was measured with Piaget's operational tests and by determining digital autotopognosia. In the degenerative process, extinction appears slightly before troubles of digital autotopognosia while patients are still operating at a fairly high level on Piaget's operational scale (i.e., retaining the notion of conservation of weight or even the notion of conservation of volume. (German summary)—*English summary*.

8740. Golubenko, A. A. *Izmeneniya bioelektricheskoi aktivnosti pri neĭroektodermal'nykh opukholyakh tsentral'nykh izvilin i temennoi oblasti*. [Changes in bioelectrical activity in neuroectodermal tumors of the central gyrus and parietal region.] *Problemy Neirokhirurgii*, 1969, No. 2, 113-117. —41 of the 42 cases in the study exhibited changes in the EEG: (a) focal disorders of electrical activity most often in cases of benign tumor, and (b) widespread disorders in cases of malignant tumor.—I. D. London.

8741. Grassi, Joseph R. (U. Miami, Child Devel-

opment Center) *The Grassi Block Substitution Test for measuring organic brain pathology*. (2nd ed.) Springfield, Ill.: Charles C Thomas, 1970, vii, 84 p. \$6.50.

8742. Green, Eugene. (Veterans Administration Hosp., Aphasia Research Center, Boston, Mass.) *On the contribution of studies in aphasia to psycholinguistics*. *Cortex*, 1970(Jun), Vol. 6(2), 216-235. —Outlines "perspectives, models, and evidence that research in linguistic breakdown brings to bear both on the nature of aphasia and speech behavior as a whole. 4 aspects of speech behavior are considered: spontaneous speech, naming, repetition, and comprehension. Howes's model for spontaneous speech is reviewed for its power to explain mechanisms of speech production and some suggestions are made for further research. A 5 stage model of naming is discussed, including (a) a metalinguistic stage; (b) a stage for matching sensory information to words; (c) a linguistic stage; (d) a stage for the neurally coded representations of a word; and (e) a stage for processing abstract forms in their phonic shapes. Some of the research completed and still needed in repetition and comprehension is noted. The study, in all, argues for limited models of speech processes that incorporate the perspectives and findings of research in anatomy, linguistics and psychology."—R. Gunter.

8743. Guba, G. P. *Nevrologicheskie simptomy, sindromy i funktsional'nye proby*. [Neurological symptoms, syndromes and functional tests.] Kiev, USSR: Zdorov'ya, 1969. 300 p. —A manual with alphabetical listings. Included is a short dictionary of clinical neurological terms.—I. D. London.

8744. Gubler, E. V. (Ed.) *Problemy vychislitel'noi diagnostiki*. [Problems in computer diagnostics.] Leningrad, USSR: Nauka, 1969. 192 p. —Presents a collection of 21 articles on automation of the diagnostic process, employing the principles of "medical cybernetics." Articles on the diagnosis of cerebral vascular diseases, neurological pathologies, and closed craniocerebral injuries are included. The collection constitutes an unnumbered issue of *Problemy Biologicheskoi Kibernetiki* [Problems of Biological Cybernetics].—I. D. London.

8745. Kanyuka, Yu. I. *Sravnitel'naya kharakteristika dvigatel'noi i rechevoi patologii pri dobrokachestvennykh i zlokachestvennykh neĭroektodermal'nykh opukholyakh supratentorial'noi lokalizatsii*. [Comparative characteristics of motor and speech pathology in benign and malignant neuroectodermal tumors located in the supratentorium.] *Problemy Neirokhirurgii*, 1969, No. 2, 102-107. —Presents a comparative study of motor and speech pathology in 153 cases of astrocyt- and glioblastomata in the frontal, parietal, and temporal regions. The degree of malignancy is shown to have a definite influence on the appearance, frequency, and intensity of motor and speech symptoms.—I. D. London.

8746. Khomitskaya, L. F. & Stanislavskii, B. G. *Funktsional'noe sostoyanie gipotalamo-gipofizarno-nadpochechnikovogo kompleksa pri neĭroektodermal'nykh opukholyakh polusharii mozga razlichnoi stepeni zlokachestvennosti*. [Functional state of the hypothalamo-hypophyseal-adrenal complex in neuroectodermal tumors of the cerebral hemispheres with different degrees of malignancy.] *Problemy Neirokhirurgii*, 1969, No. 2, 140-145. —Data on the diurnal excretion of 17-oxycorticosteroids in the urine and on their concentration in the blood disclose a connection between degree of malignancy of glial tumors

in the cerebral hemispheres and the functions of the various links of the hypothalamo-hypophyseal-adrenal complex. However, in typical astrocytomata the functions of this complex are unaffected.—*I. D. London.*

8747. Klebanova, L. B. (Bogomolets Inst. of Physiology, Kiev, USSR) **Soderzhanie katekholaminov (adrenalina i noradrenalina) v sutochnoi moche pri porazhenii gipotalamusa.** [Catecholamine content (adrenaline and noradrenaline) in diurnal urine with lesion of the hypothalamus.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 141-145.—Observed 51 25-40 yr. old patients with hypo- and hypertonia caused by hypothalamic lesions. A high level of urine catecholamines in the case of the hypertonic syndrome (especially noradrenaline) attended an elevated tonus of the sympatho-adrenal system, and marked pressure reactions. In the case of the hypotonic syndrome, on the contrary, a low level of noradrenaline attended a decline of sympatho-adrenal tonus and arterial hypotension.—*I. D. London.*

8748. Lauta, A. D. (Bogomolets Inst. of Physiology, Kiev, USSR) **K kharakteristike obmenno-endokrinnykh narushenii pri porazhenii gipotalamusa.** [On the characteristics of the metabolic-endocrine disturbances following lesion of the hypothalamus.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 134-140.—Observed 53 20-40 yr. old diencephalic patients with metabolic-endocrine disturbances. Hypothalamic lesions may be attended by various forms of disturbed fat metabolism against a background of autonomic and viscerovascular disorders inherent in diencephalic syndromes.—*I. D. London.*

8749. Lit, A. C. (Christelijk Sanatorium for Neurosis & Psychosis, Zeist, Netherlands) **Man behind a mask: An analysis of the psychomotor phenomena of Parkinson's disease.** *Acta Neurologica et Psychiatrica Belgica*, 1968(Dec), Vol. 68(12), 863-874.—Presents a brief case history of a patient with Parkinson's disease and elaborates general results of a study of the psychiatric and psychological factors in 50 patients having Parkinson's disease. Correlations are demonstrated between the physiological symptoms in parkinsonian Ss (e.g., akinesia, tremor, and rigidity) and a very specific mental syndrome which appears to be prevalent. This syndrome is characteristically comprised of the following symptoms: (a) obsession with one's body, (b) mental rigidity, and (c) rejection of nearly all external stimuli (particularly those stimuli associated with motor functions). Findings are discussed in terms of the total personality involvement in Parkinson's disease. (French & German summaries) (15 ref.)—*P. R. Shibelski.*

8750. Makarchenko, A. F. & Dinaburg, A. D. (Bogomolets Inst. of Physiology, Kiev, USSR) **Rol' gipotalamusa v kardiovaskulyarnom i respiratornom kontrole u cheloveka.** [Role of the hypothalamus in human cardiovascular and respiratory regulation.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 49-57.—Ss were 240 diencephalic patients with hypo- and hypertonic syndromes (170 and 70, respectively). It is shown that: (a) patients suffering from viscerovascular diencephalic syndromes exhibit dysfunction in certain aspects of cardiovascular and respiratory functions; and (b) on the basis of the data procured in studying these syndromes, the hypothalamus is very much involved in the maintenance of vascular tonus and vascular reactivity to unconditioned and conditioned stimulation, the trophicity of the heart muscle, and the tonus of the

respiratory center in the medulla oblongata (at a certain level and with correctness of respiratory rhythm).—*I. D. London.*

8751. Mark, Vernon H. & Ervin, Frank R. (Boston City Hosp., Mass.) **Violence and the brain.** New York, N.Y.: Harper & Row, 1970. xiv, 170 p. \$6.95.

8752. Milyutina, E. V. (Bogomolets Inst. of Physiology, Kiev, USSR) **Funktsional'naya aktivnost' zhenskikh polovykh zhelez pri porazheniyakh gipotalamusa.** [Functional activity of the female sex glands with lesions of the hypothalamus.] *Problemy Fiziologii Gipotalamusa*, 1969, No. 3, 146-150.—Observed 80 15-45 yr. old women with diencephalic syndromes. In the case of the hypertonic viscerovascular diencephalic syndrome, the 1st phase of the menstrual cycle was disturbed. In the case of the hypotonic viscerovascular diencephalic syndrome, disorders in both the 1st and the 2nd phases of the cycle were observed. In the case of the neuroendocrine syndrome, considerable elevation of estrogen excretion was observed over the space of the whole cycle.—*I. D. London.*

8753. Mones, Robert J. (Mt. Sinai Medical School, New York, N.Y.) **Parkinson's disease: I.** *New York State Journal of Medicine*, 1970(Nov), Vol. 70(21), 2687-2691.—Reviews medical progress in work with Parkinson's disease from the time of its discovery in 1817 until the present, discusses epidemiology of the disease, and presents descriptive information from 1926 to the present. (31 ref.)

8754. Mones, Robert J. (Mt. Sinai, Medical School, New York, N.Y.) **Parkinson's disease: II.** *New York State Journal of Medicine*, 1970(Nov), Vol. 70(22), 2822-2828.—Presents an extension of a study by R. J. Mones (see PA, Vol. 45:Issue 5) reviewing the history and treatment of Parkinson's disease. The history of drug treatment from scopolamine in 1892 to L-dopa at the present is reviewed. Surgical procedures are examined and evaluated. It is concluded that the use of L-dopa and the approach to Parkinson's disease as a neurochemical transmitter disease constitute major breakthroughs and are also promising for research into other diseases of the nervous system. (43 ref.)—*S. Knapp.*

8755. Mones, Robert J., Elizan, Teresita S., & Siegel, George J. (Mt. Sinai School of Medicine, City U. New York) **Evaluation of L-dopa therapy in Parkinson's disease.** *New York State Journal of Medicine*, 1970(Sep), Vol. 70(18), 2309-2318.—Presents an analysis of 152 patients with Parkinson's disease who were treated with L-dopa therapy for 2-9 mo. Results show that about 50% of the Ss had to change their style of living and were considered to have successful results from L-dopa trials. An explanation for failure with the other 50% was not evident. It is concluded that patients with Parkinson's disease should be treated with L-dopa unless there is severe, life-threatening cardiovascular or cerebral vascular disease. It is noted that data is in agreement with previously obtained data in studies of the effects of the drug and complications on a short-term basis of from 1-2 yr. The need for close follow-up reporting of long-term L-dopa therapy is emphasized. (19 ref.)—*Journal summary.*

8756. Nicol, Charles F. (State U. New York, Medical School, Buffalo) **Treatment of reversible dementia.** *New York State Journal of Medicine*, 1970(Oct), Vol. 70(19), 2432-2437.—Briefly discusses some of the more common causes of reversible dementia, presents the pertinent facts of normal pressure-communicating

hydrocephalus, and illustrates some aspects of this disorder with a short case report of a 54-yr-old male. It is stressed that this last disorder may be easily missed since it may follow long-forgotten trauma, bleeding, or even result when no causative agent can be found. It is of utmost importance that the ventricular system of such patients be shunted before the patient is confined to a long-care institution. (26 ref.)—*Journal summary.*

8757. Parisi, Domenico & Pizzamiglio, Luigi. (National Research Council, Rome, Italy) **Syntactic comprehension in aphasia.** *Cortex*, 1970(Jun), Vol. 6(2), 204-215.—Presents "a test for measuring the syntactic comprehension in aphasic patients: some of its psychometric characteristics and its clinical usefulness are discussed. By using this test the performances in verbal comprehension of Broca's and Wernicke's aphasics are compared: although the 2 groups give different quantitative results, almost no qualitative differences are found between them. The data obtained by the aphasics are also compared with the results of groups of children 3 to 6 yr. of age: the dissolution of syntactic comprehension in aphasics is highly correlated with the order of acquisition of the same rules in children."—*R. Gunter.*

8758. Pen'kovoĭ, K. I. & Nemchenok, M. A. **O dinamike ėpilepticheskikh pripadkov u bol'nykh s neiroektodermal'nyimi opukholyami polushariĭ golovnogo mozga razlichnoi stepeni zlokachestvennosti.** [On the dynamics of epileptic seizures in cases of neuroectodermal tumors of the cerebral hemispheres with different degrees of malignancy.] *Problemy Neirokhirurgii*, 1969, No. 2, 63-66.—Operative intervention, even in the form of decompressive trepanation, leads in half the cases to the disappearance or diminution of the frequency of epileptic seizures. While surgical intervention can lead to the temporary disappearance of the epileptic syndrome in cases of malignant tumors, in some cases it brings on an increase in the frequency of seizures and an acute change in their structure.—*I. D. London.*

8759. Razumovskaya-Molukalo, L. P. **Sravnitel'naya kharakteristika nekotorykh form psikhicheskoi patologii v dinamike techeniya dobrokachestvennykh i zlokachestvennykh opuklolei golovnogo mozga.** [Comparative characteristics of some forms of psychic pathology in the developmental course of benign and malignant tumors of the brain.] *Problemy Neirokhirurgii*, 1969, No. 2, 92-95.—Reports results of clinical and psychological studies, in which it is seen that the observed features, characterizing the pathology of consciousness, thinking, memory, and the "emotional sphere," are a function of the histobiological properties of the tumor and the phase of the pathology. The factors, shaping psychic disorders and determining their character, are established. The possibility of complete regress of psychic pathology after the successful removal even of malignant tumors of the brain is established.—*I. D. London.*

8760. Scollo-Lavizzari, G. (U. Basel, Neurological Inst., Switzerland) **The effect of sleep on electroencephalographic abnormalities at a distance from the lesion: An all-night study of 30 cases.** *European Neurology*, 1970, Vol. 3(2), 65-87.—Studied rhythmic slow activity, frontal and occipital intermittent rhythmic distance activity (FIRDA, OIRDA), during all-night sleep in 30 patients with a wide range of clinical diagnoses. The influences of slow and REM sleep on FIRDA and OIRDA were also investigated. FIRDA and OIRDA showed marked reactivity: they sometimes were

activated during drowsiness and disappeared in slow sleep. During REM, FIRDA was present and sometimes accentuated, while OIRDA was absent. Possible neurophysiological mechanisms of the origin of these EEG patterns are discussed. It is suggested that FIRDA and OIRDA do not utilize similar anatomical systems and possibly have a different pathological significance. (26 ref.)—*Journal summary.*

8761. Taleisnik, S. L. **O nekotorykh osobennostyakh neiroektodermal'nykh opukholei polushariĭ golovnogo mozga u lits starshe 50 let.** [On some features of neuroectodermal tumors of the cerebral hemispheres in people over 50 years of age.] *Problemy Neirokhirurgii*, 1969, No. 2, 73-78.—Presents a study based on an analysis of verified gliomata of the cerebral hemispheres: glioblastomata (54), atypical astrocytomata (1), and atypical oligodendrogliomata. Premorbid changes in the brain include acute disorders of the psyche. 6 different types of predominating symptomatology in the beginning of the pathology are discerned: blastomatose, psychopathological, vascular, traumatic, inflammatory, and epileptic.—*I. D. London.*

8762. Taranskaya, A. D. **K kharakteristike rasstroistva soznaniya pri opukholyakh golovnogo mozga.** [On the characteristics of disordered consciousness in cerebral tumors.] *Problemy Neirokhirurgii*, 1969, No. 2, 96-101.—The following types of disordered consciousness were observed in 200 cases of cerebral tumor: unresponsive, oneiroid, oneiroid-delirious, and delirious. The 1st type was observed only in benign tumors. The changes, observed in higher nervous activity, were connected with the narcotic phase of incomplete inhibition, as a result of the blockade of stimuli which are the stimulators of the alert state in the cortex. The amentive type of disordered consciousness was most often encountered in multiform spongioblastomata. Changes, observed in higher nervous activity, are connected with decline of strength of the excitatory process and with the severance of interactions between the "2 [Pavlovian] signal systems."—*I. D. London.*

Brain Damage

8763. Ben-Yishay, Yehuda; Diller, Leonard, & Mandelberg, Ian. (New York U. Medical Center, Inst. of Rehabilitation Medicine) **Ability to profit from cues as a function of initial competence in normal and brain-injured adults: A replication of previous findings.** *Journal of Abnormal Psychology*, 1970(Dec), Vol. 76(3, Pt. 1), 378-379.—Cross-validated previously reported findings by Y. Ben-Yishay, L. Diller, L. Gerstman, and W. Gordon (see PA, Vol. 44:15125) which suggest that improvement in block design (BD) performance of left hemiplegics as a function of cuing is lawful and quantifiable. To test whether this is generalizable to normals and right hemiplegics as well, 40 normals, 56 left hemiplegics, and 49 right hemiplegics performed the BD task under standard and special cuing conditions. Results uphold the previous findings.—*Journal abstract.*

8764. Blagoveshchenskaya, N. S. **Ėlektro-nistagmografiya pri ochagovykh porazheniyakh golovnogo mozga.** [Electro-nistagmography in focal lesions of the brain.] Moscow, USSR: Meditsina, 1968. 168 p.—Presents a monograph based on the literature and the author's own research. It deals with: (a) current

methods of recording the fine movements of the eyeball; (b) the interaction of the vestibular with other analyzers, the visual in particular; (c) new data on the interconnection and interdependence of brainstem vestibular reactions, optokinetic nystagmus, and the functional state of the cerebral cortex both in the normal state and in pathology; and (d) the utilization of electro-nystagmographs in the clinicopathology of focal cerebral lesions.—*I. D. London.*

8765. Brandt, R., Schwartzman, J., & Schwartzman, J. S. **Teste de Bender, Teste metropolitano de prontidão e E.E.C: Suas relações em um grupo de crianças de 6 a 8 anos de idade.** [Bender Test, Metropolitan Achievement Test and EEG.: Their relationship in a group of 6 and 8 year old children.] *Revista de Psicologia Normal e Patológica*, 1969(Jan), Vol. 15(1-2), 94-110.—Tested 44 6-8 yr. old children in order to investigate a correlation between EEG and Bender Gestalt Test results in the diagnosis of cerebral lesion as defined by E. M. Koppitz. No correlation was found, although the Ss showed a high incidence of cerebral lesion. An association was found between results on the Bender Gestalt Test and on the Metropolitan Achievement Test. It is concluded that no relationship exists between EEG alterations and the appearance of alphabetization difficulties. (English summary)—*P. Hertzberg.*

8766. De Renzi, E., Faglioni, P., & Scotti, G. (U. Milan, Clinic of Nervous & Mental Disease, Italy) **Hemispheric contribution to exploration of space through the visual and tactile modality.** *Cortex*, 1970(Jun), Vol. 6(2), 191-203.—"Control and unilaterally brain-damaged patients were given 2 tests requiring the exploration of space through the visual and the tactile modalities. On the visual test, controls performed better when the item was on the left side than when it was on the right. This 'normal' left-right gradient (probably due to reading habits) was found to be significantly increased in left brain-damaged patients and reversed in right brain-damaged patients, a finding which supports the assumption that injury to 1 hemisphere mainly impairs the exploration of the contralateral field. On the tactile test, each hemispheric group performed worse in the contralateral field. This lengthening of the searching time cannot be explained by disruption of the sensorimotor mechanism subserving space exploration and points to the impairment of a higher level ability, identifiable as the representation of contralateral space. When performance was scored in terms of failure in finding the marble within the 90 sec time limit, right hemisphere patients with visual field defects turned out to be significantly more impaired than any other brain-damaged subgroup. This finding is suggestive for the occurrence of unilateral neglect also in the tactile modality and it lends support to the hypothesis that hemi-inattention does not depend so much on perceptual and motor factors as on a mutilated representation of space."—*R. Gunter.*

8767. Fox, Joseph P. (Indiana U.) **Exploration of relationships between each cerebral hemisphere and the comprehension of visual linguistic stimuli of various grammatical structures.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1584-1585.

8768. Konow, Audrey & Pribram, Karl H. (Stanford U., Medical School) **Error recognition and utilization produced by injury to the frontal cortex in man.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 489-491.—Re-

viewed a previous case of a patient with frontal lobe damage who was observed and was noted to suffer from "an equivocal disturbance of error evaluation." The terms error "evaluation" and "utilization" were employed synonymously. Neuropsychological examination of the patient is reported to clarify this "equivocal disturbance." It was found that error recognition remains intact although error utilization is disturbed. Consequently the nature of the frontal lobe syndrome is reevaluated. (French & German summaries)—*Journal abstract.*

8769. Levy, Jerre. (California Inst. of Technology) **Information processing and higher psychological functions in the disconnected hemispheres of human commissurotomy patients.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1542.

8770. Mark, Vernon H., Barry, Herbert; McLardy, Turner, & Ervin, Frank R. (Boston City Hosp., Neurosurgical Service, Mass.) **The destruction of both anterior thalamic nuclei in a patient with intractable agitated depression.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 266-272.—Describes the case of a 57-yr-old female occupational therapist with chronic intractable agitated depression resistant to psychotherapy, pharmacological agents, and ECT. In spite of the mood elevation produced by anterior thalamic nucleus destructions, S's impulse control was insufficient to prevent a suicide. Anatomical sections of the S's brain showed almost complete obliteration of anterior ventral nucleus of the thalamus bilaterally.—*Journal summary.*

8771. Pope, Lillie. (Coney Island Hosp., Brooklyn, N.Y.) **Motor activity in brain-injured children.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 783-794.—Indicates that distinctions can be made between the hyperactivity and restlessness of minimally brain-injured children. While the total motor activity level of 19 7-11 yr. old brain-injured boys did not differ from that of 19 normal controls, their restlessness was significantly greater in 3 of 4 experimental situations: (a) undirected activity in a playroom, (b) performance of a difficult task, and (c) voluntary inhibition of activity. There were no significant differences in performance of a simple task. (15 ref.)—*Journal abstract.*

8772. 't Lam, R. L. **Verdere analyse van een cognitieve dimensie (F₂), factorieel en klinisch, dl. 1.** [Further analysis of a cognitive dimension (F₂): 1. Factorial and clinical.] *Gawein*, 1969(Oct), Vol. 18(1), 31-40.—By factor-analysis of a 13-variable matrix of tests, derived from a sample of brain-injured children, a factor was identified that seems to be related to Thurstone's I and E factors. Possible involvement of the dominant left cerebral hemisphere in this factor was indicated by high loading of the right-hand version of a factual performance test. The relevance of certain recent theories of the set phenomenon is indicated.—*English summary.*

8773. Tzavaras, A., Hécaen, H., & Le Bras, H. (St. Anne Neurosurgical Center, Paris, France) **Le problème de la spécificité du déficit de la reconnaissance du visage humain lors des lésions hémisphériques unilatérales.** [The problem of specificity of inadequate recognition of the human face after hemispheric unilateral lesions.] *Neuropsychologia*, 1970(Nov), Vol. 8(4), 403-416.—Presented a series of visual identification tests to 51 Ss with unilateral cortical lesions (25 left-sided, 26 right-sided) and to 30 controls. The test material

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included photographs and designs of human faces, meaningless line patterns, shadow patterns, and photographs of different objects in the same category. Results (a) confirm those of previous studies showing the predominant role of right hemispheric lesions in deficits of recognition of the human face, and (b) demonstrate this same predominance whether the faces were presented as photographs or as simple designs. No correlation was found between the results of the tests of facial recognition, taken as a group, and those of the tests of identification of similar objects, of meaningless patterns, and of shadow patterns representing a complex perceptive task, also taken as a group. Based on these results, a hypothesis of the existence of an autonomous defect of human facial recognition is discussed. (German summary) (20 ref.)—*English summary*.

8774. Warrington, Elizabeth K. & Rabin, P. (National Hosp., London, England) **Perceptual matching in patients with cerebral lesions.** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 475-487.—Devised tasks of perceptual matching, including 3 types of visual stimulus (slope of line, position of dot, and size of gap in contour). 74 patients with unilateral cortical lesions were tested. The right parietal group was impaired on the perceptual matching tasks. There was no association between performance on perceptual matching tasks and tachistoscopic threshold measurements or a test of picture recognition. The relationship between perceptual matching and performance on other more complex visual tasks is discussed. (French & German summaries)—*Journal abstract*.

8775. Willner, Allen E. & Struve, Fred A. (Hillside Hosp., Glen Oaks, N.Y.) **An analogy test that predicts EEG abnormality: Use with hospitalized psychiatric patients.** *Archives of General Psychiatry*, 1970(Nov), Vol. 23(5), 428-437.—Investigated whether the Willner-Scheerer Analogy Test (WSA) could accurately predict EEG abnormality and normality in a psychiatric hospital population. Results of Exp. I indicate that a simple WSA cutoff score, predicted the EEG findings of 106 patients with highly significant accuracy. Exp. II replicated those findings with a further sample of 116 Ss. Subsequent data analyses indicate that the predictive accuracy of the WSA did not change when the sample was restricted to only those Ss who were drug-free at time of testing. These results suggest that the WSA, a simple paper-and-pencil test, may be useful in identification of minimal brain damage in psychiatric populations. Data also suggest that a substantial proportion of patients in psychiatric hospitals may have minimal brain damage. (25 ref.)—*Journal summary*.

8776. Yin, Robert K. (Massachusetts Inst. of Technology) **Face recognition by brain-injured patients: A dissociable ability?** *Neuropsychologia*, 1970(Nov), Vol. 8(4), 395-402.—Found that 11 patients with right posterior cerebral injuries did more poorly than 13 patients with other unilateral injuries and 12 normal control Ss in recognizing different faces. When the faces were presented upside-down, however, those with the other unilateral injuries did worse than the right posterior group and the normal controls. This dissociation between upright and inverted presentations was not found with pictures of another common object, houses of similar architecture. Results support the notion that, among the disorders caused by right posterior injuries, there does exist a material-specific deficit in recognizing faces. (French & German summaries) (20 ref.)—*Journal abstract*.

8777. Blumer, Dietrich. **Changes of sexual behavior related to temporal lobe disorders in man.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 173-180.—Sexual changes of 49 temporal lobe epileptics were noted. The majority of the patients underwent unilateral temporal lobectomy. Findings show that the postoperative improvement in sexuality is significantly related to the success of surgery in eliminating the seizures. After unilateral temporal lobectomy for epilepsy and after bilateral temporal lobectomy, the paroxysms of irritability and of sexuality tend to be mutually exclusive in temporal lobe epilepsy. (19 ref.)—*E. B. Jaffa*.

8778. Cassarino, P., Falsaperla, A., & Papalia, G. (U. Catania, Clinic for Nervous & Mental Illness, Italy) **Modificazioni del quadro idrico globulare in soggetti affetti da "piccolo male" epilettico in seguito a trattamento con alfa-etil-alfa-metil-succinimide.** [Modifications of the globular water description in subjects having petit mal epilepsy as a consequence of treatment with alpha-ethyl-alpha-methyl-succinimide.] *Acta Neurologica*, 1969(May), Vol. 24(3), 416-430.—Presents a brief summary of the history of epilepsy, and refers to the etiopathogenetic aspect emphasizing water metabolism in this illness. Then the results of research carried out on a group of 6 patients suffering from petit mal seizures are reported. Using the method of P. Cristol and C. Benezech, the red globular water picture was ascertained under normal conditions and after 10 and 20 days of treatment with alpha-ethyl-alpha-methyl-succinimide which was given in fractionated doses from 500-1000 mg/day. Examination of results shows that the globular water picture in petit mal, under normal conditions, can be considered as intermediate between normal Ss and epileptics (grand mal). Treatment with alpha-ethyl-alpha-methyl-succinimide changes the globular water picture causing a decrease in the values of the total water content. It is concluded that this tendency of the values of the globular water picture to become normal is related to the effectiveness of the therapy. (44 ref.)—*English summary*.

8779. Di Perri, R., Dello, Ioio, G., & Supino, V. (U. Messina, Clinic for Nervous & Mental Illness, Italy) **"Sursaut" epilettico audiogeno clinicamente tipico correlato ad inconsuete, molteplici espressioni elettroencefalografiche.** ["Startle" epilepsy and audiogenic clinically typical correlates of numerous, unusual electroencephalographic patterns.] *Acta Neurologica*, 1969(May), Vol. 24(3), 431-444.—Describes a case of startle epilepsy in which the patient had typical tonic seizures induced by sudden auditory stimuli (startle epilepsy). Although the clinical crises were always of the same type, their EEG correlates were of 2 different varieties: (a) a diffuse flattening of cerebral electrical activity was followed by focal convulsive discharges in the left temporal region subsequently extending to all cortical areas and in an "oil spot" fashion, and (b) crisis accompanied by synchronous, generalized, high-voltage potentials beginning either simultaneously with the tonic seizure, or after an interval of time occupied by a diffuse flattening of the electrical activity. This duality of EEG critical patterns opposed to the uniformity of the motor phenomena is discussed in relation to the current pathogenetical interpretation of the acusticomotor epilepsy. (22 ref.)—*English summary*.

8780. Frantzen, Esther; Lennox-Buchthal, Margaret;

Nygaard, Anne, & Stene, Jon. (U. Copenhagen, Denmark) **A genetic study of febrile convulsions.** *Neurology*, 1970(Sep), Vol. 20(9), 909-917.—Attempted to define the mode of inheritance and the trait inherited, by analyzing the genetic data of 208 febrile convulsive children whose relevant family histories could be obtained, as well as complete information on all siblings and parents. Genetic findings were related to clinical and EEG findings: (a) The incidence of febrile convulsions was the same in parents and in sibs of the sample studied—9% or 3 times the prevalence in the population. (b) $\frac{1}{2}$ the affected relatives with epilepsy were distant. Rate of epilepsy in parents and sibs, uncles, aunts, and cousins was not higher than the prevalence in the population. (c) There was no evidence that some families might differ from others in the mode of transmission nor that some cases were nongenetic. (d) There was clinical and EEG evidence of a different degree of expressivity in some families. (e) More than $\frac{1}{2}$ the probands with solely epilepsy in the family had severe or multiple natal or neonatal complications. (f) Recurrent spontaneous convulsions persisted in 3 children (1.4%) all severely brain-damaged, i.e., 1 had an intercurrent encephalitis, and 2 were mentally retarded.—*Journal summary.*

8781. Garcez de Sena, Plínio & Rizzo, Alfredo, O. (Federal U., Neurology Clinic, Bahia, Brazil) **Mandrix em epilepsia.** [Mandrix in epilepsy.] *O Hospital*(Dec), Vol. 76(6), 2047-2053.—Studied the evidence of noxious effects of mandrix on 17 male and 16 female epileptics, the majority being between 11 and 20 yr. old. Ss were given 1-2 tablets of mandrix/day for 45 days. EEGs were taken in the absence of anticonvulsive medication and before and after the application of the drug. It was found that mandrix had no effect on the intensification of epileptic crises and did not significantly change EEGs. No major side effects were noted.—*P. Hertzberg.*

8782. Geller, Martin & Geller, Anne. (Mt. Sinai Hosp. Services, City Hosp. Center, Elmhurst, N.Y.) **Brief amnesic effects of spike-wave discharges.** *Neurology*, 1970(Nov), Vol. 20(11), 1089-1095.—Those working with patients having petit mal seizures have observed that in addition to, or instead of, the usual clinical concomitants of staring, nodding, brief myoclonus, etc., these patients may demonstrate unusual psychiatric behavior, learning difficulties, inattentiveness, or apparent lapses of memory. 5 children with diagnoses of generalized epilepsy were examined for the effect of spike-wave discharges upon the ability to recall a visual stimulus. Recall was impaired when the discharge succeeded the presentation of the stimulus by up to 4 sec. Impairment of recall was found to be a function of both the time interval between presentation of the stimulus and the onset of the discharge and also of the length of the discharge itself.—*F. O. Triggs.*

8783. Horowitz, Mardi J., Cohen, Freda M., Skolnikoff, Alan Z., & Saunders, Frank A. (Mt. Zion Medical Center, San Francisco, Calif.) **Psychomotor epilepsy: Rehabilitation after surgical treatment.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 273-290.—Medically uncontrollable temporal lobe epilepsy may be successfully treated by neurosurgical methods: temporal lobectomy may provide seizure relief for up to 80% of properly selected patients. Cognitive impairments present prior to surgery, however, usually remain and may even be worse after lobectomy. A new technique, localized brain lesions made by stereotactic implantation of depth electrodes, is described in a study of 29 17-52 yr. old patients. Results

indicate that this technique is less successful in providing seizure relief, but has less hazard and is followed by less decrement on psychometric measurements. Whatever the procedure, psychosocial rehabilitation does not automatically occur with seizure relief. Some patients develop substitute symptoms, and many have paranoid or depressive responses. Those who improve in psychosocial functioning rehabilitate slowly and with great personal effort. It is suggested that psychotherapy should be part of any neurosurgical treatment program for temporal lobe epilepsy for a minimum of 1 yr. after relief of symptoms. Turbulent upheaval is not uncommon in patients who have been relieved of seizures and is not necessarily a poor prognostic sign. The outcome of surgery cannot be judged until years after the event. A very depressed and dependent patient, free of seizures 1 yr. after lobectomy, may be functioning well and be reasonably contented 2 yr. later.

8784. Lison, Michel P. (U. São Paulo, Medical School, Brazil) **Ausências mioclônicas: Estudo comparativo da potência anticonvulsivante do nitrazepam (mogadon) e do diazepam (vallium).** [Myoclonic seizures: A comparative study of the anticonvulsant potency of nitrazepam (Mogadon) and diazepam (Valium).] *Arquivos de Neuro-Psiquiatria*, 1969(Sep), Vol. 27(3), 189-198.—Compared the anticonvulsant potency of nitrazepam, diazepam, and trimetadiones in 5 patients with myoclonic seizures. A placebo was also used. Therapeutic tests were performed following 4 days successive treatment designed to avoid the residual effects of 1 drug upon administration of the others. In 2 cases statistical analysis was not necessary for demonstration of the superiority of nitrazepam and diazepam regarding trimetadiones; in 2 others the application of Tukey's test allowed this same conclusion. In the last case the numeric variations of the seizures during the therapeutic essay suggest identical conclusion although the statistical analysis was not significant. There are indications that nitrazepam is more effective than diazepam against this type of epileptic seizures. (16 ref.)—*English summary.*

8785. Lison, Michel P. & Fassoni, Laertel F. (U. São Paulo, Medical School, Brazil) **Estudo clínico-eletroencefalográfico longitudinal em pacientes epiléticos tratados com Ro 5-4023.** [Longitudinal clinical and electroencephalographical studies in epileptic patients treated with Ro 5-4023.] *Arquivos de Neuro-Psiquiatria*, 1970(Mar), Vol. 28(1), 25-36.—Presents a clinical and longitudinal study of 22 epileptic patients, with daily seizures, treated with 7-nitro-5-(2-chlorophenyl)-3H-1,4-benzodiazepine-2(1H)-1 or Ro 5-4023. 20 of these Ss had received previous treatment with other anticonvulsant drugs with no satisfactory results. With the use of Ro 5-4023 the seizures were completely controlled on the 1st day in 14 Ss; in 6 there was a rapid and significant decrease in frequency and intensity of seizures; in 1, out of these 6, seizures disappeared during the 2nd wk. of treatment. Recurrence of seizures was observed in 8 Ss. The drug is effective in a large spectrum of generalized seizures; partial seizures, in particular the psychomotor seizures of infancy with slow spike-waves; the severe epileptic encephalopathy of infancy, Lennox type; and the degenerative epileptic syndrome. Drug side effects were present in 11 Ss, being of short duration in 9. In 2 Ss there was precipitation of generalized tonic-clonic seizures. (30 ref.)—*English summary.*

8786. Marques-Assis, Luis. (U. São Paulo, Medical School, Brazil) **Considerações a propósito do**

tratamento medicamentoso de 1217 pacientes epiléticos: I. Estudo em relação ao tipo de epilepsia e ao eletrencefalograma. [Drug treatment of 1217 epileptic patients: Study regarding the clinical manifestations and electroencephalographic patterns.] *Arquivos de Neuro-Psiquiatria*, 1969(Dec), Vol. 27(4), 312-320.—Administered the barbiturates hydantoin, primidone, and trimethadione—alone or in combination—to 1217 epileptic patients. Clinical manifestations and EEG patterns were studied. The following results were presented: (a) the prognosis was better in Ss with Jacksonian seizures, (b) the highest remission rate was observed in Ss having nocturnal seizures, (c) Ss having grand mal seizures without aura demonstrated the most refractory response to treatment, (d) Ss having seizures secondary to focal discharges showed the best response. Prognosis was deemed better in Ss having normal EEG patterns and in Ss demonstrating paroxysmic, bilateral, and synchronic dysrhythmia as opposed to Ss having diffuse abnormalities and temporal dysrhythmias.—*B. A. Stanton.*—English summary.

8787. **Niedermeyer, E.** (Johns Hopkins U., Div. of Neurological Surgery) **Electroencephalographic studies on the anticonvulsive action of intravenous diazepam.** *European Neurology*, 1970, Vol. 3(2), 88-96.—In 80 5-63 yr. old epileptic patients with evidence of spike discharges in the EEG, small dosages of diazepam (valium) ranging from 2-10 mg. were administered iv during the recording. 7 Ss had depth electrodes. Generalized-synchronous seizure discharges in Ss with common generalized epilepsy (also called idiopathic) proved to be most responsive to iv diazepam. Focal spikes were much less responsive to such small dosages with the exception of central spike foci in children which showed a good temporary suppression. It is concluded that this deactivation test is helpful in the distinction of different types of convulsive disorders and might shed some light on basic epileptic mechanisms. (33 ref.)—*Journal abstract.*

8788. **Niedermeyer, E., Blumer, D., Holscher, E., & Walker, B. A.** (Johns Hopkins U., Medical School, Div. of Medical Genetics) **Classical hysterical seizures facilitated by anticonvulsant toxicity.** *Psychiatria Clinica*, 1970, Vol. 3(2), 71-84.—Describes unequivocal hysterical seizures with classical posturing ("arc de cercle") in 3 patients. 2 Ss had a history of mild epilepsy and were therefore placed on anticonvulsive therapy; the 3rd S, an achondroplastic dwarf, was treated with anticonvulsants since her hysterical manifestations were initially considered epileptic. In all of these 3 Ss, the hysterical seizure frequency increased under anticonvulsive therapy and reached enormous proportions with further increases of medication. The EEG showed excessive diffuse slow activity due to cerebral toxicity and, in 2 cases, there was also neurological evidence of a toxic brain disturbance. This toxic response was obviously caused by mysoline (primidone) in 2 cases and by dilantin (diphenylhydantoin) in the 3rd S. Gradual decrease of the anticonvulsive medication was followed by attenuation and eventual disappearance of hysterical seizure manifestations.—*Journal summary.*

8789. **Okudzhava, V. M.** **Osnovnye neirofiziologicheskie mekhanizmy epilepticheskoï aktivnosti.** [Basic neurophysiological mechanisms of epileptic activity.] Tbilisi, USSR: Ganatleba, 1969. 228 p.—Examines and discusses (a) the methodology and

techniques, employed by the author in his investigations; (b) the basic cellular phenomena of epileptic activity in the cerebral cortex; (c) the role of the electrical field in the epileptic discharge of neurons; (d) the formation of secondary foci of epileptic activity; (e) neuronal organization of the tonic and clonic phases of cortical epileptic activity; (f) inactivation of neurons by depolarization as a mechanism for cutting off epileptic activity (its connection with the phenomenon of spreading depression); and (g) the probable inhibitory structure involved in the cessation of epileptic activity. (English summary)

—*I. D. London.*

8790. **Riklan, Manuel & Levita, Eric.** **Psychological studies of thalamic lesions in humans.** *Journal of Nervous & Mental Disease*, 1970(Apr), Vol. 150(4), 251-265.—Assessed psychological changes associated with ventrolateral thalamic lesions through standardized testing of 50 parkinsonians undergoing initial left hemisphere, initial right hemisphere, and 2nd side surgery for relief of tremor and rigidity. Immediate postoperative declines in cognitive and perceptual functions were found, with a return to preoperative status in follow-up testing. The concepts of physiological disruption and functional reintegration and compensation are discussed to explain these findings. Lateralized differences were found with reference to tests involving use of verbal symbols in left hemisphere, and 2nd side operates, regardless of hemisphere, with worsening in performance immediately postoperatively. To a lesser degree, right brain operates were more affected in spatial-perceptual performance. Emphasis is placed on the relative roles of direction and arousal in behavior in considering the pattern of postoperative change. (33 ref.)—*Journal summary.*

8791. **Rupollo, Wadir.** **Tratamento da epilepsia com a associação de Gardenal e Cafeína: Apresentação de 84 casos.** [Treatment of epilepsy with a combination of Gardenal and Caffeine: Presentation of 84 cases.] *O Hospital*, 1968(Sep), Vol. 74(3), 773-777.—84 epileptics were administered doses of gardenal and caffeine, in a 2:1 ratio, beginning with a minimum dosage of 4 cg. gardenal for every 2 cg. caffeine. Dosage was increased until all symptoms, including convulsions and others, disappeared. In 65 Ss, doses of .24 gm. gardenal/day were effective. The final dosage was considered relative to S's age, sex, length of time in the clinic, and number of daily, weekly, or monthly crises.—*P. Hertzberg.*

8792. **Stevens, Janice R.** (U. Oregon, Medical School, Portland) **Focal abnormality in petit mal epilepsy.** *Neurology*, 1970(Nov), Vol. 20(11), 1069-1076.—Reviews the various sites of origin for the 3-cps symmetrical synchronous spike-wave discharge associated with petit mal epilepsy. 3 clinical cases are reported in detail, in 1 of which chronic intracranial subtemporal electrodes demonstrated a mesial temporal focus. Pathological findings are reported from 2 children with bilateral spike-wave paroxysms in the EEG, both of whom had clinical attacks of petit mal absence, and 1 of whom, in addition, displayed gelastic seizures and precocious puberty. Compression of brainstem structures by neoplasm was demonstrated in both. The evidence for a restraining influence of ascending brainstem pathways on the development of bilateral synchrony and for central or cortical genesis of the bilateral spike-wave discharge is reviewed. Possible impairment of the anatomical and biochemical integrity of ascending

midbrain inhibitory systems by lateral brainstem compression during mesial temporal herniation associated with elevated intracranial pressure is considered as a possible predisposing factor in bilateral spike-wave discharge.—*F. O. Triggs.*

8793. **Supino, V.** (U. Naples, Clinic for Nervous & Mental Illness, Italy) **Episodi critici di natura epilettica quali complicazioni della vaccinazione antipoliomielitica con vaccino orale Sabin.** [Critical epileptic episodes which appeared as a complication of antipoliomyelitis oral Sabin vaccine.] *Acta Neurologica*, 1969(Jan), Vol. 24(1), 62-65.—Presents 9 case histories of epileptic disorders, correlated with EEG abnormalities appearing within 10-15 days after a vaccination with Sabin oral polio vaccine. It is suggested that a relationship exists between the vaccination and the observed epileptic disorders.—*English summary.*

8794. **Tutton, Joseph C.** (State U. New York, Medical School, Buffalo) **New treatment for old neurologic disease: Status epilepticus treatment with diazepam.** *New York State Journal of Medicine*, 1970(Oct), Vol. 70(19), 2425-2428.—Based on a study involving 42 patients with 47 episodes of status epilepticus treated with diazepam (valium) and growing support in the medical literature, it is concluded that this drug is an effective form of initial therapy, regardless of seizure type, its presumed cause, or its duration. The drug also proved to be a safe form of treatment with only reversible lingual airway obstruction seen as an untoward reaction. No episodes of hypotension, respiratory suppression or arrest, cardiac arrest, or alteration of blood or urine were encountered. (24 ref.)—*Journal summary.*

8795. **Wada, Toyoji; Goto, Akira; Fukushima, Yutaka, & Tateyama, Koh.** (Hirosaki U., Medical School, Japan) **Trattamento da epilepsia.** [Treatment of epilepsy.] *O Hospital*, 1968(Sep), Vol. 74(3), 859-868.—Describes the effects of a new antiepileptic drug gabimetal (GABA) on 150 epileptics. In 99 Ss with a total of 116 epileptic crises, traditional antiepileptic medication was used. In these Ss, improvement was noticed in 22%, no effect in 48%, and deterioration in 30%. In 25 "old" cases with a total of 37 epileptic crises, traditional medication was supplemented with GABA and dosages of traditional medication were reduced. The effects caused improvement in 14%, no change in 45%, and deterioration in 41%. In 26 new cases, with a total of 28 epileptic crises, GABA alone resulted in 50% of Ss being completely controlled and 25% being significantly improved. The optimum dosage was 1-5 gm/day for adults and .5-1 gm/day for children. GABA was most effective in convulsive type episodes and in children.—*P. Hertzberg.*

8796. **Waddington, Margaret M.** (Professional Park, Rutland, Vt.) **Angiographic changes in focal motor epilepsy.** *Neurology*, 1970(Sep), Vol. 20(9), 879-888.—Cerebral angiography is usually performed in patients with focal motor epilepsy because of possible association of seizures with tumor or vascular or structural abnormality. An attempt is made to point out that characteristic findings do occur in patients with this malady and involve the arteries supplying the motor and premotor areas of the cerebral cortex. The angiographic findings in 23 cases of focal motor epilepsy without obvious cause are presented. In 16 cases there were occlusions of small branches to the motor or premotor areas or both. Neurological abnormalities were present

in all these cases; most of the patients were in the older age group. A distinct and previously unreported abnormality was found in 7 patients in which no occlusions were present but an artery supplying the motor area was vestigial in appearance. These Ss had no neurological deficit, and, for the most part, no other abnormal findings. All occurred in a younger age group; there was 1 10-yr-old boy and the other 6 were from 20-34 yr. of age at the onset of symptoms. While the precise mechanism by which the small artery and focal motor seizures are related is not clear, the vascular changes are sufficiently characteristic to allow an angiographic diagnosis.—*F. O. Triggs.*

MENTAL RETARDATION

8797. **Allen, Robert M., Cortazzo, Arnold D., & Adamo, Cynthia.** (U. Miami) **Factors in an adaptive behavior check list for use with retardates.** *Training School Bulletin*, 1970(Nov), Vol. 67(3), 144-157.—Assigned each resident of a training center to 1 of 4 divisions: vocational rehabilitation, education and training, independent living, and development and training, on the basis of ratings by cottage parents and supervisors on the revised version of the Adaptive Behavior Check List (ABCL). The ratings on this ABCL were subjected to factor analysis. 8 factors in 3 major clusters emerged thus furnishing concurrent (factorial) validity of the ABCL. The items contributing to each factor are given. Besides the basic, primary, and secondary functions clustering of the factors, there is objective evidence that cottage parents and supervisors are reliable Os and can give valid estimates of a resident's adaptation to daily living.—*Journal abstract.*

8798. **Bass, Medora S.** **Pastoral counseling on voluntary sterilization for retarded individuals.** *Pastoral Psychology*, 1969(Dec), Vol. 20(199), 33-40.—Informed clergymen have contributed much toward breaking the taboo on birth control. Now they can do much to bring the need for sterilization into the open for discussion among professionals, parents of retarded children, and among retarded individuals themselves. By knowing where to refer patients, clergymen can help deprived members of society to find support and love within marriage without being overburdened by children they are incapable of rearing properly.—*O. Strunk.*

8799. **Bielec, Stanley I.** (Columbia U.) **Auditory digit span retention among mentally retarded and normal subjects.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 924-925.

8800. **Christodorescu, D., Collino, S., Zellingher, R., & Tăutu, C.** (G. Marinescu Hosp., Psychiatric Clinic, Bucharest, Romania) **Psychiatric disturbances in Turner's syndrome: Report of three cases.** *Psychiatria Clinica*, 1970, Vol. 3(2), 114-124.—Reports 3 cases of Turner's syndrome studied in a psychiatric service. The 1st presented mental debility, an immature personality, and a depressive-anxious state; the 2nd a borderline intelligence, infantile personality, and neuro-pathic reactions; and the 3rd manifested behavioral disorders and a dull normal intelligence. Certain aspects of the genesis of neuropsychical disturbances in Turner's syndrome are discussed.—*Journal summary.*

8801. **Clark, Lois.** (Winfield State Hosp. & Training Center, Kan.) **Musical rhythm motivation.** *Journal of Psychiatric Nursing & Mental Health Services*, 1968(Sep),

Vol. 6(5), 287, 290-293.—Examined musical rhythm motivation as a technique for creating in institutionalized retarded boys a "sense of accomplishment," and "a realization that he can do something worthwhile and praiseworthy." Music is used as a motivational technique in an attempt to meet socialization needs, to "fill the gap between routine and monotony," and to "help the child grow in emotional stature."—*M. Daniels.*

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nal of Music Therapy, 1970(Fal), Vol. 7(3), 83-87.—Describes "the modification of inappropriate social behaviors in 4 moderately retarded children [all were 8-9 yr. old with IQs from 40-55]." The data revealed that several behaviors, such as hitting, yelling, pushing, and not participating in the activity, interfered with participation and appropriate interaction. As these behaviors occurred frequently, it was necessary to eliminate them before the therapist could begin a program to increase appropriate initiation of verbal and nonverbal interaction. Therefore, the final choice of specific behaviors to be modified were: hitting, yelling, pushing, and nonparticipation. 4 specific musical activities were chosen: (a) the "shaker" game, (b) the Indian game, (c) "The Hokey Pokey," and (d) listening to records. A point system was devised to reward the elimination of interfering social behavior. Results "indicate that all interfering behaviors decreased, and participation increased." The next step will be to begin a new program designed to increase appropriate initiated and imitated verbal and nonverbal responses. "Finally, the effectiveness of the entire procedure will be evaluated. By observing, defining, recording, specifying, and evaluating behaviors to be modified, and by delineating the "common environment" of music, the E enables other music therapists to replicate his procedures, which increases the effectiveness of music therapy in modifying social behaviors.—F. O. Triggs.

8812. Kirman, Brian. **Mentally handicapped persons.** *British Medical Journal*, 1968(Dec), Vol. 4(5632), 687-690.—Discusses the diagnosis, development, education and training, and progressive conditions of mentally handicapped persons. Advice to parents, other handicaps, and genetic advice concerning mental retardation are also examined. 3 illustrative cases are presented. It is concluded that there is "no sharp distinction between the mentally handicapped and the general population" and that many mentally handicapped persons can function above the expected level if given the proper environment.—G. Steele.

8813. Klujber, L., Cholnoky, P., & Méhes, K. (U. Pécs, Medical School, Hungary) **Urinary excretion of beta-aminoisobutyric acid in Down's syndrome and in idiopathic mental retardation.** *Human Heredity*, 1969, Vol. 19(5), 567-572.—Investigated β -aminoisobutyric acid (BAIB) excretion in 41 patients with Down's syndrome and the results were compared with those obtained from 87 normal individuals and from 51 mentally retarded patients. In Down's syndrome there is a higher excretion of the compound, but there is no difference in BAIB excretion between normal children and the unclassified mentally retarded. A clear-cut decrease of BAIB excretion with increasing age is shown in both Down's syndrome and normal children.—*Journal abstract.*

8814. Owens, Earl P. & Bowling, Donald H. (Pacific State Hosp., Socio-Behavioral Lab., Pomona, Calif.) **Internal consistency and factor structure of the Preschool Attainment Record.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 170-171.—Analyzed the performance of 100 retarded children on the research edition of the Preschool Attainment Record to provide an estimate of the internal consistency of the 8 subtests and the PAR as a whole, and to determine the factor structure of the 8 subtests. The internal consistencies were satisfactorily high; factor analysis indicates 2 factors to account for most of the variance, a

physical-developmental factor, and a social-intellectual factor.—*Journal abstract.*

8815. Perske, Robert. (Kansas Neurological Inst., Topeka) **Ministry and mental retardation.** *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 21-27.—In dealing with the mentally retarded and their families, the minister often finds his theological presuppositions seriously challenged. But in accepting the challenge he may be led to significant new insights.—O. Strunk.

8816. Reardon, Diane M. & Bell, Graham. (U. California, Los Angeles) **Effects of sedative and stimulative music on activity levels of severely retarded boys.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 156-159.—Tested 3 predictions of the effects of musical stimulation on activity level of 11 6-17 yr. old severely retarded institutionalized boys. Ss' activity scores during sedative and stimulating music were compared with levels during base line (no recording) and nonmusical (spoken recording) conditions. 14 behavioral categories were rated by trained Os during 8 hr. of observation under each of the 4 conditions. Activity level varied significantly with day of the experimental wk., suggesting that the novelty of recordings is a significant factor. Differences in activity due to conditions tended to confirm the prediction of lower activity levels during the more stimulating conditions.—*Journal abstract.*

8817. Ribas-Mundó, M. **Factores genéticos en el retraso mental.** [Genetical factors in mental retardation.] *Anuario de Psicología*, 1970, Vol. 1(2), 29-43.—"Diseases that accompany mental retardation and in which genetical factors intervene are classified as (a) chromosome abnormalities, (b) hereditary-metabolic abnormalities, (c) miscellaneous. The 1st group is characterized by the Down or trisomia 21, the cri du chat syndromes. Sexual chromosome abnormalities also appear in mental retardation, in particular the Klinefelter and triple-X syndromes. 2 interesting aspects of the XYY syndrome are its mental retardation and tendency toward delictual acts in Ss of more than 180 cm. [5'11"] in height. Hereditary and metabolic changes form a large group of diseases in which mental retardation appears frequently. The aminoacidurias are generally due to enzyme defects that are transmitted autosomatically and recessively. Due to their frequency, the most important aminoacidurias are fenilcetonuria and homocistinuria. Other diseases with metabolic and hereditary abnormalities and mental retardation are classified as lipoidosis and mucopolisaccharidosis. There are many mental retardation syndromes whose basic etiopathogenetic abnormality is still unknown (classified as 'miscellaneous')." (26 ref.)—S. Maze.

8818. Sen, Anima & Sen, Arun K. **A short introduction to the researches in the field of mental deficiency in England.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967, No. 8, 20-25.—Surveys research in mental deficiency in England, particularly from 1950, and identifies 3 stages in development: laboratory experiment, research in industrial training, and a reversion to the laboratory. It is found that there is a growing multidisciplinary interest in the problems of mental abnormality. (52 ref.)—*Journal abstract.*

8819. Siguán, Miguel. (U. Barcelona, Spain) **La personalidad del deficiente mental.** [The personality of the mentally deficient child.] *Anuario de Psicología*, 1970, Vol. 1(2), 44-64.—Discusses (a) the mental

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8810. Jacobs, Jerry. (U. California, Riverside) **The search for help: A study of the retarded child in the community.** New York, N.Y.: Brunner/Mazel, 1969. ix, 135 p. \$5.95.

8811. Jorgenson, Helen & Parnell, Martha K. (Cleveland Music School, O.) **Modifying social behaviors of mentally retarded children in music activities.** *Jour-*

- nal of Music Therapy*, 1970(Fal), Vol. 7(3), 83-87.—Describes "the modification of inappropriate social behaviors in 4 moderately retarded children [all were 8-9 yr. old with IQs from 40-55]." The data revealed that several behaviors, such as hitting, yelling, pushing, and not participating in the activity, interfered with participation and appropriate interaction. As these behaviors occurred frequently, it was necessary to eliminate them before the therapist could begin a program to increase appropriate initiation of verbal and nonverbal interaction. Therefore, the final choice of specific behaviors to be modified were: hitting, yelling, pushing, and nonparticipation. 4 specific musical activities were chosen: (a) the "shaker" game, (b) the Indian game, (c) "The Hokey Pokey," and (d) listening to records. A point system was devised to reward the elimination of interfering social behavior. Results "indicate that all interfering behaviors decreased, and participation increased." The next step will be to begin a new program designed to increase appropriate initiated and imitated verbal and nonverbal responses. "Finally, the effectiveness of the entire procedure will be evaluated. By observing, defining, recording, specifying, and evaluating behaviors to be modified, and by delineating the "common environment" of music, the E enables other music therapists to replicate his procedures, which increases the effectiveness of music therapy in modifying social behaviors.—F. O. Triggs.
8812. Kirman, Brian. **Mentally handicapped persons.** *British Medical Journal*, 1968(Dec), Vol. 4(5632), 687-690.—Discusses the diagnosis, development, education and training, and progressive conditions of mentally handicapped persons. Advice to parents, other handicaps, and genetic advice concerning mental retardation are also examined. 3 illustrative cases are presented. It is concluded that there is "no sharp distinction between the mentally handicapped and the general population" and that many mentally handicapped persons can function above the expected level if given the proper environment.—G. Steele.
8813. Klujber, L., Chlcnoky, P., & Méhes, K. (U. Pécs, Medical School, Hungary) **Urinary excretion of beta-aminoisobutyric acid in Down's syndrome and in idiopathic mental retardation.** *Human Heredity*, 1969, Vol. 19(5), 567-572.—Investigated β -aminoisobutyric acid (BAIB) excretion in 41 patients with Down's syndrome and the results were compared with those obtained from 87 normal individuals and from 51 mentally retarded patients. In Down's syndrome there is a higher excretion of the compound, but there is no difference in BAIB excretion between normal children and the unclassified mentally retarded. A clear-cut decrease of BAIB excretion with increasing age is shown in both Down's syndrome and normal children.—*Journal abstract.*
8814. Owens, Earl P. & Bowling, Donald H. (Pacific State Hosp., Socio-Behavioral Lab., Pomona, Calif.) **Internal consistency and factor structure of the Preschool Attainment Record.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 170-171.—Analyzed the performance of 100 retarded children on the research edition of the Preschool Attainment Record to provide an estimate of the internal consistency of the 8 subtests and the PAR as a whole, and to determine the factor structure of the 8 subtests. The internal consistencies were satisfactorily high; factor analysis indicates 2 factors to account for most of the variance, a physical-developmental factor, and a social-intellectual factor.—*Journal abstract.*
8815. Perske, Robert. (Kansas Neurological Inst., Topeka) **Ministry and mental retardation.** *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 21-27.—In dealing with the mentally retarded and their families, the minister often finds his theological presuppositions seriously challenged. But in accepting the challenge he may be led to significant new insights.—O. Strunk.
8816. Reardon, Diane M. & Bell, Graham. (U. California, Los Angeles) **Effects of sedative and stimulative music on activity levels of severely retarded boys.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 156-159.—Tested 3 predictions of the effects of musical stimulation on activity level of 11 6-17 yr. old severely retarded institutionalized boys. Ss' activity scores during sedative and stimulating music were compared with levels during base line (no recording) and nonmusical (spoken recording) conditions. 14 behavioral categories were rated by trained Os during 8 hr. of observation under each of the 4 conditions. Activity level varied significantly with day of the experimental wk., suggesting that the novelty of recordings is a significant factor. Differences in activity due to conditions tended to confirm the prediction of lower activity levels during the more stimulating conditions.—*Journal abstract.*
8817. Ribas-Mundó, M. **Factores genéticos en el retraso mental.** [Genetical factors in mental retardation.] *Anuario de Psicología*, 1970, Vol. 1(2), 29-43.—"Diseases that accompany mental retardation and in which genetical factors intervene are classified as (a) chromosome abnormalities, (b) hereditary-metabolic abnormalities, (c) miscellaneous. The 1st group is characterized by the Down or trisomia 21, the cri du chat syndromes. Sexual chromosome abnormalities also appear in mental retardation, in particular the Klinefelter and triple-X syndromes. 2 interesting aspects of the XYY syndrome are its mental retardation and tendency toward delictual acts in Ss of more than 180 cm. [5'11"] in height. Hereditary and metabolic changes form a large group of diseases in which mental retardation appears frequently. The aminoacidurias are generally due to enzyme defects that are transmitted autosomatically and recessively. Due to their frequency, the most important aminoacidurias are fenilcetonuria and homocistinuria. Other diseases with metabolic and hereditary abnormalities and mental retardation are classified as lipoidosis and mucopolisaccharidosis. There are many mental retardation syndromes whose basic etiopathogenetic abnormality is still unknown (classified as 'miscellaneous')." (26 ref.)—S. Maze.
8818. Sen, Anima & Sen, Arun K. **A short introduction to the researches in the field of mental deficiency in England.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967, No. 8, 20-25.—Surveys research in mental deficiency in England, particularly from 1950, and identifies 3 stages in development: laboratory experiment, research in industrial training, and a reversion to the laboratory. It is found that there is a growing multidisciplinary interest in the problems of mental abnormality. (52 ref.)—*Journal abstract.*
8819. Siguán, Miguel. (U. Barcelona, Spain) **La personalidad del deficiente mental.** [The personality of the mentally deficient child.] *Anuario de Psicología*, 1970, Vol. 1(2), 44-64.—Discusses (a) the mental

deficiency and personality of a retarded child, (b) the retardation in intellectual development, (c) the rejection of a retarded child (manifested by guilt, hostility, shame, forgetfulness, etc., by parents or environment such as school), (d) the personality of the mentally retarded child and his various defense mechanisms (regression and aggressiveness) and compensations (dreaming, being funny, etc.), (e) school and mental retardation, (f) special education, and (g) the social integration of the mentally deficient child. It is proposed that, this mental deficiency, along with the feeling of failure and inferiority that normally accompany it, ends up by changing a retarded child's personality and endangering his social integration. It is ascertained that the main problem of such a child is not as much the progress of his intelligence as the formation of his personality. It is concluded that this can only occur within the context of a personal relationship based on an honest desire to help on the part of the educator. The child seeks the security he is not able to find within his own environment. Because he often has psychic problems, the type of education suggested is a psychotherapeutic one.—S. Maze.

8820. Singer, Benjamin D. & Osborn, Richard W. (U. Western Ontario, London, Canada) **Social class and sex differences in admission patterns of the mentally retarded.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 160-162.—Asserts that sex differences in admissions to mental retardation treatment centers are the result of variations in sex-role expectations rather than physiological differences. Data on age, sex, social class, and measured IQ from 2360 admissions to a regional diagnostic and treatment center indicate higher male IQs and that differences between male-female IQ levels increase with age and social class. This suggests that a lower level of sensitivity toward females exists and that many females who might benefit from treatment are not identified by current case finding techniques.—*Journal abstract*.

8821. Smeets, Paul M. (Woods Schools, Langhorne, Pa.) **Withdrawal of social reinforcers as a means of controlling rumination and regurgitation in a profoundly retarded person.** *Training School Bulletin*, 1970(Nov), Vol. 67(3), 158-163.—Reports the treatment of a profoundly retarded 18-yr-old boy whose life was endangered by severe vomiting and rumination. A continuous conditioning paradigm heavily based on withdrawing social reinforcers significantly reduced the frequency and amount of regurgitation as well as of rumination. During the treatment period S gained 9 lb., and from the medical viewpoint was out of danger.—*Journal abstract*.

8822. Stewart, James A. & Daniels, Lloyd K. (Dept. of Youth Resources, Brookline, Mass.) **A modified scoring procedure for the Machover Draw A Person Test in assessing the self concept of mentally retarded subjects.** *Training School Bulletin*, 1970(Nov), Vol. 67(3), 178-182.—Examined the performance of 40 educable mentally retarded males on a projective drawing task using a scoring technique based on 9 characteristics descriptive of the self-concept. Analysis of the scoring procedure revealed 2 qualitatively distinct groupings of scoring criteria along a dimension described as visually apparent or objective to visually less apparent or subjective. It is concluded that such differentiation will assist systematic analysis of drawings and should be employed to further clarify unexpected results following hypothesis testing.—*Journal abstract*.

8823. Stone, Nellie D. (Newark State Coll., Child Study Inst.) **Effecting interdisciplinary coordination in clinical services to the mentally retarded.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 835-840.—Examines organizational principles that foster effective clinical service in light of recent community mental health concepts. The following processes are identified: (a) freedom of communication, (b) sharing of responsibility for decision-making and leadership, (c) respect for individual status and competence, (d) encouragement of both inter- and independent functioning, (e) development of congenial interpersonal feelings and role consensus among staff members, and (f) continuous evaluation of clinical functioning in the light of shared reality.—*Journal abstract*.

8824. Talkington, Larry W. & Hall, Sylvia M. (Austin State School, Tex.) **A musical application of Premack's hypothesis to low verbal retardates.** *Journal of Music Therapy*, 1970(Fal), Vol. 7(3), 95-99.—A design based on Premack's hypothesis compared matched groups of retardates ($N = 21$) of low verbal ability on echoic response production under 3 reinforcement conditions. "Most preferred" music activity, "least preferred" music activity, and "non-music" control conditions were used as reinforcers contingent upon improvement over the performance of the previous day. Performance curves for the group demonstrated a significantly steeper gradient for the "most preferred" music group than for the "least preferred" or control groups. The following conclusions seem warranted based on the results of this and previous studies: (a) Differential preferences for music activities can be determined by use of operant base-line responses of retarded Ss. (b) The reinforcing properties of differential music preferences may be predictable on the basis of Premack's hypothesis. (c) Verbal production as measured by echoic responses can be increased through the use of musical activity reinforcers. (d) A considerable amount of experimentation is needed to clarify classes of music activity or music-related preferences of the retarded. The interaction of attention and reinforcing variables is in need of study and would seem to offer a promising area of exploration for the language and speech development disciplines.—*Journal summary*.

8825. Zarfas, D. E. (Ontario Dept. of Health, Toronto, Canada) **The mentally retarded and the physician.** *Canadian Medical Association Journal*, 1970(Apr), Vol. 102(7), 733-735.—Discusses the physician's problems in dealing with prevention, diagnosis, and management of the mentally retarded. It is concluded that medical, educational, and social agencies must work more closely together in dealing with these problems.

Learning & Motor Ability

8826. Brown, Ann L. (U. Connecticut) **Subject and experimental variables in the oddity learning of normal and retarded children.** 1970(Sep), Vol. 75(2), 142-151.—Reports a comparative study of oddity learning in Exp. I where the performance of 16 retarded and 16 bright children is compared to that of their normal MA and CA peers. Analysis of the resultant normal-retarded difference suggests an attentional deficit in the performance of the retarded Ss. Attention-engineering techniques, introduced in Exp. II with 48 retarded Ss,

proved effective in increasing the number of retardates reaching solution. Emphasizing the relational component was a more effective technique than emphasizing the dimensional component of the oddity task. Results are discussed in relation to an attention theory analysis of discrimination and relational learning. (17 ref.)—*Journal abstract*.

8827. Leicht, Kenneth L. & Johnson, Richard P. (Illinois State U.) **Effects of rehearsal instructions on recall and organization in free learning of retardates.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 163-167.—Examined recall and organization of a category list and a list of difficult-to-group, low-meaningful trigrams under conventional free-learning memorization instructions and under free-learning instructions designed to inhibit organization. Ss were 48 educable mental retardates. For both lists, organization-inhibiting instructions reduced recall as well as subjective organization. A finding that subjective organization of the category list was accompanied by minimal category clustering suggested that organization in the mentally retarded is underestimated when scored only along predetermined categories. For both lists, variations in organization were too small to account for recall variation.—*Journal abstract*.

8828. Sen, Anima, & Sen, Arun K. **The effect of distraction on a perceptual motor task in the subnormal.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1968, No. 10-11, 22-25.—Investigated distraction in a group of 14 mentally deficient adults. Ss were given a plastic typewriter key-top sorting task once under normal conditions, and once under a distraction condition, consisting of a recorded story presented over earphones. Results show that the performance of the Ss was not impaired in the presence of extraneous stimuli: speed increased without reduction in the level of performance. Findings are discussed in relation to the hypothesis of interaction between the level of task difficulty and presence of extraneous stimuli, and the possibility of using the concept of arousal is discussed in relation to the significant increase in speed during distraction. (17 ref.)—*Journal abstract*.

8829. Sen, Arun K. & Sen, Anima. **Free recall as a function of exposure time.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1968, No. 10-11, 5-11.—Reports an experiment concerning the effect of different exposure rates on a free recall. Ss were 7 severely retarded adults. 7 different sets of pictures of common objects (10 pictures in each set), and 7 different exposure rates (.25, .50, .75, 1, 2, 4, and 8 sec.) were taken. Ss exposure rates, picture sets, and the temporal factor were counter balanced by using a Graeco-Latin square design. Results suggest that the rate of presentation is an important factor in memory experiments, and that learning difficulty in the severely subnormal can be partially overcome by manipulating the rate of presentation. (19 ref.)—*Journal abstract*.

8830. Stubbs, Barbara. **A study of the effectiveness of an integrated, personified approach to learning with trainable mental retardates.** *Journal of Music Therapy*, 1970(Fal), Vol. 7(3), 77-82.—Demonstrates "2 approaches to the use of music to aid trainable mental retardates (TMRs) in learning factual material and certain types of discrimination." 7 musical instruments were presented to 2 groups of TMRs. In 1 group the instruments were presented with photographs and solo recordings; in the other, an integrated, personified

approach was created with a story and imaginative drawings. It was hypothesized that the TMR will learn more effectively through the method which uses imaginative drawings and an integrated, personified story, and he will have better discrimination of contrasts afterward. Results seem to indicate that the approach used with the experimental group is effective.—F. O. Triggs.

Training & Vocational Rehabilitation

8831. Eyman, Richard K., Tarjan, George, & Cassady, Michael. (Pacific State Hosp., Socio-Behavioral Lab., Pomona, Calif.) **Natural history of acquisition of basic skills by hospitalized retarded patients.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 120-129.—Increasing numbers of retarded individuals are participating in community programs, where their adjustment depends on basic self-care skills. Limited information is available on the acquisition of these skills, and such data are needed, particularly for the assessment of training and treatment programs. A 2-yr admission cohort (N = 727) at a state hospital was followed for 3 yr., and assessed annually with respect to ambulation and toilet training. A simple Markov chain was used for analysis. The outlook for nonambulatory and nontoilet-trained patients under standard care was poor. A small subgroup receiving more intensive treatment had a better prognosis. (18 ref.)—*Journal abstract*.

8832. Goldman, Michael S. (U. Wisconsin) **Identification of barriers and facilitators in the vocational habilitation of educable mentally retarded youth.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1518.

8833. Jackson, Martha E. & Jackson, Newton L. (Santa Barbara County Schools Dept., Calif.) **Educational application of behavior modification techniques with severely retarded children in a child development center.** *California Journal of Educational Research*, 1970(Mar), Vol. 21(2), 68-73.—Attempted to determine if profoundly retarded children involved in a day treatment setting could benefit from application of the principles of behavior modification. A 4 and a 10 yr. old were selected for 4-5 wk. of special treatment; 1 program was aimed at developing the initial response of looking toward someone who called her by name; and the other, for the 10-yr-old boy, was designed to reduce his aggressive saluting behavior. Data indicate that behavioral modification techniques can be used on a short-term basis to alter behavior in children who manifest acute management problems. This study could not determine the durability of such changes over time nor assess the amount of retraining necessary to reinforce the new patterns. Future new roles for the school psychologists in general were discussed in the direction of a more prescriptive role.—H. J. McWhinnie.

8834. Nixon, Russell A. (Columbia U., School of Social Work) **Impact of automation and technological change on employability of the mentally retarded.** *American Journal of Mental Deficiency*, 1970(Sep), Vol. 75(2), 152-155.—Widely held views that automation and advancing technology end the need for full use of all potential labor resources and eliminate unskilled jobs in the economy would suggest less feasibility and less emphasis on vocational rehabilitation of the mentally retarded. It is argued that such views are unfounded. The

evidence regarding the impact of technological change and national production goals indicates continued need for all potential labor supply and no reduction, but rather possibly an increase, in the opportunities for successful employment of the mentally deficient. (18 ref.)—*Journal abstract.*

PHYSICAL ILLNESS

8835. Altschek, Albert; Wiener, Jerry M., & Stevenson, Stuart S. (1 E. 89th St., New York, N.Y.) **Psychologic and social factors in pediatric gynecology clinic care.** *New York State Journal of Medicine*, 1969(Dec), Vol. 69(24), 3134-3137.—Discusses different conditions, circumstances, and cases to illustrate the advantages to the pediatric gynecologist of concerning himself with the emotional, social, and cultural influences which bear on his patients' pathologic conditions.—*Journal summary.*

8836. Booth, Gotthard. **Pastoral psychology: The next 20 years: In ministry to the sick.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 22-28.—Discusses the future role of ministers in the care of the sick in the contexts of changing concepts of clinical training for clergy, new images of health, and the nature of ministry of healing. (25 ref.)—*O. Strunk.*

8837. Braceland, Francis J. (Inst. of Living, Hartford, Conn.) **Pastoral psychology: The next 20 years: In relation to medicine.** *Pastoral Psychology*, 1970(Feb), Vol. 21(201), 16-22.—Since medicine is changing rapidly and pastoral counseling is achieving greater identity, there are many areas in which the 2 can interact meaningfully, especially in the handling of the existential problems of those in the middle and old age groups. Both disciplines, however, will need to remain open and flexible in the midst of new demands and developments.—*O. Strunk.*

8838. Collard, Kenneth L. **Hypnosis in general practice of medicine.** *Journal of the American Society of Psychosomatic Dentistry & Medicine*, 1970, Vol. 17(2), 39-45.—A family physician describes his use of hypnosis in the treatment of 10 of his patients. Anxiety, overweight, smoking, stuttering, functional abdominal distress, and emphysema are some of the medical conditions treated.—*M. V. Kline.*

8839. Friedman, Eli A., Goodwin, Norma J., & Chaudhry, Lily. **Psychosocial adjustment to maintenance hemodialysis: I.** *New York State Journal of Medicine*, 1970(Mar), Vol. 70(5), 629-637.—Studied the psychosocial adjustment of 20 patients, undergoing maintenance hemodialysis for at least 1 yr. in a municipal hospital center. A mean of 31% of the Ss' work week was consumed by actual dialysis or activities necessitated by hemodialysis therapy. Gainfully employed Ss adjusted to a reduced annual income and a shorter work week. Ss' total rehabilitation was made difficult by 2 components of the therapeutic regimen: the placement of external arteriovenous shunts, and the required sodium-restricted diet. Despite frequent hospitalizations, a mean of 28 days/yr/patient, most Ss are able to work, tend house, or participate in school activities.—*Journal summary.*

8840. Gordon, Bianca & Freud, Anna. **A psychoanalytic contribution to pediatrics.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 521-543.

8841. Greenberg, Harvey R. & Blank, H. Robert.

(Albert Einstein Coll. of Medicine, Yeshiva U.) **Dreams of a dying patient.** *British Journal of Medical Psychology*, 1970(Dec), Vol. 43(4), 355-362.—Presents the case of a 50-yr-old man fatally ill with cancer, with special attention given to his dreams. His dreams demonstrate the recognition of physical dissolution and the wish to be well already. Also noted is the libidinization of death, its equation with incestuous feelings towards the mother, the process of premorbid object decathexis, and the increasingly unambivalent wish to die.—*Journal summary.*

8842. Hall, James T. (Sibley Memorial Hosp., Washington, D.C.) **A dynamic concept of praying for the sick.** *Pastoral Psychology*, 1969(Oct), Vol. 20(197), 43-48.—Provides specific guides and verbatim reports of how to utilize prayer in the pastoral care of patients.—*O. Strunk.*

8843. Hallauer, Dean S. (U. Washington) **Illness behavior: An experimental investigation.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 913-914.

8844. Humphreys, John M. (Pacific Medical Center, Presbyterian Hosp., San Francisco, Calif.) **The unknown in focus.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 31-40.—Discusses the presurgical procedures used by a chaplain in a specialized hospital, identifies feelings of patients on the eve of surgery, reviews the defense mechanisms utilized by patients in order to cope with such feeling, and discusses a ministry to patients that is consistent with good patient care and the chaplain's professional integrity.—*O. Strunk.*

8845. Johnson, John & Clift, A. D. (Manchester Royal Infirmary, England) **Dependence on hypnotic drugs in general practice.** *British Medical Journal*, 1968(Dec), Vol. 4(5631), 613-617.—Of the patients in an industrial general practice, 1.3% required hypnotic drugs regularly. They were predominantly in the older age groups (mean 62.7 yr.) with an excess of widows. Only .02% were severely dependent. There were 3 main original indications for hypnotics: medical (pain), psychiatric, and onset insomnia in anxious personality disorder. 1/3 of the Ss 1st took hypnotics while hospitalized. The group as a whole manifested a high degree of abnormal psychological disposition. It is suggested that many patients who take hypnotics regularly may be placebo reactors, and a more critical attitude to hypnotic prescribing is required both in hospital and in general practice. (22 ref.)—*Journal abstract.*

8846. Julich, H., Strössel, K., & Schönfelder, J. (District Hosp., Medical Clinic, Leipzig, E. Germany) **Die Bedeutung neuropsychiatrischer Symptome beim Myocardinfarkt.** [The significance of neurological and psychiatric symptoms in myocardial infarctions.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Aug), Vol. 22(8), 293-298.—Reviews the medical literature which indicates high occurrence of cerebral symptoms in myocardial infarct patients. In an experimental group of 70 patients, 44% showed neurological and psychiatric symptoms which unequivocally had an unfavorable influence on prognosis and clinical course. This group also contained more females of advanced age (70-79) than the majority. (29 ref.)—*K. J. Hartman.*

8847. Lachkepani, A. N. & Madzhagaladze, N. A. **Adaptatsionno-kompensatornye vozmozhnosti villizatsiya kruga pri patologii magistral'nykh sudov golovy.** [Adaptive-compensatory capacities of Willis'

circle in case of pathology of the magistral vessels of the head.] Tbilisi, USSR: Sabchota Sakartvelo, 1969. 88 p.—Deals with (a) questions of compensation of cerebral circulation due to pathology of the magistral vessels, and (b) the ways in which the development of compensatory circulation proceeds due to occluding lesions of the cerebral vessels.—I. D. London.

8848. Meyer, Harry M. (National Inst. of Health, Div. of Biologics Standards, Bethesda, Md.) **The control of rubella and other virus infections in the prevention of mental retardation.** *Mental Retardation*, 1969(Apr), Vol. 7(2), 17-18.—Discusses the development of rubella vaccines which are "attenuated, noncommunicable, and capable of protecting the natural disease." The congenital defects associated with rubella and their formation are examined.

8849. Nathan, Susan & Pisula, Dorothy. (Children's Hosp., Pittsburgh, Pa.) **Psychological observations of obese adolescents during starvation treatment.** *Journal of the American Academy of Child Psychiatry*, 1970(Oct), Vol. 9(4), 722-740.—Studied how a young adolescent copes with the stress of starvation, what motivates him to starve, and whether such a group would delineate developmental characteristics of the child for whom obesity is a major symptom. Data collected from 8 female and 7 male 12-16 yr. olds weighing 164-306 lb. at the time of a 4-wk hospitalized fast, and 8-24 mo. postfast consisted of: family histories; psychological tests including the Rorschach, Figure Drawing, the WISC, and the Embedded Figures Test; informal behavioral observations; and records of weight losses and gains. Results show that Ss: (a) had average IQs, but functioned at immature developmental levels in terms of ability to differentiate and integrate reality; (b) are in response to external rather than internal physiological cues; (c) had life histories characterized by strong ambivalent parental feelings about the child's survival, and by use of food as a vehicle of relationship so that feeding and eating became equated with doing; (d) were characterized by reduced motility as an important aspect of development; and (e) had, in all but 4 cases, regained or exceeded their admission weight 24 mo. postfast. Various differences between high and low gainers during follow-up and the implications of an unexpected finding, i.e., the incidence of deaths of significant people shortly before a child agreed to total fast, are discussed. (21 ref.)—M. Maney.

8850. Nelson, Robert F. (U. Ottawa, Medical School, Ontario, Canada) **Cluster migraine: An unrecognized common entity.** *Canadian Medical Association Journal*, 1970(Nov), Vol. 103(10), 1026-1030.—Reviews vascular headache and emphasizes its stereotyped features. 10 case histories are given and the need for early diagnosis is emphasized. While the common analgesics and narcotics are usually ineffective, ergotamine derivatives, methysergide and a new compound, BC-105, are highly effective forms of therapy. (19 ref.)—*Journal abstract.*

8851. Petroni, Frank A. (Menninger Foundation, Div. of Social Science Research, Topeka, Kan.) **Social class, family size, and the sick role.** *Journal of Marriage & the Family*, 1969(Nov), Vol. 31(4), 728-735.—Examined illness frequency, physician utilization, and perceived legitimacy to the sick role in relationship to socioeconomic status (SES) and family size. A household respondent in each unit from 67 3-generation families was interviewed quarterly over 1 yr. SES and family size were inversely related to perceived right to assume the

sick role. However, SES was not significantly related to the frequency of reported illnesses or physician utilization. In contrast, the latter were inversely related to family size. The association between illness behavior and family size was specified when controlling for age (generation) and social class. Family size was inversely related to both illness frequency and doctor visits in the lower class, but not in the middle class, or among respondents in the grandparent generation.—*Journal abstract.*

8852. Rinaldi, Guillermo & Goldberg, Diana. **Preparación psicoterapéutica en cirugía cardiovascular infantil.** [Psychotherapy preparation for pediatric patients at cardiac surgical treatments.] *Acta Psiquiátrica y Psicológica de América Latina*, 1969(Mar), Vol. 15(1), 66-74.—Emphasizes the importance of psychotherapy as a preparation for pediatric patients undergoing surgical treatment for cardiac diseases. The outstanding characteristics of the children's personalities are described as well as those of the family groups, emphasizing the group's effort to make up for the child's handicap. It is also shown how that balance is broken at the repairing surgical procedure and how this situation may be therapeutically handled. The technique used is based on child psychoanalysis adapted as a short-term therapy.—*English summary.*

8853. Shatin, Leo. (334 Warwick Ave., South Orange, N.J.) **The Situational Attitudes Schedule: A morale scale for the chronic medical patient.** *American Corrective Therapy Journal*, 1970(Sep), Vol. 24(5), 137-140.—Describes a brief Situational Attitudes Schedule to study the psychological state of morale of long-term hospitalized medical patients. The Schedule is concise, requires but simple reading ability, and can be self-administered or administered by paramedical personnel. Its parallel and correspondent changes are reported, *pari passu*, with the changes on a Ward Behavioral Rating Scale and an Activities Participation Index in a re-motivation study of chronic hospitalized medical patients. The scores on the Situational Attitudes Schedule changed coordinately with changes in the patients' ward behavior, social adjustment, and degree of cooperative participation in voluntary and rehabilitation activities. This morale scale is applicable to evaluational studies of rehabilitation methods with hospitalized chronic medical patients.—*Author abstract.*

8854. Van Melkebeek, A. & de Barsy, A. M. (Inst. Bunge, Antwerp, Belgium) **A propos d'un Inconvénient rare, mais dramatique, de l'utilisation du diazépam intraveineux.** [A rare but severe complication arising from the intravenous use of diazepam.] *Acta Neurologica Belgica*, 1970(Mar), Vol. 70(2), 286-294.—Reports the cases of 2 children (ages 8½ and 4) who developed apnea after an iv injection of valium; dosages were respectively 7.5 and 5 mg. These attacks of apnea required assisted respiration for a period of about 15 min. (2 p. ref.)—*English abstract.*

8855. Zacharski, Leo R., Litin, Edward M., Mulder, Donald W., & Cain, James C. (Dartmouth Coll., Medical School) **Acute, fatal hepatic failure presenting with psychiatric symptoms.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 382-386.—Describes 2 patients who had rapidly progressive and ultimately fatal liver disease but initially manifested only psychiatric symptoms. In neither was there any suggestion of liver disease in the history or in the clinical data until shortly before death. (15 ref.)—*Journal abstract.*

COMMUNITY SERVICES

8856. Cutting, Allan R. (Family & Child Guidance Services, Brattleboro, Vt.) **An approach to community mental health education.** *Social Casework*, 1970(Oct), Vol. 51(8), 475-480.—Establishing a special educational advisory committee for a community mental health center appeared to be more effective than collaborating with a mental health association. The advisory committee included representation by minority and poverty groups and allowed members to rank-order community needs.—M. W. Linn.

8857. Gruenberg, Ernest M. & Huxley, Judith. (Columbia U., Coll. of Physicians & Surgeons) **Mental health services can be organized to prevent chronic disability.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 431-436.—Discusses the "social breakdown syndrome" in which deterioration occurs in some persons with chronic severe mental disorders. It is suggested that comprehensive mental health services in the community form a base for dealing with patients who have developed this syndrome. The relationship between in- and outpatient services is discussed. A guideline questionnaire is provided to help communities determine their capacity to prevent chronic deterioration in such individuals. It is concluded that at least 1/2 of chronically deteriorated persons could be rehabilitated if present knowledge was effectively applied.—*Journal abstract*.

8858. Katz, Alfred H. (U. California, Schools of Public Health & Social Welfare, Los Angeles) **Self-help organizations and volunteer participation in social welfare.** *Social Work*, 1970(Jan), Vol. 15(1), 51-60.—Presents a theoretical analysis of the dynamics of self-help groups, with special reference to the dimensions of volunteer participation. It is concluded that self-help organizations will continue to provide extensive opportunities for 1 important type of volunteer service, and that social scientists and social welfare students should increasingly utilize the rich laboratory setting provided by these organizations for the study of organizational behavior and small social systems and for analysis of pertinent and inventive volunteer participation.—*Journal abstract*.

8859. Lightfoot, Orlando B. & Foster, Douglas L. (Harvard Medical School, Boston, Mass.) **Black studies, black identity formation and some implications for community psychiatry.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 751-755.—Defines black studies as being of, by, and about black people, occurring in multiple areas, including black homes, black communities, and academic departments of black studies. Black identity is seen as a function of the socio-cultural reality of the times. Community psychiatry can be useful in the process, but leadership in such programs must be assumed by blacks.—*Journal abstract*.

8860. Osofsky, Howard J. & Osofsky, Joy D. (State U. New York, Upstate Medical Center, Syracuse) **Adolescents as mothers: Results of a program for low-income pregnant teenagers with some emphasis upon infants' development.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 825-834.—Reports the results of an interdisciplinary program for 460 low-income pregnant adolescent girls and their babies. Medical complications, prematurity, and prenatal mortality were considerably reduced. Ss made considerable educational progress despite poverty, prior school deficiencies, and responsibility for child care. Many

graduated from high school and continued for higher education. The availability of sex education and contraception greatly reduced the incidence of unwanted repeat pregnancies. Many Ss left local welfare rolls. Base-line information is provided on the physical growth and development of the infants and on the interaction of young mothers and their infants. (39 ref.)—*Journal abstract*.

8861. Ozarin, Lucy D. (National Inst. of Mental Health, Div. of Mental Health Service Programs, Chevy Chase, Md.) **Occupational therapy facilities in community mental health centers.** *Hospital & Community Psychiatry*, 1969(Sep), Vol. 20(9), 289-290.

8862. Pörksen, N. (U. Heidelberg/Mannheim, Sociopsychiatric Clinic, W. Germany) **Über Krisenintervention.** [Crisis intervention.] *Zeitschrift für Psychotherapie und medizinische Psychologie*, 1970(May), Vol. 20(3), 85-95.—The model of crisis intervention is based on the attempt to exploit the therapeutic possibilities by way of immediate active treatment in an acute life-crisis or a crisis during mental illness. It is felt that crises are possible turning points and can be used to achieve mastery of the situation. The danger in crises lies in fear of the necessary confrontation. Many crisis consultation centers are being established in the United States, either as independent institutions or as crisis wards in community mental health centers. These centers are always open and are located in downtown areas. Therapeutic possibilities and personal experiences with these centers are discussed. (16 ref.)—*English summary*.

8863. Riessman, Catherine K. (Paret Lane, Hartsdale, N.Y.) **The supply-demand dilemma in community mental health centers.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 858-869.—Critically surveys response strategies that attempt to meet the paradox that as the supply of properly offered services increases, the demand for these services accelerates even faster. This new level of demand cannot be met by the present allocation of resources. Case material from 1 center is highlighted. (29 ref.)—*Journal abstract*.

8864. Robertson, Richard N., Maholick, Leonard T., & Shapiro, David S. (Bradley Center, Columbus, Ga.) **The parish minister as counselor: A dilemma and challenge.** *Pastoral Psychology*, 1969(Jun), Vol. 20(195), 24-30.—Genuine community action for prevention and amelioration of mental and social ill health depends upon society's ability to engage the key helping professions in such programs. Parish ministers comprise an unusual reservoir of time, energy, skill, and wisdom in this project. Preparation of the parish minister, however, requires a different viewpoint and a different body of knowledge than that required for training of a pastoral counseling specialist.—O. Strunk.

8865. Schulberg, Herbert C. & Baker, Frank. (Harvard Medical School, Boston, Mass.) **The caregiving system in community mental health programs: An application of open-systems theory.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 437-446.—Discusses the rapid expansion of community mental health programs which is focusing increased attention upon the problems of organizing effective caregiving networks. Concepts drawn from open-systems theory are applied to this issue by exploring the primary task, the nature of inputs and outputs, environmental conditions, and subsystem interactions as they affect a community mental health program. The differences between programs organized according to medical practice and

human services models are also explored within this framework. (19 ref.)—*Journal abstract*.

8866. **Taber, Richard H.** (Philadelphia Child Guidance Clinic, Pa.) **A system approach to the delivery of mental health services in black ghettos.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 703-709.—Inhabitants of a black ghetto live with several pervasive mental health problems, poor self-image and the concomitant sense of powerlessness. From the concept of ecological systems, this pathology is seen as the outcome of transactions between the individual ghetto dweller and his surrounding social systems. This paper describes a project that attempted to deal with the pathology among black ghetto inhabitants through intervention in 2 natural social systems—an adult social network and a teenage gang—without requiring Ss to perceive themselves as patients. The goal was to develop models for the delivery of services which brought about changes in the existing systems, focusing on competence and mutual support rather than pathology.—*Journal abstract*.

8867. **Thomson, Captane P.** (Yolo County Mental Health Services, Woodland, Calif.) **Involving the private sector in community psychiatry.** *American Journal of Psychiatry*, 1970(Sep), Vol. 127(3), 363-368.—Offers 1 answer to the question of how psychiatry can expand its capacity for direct service if a national health insurance program removes the financial barrier to care. The cooperative development of a central inpatient, day patient, and emergency service is also described that eliminates the distinction between public and private care and makes maximum use of scarce professional manpower.—*Journal abstract*.

8868. **Torrey, E. Fuller.** (National Inst. of Mental Health, Div. of Manpower & Training, Chevy Chase, Md.) **Mental health services for American Indians and Eskimos.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 455-463.—Surveys past and present mental health services for American Indians and Eskimos and finds them to be inadequate. A plan is outlined for the development of such services based upon a cooperative rather than a paternalistic venture with these minority groups. The plan is based upon the use of indigenous therapists for individual and group psychotherapy, the modification of etiological beliefs, and an emphasis upon primary prevention. The Alaskan Eskimo is used to illustrate how these principles could be put into effect. The outcome would be a system of mental health services specifically adapted to the culture, realistically commensurate with available manpower, and compatible with dignity for the group. (18 ref.)—*Journal abstract*.

GERIATRICS

8869. **Daniel, R.** (Wolston Park Hosp., Brisbane, Queensland, Australia) **Psychiatric drug use and abuse in the aged.** *Geriatrics*, 1970(Jan), Vol. 25(1), 144-158.—Presents a clinical impression of problems in the use of drugs in the aged. Correct diagnosis is of great importance since many of the mental symptoms of confusion may be the result of underlying physical illness. Thorough physicals with special attention to cardiac, respiratory, and renal symptoms are recommended. 10 brief case histories are presented to support this suggestion. Further studies with 50 male patients are used to indicate proper administration and dosage of various drugs: phenothiazines, diazepam and oxazepam,

imino-benzene derivatives, barbiturates, phenytoin, and cerebral arteriodilators. Contraindications and side effects are discussed.—*S. Knapp*.

8870. **Killian, Eldon C.** (Stockton State Hosp., Calif.) **Effect of geriatric transfers on mortality rates.** *Social Work*, 1970(Jan), Vol. 15(1), 19-26.—Reports on a study to determine the effect of transfers on the mortality rate of geriatric psychiatric patients. Variables studied were age, sex, race, organic or functional diagnosis, length of hospitalization, and whether Ss were ambulatory at the time of transfer. Mortality rates were significantly higher for the transfer group (N = 144)—especially for the older, nonambulatory patients—than for those Ss (N = 109) who had remained in their home units. The need to establish policies that keep the Ss' interests firmly in mind and that are cognizant of the effects of environmental change, especially on the aged, is emphasized.—*Journal abstract*.

8871. **Post, Felix.** (Bethlem Royal Hosp., London, England) **Management of senile psychiatric disorders.** *British Medical Journal*, 1968(Dec), Vol. 4(5631), 627-630.—Emphasizes early diagnosis and cooperation between the family doctor, local authority health and social services, and the geriatrician and psychiatrist in the treatment of senile psychiatric disorders. The types of problems manifested by elderly patients are presented and the treatment for each type is discussed. Sexual problems, alcoholism, hypochondriasis, affective illness, suicidal ideas, persecutory states, and organic mental disorders are included.—*G. Steele*.

8872. **Wallen, Vincent.** (Veterans Administration Hosp., Psychology Service, Hampton, Va.) **Motivation therapy with the aging geriatric veteran patient.** *Military Medicine*, 1970(Nov), Vol. 135(11), 1007-1010.—65-94 yr. old geriatric patients were placed in a group therapy setting which emphasized giving direction and meaning to the lives of geriatric patients. The main goal of this program was to give the patients an alternative to continuous hospital care and provide for posthospital placement in a desirable facility for each patient. 80% of the patients who were in the program were being placed in such facilities within 7 mo. of the beginning of the program. Family attitudes towards geriatric patients were seen as the most important drawback to successful placement inasmuch as these patients had frequently been inadequate parents whose children were now uninterested in giving them the needed attention.—*G. A. Chum*.

8873. **Weiss, William U.** (U. Maryland) **A study of some characteristics of individuals who remain in an institution for the aged.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 906-907.

EDUCATIONAL PSYCHOLOGY

8874. ———. **Institute for Educational Research and Studies.** Tehran, Iran: National Teachers' Coll., 1968. 47 p.

8875. **Altbach, Philip G. & Graham, Robert.** (U. Wisconsin) **Student politics and higher education in the United States: A select bibliography.** St. Louis, Mo.: United Ministries in Higher Education, 1968. vi, 86 p. \$2(paper).

8876. **Angelini, Arrigo L.** (U. São Paulo, Brazil) **Educational technology and television in Brazil.** *Revista Interamericana de Psicología*, 1970(Mar), Vol.

4(1), 59-68.—Presents recent developments in the areas of technology and education through educational TV. It is suggested that this form of mass communication will (a) increase the availability of educational resources for the public, (b) benefit the lower economic levels who cannot afford TV, (c) attack illiteracy on a wider base, (d) improve Brazilian manpower, (e) provide needed training and development of teaching personnel, (f) substitute as a medium for schools, and (g) further cultural exposure. Problem areas for educational TV are lack of funds and adequately trained personnel. (Spanish & Portuguese summaries)—*H. Lohn*.

8877. **Atherton, P. J.** (U. Alberta, Edmonton, Canada) **Financing post-secondary education in Alberta.** *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 137-148.—The basis of financing junior colleges in Alberta, Canada, is a per-student grant. The problem of whether or not this type of grant, which provides a measure of fiscal equity, would provide the necessary flexibility for developing institutions was studied. A program cost analysis was conducted for junior colleges in Alberta. The resulting cost data showed a wide difference in the cost per student for similar programs in each college. The reasons for the differences are analyzed and discussed and a type of financing system based on program budgeting and budget approval is recommended.—*Journal abstract*.

8878. **Elbow, Peter H.** (Massachusetts Inst. of Technology) **More accurate evaluation of student performance.** *Journal of Higher Education*, 1969(Mar), Vol. 40(3), 219-230.—Proposed that universities adopt a multifactor grading grid to replace the traditional A-F system with its indeterminacy and ambiguity, in order for the teacher to provide substantive information and force interpreters to assign their own values. An experimental semester is suggested, during which a list of factors could be evaluated and decided upon by a faculty. Under the proposed system the universities would be better able to satisfy the desire of outside groups to know the strengths and weaknesses of a student's academic performance.—*T. N. Webster*.

8879. **Engelbrecht, C. S.** (National Bureau of Educational & Social Research, Pretoria, South Africa) **School-leavers: The most important findings with regard to: The identification of pupils upon leaving school and the follow-up of pupils after leaving school.** Pretoria, South Africa: National Bureau of Education & Social Research, 1968. iv, 36 p.

8880. **Gagné, Robert M.** **A systems approach to adult learning.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 1-14.—Tests the hypothesis that "the engineering logic of systems design and development could be successfully applied to the design of a system for adult learning." The problem of adult learning is examined, emphasizing the lack of direction. Following the determination of broad goals or system outcomes, the system design includes the subsystem functions, "allocation of functions within subsystems," and identification of components. Plans for system operation and testing are included. Results support the hypothesis. Adult and childhood learning involving basic skill, knowledge acquisition, and productive thinking are compared "to define the kinds of instructional objectives to be achieved by adult learning."—*G. Steele*.

8881. **Gusev, I. T., Mukhin, E. V., & Sumarov, L. N.** (Engineering Physics Inst., Moscow, USSR) **O**

metodologicheskikh printsipakh primeneniya kolichestvennykh metodov pri issledovanii uchebnogo protsessa v vuze. [On the methodological principles of applying quantitative methods in the study of the educational process in higher institutions of learning.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 14-22.—*I. D. London*.

8882. **Kolominskii, Ya. L.** **Psikhologiya lichnykh vzaimootnoshenii v detskom kollektive.** [Psychology of personal interrelationships in the child collective.] Minsk, USSR: Narodnaya Asveta, 1969. 240 p.—Presents a book on the social psychology of the classroom, describing methods for the study of those interpersonal relationships among children which affect the development of personality, behavior, and school performance. Results of the author's research, analyses, and practical recommendations are presented.—*I. D. London*.

8883. **Lu, Chun-yo.** (National Taiwan U., Taipei) [A study on personality traits of freshmen at the National Taiwan University.] *Acta Psychologica Taiwanica*, 1970(Mar), Vol. 12, 1-6.

8884. **Moldavskaya, S. I. & Glukhovskii, L. M.** (Bogomolets Inst. of Physiology, Kiev, USSR) **Opyt psikhofiziologicheskogo obosnovaniya normativov trudoeffektivnosti uchebnoi raboty studentov.** [An experiment to develop psychophysiological grounds for setting the norms of work-expenditure for the schoolwork of students.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 57-63.—Examined the problems encountered in developing norms for work-expenditure in higher schoolwork, and psychophysiologicaly evaluated the statistical data in an experiment attempting to develop norms for the educational work load contemplated. The influence of learning activities on the functional state of the cerebral cortex was studied by means of various psychophysiological methods. It was shown that the character of action of the educational work load is a function of the typological features of the nervous system of the student. The norms that had been previously developed were shown to be physiologically admissible for students with a strong type of nervous system, but too much for students with the weak type.—*I. D. London*.

8885. **Novikova, Ljudmila I. & Lewin, Aleksander.** (Academy for Pedagogical Sciences, Research Inst. for the Theory & History of Education, Moscow, USSR) **The collective and the personality of the child.** *International Review of Education*, 1970, Vol. 16(3), 323-341.—The problem of collective education represents 1 of the central problems in the socialistic theory of education and its practical application. Social school pedagogues regard the collective as an indispensable means for the education of the new generation, both for their social experiences and the development of the individuality of the child. The collective influences the child and tries to integrate the family, school, clubs, etc., into the overall concept of the collective.—*R. F. Wagner*.

8886. **Puni, A. Ts.** **Psikhologicheskaya podgotovka k sorevnovaniyu v sporte.** [Psychological preparation for athletic competition.] Moscow, USSR: Fizkul'tura i Sport, 1969. 88 p.—Discusses the psychological preparation for maximal performance in athletic competitions, which is based on anecdotal and experimental materials, viewed as both a psychological and pedagogical problem.—*I. D. London*.

8887. **Scherer, Jacqueline.** **Students in residence: A**

survey of American studies. *Higher Education Monograph Series*, U. London, 1969, No. 1, 42 p.

8888. Schulman, Lee S. (Michigan State U.) **Reconstruction of educational research.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 371-396.—Considers the study of environments and the reconstruction of research strategy. Educational research has been attempted without notable success. But from its often clumsy gropings have emerged general strategies and approaches that could show promise for the future. The structure of the educational research establishment must be significantly modified to create the necessary conditions for research in education. (3 p. ref.)—P. D. Leedy.

8889. Taukach, G. L. & Lisovichenko, V. I. (Construction Engineering Inst., Kiev, USSR) **Itoqi nauchno-pedagogicheskogo eksperimenta po razrabotke sistemy planirovaniya i organizatsii uchebnogo protsessa v vuze.** [Summarization of the findings of a scientific-pedagogical experiment on the development of a system for planning and organizing the educational process in higher institutions of learning.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 33-52.—Presents an analysis of the general principles underlying the development of this system. A 3-yr experimental effort led to the development of a "normative base," supported by "statistical and psychophysiological" data.—I. D. London.

ATTITUDE & ADJUSTMENT

8890. Brown, Robert E. (Michigan State U.) **Analyses of attitude changes in adults after participation in a conservation-oriented biology course.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1073.

8891. Cheong, George S. (Mt. Allison U., Sackville, New Brunswick, Canada) **Acquisition of experimental attitude by young children.** *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 157-163.—Attempted to determine whether or not a group of youngsters who were taught by teachers high in experimental attitude would be more experimental in attitude than a group of youngsters who were taught by teachers low in experimental attitude after 1 academic yr. Differences between the groups were not statistically significant. Related findings of the study were: (a) teachers high in experimental attitude, as determined by a self-report instrument, were perceived by pupils to be significantly higher in this than were teachers who described themselves as low in experimental attitude; (b) youngsters who were taught by teachers low in experimental attitude were significantly more discrepant or dissatisfied than youngsters who were taught by teachers high in experimental attitude; and (c) according to pupils' self-perception and their perception of teachers, the pupils were significantly higher in experimental attitude than were the teachers.—*Journal abstract.*

8892. de Kort, A. **Drop-outs bij het leerlingwezen.** [Drop-outs among the learners.] *Mens en Onderneming*, 1970(Sep), Vol. 24(5), 280-295.—Presents a descriptive-exploratory investigation of the conditions that resulted in the dropout of students from the apprentice schools (lower technical school). The data were obtained from the case studies of 16 dropouts from the lower technical school, 11 vocational advisers, and 3 district supervisors. An analysis of the purported reasons of "disinterest in school" and "school weariness" among the dropouts

indicated: a higher income in industries without a lower technical school, no apparent reward for obtaining a diploma from this type of school, the curricular content of the school was not exactly pertinent to industrial success, and dismissal from the school. As the labor history of the dropouts was not significantly less desirable than the careers of the graduates, suspicion is created about the effectiveness of lower technical school's programs. Recommendations are made to improve the programs, both administrative and didactic.—A. J. Ter Keurst.

8893. Dufoyer, J. P. (Sorbonne, Genetic Psychology Lab., Paris, France) **Sanction des études: Valeur et usage des notes: Enquête auprès d'étudiants en psychologie.** [Confirmation of studies: Value and use of marks: Survey of psychology students.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 72-80.—Questioned 233 2nd-yr Sorbonne students as to their opinion on confirmation methods (final exams, interm exams, continuous marking). 91.5% considered marks useful, continuous marking the best system (76%, as compared with final exams, 2.9%, interm exams, 19.8%), with continuous marking the best system with respect to motivating study and avoiding irregularities found in exams. Ss thought the marks themselves, however, should be supplemented by broader and more complete evaluations. Below 8-20 (on a 0-20 marking scale) was considered a poor mark; above 12-20, good; only 1/3 of the Ss thought their instructors shared this opinion. Most thought the 0-20 scale should be used in its entirety, with statistical methods used to neutralize corrector variations. Group marks for group studies were favored, even if counted toward diplomas. With respect to continuous marking, Ss were divided in specifying whether all marks or only a part should be considered. In the language of instructors and Ss the term "continuous marking" is rapidly being substituted for that of "continuous assessment of knowledge," a deviation which, if it increases, will tend to produce a "race for marks" or "good marks," so as to reduce the true meaning of learning oriented toward the acquisition of knowledge and methods.—T. N. Webster.

8894. Farley, Jennie. (Cornell U.) **Graduate women: Career aspirations and desired family size.** *American Psychologist*, 1970(Dec), Vol. 25(12), 1099-1100.—Reports results of a questionnaire answered by 263 female graduate students at a large university. The majority were single and in their 1st or 2nd yr. Respondents indicated the relative importance of having a career. Those who checked "very important" were classified as "career women" (approximately 50%). It was hypothesized that career women would more likely anticipate conflict between the career goal and marriage and would differ from noncareer women in terms of various expectations. Results indicate that a higher percentage of career than noncareer women expected (a) to have 2 or less children, (b) that the husband would have equal responsibility for housework and child care when she was working, (c) not to give priority automatically to husband's career, and (d) to work full-time even with preschool children. Neither group, however, anticipated much conflict between career and marriage.—P. McMillan.

8895. Fiebert, Martin S. (California State Coll., Long Beach) **A scale to measure the social distance between college students and faculty.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 3-7.—Developed a

10-item scale constructed from the perspective of college students to assess the dimension of student-faculty social distance. The scale was administered to 507 students who judged each item with respect to their typical and desired levels of social distance. Results indicate that students significantly preferred a lower level of distance than they usually experienced with their instructors. It was found that older and higher achieving Ss, experienced a lower level of social distance.—*Journal summary.*

8896. Grác, Jan. (Comenius U., Bratislava, Czechoslovakia) **Spokojnosť a nespokojnosť a jej podoba u študujúcej mládeže.** [Content and discontent and their forms in students.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(2), 99-118.—Based on results from 1783 Polish high school and university students using the method of exploratory feedback record, the forms of contentment and discontentment and their relationship to the Ss' reaction to questions concerning the contents of their life as students were studied. It was unexpectedly found that: (a) Ss tended to be more often contented than discontented with regard to direct and indirect questions concerning school life; (b) Ss were least worried about problems of material and financial security and questions about social relationships; and (c) Ss were most concerned about problems of self-realization and questions of methodically and technically managing their individual self-education, and above all, mastering their study schedules. The research procedure and results are interpreted circumstantially and explained psychologically. (Russian summary)—*English summary.*

8897. Hauck, Robb J. & Stewart, Maude A. (Buena Vista Coll.) **College men and the draft: 1969.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 439-444.—Attempted to determine whether student attitudes toward military service have changed since 1967 and what the reactions of students at Ohio State University are with regard to draft resistance. No differences were obtained between each of the undergraduate classes. However, a greater negativism was manifested by graduate students as well as undergraduates since 1967. There was a moderate concern about serving in the military with some 70% of the students feeling little or no guilt about not being involved. The disruption of personal plans continues to exert a strong influence on present attitudes. Also, seemingly contradictory to the other findings, an attitude change reflecting a more positive judgment toward a man's duty to serve his nation was noted. Finally, moral reasons and illegality of the Vietnam war were the major reactions concerning resistance to the draft.—*R. H. Mueller.*

8898. Hull, W. Frank. (U. Toledo, Center for the Study of Higher Education) **The black student in higher education: A bibliography.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 423-425.—Presents an annotated bibliography of recent publications which are concerned with the black student in higher education: who he is, what he wants, what the university can do, and what the university should refrain from doing. (29 ref.)—*R. H. Mueller.*

8899. Karasick, B. et al. (Purdue U., Measurement & Research Center) **High school students look at current political issues and the 1968 Presidential campaign.** *Purdue Opinion Panel Poll Report*, 1967(Nov), Vol. 27(1), 20 p.—Administered a questionnaire on attitudes toward the United Nations,

international relations, atomic energy control, Presidential politics, and current domestic issues to 20,000 high school students. Results indicate the majority of "boys prefer the Republican party, girls earn superior grades, and considerable sex differences exist in future plans." Differences in position on questions regarding the powers, stature, and policies of the United Nations; international relations and atomic energy; Presidential candidates; and civil rights, gun control laws, and the Kennedy assassination correlate with education of mother, class level, grade average, and college plans. The validity of the poll is discussed.—*G. Steele.*

8900. Miller, Derek. (University Hosp., Neuropsychiatric Inst., Ann Arbor, Mich.) **Adolescents and the high school system.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 483-491.—Studies the social organization of high schools and questions whether the structures of the social systems meet the developmental needs of adolescents. The need for schools to change to meet these needs is enhanced because the breakdown of the social networks of society have made schools the only stable psychosocial developmental area for many pupils. Adolescents are considered in their early and middle stages, and the specific needs of these age groups are related to the social organization of the school. In particular, the size of the school, the change in ages of children from school to school, and the structure of groups are considered. Necessary changes for improvement in teacher-pupil relationships are discussed.—*Journal abstract.*

8901. Ochberg, Frank M. & Trickett, Edison. (National Inst. of Mental Health, Chevy Chase, Md.) **Administrative responses to racial conflict in a high school.** *Community Mental Health Journal*, 1970(Dec), Vol. 6(6), 470-482.—Studies the impact of a high school riot on the ecology of the school from the perspective of the vice principal. It is suggested that administrative options and responses were shaped by the organizational history of the school and by relationships among various groups both out- and inside the school: faculty, students, superintendent, board of education, and the black and white communities. Implications for the community mental health consultant are discussed.—*Journal abstract.*

8902. Pate, Robert H. (U. Virginia) **Student expectations and later expectations of a university enrollment.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 458-562.—Investigated whether freshmen and transfer students enter the same university with different expectations, whether there is a difference between the perception of the university environment prior to and at the end of the 1st semester on the part of freshmen, and whether any such possible difference is related to familiarity with the university or certain individual characteristics of the student. 300 college students completed 2 instruments designed to measure student perceptions of the university environment. The findings indicate that there is indeed a discrepancy between the expectations and later perceptions of incoming college freshmen. It is suggested that the entering transfer student may be seeking a college that fits his stereotype after being disappointed with his original choice.—*R. H. Mueller.*

8903. Reiley, Robert R. & Knight, Glenn E. (Texas A & M U.) **MMPI scores of Mexican-American college students.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 419-422.—Reviews some of the

research concerning racial and regional differences among different samples on the MMPI. This study was interested in determining whether any differences existed between Spanish and non-Spanish freshmen college students at a southwestern university. The MMPI was administered to 136 students. A total of 7 significant differences were obtained out of a possible 36 combinations. Females scored higher on depression and social introversion, while Mexican Ss scored higher than non-Mexicans on the Lie scale, and the reverse was the case on the Paranoia scale. Also, 3 significant differences were obtained in the sex-race interaction. Suggestions are offered for the obtained differences.—*R. H. Mueller.*

8904. **Risch, Thomas J.** (Bucknell U.) **Expectations for the college environment.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 463-466.—It was hypothesized that freshmen whose parents had a limited educational background would differ in their expectations from freshmen whose parents had college degrees. 82 students completed the College and University Environment Scales which measure 5 dimensions of the campus environment: practicality, community, awareness, propriety, and scholarship. Results indicate that a multifactor social class distinction, rather than a single factor, e.g., educational level of parents, may be more appropriate to account for differences in student expectations of the college environment.—*R. H. Mueller.*

8905. **Rolf, Jon E.** (U. Minnesota) **The academic and social competence of school children vulnerable to behavior pathology.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1549-1550.

8906. **Schmidt, Marlin R.** (U. Florida) **Personality change in college women.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 414-418.—Investigated personality and attitudinal changes by college women from freshman to senior year at a large midwestern university. Over 1000 Ss were initially involved in the study and complete information was available for 314 or about 30% of the women. The instruments used included the American College Survey, the Vocational Preference Inventory (VPI), the Interpersonal Competency Scale, the Rokeach Dogmatism Scale, the Student Orientation Survey, Form C, as well as the measurement of several personality traits and abilities. Ss generally decreased in dogmatism and increased in interpersonal competence. There was also a decrease in most of the VPI scales, while the nonconformist orientation increased. (16 ref.)—*R. H. Mueller.*

8907. **Stensaasen, Svein.** (U. Oslo, Inst. for Educational Research, Norway) **Interstudent attraction and social perception in the school class: An inquiry into the operation of preference for the balanced state among members of the natural classroom group.** *Norwegian Studies in Education*, 1970, No. 3, 282 p.

8908. **Thorn, Philip.** **Interpersonal conflicts in elementary school classes.** *Individual Psychologist*, 1970(Nov), Vol. 7(2), 38-46.—Describes some interpersonal conflicts observed in elementary school situations and analyzes them within the framework of individual psychology.—*A. R. Howard.*

TESTING

8909. **Anderson, Hilton L.** (Rutgers State U.) **Acquiescence response bias to difficult achievement-type true-false tests of male high school students exhibiting rule breaking or rule obeying behavior.**

Dissertation Abstracts International, 1970(Sep), Vol. 31(3-B), 1514-1515.

8910. **Baird, Leonard L.** (Educational Testing Service, Princeton, N.J.) **The relation of vocational interests to life goals, self-ratings of ability and personality traits, and potential for achievement.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 233-239.—Related interests as measured by Holland's Vocational Preference Inventory to (a) 35 life goals, (b) 31 self-ratings of ability and personality traits, and (c) 22 scales measuring potentials for achievement in 3 analyses using canonical correlation. The sample consisted of 20,369 college freshmen in 37 institutions. Results are shown separately for males and females for 5 factors for each analysis.—*Journal abstract.*

8911. **Bratko, A. A.** (Inst. of Psychology, Kiev, USSR) **Razrabotka i primeneniye program standartizovannogo kontrolya.** [Development and utilization of programs for standardized testing.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 114-120.—Examined the effectiveness of utilizing 4 variants of a program, developed to check on the progress of students of pedagogical institutes in learning general psychology. Multiple-choice answers are shown to have certain practical advantages, and their use is, accordingly, recommended.—*I. D. London.*

8912. **Cox, Richard C. & Sterrett, Barbara G.** (U. Pittsburgh) **A model for increasing the meaning of standardized test scores.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 227-228.—Proposes a model to increase the meaningfulness of standardized test scores that includes the following steps: (a) a precise description of curriculum objectives and a specification of pupil achievement in reference to these objectives; (b) the coding of each item on a standardized test with reference to the curriculum; and (c) the assignment of 2 scores to each pupil, 1 reflecting his achievement on items that test content to which he has been exposed, the other his achievement on items that test content beyond his present status in the curriculum or not represented in the curriculum at all.—*Journal abstract.*

8913. **Dasgupta, Jayanti.** **Traditional grading system and equivalent score technique: A comparison.** *Bulletin of the Council of Social & Psychological Research, Calcutta*, 1967, No. 8, 1-4.—Suggests that the equivalent score technique is a more appropriate system of grading than the traditional composite score technique. Scores of a random sample of 370 male and 130 female candidates in the Bachelor of Arts Examination of an Indian university in 1961 were considered. Vernacular was taken as the standard and the equivalence curves for English, history, Sanskrit, politics, and economics were drawn and best fitted to the empirical data by the method of least square. A random sample of 50 of the 500 Ss was chosen and the composite and equivalent scores determined. The 2 rankings were compared on the calculated p.—*Journal abstract.*

8914. **Ebel, Robert L.** (Michigan State U.) **Knowledge vs. ability in achievement testing.** *Proceedings of the Invitational Conference on Testing Problems*, 1969(Nov), , 66-80.—From the assumption that the essence of achievement is command of useful verbal knowledge, the following implications are listed: (a) most educational objectives should be stated in terms of achieved knowledge or specific abilities rather than desired behavior general abilities or adjustment; (b) ability to think—reflectively, critically, and straight—should be recognized for what it really is in essence, not the

exercise of some general ability; (c) search for the "essential traits of mental life," or for "the dimensions of achievement," should be discontinued; (d) testing in schools should concentrate more on the aspect of "subject matter" or "content" rather than on general abilities; and (e) tests of general educational development which seek to emphasize general abilities are not adequate for testing educational achievement. A discussion by G. C. Gleser follows.—*P. L. Crawford.*

8915. Fialko, E. I. (Kiev U., USSR) **O strukture oprosnoi kartochki.** [On the structure of the question card.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 132-135.—Proposes that question cards and the questions present a "certain structure," in order to bring about a high degree of reliability in disclosing the student's knowledge. Objective evaluation of depth of knowledge is attained by differentiation of the questions with respect to their character.—*I. D. London.*

8916. Fialko, E. I., Rzhetskiĭ, N. N., & Kuznetsova, A. V. (Kiev U., USSR) **O nekotorykh rezul'tatakh eksperimenta po mnogozvennoi metodike kontrolya znaniĭ.** [On some results of an experiment utilizing the multilink method for testing knowledge.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 121-126.—Presents a new method of multilink testing of knowledge learned. The method is distinguished by the fact that, in response to each test question, the pupil gives several answers confirming his mastery of the study material.—*I. D. London.*

8917. Fischer, Frederic E. (State U. New York, Oswego) **Some properties of the personal biserial index.** *Journal of Education Measurement*, 1970(Win), Vol. 7(4), 275-277.—The personal biserial index is a correlation which measures the relationship between the difficulty of the items in a test for the person, as evidenced by his passes and failures, and the difficulty of the items, as evidenced by group-determined item difficulties. Properties of the personal biserial index were studied empirically, including an examination of the reliability of the index and the effect of using the index as a predictor of college success. Findings show that the reliability of the index is quite low and that a knowledge of the index does not significantly increase the predictability of college success from Scholastic Aptitude Test scores and high school averages. Evidence supports the hypothesis that the personal biserial index is sensitive to variations in the extent to which examinees guess.—*Journal abstract.*

8918. Geensen, M. (State U., Leyden, Netherlands) **ABV-scores van aankomende studenten.** [ABV-scores of entering students.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jul), Vol. 25(7), 464-468.—The Amsterdam Biographical Questionnaire (ABV) was administered to 644 students entering the University of Leiden. Their prospective majors were medicine, psychology, chemistry, and law. The ABV, a translation of the MPI, tested neuroticism, neuroticism with a somatic basis, social extroversion, and test attitude. The scores were compared with the norms established by Wilde. The scores above the 64th percentile were in the area of neuroticism. It is suggested that the stressful conditions in which the students operate today could have contributed to their neuroticism.—*A. J. Ter Keurst.*

8919. Kavenagh, Joan C. (New York U.) **Achievement test performance as a function of the interaction between test anxiety and cognitive style in**

elementary school boys. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1540.

8920. Košč, Ladislav. **Psychologické otázky známkovania žiakov.** [Psychological questions of pupils' evaluation.] *Psychológia a Patopsychológia Dieťaťa*, 1970, Vol. 5(2), 131-145.—Investigates psychological problems of giving school marks, and assessment by means of educational (scholastic achievement) tests and psychological (ability and personality) test methods. The advantages and disadvantages of various forms of evaluation and the necessity of their use in combination, resulting in a complex assessment in conformity with cumulative ratings of pupils are also studied. Some of the more concrete data are illustrated using findings from research concerned with the level and quality of mathematical abilities in pupils. (Russian summary) (21 ref.)—*English summary.*

8921. Rellas, Archie J. (Pasadena Unified School District, Calif.) **The use of the Wechsler Preschool and Primary Scale (WPPSI) in the early identification of gifted students.** *California Journal of Educational Research*, 1969(May), Vol. 20(3), 117-119.—26 5.8-6.7 yr. old students (9 boys, 17 girls) who had scored above 130 on the Weise Predictability Scale, were individually tested on the Form L-M of the Stanford-Binet and on the WPPSI. All testing was done during regular school hours. IQ scores on the Stanford-Binet were higher than the Full Scale IQ scores on the WPPSI in all 26 cases. The mean difference was 17.03, $T = 5.51$ significant at the .001 level. The advisability of using the WPPSI for the early identification of gifted students is limited by its low ceiling and lack of agreement with the Stanford-Binet. Conclusions were limited due to the small sample used.—*H. J. McWhinnie.*

8922. Slakter, Malcolm J., Koehler, Roger A., & Hampton, Sandra H. (State U. New York, Buffalo) **Learning test-wiseness by programmed texts.** *Journal of Educational Measurement*, 1970(Win), Vol. 7(4), 247-254.—Randomly assigned 84 male and 77 female, high school seniors to 1 of 2 treatment groups. 1 group received a programed text designed to teach Ss to answer every item on an examination, whether or not the directions included a penalty for incorrect answers. The other group was administered a programed text to teach certain selected aspects of test-wiseness. Each group served as the control group for the other. The following day all Ss were administered a measure of willingness to guess and a measure of test-wiseness. 2 wk. later, all Ss received additional measures of willingness to guess and test-wiseness. Analysis of the data indicates the group that received the guessing program answered significantly more items than its control group (on both the immediate and delayed tests), even though there was a penalty for incorrect answers. In similar fashion, the group exposed to the test-wiseness program achieved significantly higher mean test-wiseness scores than its control group. (22 ref.)—*Journal abstract.*

SPECIAL EDUCATION

8923. Brauchlin, Eleonora. (42 Englischviertelstr., Zürich, Switzerland) **Das Spiel in der Heilpädagogik als therapeutisches Hilfsmittel.** [Play activities as a therapeutic adjunct to special education pedagogy.] *Heilpädagogische Werkblätter*, 1970(Sep), Vol. 39(5), 232-240.—Authorities have stated that play activities are a necessity for the life and development of the child.

Inability to play shows developmental disturbances or misdevelopment. Frequently, mistakes in educating children destroy the play spontaneity in children. Mentally retarded children have a reduced ability to play. "Play-damaged" children can only be cured through play therapy where anxiety and aggression are reduced.—R. F. Wagner.

8924. Feitelson, Dina. (Hebrew U., John Dewey School of Education, Jerusalem, Israel) **Teaching reading to culturally disadvantaged children.** *Reading Teacher*, 1968(Oct), Vol. 22(1), 55-61.—Collected data in Israel between early 1950s and the present time. The problems faced by Israeli children are fairly typical of problems of children of other cultural subgroups throughout the world, and also in the large urban centers of the United States. 1 of the principal obstacles to successful involvement with a prolonged learning task is the inability of many culturally disadvantaged pupils to defer gratification and short attention span. These militate against teaching reading to the culturally disadvantaged.—P. D. Leedy.

8925. Lustman, Seymour. **Cultural deprivation: A clinical dimension of education.** *Psychoanalytic Study of the Child*, 1970, Vol. 25, 483-502.

8926. Lyapidevskii, S. S. *Nevropatologiya*. [Neuropathology. (4th ed.)] Moscow, USSR: Prosveshchenie, 1969. 336 p.—Presents a textbook on the "natural scientific foundations of special education" for defectological departments in Soviet pedagogical institutes.—I. D. London.

8927. Morrison, Coleman & Harris, Albert J. (City Coll., City U. New York, Office of Research & Evaluation) **Effect of kindergarten on the reading of disadvantaged.** *Reading Teacher*, 1968(Oct), Vol. 22(1), 4-9.—Taught disadvantaged Negro children to read by 2 approaches: the skills centered and the language experience approaches. Comparisons between the approaches revealed a significant difference favoring language experience kindergartners over skills centered kindergartners on both Word Knowledge and Reading tests. The differences for nonkindergarten children within the approaches, while favoring the skills centered children, were not significant.—P. D. Leedy.

8928. Reynolds, Maynard C. (U. Minnesota) **Categories and variables in special education.** *Augustana College Library Occasional Paper*, 1968, No. 9, 16 p.

8929. Scott, Thomas J. (Children's Hosp. & Rehabilitation Center, Utica, N.Y.) **The use of music to reduce hyperactivity in children.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 677-680.—Found that hyperactivity of 4 boys aged 7-11 yr. diminished when background music was introduced into their study booths with each under a different condition, e.g., a "normal" classroom situation, and music played in the background. A Friedman Two-Way Analysis of Variance reveals the observed differences among conditions are significant at the .03 level.—*Journal abstract*.

8930. Thomas, Elizabeth C. & Yamamoto, Kaoru. (U. Virginia) **School-related perceptions in handicapped children.** *Journal of Psychology*, 1971(Jan), Vol. 77(1), 101-117.—Administered a semantic differential to 500 middle school and high school retarded, disturbed, blind, and deaf children to study their attitudes toward 4 people (classmates, parent, teacher, and myself) and 4 curricula (social studies, language, science, and mathematics). Significant handicap effects were found on all concepts indicating no monolithic handicap group exists.

Ss were more heterogeneous in their reaction to people than to curricula. Ratings by each age and handicap group suggest a need for psychological reexamination of current curriculum structure. (23 ref.)—*Author abstract*.

Gifted

8931. Ripin, Margaret. **Teaching: Round table.** *Journal of Emotional Education*, 1969(Win), Vol. 9(1), 33-39.—Presents a round-table discussion with 4 of the teachers in Gramercy Hill Institute on the differences between the traditional teaching and a new form of creative teaching. The Institute for Emotional Education community includes a junior/senior high school whose educational philosophy is based on the belief that a child's emotional needs are as important as his intellectual and physical needs. The school deals largely with gifted children who have "turned off and tuned out" of the traditional educational system and who challenge the educational world to give them a reason to "tune in" again.—*Journal summary*.

Remedial Education

8932. Glavach, Mathew & Stoner, Donovan. (Gladstone High School, Azusa, Calif.) **Teaching the unteachables.** *California Journal of Educational Research*, 1970(May), Vol. 21(3), 111-119.—24 9th grade, difficult-to-reach children who tested 2 or more yr. below expected grade level, participated in a 1 semester 3-hr daily core program. The program utilized problem-solving and self-direction. 1 page assignments in perception, memory, reading, math, and social sciences pegged to individual student interests were the starting points. Skinnerian principles of small steps easily accomplished with prompt feedback were found most effective. A realistic system of daily rewards was used. At the end of the experimental period, 11 out of 24 Ss returned to regular classrooms.—H. J. McWhinnie.

Sensory & Physical Handicaps

8933. Johnson, Philip R. **Physical education for blind children in public elementary schools.** *New Outlook for the Blind*, 1969(Nov), Vol. 63(9), 264-271.—Suggests and describes a plan for implementation of integration of blind children into physical education classes with sighted children. The kinesthetic approach is of primary necessity in teaching physical education to the blind, and the instructor must demonstrate each new physical skill while blind students actually feel the parts of the body involved in performing that skill. The teaching of games of low organization, relays, apparatus play, and swimming is discussed in detail. (30 ref.)—P. R. Shibelski.

8934. Korsunskaya, B. D. **Metodika obucheniya glukhikh doshkol'nikov rechi.** [Methods for teaching speech to deaf preschool children.] Moscow, USSR: Prosveshchenie, 1969. 296 p.—Describes and recommends methods which are supported by theoretical considerations, developed by the author, and the results of pedagogical experiments conducted by her.—I. D. London.

8935. Kulagin, Yu. A. **Vospriyatie sredstv naglyadnosti uhashchimisa shkoly slepykh.** [Perception of learning aids by pupils in the school for the blind.] Moscow, USSR: Pedagogika, 1969. 296 p.

—Presents the results of studies on the perception of learning aids by blind children under experimental conditions and those prevailing in the classroom of the special school for the blind.—*I. D. London.*

Mental Retardation & Learning Disorder

8936. **Christoplos, Florence.** (Choppin State Coll., Baltimore, Md.) **Programming for children with learning disabilities.** *Journal of Learning Disabilities*, 1969(Jan), Vol. 2(1), 43-48.—Describes and defines programing and its particular importance for teachers of children with learning difficulties. By instituting a defined set of goals and standards, teaching can proceed by a subtle gradient to proficiency. Goals are stated clearly before the program is begun, and progress evaluated. Teaching becomes individualized and contributes a much needed increase in the efficient use of time and personnel. It is concluded that the use of programing in the schools eventually may eliminate the current dichotomy between regular and special education.—*Journal abstract.*

8937. **Crawford, Lee.** (Edgemoor School, Houston, Tex.) **Perceptual-motor development and learning.** Houston, Tex: Edgemoor, 1968. v, 18 p.

8938. **Dykman, Roscoe A., et al.** (U. Arkansas, Medical Center, Little Rock) **Children with learning disabilities: Conditioning, differentiation, and the effect of distraction.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 766-782.—Found that in Luria-type conditioning procedures, 82 8-11 yr. old male children with learning disabilities (CLD) erred more than 34 academically adequate controls and took longer to react. Hyperactive CLD had quicker reactions than hypoactive CLD. The finding that CLD average .1 sec. longer to process information than controls helps explain their rapid loss of attention in the classroom. (25 ref.)—*Journal abstract.*

8939. **Gallagher, James L.** (U.S. Office of Education, Bureau of Education for the Handicapped, Washington, D.C.) **Educational research and its impact on mental retardation.** *Mental Retardation*, 1969(Apr), Vol. 7(2), 38-40.—Examines the requirements of research designs and models in educational research, emphasizing the inclusion of the "complex social context in which most of the child's learning takes place." Research, development, demonstration, implementation, and adoption are viewed as the stages through which knowledge is translated into action in the improvement of educational programs for the mentally retarded.—*G. Steele.*

8940. **Hearns, Rudolph S.** (550 N. West Ave., Vineland, N.J.) **Dyslexia and handwriting.** *Journal of Learning Disabilities*, 1969(Jan), Vol. 2(1), 37-42.—Discusses the use of graphology as a diagnostic tool in determining the presence of dyslexia. It is concluded that the possibility that certain deviations from the norm may indicate the presence of dyslexia. (17 ref.)

8941. **Humes, Charles W.** (Westfield Public Schools, Pupil Personnel Services, Mass.) **A novel group approach to school counseling of educable retardates.** *Training School Bulletin*, 1970(Nov), Vol. 67(3), 164-171.—Describes innovative group counseling procedures and counseled group response with educable mentally retarded adolescents in a public school setting. In the project 2 different groups received 12 1 hr. counseling sessions with a different counselor for each group. The 1st 3 sessions were facilitative (unstructured) and the

remaining meetings were problem-oriented (structured). The problem-oriented phase used selected pictures from the TAT Symonds Picture-Story Test as pictorial stimuli. Analysis of counseled group response suggest that the technique can be used successfully with this population. (15 ref.)—*Journal abstract.*

8942. **Pinskiĭ, B. I.** **Psikhologiya trudovoi deyatel'nosti uchashchikhsya vspomogatel'noi shkoly.** [Psychology of the work activity of pupils in the auxiliary school.] Moscow, USSR: Prosveshchenie, 1969. 152 p.—Presents the results of observational and experimental studies dealing with the psychology and pedagogy of work activity by pupils in schools for the mentally retarded.—*I. D. London.*

8943. **Stock, Claudette.** (U. Colorado, Medical Center, Denver) **The "not quite" child.** *Journal of Learning Disabilities*, 1969(Jan), Vol. 2(1), 49-50.

8944. **Taylor, George R.** (Coppin State Coll.) **Programming for educable mentally retarded children.** *Training School Bulletin*, 1970(Nov), Vol. 67(3), 183-188.—Outlines an approach to improve programing for educable mentally retarded (EMR) children which incorporates several goals formulated by the Education Policies Commission for all children. Guidelines to enable EMRs to reach their optimum growth are presented. These include: (a) early identification of the mentally retarded; (b) assignment of the child to special classes according to his needs and suitable for his CA; (c) a practical curriculum based on needs, interests, and capacities that will promote personal and social growth; (d) facilities, equipment, and supplies that will foster such a curriculum; (e) specially trained teachers; and (f) a well defined guidance program.—*Journal abstract.*

8945. **Wagner, Rudolph F.** (Richmond Public Schools, Va.) **Form symbolization in normal readers and dyslexics on a modified pattern recognition theory.** *International Journal of Symbolology*, 1970(Apr), Vol. 1(3), 51-56.—Form symbolization as measured by the Kahn Test of Symbolic Arrangement seems to be unique and set apart from other visual behavior. Form symbolization should be distinguished from pattern symbolization, the former being the lower level in a hierarchical structure. It should be possible to enhance perception by perceptual training and experience.—*P. Lichtenstein.*

Emotional Disorder

8946. **Marrone, R. Thomas & Anderson, Nancy.** (Montgomery County Schools, Norristown, Pa.) **Innovative public school programing for emotionally disturbed children.** *American Journal of Orthopsychiatry*, 1970(Jul), Vol. 40(4), 694-701.—Describes a co-operative effort between a county division of special education and various school districts within that county in establishing, within the schools themselves, an educational and group therapy treatment program in special classes for emotionally disturbed children.—*Journal abstract.*

COUNSELING & GUIDANCE

8947. **Altmann, Harold A.** (U. Calgary, Alberta, Canada) **Factors in the initial interview related to counseling continuation and termination.** *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 131-135.—Investigated 19 initial counseling interviews in an attempt to identify factors possibly related to

counseling continuation or termination. Clients' concerns were identified prior to counseling and raters judged the extent to which these concerns were discussed in the initial interview. The raters also judged how well counselors developed client problems during the interview. Significant differences were observed between the expectations clients had prior to counseling and what actually occurred during the initial interview in 4 of the 8 unsuccessful cases; in 8 of the 11 successful counseling cases the expected content correlated highly with the actual content.—*Journal abstract.*

8948. Conklin, R. C. & Zingle, H. W. (U. Calgary, Alberta, Canada) **Counselor sensitivity and cognitive style.** *Western Psychologist*, 1969(Sep), Vol. 1(1), 19-28.—Hypothesized that counselors with an "analytic" cognitive style will score higher on tests which measure interpersonal sensitivity. Ss were 63 counselors from public and separate schools. Measures included the Hidden Figures Test and 4 tests administered after the viewing of the Cline Interpersonal Perception Films. Analytic counselors were defined as those scoring above the mean on the Hidden Figures Test. Results support the hypothesis and suggest that "counselors possess both the ability to attend to the vocal and visual cues as well as the ability to postdict behavior from a minimal amount of information." (27 ref.)—P. McMillan.

8949. Kaplan, Fredlee. **Education therapy.** *Journal of Emotional Education*, 1969(Spr), Vol. 9(2), 63-68.—Discusses how the denial of self-expression and educational opportunities by parents or teachers may lead to a pattern of failure, a self-image of incompetence, and a search for the approval of others. A therapeutic approach is illustrated which allows a student-client to develop self-respect and to assume responsibilities without fearing loss of love through failure. Search for approval is redirected toward constructive goals by establishing an atmosphere of concern and understanding in which the motivation to succeed can replace the search for approval.—S. Appelle.

8950. Kearney, Jacqueline E. **Vocational guidance at the University of Papua and New Guinea.** *Australian Psychologist*, 1969(Jul), Vol. 4(1), 37-47.—Attempted to improve the preuniversity guidance of students, as well as their selection and guidance within the university. 105 Ss were interviewed on the 1st day after arrival as to vocational aspiration, and during their last 18 mo. as to vocational choice, using the Rothwell Interest Blank. Analysis of chi square results show that just over 50% of the 93 occupations chosen were inappropriate for the university presently offering training, indicating a need for better vocational training, better, less directive, more permissive guidance, enabling people to express their true feelings about careers and giving them the information necessary to make a logical choice. Ways in which the school counselor, guidance officer, and teacher can best help the student during his early vocational choice years, avoiding any imposition of their own authority or judgment are suggested.—T. N. Webster.

8951. Milan, Mikuláš & Dicső, Viliam. **Monografia Dunajevského skúšky.** [A monograph on Dunajevský's test.] *Psychologica: Sborník Filozofickej Fakulty, U. Komenského, Bratislava*, 1967, Vol. 18(7), 111-135.—In a study of the use of Dunajevský's test (NR) in educational guidance in the technical field, 4 problems are discussed: (a) comparison of results of high-school graduates and technical university students specializing in mechanical and electrical engineering, (b) internal factor analysis of

technical students' NR tasks, (c) scoring the tasks in the tests, and (d) comparison of results of studies of the technical students with the NR scores obtained. (Russian & German summaries)—*English summary.*

8952. O'Shea, Arthur J. & Harrington, Thomas F. (Boston State Coll., Mass.) **Using the Strong Vocational Interest Blank and the Kuder Occupational Interest Survey, Form DD, with the same clients.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 44-50.—Discusses potential problems for counselors which were revealed in a study of the relationships between the SVIB and the Kuder Occupational Interest Survey, Form DD. Ss were 175 undergraduates administered both tests. Frequent inconsistencies and contradictions were found; like-named scales appeared to be measuring different things, while dissimilar scales often had strong positive relationships. 1st results of a long-term follow-up study are described and further emphasize the differences between the inventories. Implications of findings for counselors are discussed.—*Journal abstract.*

8953. Owen, Isaiah. (West Virginia State Coll.) **Adlerian counseling in racially mixed groups of elementary school children.** *Individual Psychologist*, 1970(Nov), Vol. 7(2), 53-58.—Reports the lack of experimental support for the hypothesis that Adlerian counseling would significantly modify negative intergroup attitudes in racially mixed groups and for the hypothesis that the changes would be greater in Ss counseled simultaneously by both a Negro and a white person. 5th and 6th graders, approximately evenly divided between both races, and most residing in the same lower socioeconomic neighborhood, were randomly assigned to an experimental group led by either a white, a Negro, or a white and a Negro counselor or to a similarly led control group which engaged in light conversation, magazine reading, or playing records or games.—A. R. Howard.

8954. Park, James & Eberlein, Larry. (U. Alberta, Edmonton, Canada) **Self-ideal congruence and flexibility in counselling.** *Western Psychologist*, 1969(Sep), Vol. 1(1), 39-45.—Examined the relationship between self-ideal (S-I) congruence and supervisor ratings of counselor trainee performance on a cognitive flexibility scale to determine if such a relationship might be linear or curvilinear. Ss were 69 counselor trainees in a university counseling practicum. The Leary Interpersonal Check List was used for self- and ideal-self concept scores, and the Counsellor Rating Scale for supervisor ratings. Results failed to support a linear relationship. However, 8 of the 11 subscales were significantly related to S-I values under a curvilinear analysis. These findings suggest the presence of an optimal range of S-I congruence, i.e., those trainees with moderate S-I discrepancies generally received higher supervisor ratings. (23 ref.)—P. McMillan.

8955. Redding, Rodney. (Thomas Coll.) **Self-referred students and other-referred students using college counseling services.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 22-25.—Determined the extent to which counseling services should actively engage administration and faculty participation in referring students for counseling. 51 self-referred undergraduates were compared with a sample of 51 other-referred Ss on the basis of graduation from the university and improvement or decline of GPAs. Results indicate that counseling is more effective with self-referred Ss than with other-

referred Ss. Ways in which college counseling services may implement their goals are discussed.—*Journal abstract.*

8956. Shappell, Dean L., Hall, Lacy G., & Tarrier, Randolph B. (Wayne State U., Coll. of Education) **Perceptions of the world of work: Inner-city versus suburbia.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 55-59.—Investigated the relationship of sex and socioeconomic status to the perceptions of the world of work for 186 9th graders drawn from 2 different schools which represented divergent socioeconomic settings. A relatively new measure for assessing personal-occupational values was used. Findings indicate that Ss' perceptions were differentiated by socioeconomic status, but not so much by sex. Implications of results as they might apply to the planning of guidance programs are offered.—*Journal abstract.*

8957. Troth, William A., Hall, Gwendolyn L., & Seals, James M. (East Texas State U., Counseling Center) **Counselor-counselee interaction.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 77-80.—Used an interaction scale consisting of 12 counselor and 10 counselee subroles to analyze 50 interviews recorded in a public school setting. Subroles were divided into direct and indirect categories for the counselor and defense and growth categories for the counselee. All interviews were rated for rapport, ranked, and placed into high-, middle-, and low-rapport groups. Subsequently, the various groups and subrole combinations were tested for significance. Results indicate that the interaction scale was useful in providing a basis for studying counselor-counselee interaction within the counseling interview.—*Journal abstract.*

8958. Weiss, David J. (U. Minnesota) **Research methodology: Further considerations in applications of factor analysis.** *Journal of Counseling*, 1971(Jan), Vol. 18(1), 85-92.—Reviews problems of communality estimation, number of factors, rotation, and computation of factor scores with implications for counseling psychology research. Issues in communality estimation include use of reliabilities, highest correlation, and squared multiple correlations. Methods of deciding on the number of factors include the H. F. Kaiser criterion, scree test, parallel analyses, etc. Reasons for rotation of factor matrices are discussed, and suggestions are made concerning oblique vs. orthogonal, quartimax vs. varimax, and other rotational decisions. Use of 3 types of factor scoring procedures is discussed. Suggestions also are made concerning data essential to meaningful reporting of a factor analysis. (23 ref.)—*Journal abstract.*

8959. Wilcove, Gerry & Sharp, W. Harry. (U. Wyoming) **Differential perceptions of a college counseling center.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 60-63.—Sampled parents of students, student services personnel, faculty, counselors, and the general student body to gain an understanding of the perceived role of a college counseling center. The Counseling Appropriateness Checklist was used to measure the extent to which Ss believed that 3 problem areas, college routine, vocational choice, and adjustment to self and others, were appropriate for discussion with a counselor. Significant differences were found between the various groups. Counselors differed most from other groups on the adjustment to self and others problems areas. Differences on this problem area were also found between certain student subgroups.—*Journal abstract.*

8960. Young, Richard O. (Oregon State U.) **A study**

of sophomores who used career counseling services. *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 457.—5 predictive measures were used to compare 70 sophomores who visited the college placement office seeking career counseling information, with their entire sophomore class at the university. The males and females in the former group were found to have equal, if not superior academic, intellectual, and personal abilities on nearly every measure as compared with their classmates.—R. H. Mueller.

PERSONNEL

8961. Dahl, Ernest W. (American River Coll.) **Role perceptions and job satisfaction among lower and middle level junior college administrators.** *California Journal of Educational Research*, 1970(Mar), Vol. 21(2), 57-63.—Interviewed 24 administrators from 6 school districts in 8 junior colleges. The Ss included 12 lower and 12 middle level administrators. Job satisfaction was found to be high, 80% saw their roles as providing for innovative-type leadership. Most felt they had no adequate preparation for their roles, and few spent any time with students. Ss had a large amount of personal involvement in their jobs, and many were bothered by rules against their teaching. (15 ref.)—H. J. McWhinnie.

8962. Rand, Leonard P. & Carew, Donald K. (Ohio U.) **Comparison of T-group didactic approaches to training undergraduate resident assistants.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 432-438.—Compared 3 procedures involving 90 undergraduates to determine which would develop the most competent students for a resident assistantship position in a dormitory. Besides a control group which received no training, 1 group was involved in a didactic lecture and group discussion class, while the other group was involved in a basic encounter course. The criteria used to evaluate the methods included the residence students' evaluation of their resident assistant, the supervisor's evaluation of the resident assistant, and the resident assistant's self-evaluation. The resident assistants who had participated in the encounter group were perceived by the students to be significantly better than either of the other groups. The study suggests that if the goals of a resident assistant include working effectively and helpfully with undergraduate students, a basic encounter experience may well be a useful tool in the training program.—R. H. Mueller.

8963. Walberg, Herbert J. (Harvard U.) **Professional role discontinuities in educational careers.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 409-420.—In this review an attempt is made to reevaluate some research on role transition among educators, specifically college presidents and teachers in the lower schools. This review is considered from a number of viewpoints. The several divisions of the discussion are: the collegium and bureaucracy, the consequences of bureaucracy, Getzel's model, career transitions, teacher roles, and roles of college presidents. Weber's theory of bureaucracy was found to be a "useful construct for examining research on educational role transition." (2 p. ref.)—P. D. Leedy.

Teachers & Teacher Training

8964. Garvey, Reba. (Cleveland State U.) **Self-concept and success in student teaching.** *Journal of Teacher Education*, 1970(Fal), Vol. 21(3), 357-361.—The

problems of predicting success in teaching have not yet succumbed, even to the lifelong efforts of devoted researchers. It may be of some value to study existing relationships between self-reported measures of self-concept and success in student teaching. For appraisal of self-concept, a standardized and multidimensional instrument was selected—The Tennessee Self Concept Scale was administered to 150 student teachers. Those seniors rated high in student teaching did report higher self-concepts, especially in relation to identity (what I am); evidenced less confusion, uncertainty, and conflict in self-perception, particularly in scores on net conflict and total variability scales; and demonstrated less similarity to patient or disturbed groups and more to the well-integrated group. The converse appears to be true. These findings may merely confirm what teacher educators and supervisors have long suspected—that success in student teaching is affected, but not necessarily determined, by a positive view of oneself, lack of confusion in self-perception, and good adjustment. But supplementing intuition with quantitative information prior to the student-teaching experience may assist those responsible for the preparation of teachers in helping their students learn effectively to “use themselves” as professional workers.—*F. O. Triggs.*

8965. Hofer, Manfred. (U. Düsseldorf, Inst. of Psychology, W. Germany) *Zur Impliziten Persönlichkeitstheorie von Lehrern.* [On the implicit personality theory of teachers.] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(3), 197-209.—The implicit personality theory of 2 groups of primary school teachers (Ns = 40 and 66, respectively) was obtained by 2 methods: multidimensional scaling of the similarity between 25 personality attributes, and by factor analysis of ratings of pupil types on the same attribute and their opposites. The 2 methods resulted in much the same factor structure, characterized by 5 bipolar dimensions: scholarly disposition, lability, intelligence, dominance, and sociability. It is concluded that personality structures of pupils insofar as they are based on ratings of their teachers reflect mainly the expectations of the 2nd group. (English summary) (27 ref.)—*R. F. Wagner.*

8966. Lee, Walter S. (Tamalpais Union High School District, Calif.) *Human relations training for teachers: The effectiveness of sensitivity training.* *California Journal of Educational Research*, 1970(Jan), Vol. 21(1), 28-34.—51 elementary school teachers in 3 Los Angeles County elementary school districts volunteered to participate in a study designed to investigate and evaluate the effectiveness of sensitivity training as a part of inservice teacher training program in human relations. Ss were randomly assigned to 1 of 3 conditions: sensitivity training (n=20), classroom lecture (n=10), or control (n=21). The sensitivity training and the classroom discussion groups received a total of 20 hr. of instruction in human relations. The Minnesota Teacher Attitude Test (MTAT) and a Q-Sort Test of Self-Esteem were used to assess the effects of instruction. Sensitivity training group Ss scored significantly higher on the MTAT and on the variables of self-esteem and self-value than did the other 2 groups. Results are discussed in terms of future research in this area of teacher training.—*H. J. McWhinnie.*

8967. McClain, Edwin W. (U. Tennessee) *Personal growth for teachers in training through self-study.* *Journal of Teacher Education*, 1970(Fal), Vol. 21(3),

372-377.—Describes a course designed to facilitate self-actualization through increased self-understanding. In order to insure personal involvement and (it is hoped) personal growth, the major focus has been on the individual student's written analysis of massive personality test data about himself. Nearly all class time was devoted to the administration of the personality instruments and a discussion of the meanings of the results. The following assessment devices were used for the self-studies: Jourard's Self Disclosure Questionnaire, Cattell's 16 PF, the EPPS, Schutz' Fundamental Interpersonal Relations Orientation-Behavior Questionnaire, Rokeach's Dogmatism Scale, a questionnaire from Maslow on peak experiences, and stories written for 8 TAT pictures. The 3 measures of self-actualization used as pre- and posttests were Shostrom's Personal Orientation Inventory, McKinney's Sentence Completion Blank, and an adaptation of Bill's Index of Adjustment and Values. It has been demonstrated that self-study can help produce more accurate self-concepts. The phenomenologists have developed the idea that people's ways of perceiving determine their behavior. If the experiences of the course have made for more realistic self-perceptions, it follows that student behavior should become more effective. There were unsolicited reports from the students themselves that the experiences in the course resulted in personal enhancement.—*F. O. Triggs.*

8968. Obrenović-Sindelić, Milijana. *Zavisnost ocenjivanja pismenih zadataka od pola i nekih crta ličnosti nastavnika.* [Dependence of ratings given to pupils' essays in Serbo-Croat language on the sex and certain personality traits of teachers.] *Psihologija*, 1969(Sep), Vol. 2(2), 458-466.—Examined whether personality traits influence the rating process and attempted to determine which of the following personality traits have a significant influence on the ratings given to pupils' essays in Serbo-Croatian language: rigidity, hostility, anxiety, and dependence. The relationship between sex and personality traits and ratings observed on the dimension rigor-leniency was studied in 40 raters who taught 7th grade pupils in Serbo-Croatian. 10 essays of different quality were used. Personality traits were determined through a questionnaire. It is concluded that: (a) Ss differ significantly in the rating of essays confirming the notion that the subjectivity of teachers represents an important factor in the rating of essays; and (b) the ratings do not depend on the sex of S, but are influenced by certain personality traits.—*English summary.*

8969. Pratzner, Frank C. & Hanson, Marjory. *The relative effectiveness of two ways of structuring and presenting pre-service and initial in-service vocational-industrial teacher education lessons.* Minneapolis, Minn.: Minnesota Research Coordination Unit in Occupational Education, U. Minnesota, 1969. 16 p.

8970. Schwebel, Andrew I. (Yale U.) *Physical and social distancing in teacher-pupil relationships.* *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1551.

8971. Shapiro, Barbara. *Training the emotional educator.* *Journal of Emotional Education*, 1969(Win), Vol. 9(1), 28-32.—Describes a new teacher-training program at the Gramercy Hill Institute which attempts to develop teachers who will be able to remain totally flexible within a minimally structured environment.

8972. Wink, Richard L. (Ohio State U., Mansfield) *The relationship of self-concept and selected per-*

sonality variables to achievement in music student teaching. *Journal of Research in Music Education*, 1970(Fal), Vol. 18(3), 234-241.—A study of 40 music student teachers showed: (a) "a positive significant relationship between self-concept of music teaching ability and achievement in student teaching." (b) Significant changes occurred during the student teaching experience for the Bills Index of Adjustment and Values (IAV) and Wink's Self-Concept of Music Teaching Ability (SCMTA), but not for the EPPS or the Institute of Personality and Ability Testing Anxiety Level. (c) "Changes occurring during the student teaching experience for the IAV, SCMTA, and EPPS were not significantly related to achievement; but those who achieved higher in music/student teaching indicated significantly less anxiety than those who achieved lower." (d) "Music teachers with a high self-concept were dependent, conforming, and gregarious." (e) The better adjusted Ss showed significantly less anxiety. (f) "Ss in the experimental group were significantly higher than the normal population in self-concept, deference, and order; they were significantly lower in affiliation, intraception, and anxiety." (g) "High achievers in music student teaching indicated a high need for deference, order, and affiliation; they indicated a low need for autonomy. There was no difference between high and low achievers for anxiety level."—D. Higbee.

SCHOOL LEARNING & ACHIEVEMENT

8973. Alschuler, Alfred S. (Harvard U.) **The effects of classroom structure on achievement motivation and academic performance.** *Educational Technology*, 1969(Aug), Vol. 9(8), 19-24.—Describes a motivational research investigation into the effects of restructuring the classroom from a power orientation—teacher making rules and decisions and students competing with each other—to an achievement orientation—students planning their own learning strategies to obtain standards of excellence measured against objective external criteria. In a 10th grade business education typing class, the restructured class after 3 quarters averaged 54% more net words/min than the control class. In a 5th grade mathematics class, the restructured class earned 2.85 yr. on the Stanford Achievement Test of Mathematics as compared to .36 yr. for the control class. It is concluded that "these 2 small studies suggest that restructuring classroom learning for achievement motivation can dramatically increase the amount students learn."—S. Knapp.

8974. Bibace, Roger & Hancock, Karen. (Clark U.) **Relationships between perceptual and conceptual cognitive processes.** *Journal of Learning Disabilities*, 1969(Jan), Vol. 2(1), 17-29.—Tests the current assumption that mastery of perceptual-motor processes is necessary prior to acquisition of higher cognitive processes and, hence, to scholastic achievement. 8 boys aged 7-8 and 12-13 were given the Kephart Perceptual-Motor Survey and 3 learning tasks in an experimental design allowing for variation in perceptual-motor functioning and scholastic ability. Some Ss performed well in school despite perceptual-motor deficiencies. Only in terms of high vs. low scholastic achievement did the differences between the groups reach significance. It is concluded that the "theoretical assumption must at least be qualified and that the clinical-pedagogical practices based on this assumption need to be reexamined." 6 critiques follow.—*Journal abstract*.

8975. Choppin, Bruce H. **The relationship between achievement and age.** *Educational Research*, 1969(Nov), Vol. 12(1), 22-29.—Examines data from an international study of school achievement in which the mathematics achievement of stratified samples of several thousand 13-14 yr. old children from each of 12 countries was assessed. Analysis of data from Japan, England, France, Sweden, and the United States provided little evidence to support the contention that children born at any particular time of the year are superior; in general, older children were found to perform better. The effect of being younger or older than the class average did "not seem to be of first importance." Implications for grade-promoting and grade-repeating were discussed, and a proposal for introducing greater flexibility into the promotion system was suggested.—R. Wilz.

8976. Frost, Barry P. (U. Calgary, Alberta, Canada) **Extraversion and educational achievement.** *Western Psychologist*, 1969(Sep), Vol. 1(1), 5-18.—Reviews the literature concerning the relation between extroversion and educational achievement and discusses the reasons for some of the contradictory results. An additional study is also reported relating extroversion to cognitive measures. Ss were 310 11-yr-old London school children who were administered various personality inventories, tests of intellectual and academic ability, and measures of social class and parental interest. Results obtained are discussed in light of the previous contradictory findings. Based on the S. B. Eysenck and H. J. Eysenck (see PA, Vol. 38:916) conception, it is suggested that (a) extroversion is an aspect of assertiveness, or (b) that both assertiveness and submission are aspects of extroversion. Perference is indicated for the 1st alternative. (44 ref.)—P. McMillan.

8977. Grgin, Tomislav. **Kako ocjenjivaci-muškarci i ocjenjivaci-žene procjenjuju znanje učenika razlicitoga spola.** [How do male raters and female raters evaluate the knowledge of pupils of different sex.] *Psihologija*, 1969(Sep), Vol. 2(2), 445-457.—Statistical analysis of ratings given by male and female raters to pupils of different sex in the initial grades of elementary school shows that their statistical distributions of ratings differ. However, in the use of particular categories of ratings, with the exception of the rating excellent, statistically significant differences were not found. When male and female raters evaluated the scholastic achievement of male and female pupils separately, there were no significant differences between the ratings given to male and female pupils. In the final grades, the evaluation of scholastic achievement of male pupils, made by female raters, differed significantly from the ratings given to female pupils by female raters. Differences found in the evaluation of scholastic achievement of male and female pupils, made by male raters, were not statistically significant. Evaluation of scholastic achievement of male pupils given by female raters differed significantly from the evaluation of scholastic achievement of male pupils given by male raters. In the evaluation of scholastic achievement of female pupils, statistically significant differences were not found between male and female raters.—*English summary*.

8978. Henderson, Edmund H. & Long, Barbara H. (U. Delaware) **Correlations of reading readiness among children of varying background.** *Reading Teacher*, 1968(Oct), Vol. 22(1), 40-44.—States that important factors for reading readiness are age, classroom behavior, and preschool educational experience, and that

teacher judgment based upon observation of classroom behavior is a sound predictor of reading readiness. The present study reaffirms this relationship and suggests the usefulness of this relatively simple and reliable method for the assessment of social maturity in the 1st wk. of Grade 1.—*P. D. Leedy.*

8979. Jeffares-Fast, Dolores J. & Cosens, Grace V. (Red Deer Public School Board, Alberta, Canada) **Effect of socio-economic status and auditory discrimination training on first-grade reading achievement and auditory discrimination.** *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 165-178. Reports the relationship found in 2 studies between auditory discrimination and reading achievement of 1st graders. Auditory discrimination was measured with an instrument constructed by the researchers. The Jeffares-Fast study found a significant relationship between auditory discrimination and both reading achievement and socioeconomic status. The pattern of discrimination errors was the same for all children in the sample but the other than low socioeconomic group achieved consistently higher scores than the low socioeconomic group. The Cosens study revealed that taped training in auditory discrimination resulted in improved scores on total auditory discrimination and several sound types, but not on oral or silent reading. Some types of sounds were significantly more difficult to discriminate than other types.—*Journal abstract.*

8980. Johnson, Joseph C. (Duke U.) **Relationships between attitudes reflected in thematic content and recalled comprehension.** *Reading Teacher*, 1968(Dec), Vol. 22(3), 276-277.—Examined the reader in Grades 4-6 with regard to the manner in which his attitude toward certain thematic content is related to his comprehension of the reading selections. It is concluded that significant differences in total recalled comprehension could not be traced to differences in attitude.—*P. D. Leedy.*

8981. Johnson, Ronald J. (U. Minnesota) **The effect of training in letter names on success in beginning reading for children of differing abilities.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1520.

8982. Koppitz, Elizabeth M. (Board of Cooperative Educational Services, Yorktown Heights, N.Y.) **Emotional indicators on human figure drawings and school achievement of first and second graders.** *Skolepsykologi*, 1968, Vol. 5(6), 369-372.—Compared the human figure drawings (HFDs) of 100 good and 61 poor 1st and 2nd grade students for the presence of 30 emotional indicators. "Chi-squares were computed for the number of HFDs with and without each individual" emotional indicator. The following emotional indicators "were found to be significantly related to school achievement in the primary grades: Poor integration of parts, slanting figure, omission of body and arms, and 3 or more figures spontaneously drawn. It appears, therefore, that these items can be used as indicators of potential learning problems when screening school children with the HFD Test."—*P. Shibleski.*

8983. Lurçat, Liliane. **Les rapports du mot et de la phrase dans la dictée du débutant.** [Relationships of word and phrase in beginning dictation.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 86-91.—Administered a dictation test to pupils of a preparatory class, a 1st-yr primary class, and a remedial class, which enabled the analysis of certain disorders of graphico-phonetic connections at the moment of their establishment. At the level of the word they are characterized by schematiza-

tion, of which 3 stages can be distinguished: letter, syllable, and word. At the level of the phrase they are characterized by arbitrary linkages and breaks within the word. These disorders disappear during the 1st-yr primary class but persist and are systematized in the remedial class.—*English summary.*

8984. McClelland, David C. (Harvard U.) **The role of educational technology in developing achievement motivation.** *Educational Technology*, 1969(Oct), Vol. 9(10), 7-16.—Reviews research and findings on motivation and achievement. Current studies are described as examining the various functions which educational technology can perform in developing motivation, e.g., conveying information better, arousing attention, arousing and sustaining achievement motivation, stimulating fantasy, encouraging participation, making self-study easier, and making available methods for developing achievement on a large scale. The techniques developed and the difficulties encountered in each of these areas are briefly outlined.—*S. Knapp.*

8985. Misner, Marilyn S. & Wellner, William C. (U. Illinois, Office of Student Programs & Services) **Factors associated with scholastic productivity in high and low achieving sororities.** *Journal of College Student Personnel*, 1970(Nov), Vol. 11(6), 445-448.—Studied the influence of the degree of selectivity, the house's overall scholastic program, and the attitudes toward scholarship as possible factors differentiating high- and low-achieving sororities. 306 Greeks from 2 high- and 2 low-achieving sororities were compared. It was found that high-achieving sororities tend to select pledges with a better academic record than do low-achieving sororities. Both groups seem to provide similar scholastic facilities. The major difference between the groups is their attitude toward scholarship. Whereas high-achieving sororities emphasize it over social aspects of campus life, their counterparts in the low-achieving groups tend to stress these to opposite degrees.—*R. H. Mueller.*

8986. Popović, Tomislav. **Pohvala i pokuda kao motivi u školskom radu ekstravertne i introvertne dece.** [Praise and blame as motives in the school work of extrovert and introvert children.] *Psihologija*, 1969(Sep), Vol. 2(2), 467-474.—Investigated the influence of praise and blame on extrovert and introvert pupils. The pupils were divided into 4 experimental groups and a control group. Each group consisted of 40 pupils identified as extrovert or introvert by means of Eysenck's Junior MPI. Over a 6-day period, Ss were praised and blamed in accordance with the fictional division into groups, irrespective of results actually achieved. Their task each day consisted of subtraction of 4-digit numbers. By a statistical analysis, significant differences were found to exist between the results of each group achieved on the 1st and on the 6th day, and also between the praised and blamed groups of introverts and extroverts, respectively. Ss in the extrovert blamed and introvert praised groups achieved better results each subsequent day, while the extrovert praised and introvert blamed groups achieved worse results in comparison with the 1st day. Results became worse in the control group also. Significant differences were not found to exist between boys and girls within each of these groups although the girls tended to achieve better results in the praised groups and the control group, while the boys achieved better results in the blamed groups.—*English summary.*

8987. Roueche, John E. & Hurlburt, Allan S. (U. California, Los Angeles) **The open-door college: The problem of the low achiever.** *Journal of Higher*

Education, 1968(Nov), Vol. 39(8), 453-456.—An increasing proportion of full-time students in community colleges are low achievers, identified by standardized test scores and high school grades, who enter the community college for a variety of reasons and are now its major problem. Courses and curricular programs developed in a trial-and-error fashion for the low achievers are usually remedial. While the open-door (or "revolving door" concept, as referred to cynically by critics because of alarming attrition rates) has validity only if these students are able to succeed in their educational objectives, evidence shows that by far the majority of these students fail to complete remedial courses satisfactorily, are doomed to failure, or forced to terminate their education.—*T. N. Webster*.

8988. Saruk, Alec & Gulutsan, Metro. (Lamont High School, Alberta, Canada) **Academic performance of students and the cultural orientation of their parents.** *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 189-195.—587 students of Ukrainian descent in northeastern Alberta, Canada, were divided into 4 groups according to the cultural orientation of the parents: bicultural, English, Ukrainian, and apathetic. The groups were compared as to their performance on the Grade 9 Alberta Examinations, on a standardized reading test (the Sequential Test of Educational Progress), and on School and College Ability Test (SCAT). Academic performance was expected to be higher or similar to the provincial average among students of the bicultural and English-oriented parents because school work of these students was likely to be similar to the culture at home, and hence, reinforced. No significant differences were found. Thus, school performance was not associated with differences between the cultural orientations of the home and of the school.—*Journal abstract*.

8989. Slaughter, Diana T. (Yale U., Child Study Center) **Parental potency and the achievements of inner-city black children.** *American Journal of Orthopsychiatry*, 1970(Apr), Vol. 40(3), 433-440.—Administered an Educational Attitude Survey to 72 working class mothers of innercity black kindergartners. The variable, futility, i.e., sense of powerlessness regarding the educational system, was not found to be significantly correlated with children's achievements. Data suggest mothers' preparatory teaching behaviors are more predictive. Implications for parental involvement in schools are discussed. (19 ref.)—*Journal abstract*.

8990. Sockloff, Alan L. (Emory U.) **The analysis of student characteristics associated with grades for varying levels of college freshman grade complexity.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 903-904.

8991. Solan, Harold A. (Fairleigh Dickinson U.) **Visual processing training with the tachistoscope: A rationale and grade one norms.** *Journal of Learning Disabilities*, 1969(Jan), Vol. 2(1), 30-36.—Establishes a set of expected tachistoscopic responses for 1st grade children and calculates the coefficient of correlations between success in reading and the responses.

8992. Zandstra, J. **Schoolweerbarmheid: Amsterdamse kritiek op een Utrechtse studie.** [School success: An Amsterdam critique about an Utrecht investigation.] *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 1970(Jul), Vol. 25(7), 469-473.—This critique of J. C. Rupp's book [*Nurture Toward School Success*] takes exception to the viewpoint of Rupp

who seeks to differentiate between the effects of the cultural-pedagogical levels of the child's family and the emotional climate of that family. The argument by Rupp is further weakened by the absence of factor analysis or analysis of variance in seeking support for the above assertion.—*A. J. Ter Keurst*.

Prediction

8993. Amelang, Manfred & Vagt, Gerhard. (U. Hamburg, Inst. of Psychology, W. Germany) **Warum sind die Schulnoten von Mädchen durch Leistungstests besser vorherzusagen als diejenigen von Jungen?** [Why are the grades of girls based on performance tests easier to predict than those of boys?] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 1970, Vol. 2(3), 210-220.—Following up observations by H. G. Seashore (see PA, Vol. 38:3194), the correlations between ability tests and grades were recorded for both sexes. Ss were 112 15-yr-old students. The differences found for English and German (as school subjects) were essentially explained by the fact that girls are more integrated in the school system than boys. Good integration was defined as good conduct, conforming behavior, and high interest in socializing and education as well as literature and language. (English summary)—*R. F. Wagner*.

8994. Ernest, David J. (St. Cloud State Coll.) **The prediction of academic success of college music majors.** *Journal of Research in Music Education*, 1970(Fal), Vol. 18(3), 273-276.—Analysis of scores from the American College Tests (ACT), Minnesota Scholastic Aptitude Test (MSAT), Triggs Reading Survey, High School Rank (HSR), Cumulative College Honor Point Ratio (HPR), and Honor Point in Music Courses (MHP) for the 27 women and 41 men graduating from a state college with a major in music between December 1960 and August 1967 indicates that the best single predictor for HPR and MHP was HSR. A combination of HSR, Triggs, and MSAT produced the best multiple correlation coefficient figure ($R = .574$) as a predictor of HPR or degree of academic success. Combining HSR with Triggs as a predictor of MHP gave only a slightly better result ($R = .449$) than using HSR alone. All these correlation coefficients were significant at the .01 level.—*D. Higbee*.

8995. Scott, Ralph. (U. Northern Iowa, Educational Clinic) **Perceptual readiness as a predictor of success in reading.** *Reading Teacher*, 1968(Oct), Vol. 22(1), 36-39.—Reports the results of a follow-up evaluation of children's kindergarten scores on an experimental Seriation Test and their second grade reading attainment. The experimental findings indicate that there is a meaningful relationship between young children's perceptual skills and their later success in reading.—*P. D. Leedy*.

Overachievement & Underachievement

8996. Brown, Roy I. (U. Calgary, Alberta, Canada) **Problems of learning with exceptional children.** *Western Psychologist*, 1969(Sep), Vol. 1(1), 29-38.—Discusses problems of attention in the field of learning with

children who, for a variety of reasons, are underachieving. Results of 3 illustrative studies are presented. Exp. I, a visual task, tested the effect of increasing visual stimulation in a group of adolescents with a mean Wechsler IQ of 65. Exp. II, an auditory task, involved alternation of high and low levels of auditory extraneous stimulation, using Ss similar to those in Exp. I. Exp. III applied similar tasks to a group of 4-12 yr. old mentally retarded children under 2 conditions: (a) in their own classrooms where the noise level was high, and (b) in a separate quiet room where noise and visual stimulation were at a minimum. Overall results suggest that, for both older and younger Ss, unfamiliarity and newness of task or environment constituted major factors of attention problems. Suggestions for teachers of such children are included. (23 ref.)—*P. McMillan*.

8997. Kipnis, David & Resnick, Jerome H. (Temple U.) **Experimental prevention of underachievement among intelligent impulsive college students.** Philadelphia, Pa.: Temple U., 1969. 16 p.

CURRICULUM & PROGRAMS

8998. Artëmov, V. A. **Psikhologiya obucheniya inostrannym yazykam.** [Psychology of teaching foreign languages.] Moscow, USSR: Prosveshchenie, 1969. 280 p.—Presents an analysis of the experimental results of a number of psychological and phonetic investigations in the teaching of foreign languages.—*I. D. London*.

8999. Brison, David W. (Ed.) (Ontario Inst. for Studies in Education, Toronto, Canada) **Accelerated learning and fostering creativity.** Toronto, Canada: Ontario Inst. for Studies in Education, 1968. v. 22 p.

9000. Elson, Alex & Elson, Miriam. (11 S. LaSalle St., Chicago, Ill.) **Educating teachers and children in law: An approach to reduced alienation in inner-city schools.** *American Journal of Orthopsychiatry*, 1970(Oct), Vol. 40(5), 870-878.—Describes an experimental program conducted in Chicago inner-city schools that gives promise that teaching law concepts can lessen the sense of alienation in children who know law mainly as a repressive force. Children are introduced to law by the inquiry method, which seems to have therapeutic elements that fulfill emotional and educational needs.—*Journal abstract*.

9001. Grossman, Marvin. (U. South Florida) **Art education for the young child.** *Review of Educational Research*, 1970(Jun), Vol. 40(3), 421-427.—There are strong indications that a developmental art program, stressing cognitive and sensory exploration can increase kindergarten children's abilities to include more visual information in their drawings. The directions pointed out in this paper indicate the importance of continued research in art education to determine the full implications and potential of developmental instruction in art for children. (2 p. ref.)—*P. D. Leedy*.

9002. Hallam, Roy. (St. Martin's Coll., Lancaster, England) **Piaget and the teaching of history.** *Educational Research*, 1969(Nov), Vol. 12(1), 3-12.—Suggests that previous research indicates most students up to the age of 16 yr. old are still at what Piaget terms the concrete operational level of thought, and proposes a number of techniques to facilitate the learning of history in such students. It is suggested that (a) history in the early years of secondary school "should not be over-abstract in form, nor should it contain too many variables"; (b) the materials should "match" the stu-

dents' thinking skills; (c) emphasis should be placed on the "concrete" aspects of history; (d) teachers should encourage reversibility in student thinking by presenting contrasting views on particular topics; (e) carefully organized written work, dealing with 2 or more viewpoints, should be assigned; (f) methods by which the past can be made vivid and concrete, e.g., visual aids, should be emphasized; and (g) subtlety in moral judgments can be encouraged by considering the motives behind a person's actions. Examples are given to illustrate the various techniques. (37 ref.)—*R. Wiltz*.

9003. Newburger, Doris. (Manhattan Community Coll., City U. New York) **Role training in speech classes at a metropolitan community college under open admissions.** *Group Psychotherapy & Psychodrama*, 1970, Vol. 23(1-2), 27-29.—Reports results of an attempt to improve the abilities of community college students by using role-playing techniques as an inherent part of a speech class. While the results did not lead to the conclusion of definite positive effects, there is evidence that with a longer period of training such success would come.—*A. Krichev*.

9004. Nikonova, S. M. **U istokov sovetskoi metodiki obucheniya inostrannym yazykam.** [At the sources of Soviet methods of foreign language teaching.] Moscow, USSR: Vysshaya Shkola, 1969.—Discusses the history of foreign language teaching in Russia from 1900-1917 and in the Soviet Union from 1917-1923.—*I. D. London*.

9005. Rankin, Earl F. & Thames, Charlotte L. (U. Kentucky) **A methodology for studying children's reactions to stories in first grade readers.** *Reading Teacher*, 1968(Dec), Vol. 22(3), 242-245, 299.—Ss were a 1st grade class of 20 students in a Texas elementary school. 1st graders can make meaningful discriminations indicating interests in 1st grade reading material. Female Ss gave higher ratings to both stories than the males, but only the females showed a significant difference in ratings for the 2 stories used.—*P. D. Leedy*.

9006. Williams, Robert L. (U. Tennessee) **What are we learning from current programs for disadvantaged students?** *Journal of Higher Education*, 1969(Apr), Vol. 40(4), 274-285.—Outlines characteristics of disadvantaged or "high risk" students and lists types of academic programs and assistance provided for them by colleges, including financing, compensatory study, individualized and programed instruction, etc. The primary objective of such programs is the creation of those conditions necessary for academic success, conditions lacking in the backgrounds of most disadvantaged students. Universities' initial results in attaining this goal have been favorable; in most instances the mortality rate for disadvantaged students has been no higher than for regular students. Factors responsible for the success or failure of disadvantaged students are discussed. The fundamental components of all high risk programs are: financial assistance, housing with regular students, and initial orientation. Crucial academic questions include whether high risk students should be placed in specially designed or regular courses. To succeed high risk programs must provide intensive personal counseling, and must have the support of students and top level administrators.—*T. N. Webster*.

Teaching Methods & Teaching Aids

9007. Andersen, Dan W. (U. Wisconsin) **Teaching**

handwriting. Washington, D.C.: National Education Assn., 1968. 31 p.

9008. **Avanzini, Guy.** (U. Lyons, Experimental Pedagogy Lab., France) **A propos d'un projet d'école expérimentale: Quelques remarques sur les conditions de validation des techniques Freinet.** [A propos of an experimental school project: Remarks on the conditions of validation of the Freinet technique.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 81-85.—Proposes the organization of, and outlines the purpose of, a suburban experimental elementary school divided into 2 equal and homogeneous sections. Experimental classes would be taught by the Freinet free-expression method and control classes taught by the traditional method. The project, a joint effort of the Institute of Psychology, Sociology, and Pedagogy and the Experimental Pedagogy Laboratory of the University of Lyons, and the Rhône Departmental Group of the Modern School, already agreed to by local authorities and now awaiting central authorization, anticipates lengthy administrative problems in starting and continuing, will require great perseverance of teachers, will be difficult to evaluate by inadequate current tests, and will suffer the irreducible handicap of exclusively metric treatment. Experimental pedagogy is confronted here by an original problem, much more delicate than those posed by the limited comparison of didactic methods, and should be approached by more complex procedures than those currently available.—*T. N. Webster.*

9009. **Ball, G. A., et al.** (Inst. of Psychology, Kiev, USSR) **Issledovanie obuchayushchikh programm s razlichnym razmerom shaga.** [Study of teaching programs with different step-sizes.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 83-93.—3 variants (with respect to step-size) of a ramified teaching program were administered to matched groups of 9th grade students. It is shown that, with increase in step-size, learning time diminishes, but quality of learning suffers. However, significant influence of step-size on quality of learning is demonstrated only for poor pupils.—*I. D. London.*

9010. **Bosco, Frederick J. & Di Pietro, Robert J.** (Georgetown U., School of Languages & Linguistics) **Instructional strategies: Their psychological and linguistic bases.** *IRAL: International Review of Applied Linguistics*, 1970(Feb), Vol. 8(1), 1-19.—Discusses (a) 3 major foreign-language teaching strategies, (b) the psychological and linguistic bases of these strategies, and (c) the direction of emerging strategies of instruction. The 3 current strategies include the grammar-translation method, the direct method, and the audiolingual approach. Emerging strategies are predicted to include an overcoming of molecularity, a deemphasis of the peripheral reference of behavior, a convergence of the nomothetic and idiographic viewpoints, and emergence of a cyclic approach in ordering learning tasks. (French & German abstracts)—*P. McMillan.*

9011. **Crawford, Alan N.** (California State Coll., Los Angeles) **A pilot study of computer-assisted drill and practice in seventh grade remedial mathematics.** *California Journal of Educational Research*, 1970(Sep), Vol. 21(4), 170-181.—36 7th grade underachieving and disadvantaged students were assigned to 2 sections taught by the same teacher, the experimental group received the daily computer-assisted instruction whereas the control group received only the regular classroom instruction. Each S spent up to 15 min. daily on the computer for a 8-wk period. The arithmetic section of

the Wide Range Achievement Test was used as a pre- and posttest. No significant differences were found. There was however a marked increase in Ss' interest and attitudes towards mathematics in the experimental group. The value of this study laid in the identification of specific problems for future research. The Wide Range Achievement Test was judged not to be the best assessment instrument.—*H. J. McWhinnie.*

9012. **Davydov, V. V. (Ed.)** **Psikhologicheskie vozmozhnosti mladshikh shkol'nikov v usvoenii matematiki.** [Psychological capacities of young schoolchildren in mastering mathematics.] Moscow, USSR: Prosveshchenie, 1969. 288 p.—Presents a collection of 6 articles, reporting the results of research undertaken to provide psychological foundation for the content and methods utilized in the new course of mathematics for the "3-yr elementary school."—*I. D. London.*

9013. **Demia, A. A. & Chub, A. T.** (Instrument Construction Inst., Sevastopol, USSR) **Kontrollruyushchaya mashina s kompleksami zavisimyykh voprosov.** [Testing machine with complexes of dependent questions.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 180-189.—Utilizing mathematical logic, it is shown that the development of question cards by means of complexes of interdependent questions has a number of advantages over their linear construction. Described are the advantages, apparatus, and working principle of a testing machine, which permits the input of complexes of dependent questions.—*I. D. London.*

9014. **Dwyer, Francis M.** (Pennsylvania State U., Instructional Research) **Effect of visual stimuli in complementing televised instruction.** *California Journal of Educational Research*, 1970(Jan), Vol. 21(1), 43-47.—Attempted to measure the effectiveness of varied visual illustrations containing different amounts of realistic detail of the human heart in TV instruction and to determine which type of illustration was most effective in terms of cognitive understanding about the human heart. 157 Ss in a speech course were divided into 5 groups: (a) received a lecture on the human heart, (b) viewed line drawings with lecture, (c) viewed shaded drawings with lecture, (d) viewed a model with lecture, and (e) viewed realistic photographs with lecture. 5 criterion measures assessed the effects of the treatments. Results indicate that the use of visuals was not an effective way to facilitate this specific kind of learning. The use of the visuals was only successful on the drawing test. It is concluded that the single line drawing should be used to complement oral instruction.—*H. J. McWhinnie.*

9015. **Dykstra, Robert.** (U. Minnesota) **The effectiveness of code- and meaning-emphasis beginning reading programs.** *Reading Teacher*, 1968(Oct), Vol. 22(1), 17-23.—Draws together specific data from the Cooperative Research Program by G. L. Bond and R. Dykstra (see PA, Vol. 42:4557) pertinent to the issue of the relative effectiveness of code-emphasis programs in initial reading instruction. Although the study supports, in general, J. Chall's conclusions "concerning the superiority of code-emphasis programs in beginning reading," a note of caution is in order. There is no clear evidence that the early emphasis on code, per se, is the only or even the primary reason for the relative effectiveness of the code-emphasis approach.—*P. D. Leedy.*

9016. **Gebos, A. I.** (Inst. of Psychology, Kiev, USSR) **Aktivizatsiya poznavatel'noi deyatel'nosti**

uchashchikhaya v usloviyakh programmirovannogo obucheniya. [Activation of the cognitive activity of pupils under programmed teaching.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 73-82.—Reports results of a study of the "effectiveness of a linear teaching program with constructed answers" as a function of means of activation of thinking activity: (a) by means of questions, requiring the insertion of omitted words; and (b) by means of multiple-choice questions, requiring the analysis of possible answers. The 2nd is shown to enhance the effectiveness of teaching programs.—I. D. London.

9017. Harmin, Merrill; Kirschenbaum, Howard, & Simon, Sidney B. (Southern Illinois U.) **Teaching science with a focus on values.** *Science Teacher*, 1970(Jan), Vol. 37(1), 16-20.—Examines a method of teaching values in science which presents subject matter on 3 levels: factual, conceptual, and value. Requisites of this method are involvement of the student and suspension of reward and punishment systems during value discussions. Suggestions of topics which lend themselves to this method and projects associated with them are presented.—G. Steele.

9018. Jones, Edward R. **Simulation applied to education.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 30-43.—Examined present and projected capabilities in aerospace simulation to determine what aspects might be adapted for classroom use. The attributes of simulators and the criteria that must be met before they can be adopted were considered. It is concluded that because simulators are expensive to acquire and operate, their justification must be unique. It appears that beyond a few conventional uses, they could best be applied to the integration of complex skills and knowledge. This process would be relatively economical if existing computer models from research and development programs are adapted to classroom use.—*Journal summary*.

9019. Khubulashvili, V. V. (Polytechnical Inst., Tashkent, USSR) **Koeffitsient usvoeniya kak kharakteristika kachestva programmirovannykh posobii.** [Coefficient of learning as a parameter of the quality of programmed textbooks.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 127-131.—Argues for the desirability of a quantitative estimate of the learning of a bloc of study material. An index is proposed and variously tested.—I. D. London.

9020. Kravtsov, A. F., Barvinov, V. P., & Bobrikov, E. P. (Metallurgical Inst., Dnepropetrovsk, USSR) **Kombinirovannaya mashina "OTE-1."** [Multiple-purpose machine "OTE-1."] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 190-196.—Describes a variant of an existent cybernetic teaching machine, intended for individualization of instruction. The device, which is multipurpose, secures automation of several functions: teaching, training, and examination.—I. D. London.

9021. Kupusevich, Ch. (Warsaw U., Poland) **O programmirovannom obuchenii v SShA.** [On programmed teaching in the USA.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 275-282.—Presents a survey of the general characteristics of programmed teaching in the United States, accompanied by a criticism of certain conceptions in vogue there.—I. D. London.

9022. Lorr, Joan A. (U. Maryland) **The application of reinforcement principles in the elementary classroom: A replication and extension.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1543-1544.

9023. Matyushko, I. S. (Pedagogical Inst., Nezhsinsk, USSR) **Avtomatizirovannyi klass AK-N2.** [Automated apparatus in the AK-N2 class.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 197-202.—Describes the construction of the system and the character of its utilization in the educational process. It is simple in construction; yet has rather wide capabilities for testing the learning of study materials and for directing the independent work of pupils.—I. D. London.

9024. McDowell, Paul & McWhinnie, Harold J. (Brookhaven High School, Columbus, O.) **Drawing-by-seeing: The use of Sherman's flash method with secondary school art students.** *Acta Psychologica, Amsterdam*, 1970(Aug), Vol. 32(4), 399-404.—Compared "the effects of using the flashed rectilinear shapes as warm-up exercises versus the use of other parts and exercises of the Sherman method, but not the daily warm-up slides" with high school students in beginning art classes. Results indicate that "the flashroom warm-up treatment produced a negative effect" and that there was "a significant interaction effect between judges and sex."—G. Steele.

9025. McLeish, John. (U. Alberta, Edmonton, Canada) **Students' attitudes to teaching methods.** *Alberta Journal of Educational Research*, 1970(Sep), Vol. 16(3), 179-187.—College of Education students in England's Cambridge Institute of Education area were studied by the application of questionnaires at the beginning and end of their courses. Their attitudes to teaching methods (lecture, tutorial, and seminar) were very similar to all other groups of students investigated—highly unfavorable to the lecture method, strongly in favor of tutorial and seminar. These differences that appear between students are related to their political but not their religious views. There are also differences connected with their subject specialism and age. A student typology based on attitudes to teaching methods is found to stand up to analysis in a College of Education as well as a university setting.—*Journal abstract*.

9026. McLendon, Jonathon C. & Penix, Findlay C. (U. Georgia, Coll. of Education) **Teaching the social studies.** Washington, D.C.: National Education Assn., 1968. 31 p.

9027. Morrison, Virginia B. (Oakland U., School of Education) **Teacher-pupil interaction in three types of elementary classroom reading situations.** *Reading Teacher*, 1968(Dec), Vol. 22(3), 271-275.—Reports findings of teacher-pupil behaviors occurring in 3 types of classroom reading situations. 81 elementary classrooms were studied. The use of multilevel and supplementary reading materials showed the greatest number of significantly positive aspects of classroom interaction. The "same text for every pupil" situations are associated with lack of involvement and interaction.—P. D. Leedy.

9028. O'Neil, Harold F. (Florida State U.) **Effects of stress on state anxiety and performance in computer-assisted learning.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1568.

9029. Ozhogin, V. Ya. (Construction Engineering Inst., Kiev, USSR) **Pomekhi v sisteme formirovaniya i vvoda otvetov v obuchayushchie i kontroliuyushchie mashiny.** [Noise in the system involving the formation and feeding of responses into teaching and testing machines.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 162-173.—Examined the features characterizing the transmission of information with the aid of testing devices. Zones of noise emergence, induced by the

utilization of technical devices, are determined. A probability-model for a system of information-transmission is proposed. A new systematization of multiple-choice inputs is proposed, based on the determination of the magnitude and character of the noise.—*I. D. London.*

9030. Ozmon, Howard A. (U. Virginia) **Value implications in children's reading material.** *Reading Teacher*, 1968(Dec), Vol. 22(3), 246-250.—Analyzed 5 reading series at the primary level. Values reflecting a progressive or existential philosophy appear to be most prominent. 56 value themes were investigated. The study raised a number of questions which demand further study. There is a need for an investigation of values in children's books as these relate to socioeconomic status, attitudes, and race.—*P. D. Leedy.*

9031. Posnov, N. N. & Oranskii, A. M. (Eds.) **Matematicheskie mashiny i programmirovannoe obuchenie.** [Mathematical machines and programmed instruction.] Minsk, USSR: Belorussian State U., 1969. 208 p.—Presents a collection of 27 articles, 10 of which report the results of research on the use of teaching machines in the pedagogical process.—*I. D. London.*

9032. Regan, James J. **Computer assisted instruction (CAI): Some facts and fancies.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 15-29.—Describes the status of computer assisted instruction (CAI), including "CAI centers, languages, programs, support, and economics." Problems concerning educational costs, enrichment of the learning process, student-computer relationships, programming of material, author-student languages, and instructional strategy are examined. Research on CAI effectiveness is reviewed and evaluative problems are discussed. A discussion by R. Gagné follows.—*G. Steele.*

9033. Rothkopf, Ernst Z. & Bloom, Richard D. (Bell Telephone Lab., Murray Hill, N.J.) **Effects of interpersonal interaction on the instructional value of adjunct questions in learning from written material.** *Journal of Educational Psychology*, 1970(Dec), Vol. 61(6, Pt. 1), 417-422.—Investigates whether delivery of adjunct questions by teachers promotes more effective study of written material than written adjunct questions embedded in text. 63 high school students studied a 16,000 word earth science text presented on 108 slides. Treatments were: written question, 1 written question every 6th slide; oral question, 1 question asked by a teacher orally every 6th slide; and a control group without adjunct questions. The oral question group scored significantly higher on a criterion test ($X = 56.0\%$) than the written question group ($X = 48.8\%$). Both groups scored significantly higher than the control ($X = 42.8\%$). Results indicate that social interaction can aid in shaping and maintaining effective study activities. (17 ref.)—*Journal abstract.*

9034. Shankman, Florence V. (Temple U.) **Games reinforce reading skills.** *Reading Teacher*, 1968(Dec), Vol. 22(3), 262-264.—Games can be used to reinforce reading skills. Directions for playing the games should be clear and they should be capable of being played with a minimum of supervision. Games should have a real learning value that reinforces or teaches a reading skill. Games involving word recognition should not be used until pupils have met the words in a meaningful situation. A wide range of games can help in individual need satisfaction. If interesting and challenging, games can contribute a great deal to the development of specific skills.—*P. D. Leedy.*

9035. Shapiro, Barbara. (Gramercy Hill Inst., New York, N.Y.) **Awakening the desire to learn.** *Journal of Emotional Education*, 1969(Spring), Vol. 9(2), 57-62.—Describes personal experiences with the use of voluntary participation in school group projects as a means of increasing motivation for self-learning.

9036. Webb, Clark & Baird, J. Hugh. (Brigham Young U.) **Learning differences resulting from teacher- and student-centered teaching methods.** *Journal of Higher Education*, 1968(Nov), Vol. 39(8), 456-460.—Attempting to modify the traditional pattern of teacher-centered learning (in which the student attends a fixed number of professor-directed classes regularly throughout a 10- or 16-wk period), and to increase the learner's responsibility for his learning, a form of student-centered teaching has been employed at Brigham Young University since 1959. Called Continuous Progress (CP), it includes: (a) a 1-to-many teacher-student relationship, (b) standard catalog courses, (c) few or no formal meetings, (d) individual conferences with the instructor, and (e) student progress at an individually determined rate. To determine learning differences between students completing a teacher education course on a CP basis and on a conventional lecture-discussion basis, an 75-item objective exam intended to measure course content knowledge was administered as a pre- and posttest 16 wk. later. Posttest scores were compared using the *t* ratio for unmatched samples; the CP-taught group performed significantly better than the control group. Results suggest that the low GPA group performed better as a result of receiving CP instruction than did their counterparts who completed the course under conventional instruction methods, and raise more questions about assumptions of how college students learn.—*T. N. Webster.*

PERSONNEL & INDUSTRIAL PSYCHOLOGY

9037. Burke, Ronald J. (York U., Toronto, Ontario, Canada) **Methods of resolving interpersonal conflict.** *Personnel Administration*, 1969(Jul), Vol. 32(4), 48-55.—Attempts to replicate a study by R. J. Burke using a different methodology and "to specify more precisely the characteristics of the Confrontation or Problem Solving method of conflict resolution." 57 managers provided 53 descriptions of effective and ineffective conflict resolution. These examples were classified into 1 of the following categories: (a) withdrawing, (b) smoothing, (c) compromising, (d) forcing, and (e) confrontation or problem-solving. Results indicate problem solving to be the most effective and forcing to be the least effective method. Effective and ineffective examples are provided. It is concluded that results are consistent with those of R. J. Burke.—*G. Steele.*

9038. Delahanty, David. (Manhattan Coll., School of Business) **Three aspects of nonverbal communication in the interview.** *Personnel Journal*, 1970(Sep), Vol. 49(9), 757-759.—Considers the 3 relevant aspects of nonverbal communication (gestures, space, and time) as reinforcements of spoken words in an interview that a personnel administrator might conduct.—*P. L. Crawford.*

9039. Fortuna, Angelo L. (Ed.) **Personnel research and systems advancement: Proceedings 25th Anniversary Symposium.** *USAF PRL Technical Report*,

1967(Dec), No. 67-13, 182 p.—Presents papers from the Symposium on Personnel Research and Systems Advancement. Topics include reviews of activities underway in the field of personnel research and projections into future activities of researchers, planners, and managers in both academic and operational settings. The papers reflect a wide range of experience and interests of speakers representing the military services, governmental agencies, and private industry.—*Journal abstract*.

9040. Gardner, David M. & Rowland, Kendrith M. (U. Illinois) **A self-tailored approach to incentives.** *Personnel Journal*, 1970(Nov), Vol. 49(11), 907-912, 917.—Primarily, deals with incentives for salesmen; however, concepts such as motivation and attitudes, are included. The approach is psychological rather than economical.—*P. L. Crawford*.

9041. Harrell, Thomas W. (Stanford U., Graduate School of Business) **The personality of high earning MBA's in small business.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 369-375.—In order to assess the personality of high earning Masters of Business Administration in small businesses, a battery of 11 tests was administered to 7 graduating classes. Results indicate 9 of a possible 55 predictors were significantly different for high and low earning masters. Of the 9 variables, ascendance showed the greatest difference.—*D. Dieterly*.

9042. Mann, Philip A. (U. Texas) **Police responses to a course in psychology.** *Crime & Delinquency*, 1970(Oct), Vol. 16(4), 403-408.—A psychology course was offered to policemen in order to improve their understanding of human behavior. Results indicate increased effectiveness of participating policemen as well as enhanced interest in a broader education.—*M. P. Edwards*.

9043. Pyron, H. Charles & Manion, U. Vincent. (U. Oregon, Coll. of Business Administration) **The company, the individual, and the decision to retire.** *Industrial Gerontology*, 1970(Win), No. 4, 1-11.—This preliminary survey on a long-range research program on phenomena of retirement preparation programs presents company policies, for retirement between ages 48-62. Questionnaire responses from a 201 nationwide sample are analyzed. 73 companies participated in a survey of 2053 of their early retirees (excluding disability retirees). 52% responded, of whom $\frac{2}{3}$ were salaried, and $\frac{2}{3}$ were hourly employees. The survey purpose was to ascertain current income and health status, to elicit information on attitude toward leisure, reasons for early retirement, and significance of preretirement preparation. 15% retired because they were too ill to work; 30% rated health as poor or fair at time of retirement; 23% felt that retirement was not entirely voluntary; $\frac{2}{3}$ reported that their families encouraged them to retire; 28% thought co-workers encouraged their retirement; 15% viewed their retirement as encouraged by their company, 20% as discouraged, and 62% neutral; 3% made no response. 84% favored company help in planning for retirement. Retirees, in general, had a favorable attitude toward their companies. Few early retirees had returned to work. 80% felt that they had adequate income and that their plans for retirement had worked out satisfactorily.—*A. Cawley*.

9044. Schrieber, David E. & Sloan, Stanley. (U. Wisconsin, Management Inst.) **Incentives: Are they relevant? obsolete? misunderstood?** *Personnel Administration*, 1970(Jan), Vol. 33(1), 52-57.—Reviews the economic and psychological perspectives of incentives. An alternative approach which suggests a combination

of these incentive systems to minimize factors contributing to previous failures and to provide psychological rewards is explored.

VOCATIONAL CHOICE & GUIDANCE

9045. Bartlett, Willis E. & Tageson, Carroll W. (U. Notre Dame) **Crisis in religious careers: The frustrations of a vocational psychologist.** *National Catholic Guidance Conference Journal*, 1970(Fal), Vol. 15(1), 63-70.—Based on the assumption that the choice of a career in religion is just as developmental a process as an interest and commitment to other careers, the Lewin Psychological Success Model is proposed as a framework for research. A further assumption that the vocational psychologist has much to contribute to the study and understanding of religious careers from a developmental context, is used to explain his frustration when experienced religious simply do not accept the assumption. A 3rd assumption is that vocational maturity does exist and is highly correlated with general personality maturity. Conclusions include suggestions for the establishment of career development agencies for clergymen and religious already committed to religious careers; and a continuing interdenominational center for the study of religious careers.—*A. M. Cawley*.

9046. Fernández, Gustavo; Lara Tapia, Luis, & Hereford, Carl F. **Replica de factores en el inventario de Intereses Profesionales de Hereford.** [Factor replication in the Hereford Professional Interest Inventory.] *Revista Interamericana de Psicología*, 1970(Mar), Vol. 4(1), 51-57.—Measured the reliability of all the factors identified in the Hereford inventory. Ss tested were 250 male and female, 17-24 yr. old students from a preparatory school in Toluca, Mexico. Retesting of the inventory used 211 of the initial 250 Ss. Factor analysis of the data indicate that calculus, mechanics, musical art, and plastic arts were reliable; and the areas of biology, physics, social service, literature, executive persuasion, and verbal were not reliable. Data indicate that 4 areas of the inventory can be considered valid while the remaining 6 areas are not to be considered valid until further evaluation has been completed. (English & Portuguese summaries)—*H. Lohn*.

9047. Johansson, Charles B. (U. Minnesota) **Psychometric characteristics of the inventory of Interests.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1519.

9048. Miller, Kenneth M. (National Foundation for Educational Research in England & Wales, Slough, England) **Manual for the Rothwell-Miller Interest Blank.** Slough, England: National Foundation for Educational Research in England & Wales, 1968. vii, 108 p.

9049. Schlegel, Justin. **L'emploi du test de Rorschach en psychologie industrielle.** [Use of the Rorschach test in industrial psychology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(1-3), 29-43.—Reviews the literature, examining uses of the Rorschach Test in vocational selection, guidance, and rehabilitation. It is concluded that the Rorschach (a) though not an intelligence test and not to be used as 1, may be used to complement the latter; (b) is not at present a reliable tool for evaluating creative aptitudes; (c) should be used for examination of lower echelon workers only in difficult cases involving maladjustment, accident proneness, or rehabilitation; (d) is useful in all cases requiring

personality testing, valuable for what it adds to other tools; (e) is most useful in selection of applicants, revealing personality traits pertinent to predicting future achievement or failure in the position applied for; (f) supplemented by Piotrowski's Perceptanalytic Executive scale, has advanced beyond the empirical phase in selecting management personnel; (g) will increase in value due to the new approach of W. H. Holtzman, J. S. Thorpe, J. D. Swartz, and E. W. Herron, applying "strict methodology, pertinent remarks, and ingenious solutions for a precise notation of responses," and (h) in spite of failures, should be retained as a valuable tool in industrial psychology. (103 ref.)—*T. N. Webster.*

SELECTION & PLACEMENT

9050. Abrahams, Norman M., Neumann, Idell, & Githens, William H. **An assessment of faking on the Strong Vocational Interest Blank under actual selection conditions.** *USN Personnel & Training Research Laboratory Technical Bulletin*, 1970(Mar), No. 70-6, 8 p.—Contrasted the responses of several groups of Ss administered the SVIB under a variety of conditions. SVIBs taken by 102 Navy Reserve Officer Training Corps (NROTC) applicants as part of a routine non-Navy testing program were obtained and compared with those taken under actual NROTC selection conditions ($N=102$). Results were compared with those obtained from a previously conducted simulated faking study. Previous data indicated that when instructed to fake, most Ss could increase their scores on the selection scale to some extent. However, comparison of applicant and routine administrations indicates that under actual selection conditions there is neither a significant nor a consistent tendency for applicants to increase their selection scores. Results suggest that: (a) simulated faking designs do not parallel what occurs in selection, instead, they provide only an indication of how much a scale can be faked; and (b) faking is not a serious problem in the use of the SVIB in NROTC selection.—*Journal abstract.*

9051. Bale, Ronald M. & Waldeisen, Lewis E. **The relationship of the Objectively Scoreable Apperception Test (OAT) to success in naval aviation training.** *USN AMI Army-Navy Joint Report*, 1969(Jun), No. 1076, 6 p.—Administered the Objectively Scoreable Apperception Test (OAT) to 725 naval aviation officer candidates (AOCs) during their 1st wk. of training to examine the potential of the OAT as a supplement to the primary selection system. Multiple correlations were 1st determined by using only the scores from existing primary selection variables; the criterion was completion vs. separation from flight training. With a 2nd set of multiple correlations the dimension scores of the OAT combined with those of the primary selection variables were used. Results reveal that inclusion of the OAT scores significantly augmented the multiple correlation; however, under cross-validation the inclusion of those scores did not result in a significant increase in predictive validity. It is concluded that developing a similar device geared specifically toward a naval aviation population is feasible.—*Journal abstract.*

9052. Dann, Joyce E. & Abrahams, Norman M. **Validation of a biographical information blank as a predictor of retention among mechanical and electrical-electronics enlisted personnel.** *USN Personnel Research Activity Research Memorandum*, 1969(Jun), No.

SRM 69-21, 12 p.—Investigated a Biographical Information Blank (BIB) developed to tap past experience in academic, sports, mechanical, and clerical areas as a predictor of retention. Using samples of men in mechanical and electrical electronics ratings, the BIB was studied as a possible selection and classification instrument for increasing the retention rate of enlisted personnel. Responses of reenlistees and nonreenlistees in each group of ratings were contrasted, and scales were constructed from items differentiating most effectively between the groups. Validities and cross-validities of these scales and of the individual items constituting them were obtained. Scales empirically constructed from the BIB items yielded low validity against a reenlistment criterion for men in both mechanical and electrical-electronics ratings. However, 1 item, a career intention question, did show substantial ability to discriminate reenlistees from nonreenlistees in both samples. It is recommended that stated career intention be considered in making school assignments, especially when a choice must be made among recruits who are otherwise equally qualified.—*Journal abstract.*

9053. Hollmann, Thomas D. (U. Minnesota) **Some factors affecting information processing and decision making in the employment interview.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1579.

9054. Kelleher, Edward J. (Illinois Inst. of Technology) **An empirical comparison of the predictive efficiency of weighting methods.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1579-1580.

9055. Mayfield, Eugene C. **Management selection: Buddy nominations revisited.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 377-391.—A Buddy Nomination Form of work- and socially-oriented items was developed. The form was used with agents in 3 different life insurance companies. The criteria were a series of performance ratings made by supervisors on the agents. Using a simplified percentage scoring procedure the buddy nominations were found to be significantly correlated to the ratings by supervisors using the chi-square test. A factor analysis indicated that the buddy nomination was largely composed of 1 single general factor.—*D. Dieterly.*

9056. Thomas, Patricia J. **A comparison between the Armed Services Vocational Aptitude Battery and the Navy Basic Test Battery in predicting Navy school performance.** *USN Personnel & Training Research Laboratory Technical Bulletin*, 1970(Jan), No. 70-4, 15 p.—Developed the Armed Services Vocational Aptitude Battery (ASVAB) using items from the services' previously operational tests. The ASVAB was designed as a potential replacement for the Armed Forces Qualification Test and the separate classification batteries used by each of the services. Thus, the effectiveness of the ASVAB in Navy classification needed to be determined and compared with the Basic Test Battery (BTB). The ASVAB was administered to all recruits at 2 naval training centers and the men who subsequently attended a Navy Class "A" school were identified and their BTB scores and school grades obtained. The validities of the ASVAB and BTB tests were investigated within each school and linear-sum correlations were also computed to determine the best combinations of ASVAB tests as possible school selectors. A computerized item selection technique was applied to the tests in each battery. Various item statistics and validities and

reliabilities for the shortened tests were obtained for use in evaluating Form 1 of the ASVAB and in development of subsequent forms. Form 1 of the ASVAB was found to be too easy for effective discrimination among Navy students. Comparisons of the BTB and ASVAB validities uniformly favored the BTB. The linear-sum analysis of possible ASVAB classification composites revealed excessive dependence on the ASVAB Arithmetic Reasoning Test, making selection within a limited talent pool very difficult. It is recommended that: (a) subsequent forms of the ASVAB be made more difficult; (b) ASVAB validities for predicting school performance in the other services be determined; and (c) the effectiveness of the ASVAB for differential classification be improved.—*Journal abstract.*

9057. Tupes, Ernest C. & Miller, Robert E. **Equivalence of AFQT scores for different educational levels.** *USAF AFHRL Technical Report*, 1969(Sep), No. 69-19, 9 p.—Evaluated the magnitude and validity of the effects of formal education on the elevation of Air Force Officer Qualifying Test (AFQT) scores, taking AFROTC and Officer Training School (OTS) applicants as representative of 2 different educational levels at the time of testing. For the pilot composite, separate conversion tables appropriate to the 2 levels were constructed. For all other composites, separate tables were constructed. It was found that the increase in scores between the 2 educational levels is 10-30 percentile points for the various composites, except where initially high scores limit the amount of increase. A 3rd set of conversion tables was constructed intermediate between the AFROTC and OTS tables for use with examinees having intermediate levels of education. 1 consequence of multiple tables is that examinees evaluated on the intermediate or OTS tables will be disqualified for various types of training more frequently than was the case when only 1 set of tables, corresponding to the AFROTC tables, was used. However, the aptitude levels of those who are selected will be higher than heretofore, and it is expected that graduation rates will reflect this difference. The potential increase in graduation rate is estimated at 5% for student pilots commissioned through OTS.—*Journal abstract.*

TRAINING

9058. Chebysheva, V. V. **Psikhologiya trudovogo obucheniya.** [Psychology of vocational training.] Moscow, USSR: Prosveshchenie, 1969. 304 p.—Examines the results of psychological studies on the wide range of problems generally associated with vocational training.—*I. D. London.*

9059. Cory, Charles H. **Biographical differences between navy recruits grouped by mental level, racial identification and career intention.** *USN Personnel & Training Research Laboratory Technical Bulletin*, 1970(Feb), No. 70-2, 37 p.—Provides an interim analysis of a biographical information form developed for predicting effectiveness of Mental Level IV men. An experimental 183-item Navy Biographical Information Form was administered to 6190 incoming navy recruits, and correlation coefficients were computed between each item response and mental level. Although correlations were significant at the .001 level for 163 questions, they were, in general, quite low. Mental level was most highly associated with the content area of academic experiences, attitudes, and aptitudes and had

its lowest correlations with areas involving job tasks or social activities. Negro respondents and those respondents who desired to reenlist in the Navy were found to differ significantly from the total group in the characteristics covered in the questionnaire.—*Journal abstract.*

9060. Fleischman, Howard L. **Consumer acceptance of programmed instruction.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 60-65.—Assesses consumer's attitudes toward programmed instruction. A questionnaire was developed and administered to Navy and Marine enlisted men (students), and commissioned officers and civilian education specialists (training administrators). Results indicate a favorable response by students and a less favorable to negative response by instructors and training administrators. 9 questions from the questionnaire are presented and discussed.—*G. Steele.*

9061. Johnson, Kirk A. **Evaluation of a partially self-paced course.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 55-59.—In a course where students learned how to send and receive International Morse Code, the attrition, class days/graduating student, receiving speed after 15 days, and scores on 2 special examinations were compared for 88 students in a regular course, 66 in a course using programmed instruction booklets, and 28 in an individually paced program using programmed instruction booklets. Results indicate a 16% reduction in length of regular course. It is felt that "this course was developed by circumventing rather than solving most of the problems that are associated with individually paced courses."—*G. Steele.*

9062. Mayo, G. Douglas. **The new look in educational technology in technical training.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 44-46.—Postulates that the trend in educational technology in technical training is "toward individually adapted training, carefully geared to performance requirements." Economic considerations as to the "effective allocation of limited resources" are viewed as the prime influences on the direction of change. Individually adapted training is adaptive in regard to trainee characteristics and the specific terminal performance required. The projected training program would consist of 3 primary instructional tasks: (a) preparation of adaptive material to meet specific behavioral objectives, (b) selection of behavioral objectives pertaining to the position, and (c) the management and monitoring of the training situation.—*G. Steele.*

9063. Mayo, G. Douglas & Longo, Alexander A. **Learning operational equipment as a criterion in training research.** *Washington University Department of Psychology Technical Report*, 1968, No. 15, 47-54.—Compared performance of students receiving training of different lengths with instruction on "the latest maintenance techniques, modifications, operational systems, and circuit analysis of the coder group portion of the IFF/Loran System in the P-3A aircraft." 58 regular Naval personnel graduated from the Aviation Electronics Technician R Course served as Ss. Results indicate that the shorter revised course was at least as effective as the longer course and that "the concept of using performance in a representative equipment course as a measure of the adequacy of previously received basic training" is "feasible from the standpoint of practical application."—*G. Steele.*

9064. Vicory, Arthur C. (U. New Mexico) **Empirical comparisons of selected procedures for aircraft**

identification training. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1525.

TASK & WORK ANALYSIS

9065. **Bergström, Bengt.** (Inst. of Military Psychology, Stockholm, Sweden) **Tracking performance under threat-induced stress.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(2), 109-114.—Studied operator tracking performance in 3 simulated guided missile systems under short-term psychological stress induced by threatening with and also delivering unpleasant electric shocks. 29 male military conscripts served as Ss. The initial part of the stress period was characterized by a moderate decrement of performance and a heightened arousal level, which is regarded as a partial confirmation of the activation theory. Results may also be interpreted in terms of a simple stress-over-time model, based on a hypothetical interaction between arousal and habituation.—*Journal abstract.*

9066. **Gilson, Richard D., Benson, Alan J., & Guedry, Fred E.** **Influence of vestibular stimulation and display luminance on the performance of a compensatory tracking task.** *USN AMI Army-Navy Joint Report*, 1970(Feb), No. 1097, 17 p.—Extends former observations by Melvill Jones on loss of acuity for usual details during unusual maneuvers by investigating the effects of levels of illumination during semicircular canal stimulation on the performance of a compensatory tracking task with an aircraft instrument as the display. It was found that decreasing the luminance of the display over a range from the highest to the lowest levels significantly magnified the degradation of tracking performance resulting from vestibular stimulation, while producing only small changes in nystagmus. Without vestibular stimulation no significant alterations in tracking performance resulted. For a given level of nystagmus, performance of visual tasks may or may not be impaired depending on the level of illumination. It is suggested that the adverse effects of retinal smear resulting from nystagmus-produced image movement across the retina are augmented by decreases in luminance. (17 ref.)—*Journal abstract.*

9067. **Hixson, W. Carroll & Niven, Jorma I.** **Directional differences in visual acuity during vertical nystagmus.** *USN AMI NASA Joint Report*, 1969(Jul), No. 1079, 8 p.—Exposed 20 naval aviator candidates to 4 ramp velocity test profiles generated by the Human Disorientation Device. During 2 of the profiles, Ss were required to observe a visual target consisting of a vertically aligned series of dots and to report the duration of the period where dot fusion or target blur occurred as a result of the vertical nystagmus. It was found that during pitch forward angular acceleration resulting in nystagmus with a slow component upward, the loss of visual acuity was of a significantly longer duration than that present during stimulation in the opposite direction. Directional differences in the vertical nystagmus response were also observed.—*Journal abstract.*

9068. **Mayo, Clyde C.** **A method for determining job types for low aptitude airmen.** *USAF AFHRL Technical Report*, 1969(Nov), No. 69-35, 9 p.—Developed and used an opinion survey method for identifying low aptitude job types in a study of 11 Air Force career ladders. Lists of low aptitude tasks were defined by technical advisers. These tasks were then rated on 9

factors by instructors who also described low aptitude job types and gave their opinion concerning the possibilities for advancement and training of low aptitude personnel. In an evaluation of the research methodology, strengths and weaknesses of the opinion survey method were delineated. The relative ease with which the task lists were constructed support the utility of the method. A limitation in the method was recognized in the inability to control for systematic rater bias.—*Journal abstract.*

9069. **Mayo, Clyde C.** **Construction and administration of ten Air Force job inventories.** *USAF AFHRL Technical Report*, 1969(Oct), No. 69-27, 24 p.—Constructed 10 job inventories to survey 11 Air Force career ladders. Background variables designed to assess task-related information were included in each inventory. A replication of a previous study of contributions of technical advisers to inventory construction supported the earlier finding that airmen at supervisor skill levels provide the best job information. Broad statements of work designed to discriminate between job types on a more global level than task statements were included in 8 job inventories. Trial answer sheets designed to be scored by optical scanning devices were administered on 2 surveys. Inventory constructors predicted job types for all career ladders surveyed. Write-in information from administrative surveys was reviewed, and significant contributions were added to job inventory content. Inventory responses were key-punched and verified in preparation for electronic data processing.—*Journal abstract.*

9070. **Mecham, Robert C. & McCormick, Ernest J.** **The use in job evaluation of job elements and job dimensions based on the Position Analysis Questionnaire.** *Occupational Research Center, Purdue U., Technical Report*, 1969(Jun), No. 3, 24 p.—Tested the hypothesis that job related behavior is importantly and predictably related to going rates of monetary compensation of jobs. Job data were obtained with the Position Analysis Questionnaire (PAQ), a structured job analysis format, for a sample of 340 jobs from 45 organizations. The job sample was randomly divided into 2 subsamples (A and B), and 3 types of possible predictors were derived from the job analysis data obtained with the PAQ. Data were then subjected to a stepwise regression analysis to identify optimum sets of predictors of the wage or salary rates for these jobs. All three types of predictors yielded substantial multiple and cross-validation correlation coefficients with wage and salary rates for the jobs in the samples. It was generally found that predicted compensation rates more closely corresponded to observed rates at the lower end of the compensation scale, than at the upper end. It is suggested that with additional research, this general method might possibly be used as the basis for the development of an operational job evaluation system applicable on an across-the-board basis to jobs of many types.—*Journal abstract.*

9071. **Miller, Earl F. & Graybiel, Ashton.** **Motion sickness produced by head movement as a function of rotational velocity.** *USN AMI NASA Joint Report*, 1970(Mar), No. 1101, 10 p.—To measure the stressor stimulus effect of rotational velocity, 16 young healthy Ss were rotated in a laboratory rotational chair. Standardized 90° head movements were executed at each test velocity until the motion sickness endpoint of moderate or severe malaise was reached. When individual ability

to make head movements without evoking symptoms was exceeded, the derived average stressor effect of each head movement varied directly and, in log-log terms, linearly with rotational velocity. Data provide the basis for grading individual susceptibility to Coriolis sickness with a single numerical score and define the high rate of change of Coriolis stressor effect as a function of rotational velocity.—*Journal abstract.*

9072. Murrell, K. F. (U. Wales, Inst. of Science & Technology, Cardiff) **Quelques considérations sur l'organisation du travail.** [Some considerations in the organization of work.] *Revue de Psychologie et de Sciences de l'Education*, 1970, Vol. 5(3), 268-285.—Discusses the areas covered by ergonomics and 4 topics which are a matter of organization independent of equipment design. A proper understanding of the requirements for work and rest which demand the abandonment of the concept of fatigue is proposed. The relationship between variability and performance on a paced task together with the calculation of the optimum machine speed is described. It is suggested that any difficulty experienced by older workers will be due to technological change rather than to detrimental effects of aging. The problem of shift system is studied stressing the importance of biological and social considerations. (Dutch summary) (34 ref.)—*English summary.*

9073. Podmarkov, V. G. **Sotsial'nye problemy organizatsii truda.** [Social problems in the organization of work.] Moscow, USSR: Mysl', 1969, 216 p.—Presents an interdisciplinary analysis of the social organization of work, including its psychological aspects.—*I. D. London.*

9074. Shepel', V. M. **Proizvodstvo i pedagogika.** [Production and pedagogy.] Moscow, USSR: Moskovskii Rabochii, 1969, 112 p.—Explores (a) the pedagogical functions of management, (b) norm setting as a pedagogical problem, (c) compatibility and the psychological climate of the production group, (d) the psychology of personal contact, and (e) sociological and social psychological research as an instrument of management.—*I. D. London.*

9075. Shepel', V. M. **Stimulirovanie truda.** [Stimulation to work.] Moscow, USSR: Ekonomika, 1969, 88 p.—Analyzes (a) the psychological predispositions that the worker brings to his job, (b) the necessity of combining economic criteria with criteria of a sociological and psychological order, and (c) the major rules for creating optimal stimulation.—*I. D. London.*

9076. Stary, Dinko. **Povezanost vrste posla i poznavanja problematike u radnoj jedinici.** [Connection between the type of work operations and the knowledge of specific problems of a working unit.] *Psihologija*, 1969(Sep), Vol. 2(2), 436-444.—Investigated the connection between the degree of "informedness" on the specific problems of a working unit in a large industrial firm. It is concluded that "informedness" increases with the growing degree of mechanization and automation of work. Given equal availability of information, better use of information in the working organizations in which work operations are performed at a higher level of mechanization or automation, leads to the hypothesis that workers compensate for the monotonousness of the operation they are performing by showing greater interest for the problems of a larger working group.—*English summary.*

9077. Stockwell, Charles W. & Guedry, Fred E. **The effect of semicircular canal stimulation during tilting on the subsequent perception of the visual vertical.**

USN AMI Army-Navy Joint Report, 1969(Nov), No. 1093, 10 p.—Hypothesizes that the perceptual lag results when a man is accelerated on a centrifuge from a conflict between signals arising from the semicircular canals and from the otolith organs. 18 Ss were tilted so that they received consistent semicircular canal and otolith signals. Immediately after being tilted, Ss made estimates of the vertical which were approximately accurate, and continued to make accurate estimates throughout a 140-sec judgment period. The absence of a perceptual lag under these circumstances supports the hypothesis.—*Journal abstract.*

9078. Zhukov, V. G. **Nekotorye voprosy metodiki psikhofiziologicheskikh issledovanii pri razrabotke planov nauchnoi organizatsii uchebno-proizvodstvennogo protsessa.** [Some questions of method in psychophysiological research when developing plans for the scientific organization of the study-and-production process.] *Programmirovannoe Obuchenie*, 1969, No. 4-5, 64-74.—Discusses problems related to estimating the tension of physical and mental work. New criteria for such estimation are suggested. These can be applied to estimate the tension resulting from different study work loads.—*I. D. London.*

PERFORMANCE & JOB SATISFACTION

9079. Berger, Allen J. (New York U.) **The relationship of self-perception and job component perception to overall job satisfaction: A "self-appropriateness" model of job satisfaction.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1578.

9080. Clum, George A. & Mahan, Jack L. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Attitudes predictive of marine combat effectiveness.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 55-62.—Measured attitudes of 224 marines at the end of recruit training, and of 137 marines after 2 yr. of active duty, using the Marine Corps Opinion Survey as a measure. Ss' attitudes were found to be related to a criterion of rated combat effectiveness obtained approximately 45 mo. after entrance into service. Multiple regression analyses reveal that attitudinal data contributed unique predictive variance when analyzed in relation to the criterion, and that attitudinal data, in combination with biographical data, afforded better prediction than biographical data considered alone. Results suggest the possibility of developing an attitude scale by empirical means which is predictive of long-term service performance.—*Journal summary.*

9081. Coulter, Xenia & Overman, Mary A. **The effect of prior exposure to a harmful event upon subsequent performance under threat.** *USN AMI Army-Navy Joint Report*, 1969(Jun), No. 1077, 12 p.—Investigated effects of (a) the stated probability at .25 vs. .85 with no pretest shock demonstration, and (b) pretest shock demonstration vs. no demonstration with the stated probability held constant at .65. Ss were 70 entering aviation trainees. The task was an S-paced, 4-choice discrimination task. 10 Ss served as controls. A 5-min practice period without threat preceded a 5-min experimental period. It is concluded that: (a) shock demonstration is not necessary, and its elimination would provide a more useful range for individual difference measurement; (b) .65 probability is best for producing measurable performance decrement; and (c)

threat perception as measured by mean performance level across time may be as useful a parameter as performance decrement immediately preceding the anticipated harmful stimulus.—*Journal abstract.*

9082. Dayal, Ishwar. (Indian Inst. of Management, Ahmedabad, India) **Some issues in performance appraisal.** *Personnel Administration*, 1969(Jan), Vol. 32(1), 27-30.—Hypothesizes that "the failure of appraisal programs is due to inept techniques, ineffectual communication between rater and ratee, and the role conflict experienced by the rater," emphasizing the reluctance of managers to "accept the responsibility to judge the performance of other people." It is concluded that "there are 3 sets of issues in developing performance appraisal programs: (a) the system must give knowledge about performance in discrete and recognizable areas of the performer's task, (b) a personal equation between the evaluator and the evaluatee has to be developed to achieve mutual understanding of the criteria of evaluation," and (c) "the inner conflicts and anxieties that accompany the role of a judge in our social system."—G. Steele.

9083. Denova, Charles C. (Hughes Tool Co., Aircraft Div., Culver City, Calif.) **Training evaluation causes change in behavior.** *Personnel Administration*, 1969(Sep), Vol. 32(5), 54-56.—Describes the effects of a training program and follow-up evaluation on job satisfaction and turnover rate. It is concluded that the program was effective in improving employee attitudes and reducing turnover.—G. Steele.

9084. Hoag, LaVerne L. (U. Michigan) **Prediction of physiological strain and performance under conditions of high psychological stress.** *Dissertation Abstracts International*, 1970(Aug), Vol. 31(2-B), 698.

9085. Howell, M. A., Brumback, G. B., & Newman, S. H. (U.S. Public Health Service, Washington, D.C.) **Work attitudes and retention of engineers.** *Personnel Administration*, 1969(Sep), Vol. 32(5), 57-58.—Describes the results of a survey of work attitudes of 423 Commissioned Officer Engineers in the United States Public Health Service which aimed to identify attitudes associated with staying in or leaving the health organization. The basic attitude dimensions underlying evaluations of various aspects of the employment situation were identified.—*Journal abstract.*

9086. Lyons, Thomas J. (Colorado State U.) **Multiplicative model of job performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1580.

9087. Mahan, Jack L. & Clum, George A. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Longitudinal prediction of marine combat effectiveness.** *Journal of Social Psychology*, 1971(Feb), Vol. 83(1), 45-54.—Studied a sample of 831 marines to define factors related to a battlefield superior officer rating of effectiveness in combat. Factors predictive of combat effectiveness were found for (a) preservice personal background; (b) educational experience; and (c) Marine Corps adjustment and proficiency at recruit training, and 2 yr. of service. Results show that the mature, better educated, more intelligent marine, who has made a good military adjustment (as indicated by his proficiency, obedience, and physical and emotional health), is effective during combat. Utilization of such factors to predict expected combat performance may facilitate military selections, administration, and training procedures.—*Journal summary.*

9088. Martin, Albert R. (Dept. of Health, Education,

& Welfare, Communicable Disease Center, Atlanta, Ga.) **Morale and productivity: A review of the literature.** *Public Personnel Review*, 1969(Jan), Vol. 30(1), 42-45.—Examines the definitions for morale and the dimensions by which it can be measured. A review of the literature leads to the conclusion that "there is no positive correlation between morale, job satisfaction, and productivity."

9089. Peters, Jeanne R. (Duquesne U.) **Constituents of experience in job happiness and unhappiness in employed women.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1580-1581.

9090. Pritchard, Robert D. (U. Minnesota) **An experimental study of the effects of perceptions of equity and inequity on worker performance and satisfaction.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1581.

9091. Quinn, James L. **Bias in performance appraisal.** *Personnel Administration*, 1969(Jan), Vol. 32(1), 40-43.—Examines error in performance appraisal relating to similarity "between the rater and ratee in certain background or nonperformance characteristics." 14 characteristics of 31,518 male Air Force captains, rated by male captains through colonels were investigated to determine bias in performance appraisal. Results indicate (a) there is little positive bias based on similarity, (b) rating scores are related to ratee characteristics, and (c) there is close agreement between superiors sharing common characteristics with the subordinates. It is concluded that "little bias in performance ratings of Air Force captains could be attributed to the relationships investigated by the study."—G. Steele.

9092. Robinson, David D. (Ernst & Ernst, Boise, Ida.) **Predicting police effectiveness from self reports of relative time spent in task performance.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 327-345.—In an effort to establish a criteria measure for the complex occupation of police officer, this study proposes to gauge the amount of time spent on job tasks as a possible solution. 76 items were selected from a questionnaire and used in the Office of Law Enforcement Assistant Project. The reduced questionnaire was administered to 118 patrolmen. A factor analysis and a multiple regression analysis were performed to predict the 3 criteria measures: supervisor's rating of overall performance, complaints vs. compliments, and peer ratings. The factor analysis yielded a general factor, 2 subgeneral factors and 6 specific factors. The multiple regression analysis provided significant correlations with all 3 criteria. It is concluded that the amount of time spent on data collected by self-reports was highly effective in concurrently predicting job performance. D. Dieterly.

9093. Rosenthal, Edmond M. (American Management Assn., Pontiac, Ill.) **Greener pastures: Why employees change jobs.** *Personnel*, 1969(Jan), Vol. 46(1), 22-30.—Based on interviews with executives, and search and employment agents, the role of the motivating factors of money, status, and recognition in inducing employees to change jobs is examined.

9094. Salas, R. G. **A survey of attitudes held towards the Royal Australian Army Nursing Corps: II. Other ranks attitudes.** *Australian Military Forces Research Report*, 1970(Jan), No. 1-70, 49 p.—Surveyed the opinions of other-rank members of the Royal Australian Army Nursing Corps by questionnaire on a range of topics relevant in the formation of attitudes towards conditions of service and the reengagement

decision. Responses reveal that a low level of satisfaction with army life was possessed by Ss and a correspondingly low rate of intended reengagement. It is concluded that disaffection is largely based on a perceived lack of career advancement opportunities. In terms of reengagement, data reflect the pattern observed in earlier studies, i.e., that younger members tended to favor reengagement to a lesser degree than older members.—*Journal abstract.*

9095. Schein, Virginia E. (New York U.) **The relationship between accuracy of subordinate's perception of his supervisor and job performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1581-1582.

9096. Schneider, Benjamin & Olson, Loren K. (Yale U.) **Effort as a correlate of organizational reward system and individual values.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 313-326.—Explores several hypotheses concerning the effect of different reward systems and the amount of effort expended by employees. Based upon the path-goal theory, which assumes that behavior will occur to the extent the individual perceives some positive correlation between his behavior and the probability of attaining the goal, several hypotheses were established. 2 hospital nursing staffs—one under a seniority pay system and the other under an incentive pay system—constituted the comparison groups. A 7-point rating scale was used to measure the amount of effort expended by individuals in their job performance. Porter's Need Satisfaction Questionnaire was also administered to provide measures of the importance of intrinsic and extrinsic rewards. Results supported the hypothesis that different reward systems produce different amounts of effort expended. The incentive system employees had a higher average effort score. There also appeared to be a positive relationship between valued intrinsic rewards and effort in an incentive pay system. (22 ref.)—*D. Dieterly.*

9097. Scott, William E. & Rowland, Kendrith M. (Indiana U.) **The generality and significance of semantic differential scales as measures of "morale."** *Organizational Behavior & Human Performance*, 1970(Nov), Vol. 5(6), 576-591.—Obtained responses to a battery of experimental semantic differential scales from 262 employees in an ammunition depot. Responses were factor analyzed and the factor structure was compared with that obtained in a previous study utilizing a different sample from an industrial organization. Factors accounting for the largest proportion of variance in both cases were reasonably congruent across both samples. Theoretical views regarding the nature and significance of the factors are presented. (26 ref.)—*Journal abstract.*

9098. Shenk, Faye. **Career Indications among junior officers.** *USAF AFHRL Technical Report*, 1969(Sep), No. 69-33, 12 p.—Reports a historical study of officer input from the principal Air Force commissioning programs designed to determine the predictability of an Air Force officer's career decision and to evaluate relationships between career intent and various demographic, environmental, and attitudinal factors. Information on this group (N = 5600) was compiled for the period prior to commissioning and through 3 yr. of active duty. Based on the expressed career intent, the most favorable sources for retention were found to be Officer Candidate School and Officer Training School-Airman Education and Commissioning Program; officers from both of these sources have had

prior service experience. The yearly responses to the career-intent statement indicated a decline in career intent at least through the 1st years of military service. Job characteristic factors considered important and attainable were also examined. Factors considered most important centered around job satisfaction, e.g., working under competent supervisors, having a sense of accomplishment, and having an opportunity for advancement. Least important values were represented by such factors as early retirement, travel, and having a definite work schedule. In general, the perceived importance of a reward or working condition shows little relationship to the perceived possibility of achieving that factor. In fact, the greater the discrepancy between the importance and possibility of given factors, the more likely a S is to have an unfavorable attitude.—*Journal abstract.*

9099. Sorcher, Melvin. **Motivation on the assembly line.** *Personnel Administration*, 1969(May), Vol. 32(3), 40-48.—Attempted to test previous findings concerning (a) an S's understanding of his role in the business, and (b) the opportunity to participate in group decisions. 9 male and 6 female employees (Group 1) and 125 female employees (Group 2) served as Ss. The redesign of the job environment for both groups is described. Mean average performance over a 10-wk period before the program implementation was compared with the mean performance for 10 wk. following the redesign. 5 factors were measured: absenteeism, tardiness, quality, efficiency, and actual dollar savings. Results suggest "better job understanding followed by a commitment to a self-established goal does appear to motivate individuals to improve their performance."—*P. McMillan.*

9100. Trahair, Richard C. (U. Melbourne, Carlton, Victoria, Australia) **The workers' judgement of pay and additional benefits: An empirical study.** *Human Relations*, 1970(Jun), Vol. 23(3), 201-223.—Studied workers' attitudes and judgments regarding pay and additional benefits in the Australian mining industry. 3 general conclusions are drawn: (a) it is shown that the classification system based on pay and additional benefits covers the points to which workers refer when making their judgments; (b) the amount of pay, contract system of work payment, and work facilities were judged in reference to features of the job context; the lead bonus, amenities scheme, and recreational facilities were judged in reference to factors outside the job situation (the assumed reason is that the 1st 3 provide conditions for distinguishing job status and the latter 3 do not); and (c) workers' acceptance of pay and additional benefits depends on the extent to which they provide control in the job context. (18 ref.)—*W. W. Meissner.*

9101. Wood, Donald A. (Indiana U.) **The feasibility of a discrepant approach in assessing job attitudes.** *Organizational Behavior & Human Performance*, 1970(Nov), Vol. 5(6), 555-575.—Factor analyzed responses to various job characteristics concerning both their importance and perceived presence for 2 samples of engineers and scientists (N = 3234). The resulting dimensions emerging from the 2 response instructions were compared using congruency coefficients. Importance and presence factor components on the same attitudinal dimension were highly congruent within both groups. A general satisfaction factor was more allied with the perceived presence of these characteristics than their value or importance. Replication of factors across samples was best in the areas of job security, job autonomy, job status, and supervisory relations and

poorest in areas of professional recognition and challenge. Structural discrepancies were attributed to population characteristic differences between a university alumni sample and a national survey. Similarities found between work value structure and the presence of job characteristics suggest a feasible basis for utilizing an interactionist framework in a reformulation of job satisfaction theory. (35 ref.)—*Journal abstract*.

MANAGEMENT & ORGANIZATION

9102. ———. **Rozhovor s předsedou státní komise pro řízení a organizaci doc. ing. J. Tomanem, CSc, o psychologických aspektech řízení.** [Interview with J. Toman, CSc, Chairman of the State Management and Organizational Commission, concerning psychological aspects of management.] *Psychologie v Ekonomické Praxi*, 1968, No. 1, 1-4.

9103. Brown, Darrel R. (Sacramento State Coll.) **Do personnel policies alienate employees?** *Personnel Administration*, 1970(Jan), Vol. 33(1), 29-36.

9104. Cleland, Charles C. & Neman, Ronald. (U. Texas) **Experience and executive motivation.** *Personnel*, 1969(Jan), Vol. 46(1), 64-67.—Examines executive motivation and how it is changing by differentiating between executives on an age-experience continuum. It is concluded that this "is a dubious point of departure," and that for executives of all ages, "motivation and self-confidence are products of a variety of experiences."

9105. Dhir, Krishna S. (Borg-Warner Corp., Marbon Div., Washington, W. Va.) **The problem of motivation in management development.** *Personnel Journal*, 1970(Oct), Vol. 49(10), 837-842.—Explores reasons why managers exhibit resistance to development programs, and discusses other problems encountered in motivating managers to achieve through management development programs their goal of becoming better managers.—*Journal abstract*.

9106. Farris, George F. (Massachusetts Inst. of Technology, Sloan School of Management) **The drunkard's search in behavioral science.** *Personnel Administration*, 1969(Jan), Vol. 32(1), 10-18.—Attempts to dispel myths "regarding the application of behavioral science to management" illustrated by the Hawthorne studies. Current trends in behavioral science include "better research methods, interdisciplinary collaboration, international studies, more work at higher organizational levels, and open systems theory." A study by Marrow, Bowers, and Seashore illustrates the new approach. (15 ref.)—G. Steele.

9107. Goodman, Richard A. (U. California, Graduate School of Business Administration, Los Angeles) **Organizational preference in research and development.** *Human Relations*, 1970(Aug), Vol. 23(4), 279-298.—Presents data from interviews with managers in 6 companies with mean experience in management of research and development of 16.5 yr. It is concluded that: (a) Project managers prefer the project form of organization, while general managers prefer line-staff or matrix form. (b) The 3 most important criteria for organizational design are clear location of responsibility, ease and accuracy of communication, and effective cost control; the 3 least important are providing a clear path for individual promotion, organizational form desired by customer, and relative size of the project. (c) By ranking ability of each form to satisfy criteria for design, it was

shown that opinions of general managers did not develop a "best" organizational form. But in the opinions of project managers, the project form was significantly better.—W. W. Meissner.

9108. Kavanagh, Michael J., MacKinney, Arthur C., & Wolins, Leroy. (State U. New York, Binghamton) **Issues in managerial performance: Multitrait-multimethod analyses of ratings.** *Psychological Bulletin*, 1971(Jan), Vol. 75(1), 34-49.—Examines 3 general issues of dimensionality, validity, and content of ratings of managerial performance in terms of "relevance to the ultimate criterion." It is argued that the multitrait-multimethod design yields the best evidence for investigating these issues. An analysis of variance model with computational formulas for the sums of squares and variance components based on the correlation matrix is proposed for the multitrait-multimethod situation. Using this model, data from 2 studies are examined and compared, relative to convergent and discriminant validity, method bias (halo), and error variance. It appears that this model and the indexes derived from it provide a more simplified and interpretable technique for analyzing and summarizing multitrait-multimethod data. A procedure to improve performance ratings based on partitioning the original matrix is illustrated with an example from the larger data set. (37 ref.)—*Journal abstract*.

9109. Lawrie, J. W. (Wabash Coll.) **Leadership and magical thinking.** *Personnel Journal*, 1970(Sep), Vol. 49(9), 750-756.—The "motivator-leader" model often is a highly prized concept by executives. The "myth" of "leadership ethic" is described in terms of leader, followers, and the organization. Another model of leadership, i.e., diagnostic leadership (DL), is suggested as an alternative. The diagnostic leader must (a) charismatically lead, (b) know that motives are intrinsic, (c) recognize that intercommunications must exist, (d) know that personal and organization motives are not always compatible, and (e) recognize his role as an ecological manipulator.—P. L. Crawford.

9110. Lundberg, Craig C. (Southern Methodist U., School of Business Administration) **Managerial behavior in a crisis.** *Personnel Journal*, 1970(Oct), Vol. 49(10), 847-850, 860.—Compared observed behaviors of a small plant manager under normal and crisis conditions. The behaviors generally consisted of verbal and nonverbal contacts.—P. L. Crawford.

9111. Meyer, Herbert H. **The validity of the In-Basket Test as a measure of managerial performance.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 297-307.—A plant manager In-Basket Test was developed and administered to 81 unit managers in the manufacturing sections of 7 departments. The In-Basket Test was evaluated upon 50 dimensions and reduced to 27 dimensions which were further factor analyzed by the centroid method to provide a 4-factor measure. A performance rating was used as the criterion. It was factored into 2 dimensions: supervision and planning-administration. The validities of the In-Basket Test proved to be higher for the factor of planning-administration. In a cross-validation on 45 additional unit managers the predictive validity of the scores keyed against the planning-administration factor was significant. In a 2nd comparison, a group of 165 men with no managerial experience were tested and studied with the original manager group. Age in both groups correlated negatively with In-Basket scores, and education level

correlated positively. The face validity of the In-Basket Test and its apparent validity in predicting 1 aspect of manager performance demonstrates its potential value as a selection device.—D. Dieterly.

9112. Miner, John B. (U. Maryland) **Psychological evaluations as predictors of consulting success.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 393-405.—Presents a series of 7 studies each of which bears upon the validity of decisions made by consultants in making psychological evaluations of management candidates. The criteria are tenure, mean increase in compensation rate, and performance ratings. The psychological evaluation was measured in terms of the final recommendation made by the consulting agency (a 5-point scale). None of the studies supported the contention that the psychological evaluation recommendation added significantly above chance in predicting the 3 criteria.—D. Dieterly.

9113. Morsh, Joseph E. **Survey of Air Force officer management activities and evaluation of professional military education requirements.** *USAF AFHRL Technical Report*, 1969(Dec), No. 69-38, 86 p.—Surveyed officer management to identify functions which all officers perform as distinct from work specific to a particular specialty, to determine the relationships of managerial responsibility to grade, career area, or other variables, and to obtain an evaluation of topics of professional military education requirements in terms of job performance or as contributory to an effective Air Force career. The world-wide survey included 10,242 Air Force officers in grades 2nd lieutenant through colonel. An officer management inventory was administered in 19 major commands using conventional sample survey procedures. In the subsequent analysis by means of the Personnel Research Division job-clustering program, management job types were not clearly differentiated. The extent of managerial responsibility was shown to be directly related to grade. Field-grade officers performed, on the average, 4 times as many managerial tasks as company-grade officers. Consolidated descriptions of management tasks performed were published for staff, field-grade, and company-grade officers in each of 9 career areas. While some differences in emphasis were found, officers in the several career areas tended to allocate more or less the same percentage of their jobs to tasks falling in each of the management categories. Group difference descriptions were computed to highlight some of the major career ladder managerial differences. In evaluating 128 professional military education requirements topics, officers of all grades indicated a substantial need on the job for principles and techniques of leadership; oral and written communication; techniques of logical and of creative thinking; problem solving procedures; officer ethics; discipline and morale; military customs, courtesies, and ceremonies; and security of classified military documents and equipment.—*Journal abstract*.

9114. Nouri, Clement J. & Fridl, James J. (Marquette U., Coll. of Business Administration) **The relevance of motivational concepts to individual and corporate objectives.** *Personnel Journal*, 1970(Nov), Vol. 49(11), 900-906.—Describes various theories of motivation in relation to the accomplishment of corporate goals and achievements. The profit motive, mutually consistent goals, McGregor's Theory X (which is reflected in conventional "organization structures, managerial policies, practices, and programs"), and Theory Y (which

"holds that management is responsible for organizing the firm's resources in the interest of economic ends"), etc., are discussed.—P. L. Crawford.

9115. Ritchie, J. B. & Miles, Raymond E. (U. Michigan) **An analysis of quantity and quality of participation as mediating variables in the participative decision making process.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 347-359.—Items were selected from a Management Decision Making, Attitude and Job Satisfaction Questionnaire to measure 3 variables: perceived participation, superior's attitudes toward their subordinates' capabilities, and satisfaction with immediate supervision. 2 hypotheses, drawn from Lowin's Participative Decision Making process, maintained that managers' satisfaction with their immediate superior will vary directly with the extent to which they feel they are consulted by their superiors, and the extent to which their capabilities are valued by their superior. Ss were 330 managers from 5 levels of operating divisions of a West Coast firm. The results supported both hypotheses using an analysis of variance design.—D. Dieterly.

9116. Schwartz, Milton M., Stark, Harry F., & Schiffman, H. R. (Rutgers State U.) **Responses of union and management leaders to emotionally-toned industrial relations terms.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 361-367.—A 19-concept semantic differential was developed using 9 evaluative scales on emotionally toned industrial relation terms. The scales were administered to 4 groups, 2 levels of union members and 2 levels of management. In an analysis of variance of median ranks the following conclusions were supported: (a) there was more agreement by the 2 management groups than the 2 union groups, (b) the lower levels of union and management differ more often than the 2 higher levels, and (c) certain words were rejected by both labor and management groups (e.g., featherbedding, wildcat, etc.).—D. Dieterly.

9117. Stogdill, Ralph M. & Coady, Nicholas P. (Ohio State U.) **Preferences of vocational students for different styles of supervisory behavior.** *Personnel Psychology*, 1970(Fal), Vol. 23(3), 309-312.—5 scales of the Ideal form of the Leader Behavior Descriptive Questionnaire were administered to 2 groups of students from different vocational high schools. The questionnaire yielded scores on 5 dimensions: (a) representation, speaks and acts as the representative of the group; (b) consideration, is considerate of members' welfare and comfort; (c) structure, lets members know what is expected of them and what they can expect; (d) tolerance of freedom, tolerates member freedom for decision and action; and (e) production emphasis, pushes for high level of output. It was hypothesized, but not supported, that workers would prefer tolerance of freedom and consideration over structure and production emphasis. In both schools the dimensions of consideration and structure produced a higher mean score than the other 3 dimensions.—D. Dieterly.

9118. Vendrov, E. E. **Psikhologicheskie problemy upravleniya.** [Psychological problems of management.] Moscow, USSR: Ekonomika, 1969. 160 p.—Examines a number of problems dealing with factors, e.g., (a) the formation of managerial authority, (b) the development of an individual approach to subordinates, (c) the psychology of the managerial personality, and (d) the selection of managerial personnel.—I. D. London.

9119. Weaver, Jerry L. (California State Coll., Center for Political Research, Long Beach) **Value patterns of a**

Latin American bureaucracy. *Human Relations*, 1970(Jun), Vol. 23(3), 225-233.—Studied the attitudes toward reform in 244 Guatemalan bureaucrats. Continued employment and showing that opinions were right had high priority. Education, skill, and training had low value. Risk-taking and innovation were widely avoided. Professional, supervisory, and executive personnel have stronger commitment to public service as a career and are more willing to express dissatisfaction and criticism than subordinates. "But let us argue... that legalism, formalism, and indecision are defense mechanisms employed by insecure bureaucrats, bureaucrats who see no reason to value reform, who have developed procedures not with regard to efficiency, effectiveness, impersonalism, and other Weberian norms, but out of a primary concern for self-protection."—*W. W. Meissner*.

9120. **Webber, Ross A.** (U. Pennsylvania, Wharton School of Finance & Commerce) **Perceptions of interactions between superiors and subordinates.** *Human Relations*, 1970(Jun), Vol. 23(3), 235-248.—Analysis of perceptions of 34 pairs of superior-subordinate pairs shows consistent distortions of perception of verbal interaction. Initiators tend to exaggerate, and receivers to underestimate the volume of interaction. Superiors exaggerate initiation downward while subordinates underestimate this interaction. Passive personalities exaggerate all interactions, whether initiated or received. Despite different behavior patterns between authoritarian and supportive managers, subordinates do not perceive any significant difference in interactions. (22 ref.)—*W. W. Meissner*.

SPECIAL ENVIRONMENTS

9121. ———. **Annotated bibliography of reports issued by the Naval Aerospace Medical Institute, Pensacola, Florida, 1 January 1964-1 July 1968** Pensacola, Fla.: USN Aerospace Medical Inst., 1968. v, 112 p.

9122. **Kanda, Hiroshi; Oguro, Hideo, & Ohara, Takehumi.** [Fundamental frequency of signal sound and audible distance.] *Journal of Science of Labour*, 1970(Feb), Vol. 46(2), 80-125.—Considers, in estimating the audible distance of the signal sounds issued from ships, the divergence decrease due to the spreading of sound waves from a point source, the masking effect of environmental noise on the signal sound, and the attenuation due to absorption and the shadow zone created by the bending of sound waves caused by atmospheric conditions. When the environmental noise of the side of the source signal sound is too loud, the signal sound is masked by the environmental noise and it cannot be heard unless it has an adequate SPL. Results suggest that ship's signal sounds with a higher fundamental frequency than that used by ships in the past are necessary for more effective signaling.—*English abstract*.

9123. **Marishchuk, V. L., Platonov, K. K., & Pleznitskii, E. A.** *Napryazhennost' v polëte.* [Tension in flight.] Moscow, USSR: Military Publishing House, 1969. 119 p.—Examines the results of studies to determine the reasons for the development of tension in flight and devise methods for its prevention and elimination.—*J. D. London*.

9124. **Weltman, Gershon; Christianson, Raymond A., & Egstrom, Glen H.** (U. California, Los Angeles) **Effects of environment and experience on underwater work performance.** *Human Factors*, 1970(Dec), Vol. 12(6), 587-598.

ADVERTISING & CONSUMER PSYCHOLOGY

9125. **Berdy, David.** **Order effects in taste tests.** *Journal of the Market Research Society*, 1969(Oct), Vol. 11(4), 361-371.—Despite systematic rotation, a product that is presented first is about twice as likely to be preferred as the product tasted second. Some aspects of the order effect phenomenon in taste tests are examined, data being drawn from 6 tests using cakes and breakfast cereals. Alternative test designs are discussed and the validating data for 1 of these is presented as an example of how to virtually eliminate order effects. (18 ref.)—*A. R. Howard*.

9126. **Ehrenberg, A. S.** (London Graduate School of Business Studies, England) **Towards an integrated theory of consumer behaviour.** *Journal of the Market Research Society*, 1969(Oct), Vol. 11(4), 305-337.—Attempts to "draw together various relatively isolated laws of consumer behaviour" in order to provide a degree of generalization or integration to the field. Examines buyer behavior, media consumption, consumer attitudes, quality factors, and methodology, and discusses practical applications in each of these areas. (100 ref.)—*A. R. Howard*.

9127. **Green, Paul E., Maheshwari, Arun, & Rao, Vithala R.** (U. Pennsylvania) **Self-concept and brand preference: An empirical application of multidimensional scaling.** *Journal of the Market Research Society*, 1969(Oct), Vol. 11(4), 343-360.—Examines the relationship of image congruity to brand perception and preference for automobile models and the usefulness of multidimensional scaling methodology in this area. 45 graduate business students responded to automobile brands and to semantic differential scales. It was found that image congruence and brand preference are not necessarily positively related. Suggestions for additional research and comments on methodological limitations are offered.—*A. R. Howard*.

9128. **McFall, John.** (San Diego State Coll.) **Priority patterns and consumer behavior.** *Journal of Marketing*, 1969(Oct), Vol. 33(4, Pt. 1), 50-55.—Products acquired by consumers over life-cycle periods can be grouped into clusters in accordance with set criteria. It is shown how marketing strategy can be made more effective by adopting a cluster approach to product sets. A technique is outlined for defining the characteristic sets of consumer durables and the consumer priority patterns related to their acquisition. It is concluded that market segmentation for durable goods should be conducted on the basis of income, social class, and other socioeconomic variables, as well as on the basis of the priority patterns of acquisition of the relevant consumer groups.—*Journal abstract*.

9129. **Schlinger, Mary J.** (U. Illinois, Chicago Circle) **Responses to advertising: Varieties of liking and disliking.** *Journalism Quarterly*, 1970(Spring), Vol. 47(1), 46-56.—Defined 4 patterns of reaction to well-liked commercials and 5 modes of reaction to disliked commercials. Female respondents were asked to think of a recent liked and a recent disliked ad, reply to a series of open-ended questions about the content of each ad, and describe each ad on a series of 36 adjectival rating scales. An R factor analysis yielded evaluation-attractiveness, activity, coherence, and affective-potency dimensions. Inverse factor analysis of response to "liked" ads yielded empathic, spectator (entertainment without self-involvement), fantasy-escapist, and disinterested "nonresponse"

types. Inverse factor analysis of responses to "disliked" ads yielded detached, angry, disappointed brand users, moralistic, and taste critic types. The study suggests a useful approach to learning how consumers experience advertisements. All but 5% of the ads mentioned came from TV.—*J. A. Kline.*

9130. **Wills, Gordon; Lumb, Frederick, & Wilson, Richard M.** (U. Bradford, Management Centre, England) **Vector analysis of buyer behavior.** *Journal of the Market Research Society*, 1969(Jul), Vol. 11(3), 214-234.—Cites the major strengths and weaknesses of Lewin's "vector hypothesis" for analyzing buyer behavior, and presents the findings of a study of British Railways illustrating the effective use of vector analysis techniques. (18 ref.)—*A. R. Howard.*

9131. **Winters, Lewis C. & Wallace, Wallace H.** **On operant conditioning techniques.** *Journal of Advertising Research*, 1970(Oct), Vol. 10(5), 39-45.—Reviews operant conditioning techniques in advertising research, emphasizing "the reliability and validity of such techniques in measuring advertising effectiveness." Data indicate that operant conditioning is a "reliable and valid measure of attention or interest... but does not necessarily predict attitude change." (18 ref.)—*J. C. Franklin.*

ENGINEERING PSYCHOLOGY

9132. ———. **Milestones: A directory of Human Engineering Laboratories publications, 1953-1967.** Aberdeen Proving Ground, Md.: U.S. Army Human Engineering Laboratories, 1968. iii, 120 p.

9133. ———. **Milestones: A directory of Human Engineering Laboratories publications, 1953-1968.** Aberdeen Proving Ground, Md.: Aberdeen Research & Development Center, 1969. iii, 111 p.

9134. **Farr, M. J.** (Office of Naval Research, Psychological Sciences Div., Washington, D.C.) **L'extension de l'homme par les systèmes homme-machine.** [Extension of the man by man-machine systems.] *Revue de Psychologie et de Sciences de l'Education*, 1970, Vol. 5(3), 286-301.—Discusses the cybernetic-like man-machine systems, where the machine is an extension of man, amplifying his physical capabilities, i.e., strength, reach, endurance, and flexibility. Some definitions of new terms are given, and 2 "man amplifiers" are examined: the 2-arm master-slave manipulator, called Handyman, and the full-scale, powered

exoskeleton, called Hardiman. Manipulation, capability, mobility, and other performance aspects are discussed. Example of orthotic device, the Myotron, a powered brace fitted around the paralyzed limb, allows adapted exercising and objective measurement of muscle power. Finally, applications of teleoperators in remote control are presented, e.g., in spatial research. (Dutch summary) (18 ref.)—*English summary.*

9135. **Rome, Beatrice & Rome, Sydney.** **The laboratory humanised.** *Psychological Scene*, 1968(Sep), Vol. 2, 44-52.

Displays & Controls

DRIVING & SAFETY

9136. **Hakkinen, S.** (Inst. of Occupational Health, Helsinki, Finland) **Le comportement du conducteur.** [Driver behavior.] *Revue de Psychologie et de Sciences de l'Education*, 1970, Vol. 5(3), 243-267.—Presents a short summary of some of the human factors affecting driver behavior. An analysis of the driving task is discussed using a 3-phase system: perception, decision, and performance. Some features of the perception process are presented along with the results of studies which demonstrate the existence of a limited channel system. Typical errors in the estimation of distance and speed and its effect on a dangerous behavior while passing are shown. The lack of an immediate feedback system during training and in traffic generally may be 1 reason for erroneous and inadequate driver behavior. (Dutch summary) (24 ref.)—*English summary.*

9137. **Hertz, D.** (Hadassah U. Hosp., Jerusalem, Israel) **Bdikat kavey ishlut b'morave; teunot derachim.** [Personality factors in automobile accidents.] *Harefuah*, 1970(Aug), Vol. 79(4), 165-167.—Examined 35 men involved in car accidents in a structured, 3-stage psychiatric interview. Possible correlations between past life experiences, behavior pattern, and hostile tendencies of the driver were investigated. For 11 of the 35 Ss the findings indicate that drivers with poorer control of hostility and with lower tension tolerance seem to be more susceptible to motor vehicle accidents. The structured, goal-directed psychiatric interview could be useful as a helpful diagnostic tool for the detection of personal factors affecting accident frequency.—*English summary.*



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This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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A READER'S GUIDE TO USING PSYCHOLOGICAL ABSTRACTS

Psychological Abstracts (PA) attempts to cover the world's literature in psychology and related topics. PA publishes abstracts of published primary documents such as technical reports, journals, and monographs. Books and separates are covered by bibliographic citation with an additional annotation if the title is not definitive.

PA is published in two volumes per year (effective January 1971), six issues per volume. A cumulative index is published for each six-month volume.

A monthly issue contains: Table of Contents (classification scheme); abstracts; list of abbreviations used in the abstracts; Author Index; and Brief Subject Index. The Brief Subject Index consists of index heading terms and abstract numbers.

A cumulative index issue contains: Table of Contents for the six-month volume; complete list of all journals regularly searched by PA; list of volunteer abstractors; list of abbreviations used in the abstracts; the cumulative author index for the six-month volume; list of subject index heading terms; and cumulative subject index for the six-month volume, which consists of index heading terms, descriptive phrases for each abstract, four-letter abbreviations indicating languages other than English and abstract numbers.

Within the monthly issue, abstracts are arranged in alphabetical order by author, categorized under the content headings as listed in the Table of Contents. The abstracts are numbered consecutively within a six-month volume.

PA's author index is intended to be a name index only and not a person index. Alphabetical rules are strictly applied, consequently, "J. Smith" and "John Smith" would appear in the index as two separate entries even though they may in fact be the same person. By the same token two entries of "J. Smith" would appear as J. Smith with two abstract numbers following it, even though they may be two different people.

The subject index heading terms are reviewed annually and revised as necessary as subjects of interest to the discipline shift and increase. For example, the term "Drug Usage and Abuse" was added to the list of terms when the increase of articles on the topic and interest in the discipline appeared to demand it. Previous to the addition of this term these articles were placed under terms such as "Drugs," "Drug Effects," "Drug Therapy," and "Drug Addiction." Conversely, as a topic decreases in popularity, it may become necessary to delete a term or combine several terms into one general term.

PA is computer-printed and because of necessary production procedures there is a possibility that on occasion the abstracts representing articles from a single issue of a primary journal may appear in several issues of PA, e.g., an issue of the *Journal of Psychology* may include 20 relevant articles; abstracts for 17 of these articles may appear in the May issue of PA, the other 3, in the June issue.

The following are examples of entries and explanations of their elements.

JOURNAL ARTICLE ENTRY

(1a) Brown, Mildred; (1b) Jones, John J., (1c) Wilson, J. T., & (1d) Carson, E. Norman. (2) (*Boston U.*) (3) Single cell activity in the hypothalamus in intact and adrenalectomized rats. (4) *Psychological Journal*, (5a) 1970(Jan), (5b) Vol. 13(6), (5c) 173-190.—(6) In this replication of a study by A. R. Arnold (7) (see (7a) PA, (7b) Vol. 42: (7c) 1791 and 45: (7d) Issue 1), 123 intact and adrenalectomized male Wistar rats were tested under urethane anesthesia. Adrenalectomy increased the mean spontaneous discharge and changed the pattern of firing of anterior hypothalamic neurons. The possible relation of these electrophysiological findings to the effects of adrenalectomy on the CNS is discussed. (8) (German & French summaries) (9) (97 ref.).—(10) *Journal abstract.*

1a-1d—Authors: Only four are listed; if there are more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address: A mailable address is included for the first-named author only.

3—Title: Article title including subtitles. If the original article is in a foreign language, that title is given, followed by the English translation in brackets, e.g., [Parapsychology].

4—Primary journal title in full.

5a—Year and month of the primary publication issue.

5b—Volume number followed by issue number in parentheses.

5c—Inclusive pagination of the article.

6—Text of the abstract.

7—Reference to a previous entry in *Psychological Abstracts*.

7a—PA=Psychological Abstracts.

7b—PA volume number.

7c—PA abstract number.

7d—PA issue number where abstract number is unavailable at time of publication. When only the issue number is given, one must consult the Author Index of the PA issue noted in order to determine the abstract number for the author and article cited.

8—Summaries included in the primary source are listed when in language(s) other than that of the article.

9—Number of references is included when 15 or more. May also appear as pages, e.g., (3 p. ref.).

10—Abstract source.

BOOK ENTRY

(1) Jones, John J. (2) (Ed.) (3) (*U. Chicago, Medical School*) (4) *Sleep and dreams*. (5) New York, N.Y.: (6) Appleton-Century-Crofts, (6a) 1970. (6b) ix, (6c) 396 p. (6d) \$6.50(cloth), (6e) \$2.50(paper).

1—Name of author(s) or editor(s). If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Designation of editor.

3—Address of first-named author/editor only.

4—Book title.

5—Place of publication.

6—Publisher's name.

6a—Year of publication.

6b—Prepagination.

6c—Total pagination.

6d—Hardcover price.

6e—Paperback price.

BOOK CHAPTER ENTRY

(1) Wilson, J. T. (2) (*U. California, Santa Cruz*) (3) *The stages of sleep*. (4) In (4a) J. J. Jones (4b) (Ed.), (4c) "Sleep and dreams." (5) (See (5a) PA, (5b) Vol. 45: (5c) Issue 1) (6) 17-47.

1—Author(s) of chapter cited. If more than four authors, the first author is listed followed by et al. Succession marks are not given, e.g., Jr., II, III, etc.

2—Address of first-named author only.

3—Chapter title.

4—Reference to entry in PA which includes bibliographic information for the whole book. When only the issue number is given (see 5c), one must consult the Author Index of the PA issue noted in order to determine the abstract number for the Editor of the book.

4a—Editor's name.

4b—Editor designation.

4c—Book title.

5—Referral information.

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5b—Volume number.

5c—Issue number.

6—Inclusive pagination for cited chapter.

ABBREVIATIONS

Abbreviations appearing in this issue include along with units of measurement (e.g., m. = inch, wk. = week, hr. = hour, etc.):

AA = Alcoholics Anonymous
AC = alternating current
ACTH = adrenocorticotrophic hormone
AM = ante meridiem
amp. = ampere

bpm = beats per minute

C = centigrade
¢ = cents
CA = chronological age
cc = cubic centimeter
CER = conditioned emotional response
CFF = critical flicker frequency
CNS = central nervous system
cps = cycles per second
CR = conditioned response (or reflex)
CRF = continuous reinforcement
CRT = cathode ray tube
CS = conditioned stimulus
CVC = consonant-vowel-consonant

db. = decibel
DC = direct current
DL = differential limen
DNA = deoxyribonucleic acid
DRL = differential reinforcement of low rates

E = experimenter
ECS = electroconvulsive shock
EEG = electroencephalogram (or -graphy)
EKG = electrocardiogram
EMG = electromyogram
ESP = extrasensory perception
Exp. = experiment

F = Fahrenheit
ft-c = foot-candle
ft-L = foot-lambert

g = gravity
gm. = gram(s)
GPA = grade-point average
GSR = galvanic skin response

Hz. = Hertz

ICS = intracranial stimulation
im = intramuscularly
ip = intraperitoneally
IQ(s) = intelligence quotient(s)
ITI = intertrial interval
iv = intravenously

kc. = kilocycle
kg. = kilogram
kg/m = kilogram per meter
kHz. = kilo-Hertz

LD = lethal dose
LSD = lysergic acid diethylamide

m. = meter
M = mean
M = mole or molar
ma. = milliamperes
MA = mental age
MAO = monoaminoxidase
mL. = milliliter
mm. = millimeter
mph = miles per hour
msec. = millisecond(s)

N = number
NREM = nonrapid eye movement

O = observer

p = probability
% = percent

PM = post meridiem
pps = pulses per second
PRE = partial reinforcement effect
PSE = point of subjective equality
psi = pounds per sq. in.

r = product-moment correlation
r = roentgen
REM = rapid eye movement
rms = root mean square
RNA = ribonucleic acid
rpm = revolutions per minute
RT = reaction time

S = subject
SEU = subjectively expected utility
SPL = sound pressure level

TV = television

UCR = unconditioned response
UCS = unconditioned stimulus
UHF = ultrahigh frequency

V = volt
VHF = very high frequency
vs. = versus

YMCA = Young Men's Christian Association
YWCA = Young Women's Christian Association

Test abbreviations include:

California E Scale (Ethnocentrism)
California F Scale (Fascism)
CMA scale = Children's Manifest Anxiety scale
CPI = California Psychological Inventory
CTMM = California Test of Mental Maturity
EPPS = Edwards Personal Preference Schedule
MA scale = (Taylor) Manifest Anxiety scale
MMPI = Minnesota Multiphasic Personality Inventory
MPI = Maudsley Personality Inventory
16 PF = Cattell's 16 Personality Factor Questionnaire
SVIB = Strong Vocational Interest Blank
TAT = Thematic Apperception Test
WAIS = Wechsler Adult Intelligence Scale
WISC = Wechsler Intelligence Scale for Children

Abbreviations used in authors' addresses are:

Assn. = association
Assoc. = associates
Co. = company
Coll. = college
Corp. = corporation
Dept. = department
Div. = division
Inst. = institute
Hosp. = hospital
Lab. = laboratory
Inc. = incorporated
U. = university

Ave. = avenue
Bldg. = building
Blvd. = boulevard
Ct. = court
Dr. = drive
Ft. = fort
Mt. = mount
Pkwy. = parkway
Pl. = place
PO = post office
Rd. = road
St. = street
N, S, E, W = North, South, East, West
U.S. = United States
USSR = Union of Soviet Socialist Republic

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GENERAL

OBITUARIES

9138. Neubauer, Peter B. Herman Nunberg 1884-1970. *Psychoanalytic Quarterly*, 1970(Oct), Vol. 39(4), 622-624.—Obituary.—J. Z. Elias.

HISTORY

9139. Rosenzweig, Saul. (Washington U.) *William James et le courant de conscience*. [William James and the stream of consciousness.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17-19), 1001-1009.—The similarity of Freud's analytic method of free association and William James' stream of consciousness is attributed to the influence upon both men of such individuals as Charcot, Salomon Stricker, and J. J. G. Wilkinson. Wilkinson, who was a close friend of the father of William and Henry published a collection of impromptu poetry in 1857 which he described as having been written following a "new method of impression" and is credited with the first application of free association to literature. The stream of consciousness in literature found its complete development in the writings of Gertrude Stein, James Joyce, and Marcel Proust through the influence of Henry James. (44 ref.)—R. E. Smith.

PHILOSOPHY

9140. Cornett, Linda B. (Emory U.) *The undermining effects of Kant's psychological theory upon his ethics*. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2435.

9141. Gaete, Sergio. (U. Chile, Psychiatric Clinic, Santiago) *La conciencia como significación*. [Consciousness as signification.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Oct), Vol. 28(4), 306-330.—Discusses the nature of consciousness and its relation to reality. Natural reality is regarded as the substance and object of consciousness; consciousness is considered to be the union of action and intentional objective, resulting in a constant variety of causes and motives. It is this union which forms the signification of consciousness. The joining the act and object in consciousness is opposed to states of unconsciousness, extraconsciousness, and subconsciousness. Consciousness is thought to be of a sensible type, encompassing rational and objective as well as affective and subjective dimensions. This is contrasted with intellectual consciousness where abstract reasoning processes are utilized. Hypotheses considering (a) gestalt as a unity factor in intellectual consciousness, and (b) structure of meaning (Sinnzusammenhang) as the unity factor in sensible consciousness are proposed. (English summary) (60 ref.)—P. Hertzberg.

9142. Verges, Frank. (U. California, San Diego) *The*

argument from perceptual illusion. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2447.

PARAPSYCHOLOGY

9143. Chiarabba, G. B. *Un caso di fenomeno di preconsocenza*. [A case of foreknowledge phenomena.] *Rassegna Italiana di Ricerca Psicica*, 1969, No. 1-3, 71-80.—The author who is an expert in ESP and has developed in himself a predisposition for foreknowledge, which began in 1923, describes his own documented case of foreknowledge. The case involves an ordinary perception of his wife's unexpected return from a visit, where she beckons him into the dining room, where the windows are ajar, and shows him a shining, silver-like object. He reports the perception to his 2 children. Some months later the incident occurs in reality. This type of perception and dreams are compared. In dreams there is intense cogitative activity which, generally, assumes a fantastic character. In foreknowledge phenomena, the conscious is totally concentrated on the attentive function. The sensorial medium is absent and is substituted by the psyche. The perception cannot be realized without the concurrence of attention; in contrast I can eat without tasting if the attention is absorbed in a dominant thought. The attention of the S must be absorbed toward the object, and this determines the isolation of the psyche.—A. M. Farfaglia.

9144. Fieandt, Kai V. (Helsingfors U., Finland) *Om vissa felkällor inom parapsykologin*. [Sources of errors in parapsychology.] *Nordisk Psykologi*, 1969, Vol. 21(4), 277-282.—About 15 yr. ago, the Finnish Broadcasting Corporation sponsored a program of experimental telepathy, which proved to be very popular. A similar program, but with a more scientific approach, was sent over a Finnish TV station in 1960, the results of which were later published in a doctoral thesis. The plans sent out to listeners had 12 horizontal lines, each containing 4 alternative symbols, words, or letters. 30 persons, assembled in the studio, concentrated on 1 of these, aided by pertinent illustrations. 1 row of words read: pine needle, spruce cone, birch leaf, and apple. Apple was correct and was underlined on a majority of reply sheets. The analysts concluded that this was due more to the attractive value of the fruits, than to ESP. Similarly, among the 4 symbols used in the Rhine tests (circle, triangle, square, and cross) the cross was the most "attractive." It is concluded that the attractive value of a word or symbol must be considered in evaluating errors in ESP. (English summary)—P. von Toal.

9145. Medhurst, R. G. *Note on the "ESP" cards designed in the parapsychology laboratory, Duke University*. *Journal of the Society for Psychical Research*, 1969(Jun), Vol. 45(740), 81-85.—Reports that many of the decks of ESP cards are not suitable for experimental work, because the symbol on the front is discernible from the back.—S. Knapp.

9146. Nestler, Vincenzo. *Ricerche moderne sulla*

"Psicomètria". [Modern studies on "psychometry."]
Rassegna Italiana di Ricerca Psychica, 1969, No. 1-3, 63-70.—Defines psychometry as the phenomena where the sensitive (medium) by touching (or just looking at) an object, receives and manifests impressions of events or real beings that have some connection with the object: the occult sensitivity stimulated by objects. Previous studies in psychometry are listed from Buchanan (1849) and Denton (1863); they were the 1st to use the term, and from their experiments concluded that events could be relived by a sensitive from the mere contact with an object. Modern innovations in psychometry are found in (a) the Pratt Berge method which evaluates the objectivity, independence, and particularity of the sensitive's affirmation; (b) the use of hypnosis which can eliminate psychic impediments and allows the sensitive to become "seeing"; and (c) new hypotheses, e.g., the psycho-energetic hypothesis where the medium becomes the center of the outside and inside phenomena, bringing together the atmosphere and the people concerned. It is suggested that psychometry could be an instrument toward a better understanding of the human spirit and of its nature.—A. M. Farfaglia.

THEORY & SYSTEMS

9147. **Guillain, A.** *Le concept de crise en médecine hippocratique et en psychologie du développement.* [The concept of crisis in Hippocratic medicine and in developmental psychology.] *Journal de Psychologie Normale et Pathologique*, 1970(Jul), No. 3, 295-311.—The concept of crisis is common to certain medical and psychological theories. The Hippocratic crisis involves rupture, discontinuity, etc., and refers to rules which articulate other aspects: a critical day, paroxysm, metastasis, acme, etc. It is structurally temporal, a phenomenon of the strategic structure of intervention (Kairos' theory); it refers to a conception of equilibrium borrowed from politics (isonomie). The psychology of development takes up Debesse's concept of crisis of juvenile originality and attempts to elaborate further. In this case one finds a clear theoretical opposition: (a) a stable equilibrium of which the crisis is a passing disturbance, e.g., Piaget's endogenous theory of factors of development, conceptualized time; and (b) an oscillating system in which the crisis is an extreme position, e.g., Wailon's exogenous theory of developmental function, historical time. This opposition poses the problem of a schematization, a conceptualization of historic time which permits one to rationally establish therapeutic intervention.—L. A. Ostlund.

9148. **Macdonald, Robert E.** (Michigan State U.) *The psychology of Abraham Maslow in educational perspective: Selected criticisms and applications.* *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 933.

9149. **Rhodes, Sheila S.** (State U. New York, Buffalo) *A critique of the ethical utility of interpersonal psychology.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1845.

9150. **Suter, Ronald.** (Michigan State U.) *On being angry: Paul Ziff on behaviorism.* *Michigan Academician*, 1970(Sum), Vol. 3(1), 19-23.—In a previous article P. Ziff attempted to refute what he called 2 bad arguments against behaviorism. He actually presented 3 fallacious arguments, but 2 of his own 3 arguments were fallacious. Ziff is corrected on how to properly refute the

arguments against behaviorism. It is concluded, however, that the behaviorism which Ziff is defending is actually empty. While Ziff claims an organism is angry if and only if it is behaving in anger, he is never able to specify what kind of behavior is anger behavior. In order to make behaviorism true the behaviorist would have to appeal explicitly to the very notion he is trying to clarify. He would have to say: "Angry ways of behaving are the ways in which people behave when they are angry."—S. R. Diamond.

EDUCATION & TRAINING

PROFESSIONAL DEVELOPMENTS

9151. ———. *Proceedings of the Seventy-Eighth Annual Meeting of the American Psychological Association, September 3-8, 1970, Miami Beach, Florida.* *American Psychologist*, 1970(Dec), Vol. 25(12), 1113-1169.—Presents the program of the convention including presented papers, symposia, discussions, workshops, and films.

9152. ———. *The International Reference Center for Information on Psychotropic Drugs: News, activities, and contributions by participants of the Centers' network.* *Psychopharmacology Bulletin*, 1969(Jul), Vol. 5(3), 1-3.—Presents information on (a) the development of an indexing system and drug categorization by the International Reference Center at the National Institutes of Mental Health; and (b) a 49-item bibliography of papers on psychotropic drugs, published in Swiss medical journals in 1968.—G. Steele.

9153. **Droz, Rémy.** (U. Geneva, Psychological Lab., Switzerland) *Tentatives d'application de la psychologie et de l'épistémologie génétiques.* [Conditions for the application of psychology and genetic epistemology.] *Schweizerische Zeitschrift für Psychologie und ihre Anwendungen*, 1970, Vol. 29(3), 417-422.—Briefly enumerates and describes a number of tentative applications of Piaget's genetic psychology and epistemology in the fields of applied psychology (clinical, counseling) and education. (German summary)—*English summary.*

9154. **Gurman, Alan S.** (Teachers Coll., Columbia U.) *Institutional sources of articles in the "Journal of Consulting and Clinical Psychology": 1951-1968.* *Journal of Consulting and Clinical Psychology*, 1971(Feb), Vol. 36(1), 133-135.—Reviewed the institutional affiliations of authors who have published articles in the *Journal of Consulting and Clinical Psychology* from 1951-1968. The Veterans Administration emerged as the leading institutional producer of articles in this period. Results suggest that the major university force in publication is found in the midwest, although no 1 institution or related set of institutions dominated the clinical research. Implications about the role and nature of midwestern clinical programs and American Psychological Association-approved programs in general in this pattern are discussed.—*Journal abstract.*

9155. **Little, Kenneth B.** (American Psychological Assn., Washington, D.C.) *Report of the Executive Officer: 1970.* *American Psychologist*, 1971(Jan), Vol. 26(1), 1-11.

9156. **Vinitzky, Michael H.** (U. Minnesota) *Changes in the interests of psychologists with age and*

critical incidents in their careers. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1028-1029.

INTERNATIONAL PSYCHOLOGY

9157. Ardila, Ruben. (National U., Bogotá, Colombia) **Applied psychology in Colombia.** *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 155-160.—Applied psychology in Colombia began in 1939 with the founding of the Psychotechnical Section at the National University. Applications of psychology to clinical problems, vocational guidance, and educational and industrial settings are explained in detail. The possibilities and problems of applied psychology are considered in relationship to social structures in Colombia.—L. A. Ostlund.

GENERAL BOOKS & REFERENCE WORKS

9158. Hinsie, Leland E. & Campbell, Robert J. **Psychiatric dictionary.** (4th ed.) New York, N.Y.: Oxford U. Press, 1970. ix, 816 p.

9159. Mowbray, R. M. & Rodger, T. Ferguson. (U. Melbourne, Victoria, Australia) **Psychology in relation to medicine.** (3rd ed.) Edinburgh, Scotland: E. & S. Livingstone, 1970. vii, 421 p. \$8.25.

9160. Nottelman, Joseph M. (Princeton U.) **Readings in behavior.** New York, N.Y.: Random House, 1970. xiv, 385 p.

METHODOLOGY & RESEARCH TECHNOLOGY

9161. Batey, Marjorie V. (Sacred Heart Hosp., School of Nursing, Spokane, Wash.) **Some methodological issues in research.** *Nursing Research*, 1970(Nov), Vol. 19(6), 511-516.—Methodological issues in research have their bases in scientific and metaprofessional values, as well as other personal and intellectual values of investigators. Issues derive from both within and beyond the specific scientific pursuit; regardless of the source of issues, their impact upon the initiation, conduct, and outcome of scientific inquiry is of no lesser consequence. (22 ref.)—*Journal summary*.

9162. Gilgen, Albert R. (Ed.) (Beloit Coll.) **Contemporary scientific psychology.** New York, N.Y.: Academic Press, 1970. xiii, 328 p.

9163. Jahoda, Gerald. (Florida State U., School of Library Science) **Information storage and retrieval systems for individual researchers.** New York, N.Y.: Wiley-Interscience, 1970. xiii, 135 p.

9164. Moles, Abraham A. (U. Strasbourg, France) **The diffusion of semantic differential concepts in France.** *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 109-123.—The methods based on the "semantic space concepts," developed chiefly by Osgood and his collaborators, have become well known in France and have given use to applications in the fields of market research, psychoesthetics, and cross-cultural areas. Typical studies include Enel's "A semantic differential for judging posters," Bauer and Niedhammer's "Dimensions for judging sound objects," Grunewald's "The cross-cultural study on Jewish alterity," and Menahem's "Line concepts as a com-

ponent of personality." In Europe, there is a tendency to be more interested in the underlying principles and general attitude connected with these methods rather than to follow standardized routine procedures which have characterized cross-cultural studies until now. A recent example of this research involved a sample of 320 Jews and non-Jews. A semantic differential test was applied with 50 relative concepts over 20 scales. Results have not yet been reported. (15 ref.)—L. A. Ostlund.

MODELS & MATHEMATICAL MODELS

MATHEMATICS & STATISTICS

9165. Bishir, John W. & Drewes, Donald W. (North Carolina State U.) **Mathematics in the behavioral and social sciences.** New York, N.Y.: Harcourt, Brace, & World, 1970. xiii, 714 p. \$10.95.

9166. Brown, Bobby R. (Pennsylvania State U.) **An empirical investigation of the effects of violations of assumptions upon certain tests of the product moment correlation coefficient.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1613.

9167. Cole, Nancy S. & Cole, James W. (U. Iowa) **An analysis of spatial configuration and its application to research in higher education.** *ACT Research Report*, 1970(Aug), No. 35, 17 p.—Presents an analysis of the spatial configuration of variables in a multivariate system to clarify the relationships among the variables by locating them in a minimally dimensioned space. Similarly, individuals are located in the smaller space and related to each other on the basis of the variables measured. The analysis is then used to locate some colleges on a planar surface on the basis of variables given by A. W. Astin. In the configuration of colleges in the plane, a college is described in terms of its relative orientation to several educational aspects and the resulting single point location is suggested as a valuable alternative to profile analysis.—*Journal abstract*.

9168. Edgington, Eugene S. (U. Calgary, Alberta, Canada) **Statistical inference: The distribution-free approach.** New York, N.Y.: McGraw-Hill, 1969. vii, 211 p. \$8.50.

9169. Harris, David R., Bisbee, Charles T., & Evans, Selby H. (Texas Christian U.) **Further comments: Misuse of analysis of covariance.** *Psychological Bulletin*, 1971(Mar), Vol. 75(3), 220-222.—Attempts to clarify some points of disagreement between D. A. Sprott (see PA, Vol. 44:9565) and S. H. Evans and E. J. Anastasio (see PA, Vol. 42:9688). Examination of Sprott's discussion reveals that much of his argument rests on assuming an unconventional random effects model for the analysis of covariance. Sprott used only 1 regression term in his covariance model, which is tantamount to assuming homogeneity of within-between regression and inconsistent with the presence of a separate regression effect associated with treatments. It is reasserted after consideration of Sprott's comments that valid use of the analysis of covariance requires that the covariate be unaffected by the treatment. Consideration of a regression approach when the assumptions of the analysis of covariance are violated is recommended.—*Journal abstract*.

9170. Jensen, Arthur R. (U. California, Berkeley) **Note on why genetic correlations are not squared.** *Psychological Bulletin*, 1971, Vol. 75(3), 223-224.—Re-

ports that correlations between related persons (e.g., twins, siblings, parent-child, etc.) should not be squared in order to determine the proportion of variance they have in common. The correlation coefficient itself is this proportion. The purpose of the correlation is not to predict the variance in a given trait for 1 set of persons from a knowledge of the trait values of their relatives, but to express the degree of overlap in trait variance, i.e., the proportion of variance in common. The rationale of genetic correlations is explained, with examples in terms of a common elements model of correlation.—*Journal abstract*.

9171. Johnson, Carleton A. (Catholic U., Puerto Rico) **The Type II error. Perceptual & Motor Skills**, 1970(Dec), Vol. 31(3), 724.—Presents an example of a Type II error, the acceptance of a null hypothesis when it is, in fact, false. The statistical analysis of a mouse who pressed a left lever once and a right lever twice for 20 manipulations would indicate a random pattern, when, in fact, it is $\frac{1}{4}$ time.—S. Knapp.

9172. McLaughlin, Gerald W. (U. Tennessee) **The use of constant sum paired comparison in criterion development. Dissertation Abstracts International**, 1970(Feb), Vol. 30(8-B), 3903-3904.

9173. Stallings, William M. & Singhal, Sushila. (U. Illinois) **Confidence level and significance level: Semantic confusion or logical fallacy. Journal of Experimental Education**, 1969(Sum), Vol. 37(4), 57-59.—Despite repeated warnings against its usage, researchers and textbook authors continue to employ the phrase "level of confidence" as a synonym for the phrase "level of significance." 3 possible sources of this incorrect usage are noted: (a) imitation, (b) the related but different concepts of fiducial inference and confidence interval estimation, and (c) the myriad of terms associated with confidence. It is recommended that the magnitude of level of confidence be restricted to that of the complement of the level of significance and that the term level of confidence should be used only in connection with interval estimation. (20 ref.)—*Journal abstract*.

Factor Analysis

COMPUTERS & PROGRAMING

9174. Abrams, Macy L. & Saxon, James A. (United States International U., San Diego, Calif.) **VIDAC: A computer program for value identification and classification. Dissertation Abstracts International**, 1970(Nov), Vol. 31(5-A), 2491.

9175. Hallworth, H. J. (U. Calgary, Alberta, Canada) **Computers in psychology and education. Alberta Psychologist**, 1968(Jul), Vol. 9(2), 8-18.—Reviews the past and present use of computers, including a discussion of computer language development, and assesses the future developments in computer applications. Computer simulation of psychological and educational processes, natural language analysis, computer-assisted learning, and information storage and retrieval are examined.—G. Steele.

9176. Meltzer, Bernard & Michie, Donald. (Eds.) (U. Edinburgh, Scotland) **Machine Intelligence 5**. New York, N.Y.: American Elsevier, 1970. vii, 588 p., \$22.50.

9177. Rouanet, Jacqueline & Gateau, Y. **L'utilisation d'un ordinateur pour l'apprentissage d'un clavier**

numérique. [Utilization of a computer for training with a numerical keyboard.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Jul), Vol. 17(3), 131-152.—Examined the possibility of using a small computer for training in the operation of another computer's numerical keyboard. The computer is discussed as an instrument for controlling the learning process.—*English summary*.

9178. Srinivas, Kalburgi M. (U. California, Los Angeles) **A computer simulation model of Newcomb's consistency theory: A case in theory development. Dissertation Abstracts International**, 1970(Oct), Vol. 31(4-A), 1890.

TESTING

Construction & Validation

9179. Gross, Jerry C., Joiner, Lee M., Holt, Laurence E., & Sommers, Paul. (Minneapolis Public Schools, Minn.) **A kinesio-perceptual test's reliability and validity with retarded subjects. Journal of Special Education**, 1970(Spring), Vol. 4(2), 223-231.—Developed and tested a kinesio-perceptual test with retardates as to scoring objectivity, reliability, predictive validity, and cross-validation. Results indicate that most subtests could be objectively scored with the exception of ocular-motor control. Reliability coefficients ranged from .30-.99 with 7 out of 12 being greater than .70. Those items which demanded greater concentration, memory, and focused attention produced greater variations in performance over time. Predictive validity was measured by correlating scores with reading and arithmetic performance. The correlation was .57 with arithmetic and .37 with reading. Cross-validation results indicate little predictive validity to another population. It is concluded that it may be dangerous to generalize concerning the function of various perceptual-motor variables beyond the parameters of the population on which the validity studies are conducted.—L. M. Glidden.

9180. Woodmansee, John J. & Tucker, Richard D. (Wake Forest U.) **A scale of black separatism. Psychological Reports**, 1970(Dec), Vol. 27(3), 855-858.—Describes a revision of the Black Power Sentiment Scale as a measure of black separatism. Reliability of the 24-item scale was .80 (Cronbach's alpha). A study based on responses of 257 Negro students supported the validity of the scale in identifying black separatist extremism of the Black Panther variety.—*Journal abstract*.

EXPERIMENTATION & OBSERVATION

9181. Compton, John W. (George Washington U.) **The investigation of the influence of experimenter outcome-bias and experimenter effect on two tasks when the experimenter received varied information about his subjects. Dissertation Abstracts International**, 1970(Feb), Vol. 30(8-B), 3855.

9182. Davidson, P. O. & Costello, C. G. (Eds.) (U. Calgary, Alberta, Canada) **N = 1: Experimental studies of single cases: An enduring problem in psychology**. New York, N.Y.: Van Nostrand Reinhold, 1969. vi, 232 p. \$2.50(paper).

9183. Goodstein, Leonard D. & Brazis, Karen L. (U. Cincinnati) **Psychology of scientist: XXX. Credibility**

of psychologists: An empirical study. *Psychological Reports*, 1970(Dec), Vol. 27(3), 835-838.—In order to evaluate the effects of bias among psychologists, 2 identical abstracts of empirical research in astrology were prepared, 1 with positive findings and the other with negative findings. The data, collected by mail from a random selection of 1000 professional psychologists, indicate that those Ss receiving the negative abstract rated the study as better designed, more valid, and having more adequate conclusions than those receiving the positive abstract. The emotional, spontaneous comments included with the responses suggests that strong affective reactions and prejudgments are involved.—*Journal abstract.*

9184. Kilty, Keith M. (Yale U.) **Consistency between and within subjects.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 701-702.—Presents a note of caution concerning correlational procedures for analyzing data regarding theoretical models, postulating that the same relationships hold both for any given S and over a sample of Ss. 2 methods of correlation (between and within Ss) are available, but do not necessarily give the same results. It is suggested that the statistical techniques presently available may not be up to the tasks for which they are used and that a correlational method is needed for 3 modes of data.—*Journal abstract.*

9185. Souren, Grégor; van der Kloot, Wim, & van Bergen, Annie. (State U., Inst. of Psychology, Leyden, Netherlands) **Het Rosenthal-Effect.** [The Rosenthal-effect.] *Psychologisch Instituut Rijksuniversiteit, Leiden, Rapport*, 1969, No. SP 002-69, 103 p.—Studied the problem of experimenter bias by 4 experiments. Apart from some necessary modifications the experimental situation has been modeled after R. Rosenthal and K. L. Fode's (see PA, Vol. 38:3523) basic experiment. Experimentally induced E outcome expectation was the main variable, 3 other variables were also studied: the degree of ambiguity of the stimulus material; the degree of training of the Es; and the degree to which the Es were actively engaged in the process of collecting the data from their Ss. All 4 variables were studied in 2 experimental investigations; the latter variable was studied once more in a separately designed experiment. A field experiment also was performed within the daily routine of testing applicants for government posts. In none of the experimental variations was an effect of the Es outcome expectations obtained. According to the answers to a postexperimentally presented questionnaire, the Es had the impression that the scores of their Ss more or less resembled the experimentally induced expectations. (5 p. ref.)—*English summary.*

APPARATUS

9186. Mackay, R. Stuart. (Boston U.) **Bio-medical telemetry: Sensing and transmitting biological information from animals and man.** (2nd ed.) New York, N.Y.: John Wiley, 1970. xiv, 533 p. \$14.95.

9187. Palin, Jerry & Gourevitch, George. (Princeton U., Auditory Research Lab.) **An improved narrow-band noise source.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 523-524.—Describes a simplified method of generating variable bandwidth narrow-band noise through the use of recently available, low cost circuitry. In addition to providing independent adjustment of bandwidth and center frequency, extremely sharp filtering character-

istics can be achieved. The technique involves the use of an analog multiplier to avoid the generation of spurious signals in producing the desired suppressed carrier noise signals. (French summary)—*Journal summary.*

9188. Weiss, Burton A. (U. Massachusetts, Boston) **Generating and calibrating a uniform aquatic sonic field for behavioral bioacoustics.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 217-220.—The use of 2 matched projector faces as the ends of a small tank enabled the generation of a uniform aquatic sonic field. The projectors were operated 180° out of phase to maintain a push-pull system. Shock electrodes and a dividing barrier of rubber, acoustically transparent in water, made the tank an aquatic shuttle box for avoidance conditioning. In addition to applications for behavioral bioacoustics, the system can be employed for calibration of small hydrophones.—*Journal summary.*

EXPERIMENTAL PSYCHOLOGY

9189. Pennartz, P. J. **Antwoord op een ruimte: Een onderzoek naar tendensen in het gedrag bij het onderzochten van een ruimte.** [Answer to a space: An inquiry on basic behavior patterns in adapting to a square space.] Wageningen, Netherlands: Land-houwhogeschool, 1969. 36 p.

PERCEPTION

9190. Fidell, Sanford. (Bolt Beranek & Newman, Van Nuys, Calif.) **Sensory function in multimodal signal detection.** *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1009-1015.—Tested 5 female undergraduates on a 2-interval forced-choice task involving the detection of a sinusoid in noise, where the signal could occur on an earphone, an oscilloscope, or both devices simultaneously. Detection performance was studied as related to (a) mode of occurrence of the signal (s), (b) the external noise correlation in the auditory and visual channels, and (c) Os' a priori knowledge of the mode of occurrence of the signal. Improvement in sensitivity (measured in d' units) as a function of bimodal signal presentation closely followed the predictions of a statistical summation model and was much lower than predicted by linear and probabilistic addition models. Under conditions of independence of noise in the auditory and visual channels, some improvements in sensitivity were of almost 3 db. Improvement in sensitivity afforded by a priori knowledge of the mode of occurrence of the signal was less for bimodal signals than for unimodal signals.—*Journal abstract.*

9191. Hicks, Ronald G. (Plymouth State Home & Training School, Northville, Mich.) **Cross-modality matching in decision making.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 200-206.—Cross-modality matching was performed using electrodermal stimuli in the sensory probabalistic zone ("threshold") and a simultaneously weak adjustable white noise signal. Ss were able to adjust the loudness of the noise to the perceived magnitude of the shock, but verbal confidence ratings were more accurate in signal detection than auditory cross-modality matching. Moreover, the verbal confidence ratings appeared to influence the accompanying auditory matching task by increasing the accuracy of the latter. Once sensory data are verbally coded it appears to interact with the cross-modality

matching task. Such an interaction effect could conceivably be attributed to 1 or both of 2 difficulties in human sensory information processing: (a) Ss incorrectly perceive or understand the diagnostic value of the sensory information, and/or (b) Ss have difficulty integrating the correctly perceived sensory information. Consequently, once sensory information is verbally coded it provides either an increased diagnostic value of the sensory data or increases the integration of the sensory data.—*Journal summary*.

9192. Horowitz, Mardi J. (Mt. Zion Hosp. & Medical Center, San Francisco, Calif.) **Image formation and cognition.** New York, N.Y.: Appleton-Century-Crofts, 1970. xiii, 351 p. \$12.50.

9193. Scagnelli, Paul. (Duke U.) **Relationships among visual imagery, language and haptics in spatial perception.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3875.

9194. Weinberg, Harold J. (U. Nebraska) **Changing perceptions on the RFT by conditioning subjects to relieve dissonance and/or escape from the anxiety in a new manner.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1637.

Illusion

9195. Kolehmainen, K. & Mikkonen, V. (U. Turku, Inst. of Psychology, Finland) **Apparent weight differences as a source of after-effects.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 161-166.—Investigated perceptual aftereffects in 2 experiments using the size-weight illusion (SWI). In Exp. I, 30 undergraduates obtained quantitative measures of the apparent weight differences between the inspection stimuli, i.e., to scale the SWI. The relationship between heaviness and size is described by a simple power function. In Exp. II, 120 undergraduates tested for the predicted after-effects. The size of the aftereffect increased monotonically with the amount of apparent weight difference. Results show that an apparent weight difference between 2 stimuli can determine subsequent experiences of heaviness and the aftereffects are not primarily due to peripheral processes. (16 ref.)—*Journal abstract*.

9196. Magnussen, Svein. (U. Oslo, Inst. of Psychology, Norway) **Reversibility of perspective in normal and stabilized viewing.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 153-156.—Examined the role of eye movements in the illusion of reversible perspective by testing the eye movement hypothesis that reversals are caused by specific changes of fixation. 5 graduate students observed a reversible-perspective figure during normal and stabilized viewing conditions. No difference in reversal rate was found between the 2 conditions. It is concluded that reversibility of perspective remains unaffected by the presence or absence of eye movements. (15 ref.)—*Journal abstract*.

9197. Pollack, Robert H. (U. Georgia) **Mueller-Lyer illusion: Effect of age, lightness contrast, and hue.** *Science*, 1970(Oct), Vol. 170(3953), 93-95.—Presented Müller-Lyer figures produced by lightness contrast (white on black) and by hue contrast in the absence of lightness contrast (red, yellow, green, or blue on gray) to 20 3rd-8th graders and 10 female undergraduates. Contrary to Piagetian expectations, the illusion magnitudes resulting from the colored figures did not decline with age.—*Journal abstract*.

9198. Restle, Frank. (Indiana U.) **Instructions and the magnitude of an illusion: Cognitive factors in the frame of reference.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 31-32.—28 undergraduates judged the length of a horizontal line having vertical lines at the ends and a vertical line crossing at the middle. As has often been shown, judgments of the horizontal line varied inversely with the length of the vertical segments. 1 group of Ss (N = 12) was told to use the end lines as frame of reference and ignore the center line, and the estimated weights of end and center line were .22 and .02. The other group (N = 17) was told to ignore the end lines and use the center line as frame of reference. The weights of end and center line for this group were .06 and .22. It is concluded that the Helson adaptation level equations are valid, but that the weights of parts of the field are partly under voluntary control and are not simply a function of the visual field.—*Journal abstract*.

9199. Weintraub, Daniel J. & Virsu, Veijo. (U. Michigan) **The misperception of angles: Estimating the vertex of converging line segments.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 5-8.—Estimates of the point of intersection of converging line segments depended upon the angle between lines and the orientation of the display. Undergraduates served as Os in 2 experiments. The main conclusion is that the tilt of a line is perceptually altered to appear more nearly parallel to the more closely aligned axis, either horizontal or vertical, of an O's visual field.—*Journal abstract*.

Time

9200. Brehmer, Berndt. (U. Umeå, Sweden) **Note on the effect of velocity on perceived duration.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 157-160.—Presents an experiment which manipulates the independent variable of velocity by a variation in the velocity of a moving S traveling through a stationary stimulus situation. 10 undergraduates made magnitude productions of duration in 2 velocity conditions when traveling in a car. Productions for the higher of the 2 velocities were reliably longer than those for the lower ($p < .05$), due to a negative relation between velocity and the slope of the response-stimulus (R-S) function relating perceived to physical duration. It is suggested that the effect of velocity on the slope of the R-S function may account for the discrepant results from previous studies investigating the effects of velocity on perceived duration.—*Journal abstract*.

9201. Hoyer, William J. & Jones, Elvis C. (West Virginia U.) **Effects of knowledge of the ITI on time estimates: Method of production.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 709-710.—*Journal abstract*.

VISION

9202. Guth, Sylvester K. **Lighting for visual performance and visual comfort.** *Journal of the American Optometric Association*, 1970(Jan), Vol. 41(1), 63-71.—Presents a brief review of previous research in seeing and indicates how the results are applied. Lighting recommendations are made in consideration of the factors, e.g., optimal visibility, visual performance, ease of seeing, and comfort.—*M. West*.

9203. Lack, Leon C. (U. Adelaide, South Australia) **Effects of knowledge of results and spacing of**

practice trials in training of control of binocular rivalry. *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 827-830.—Investigated the effects of knowledge of results (KR) and compared its effects with spacing of practice. 60 undergraduates in 4 experimental groups practiced, under binocular rivalry, control instructions of "slow rate" and "rapid rate" for a total of 2 min. each on 10 successive test sessions. The effects of distribution of practice and knowledge of results (KR) on the increase of control of binocular rivalry were investigated using a 2×2 factorial design. All experimental groups except the massed practice group with no KR showed significant decreases of slow rate, increases of rapid rate, and, consequently, significant increases of control of binocular rivalry. The increase of such control with practice was facilitated significantly by spacing but was most dramatically affected by KR. Results indicate that both KR and the distribution of practice are significant independent variables which seem to be additive in their effects.—*Journal abstract.*

9204. Marks, Lawrence E. (John B. Pierce Foundation Lab. New Haven, Conn.) **Brightness and retinal locus: Effects of target size and spectral composition.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 26-30.—Ss gave numerical estimates of brightness for stimuli presented to the foveal and peripheral retina. Exp. I with 12 male Ss showed that the periphery's superior sensitivity to white light is relatively independent of target size. Exp. II with the same Ss showed that the periphery is more sensitive than the fovea to violet light, but is less sensitive than the fovea to red light. Results are explicable in terms of differences between rod and cone mediation of brightness. (17 ref.)—*Journal abstract.*

9205. Purcell, Dean G. & Stewart, Alan L. (New School for Social Research) **The two-flash threshold: An evaluation of critical-duration and visual-persistence hypotheses.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 61-64.—The 2-flash threshold is reduced by increasing the duration of both pulses of light or light adapting the eye. Increasing the duration of the 1st pulse also decreases the 2-flash threshold, contrary to what a critical-duration explanation of the threshold would predict. Decreasing the duration of the 2nd pulse increases the threshold when the 2nd pulse is very brief. Light adapting the eye under such conditions serves to increase the 2-flash threshold, unlike the effect adaptation has when a long 2nd pulse is used. 4 experiments were conducted using 6, 5, 5, and 6 O's, respectively. (22 ref.)—*Journal abstract.*

9206. Uetsuki, Toshio & Ikeda, Mitsuo. (Minolta Camera Research Lab., Sakai, Japan) **Study of temporal visual response by the summation index.** *Journal of the Optical Society of America*, 1970(Mar), Vol. 60(3), 377-381.—Obtained psychophysically from 2 male Ss the summation index for double flashes as a function of interflash interval t for 5 different adapting levels. Clear inhibition was found at about $t=50$ and at $t=70$ msec. for the 2 brightest adapting fields. Inhibition was also observed at very large intervals, including $t=300$ msec. To explain the curve, a temporal response with a positive component and a negative component (type-B response) was hypothesized for the human visual system, whose physiological correlates are discussed. For relatively low adapting levels, including dark adaptation, the summation-index curves showed a somewhat different shape. They did not show strong inhibition, but rather

weak and long-continued inhibition, ranging from about $t=100-300$ msec. Therefore, the temporal response for those conditions may be composed of a small but long-continued negative component (type-A response). The transfer from type-A response to type-B response is rather abrupt; it occurs at the adapting level where the increment threshold begins to increase from the value that corresponds to the absolute threshold. (15 ref.)—*Journal abstract.*

Perception

9207. Kanizsa, Gaetano & Vicario, Giovanni. (U. Trieste, Italy) **La perception de la réaction intentionnelle.** [The perception of intended reaction.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17-19), 1010-1039.—Utilizing formats similar to those of Heider and Simmel, Michotte and Minguzzi a series of experiments were designed to determine the effects of time factors, spatial separation, velocity, distance traveled, line of travel, polarity, and various other conditions upon the perception of reactive movement, i.e., the perception of geometric figures animated on film as running away, releasing, advancing, withdrawing, pursuing, etc. The conditions influencing the perception of reactive movement are classified into 4 categories: spatial conditions, temporal factors, kinetic conditions, and figure and field conditions. Perception of reactive movement was greatest with a stimulus separation of 20-35 mm. and did not occur when separation reached 80 mm. Perception was most clear-cut when the distance traveled by 1 stimulus was 3 or 6 cm. and that of the other 3 cm. A broad range of time intervals (-400 to +960 msec.) between the arrival and departure of 2 mobile stimuli were successful in evoking reactive movement. A relationship approximating 1:9 between the velocities of 2 mobile stimuli appeared optimum although a broad range of velocity ratios was effective. Perceptions of "release," "advance and retreat," and "moving apart" were not only highly dependent upon line of travel and polarity of the stimuli but upon the attentiveness of the S. Relative size, form, color, expansion, or contraction of the mobile stimuli did not appear in these instances to influence the perception of reactive movement.—R. E. Smith.

9208. Lie, Ivar. (U. Oslo, Inst. of Psychology, Norway) **Achromatic colour constancy: A re-examination of its empirical basis and functional significance.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 146-152.—Examines the empirical basis of the assumed color-albedo relation, as well as the validity and psychophysical basis of illumination perception in a review of the literature. The traditional conception of achromatic color constancy, defined in terms of a psychophysical color-albedo relation, is found to be unfruitful from a functional and theoretical point of view. An alternative definition of color constancy in terms of the validity of perception of illumination is suggested. (30 ref.)—*Journal abstract.*

9209. Matthews, M. L. (U. Guelph, Ontario, Canada) **Spatial and temporal factors in masking by edges and disks.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 15-22.—Increment threshold of a small test probe was found to be elevated by backgrounds of a disk, bar, or luminance step. The spatial parameters that produce maximum masking were found to be essentially similar with the 3 types of background. The time course of masking was also found to be similar for the disk and

bar background. It is suggested that a fundamentally similar type of visual processing underlies each of the masking situations. (23 ref.)—*Journal abstract.*

9210. Pantle, Allan. (U. California, Los Angeles) **Adaptation to pattern spatial frequency: Effects on visual movement sensitivity in humans.** *Journal of the Optical Society of America*, 1970(Aug), Vol. 60(8), 1120-1124.—Measured human luminance thresholds using a square-wave test grating (spatial frequency = .38 cycles/deg) moving at different speeds (from 0°-22°/sec). A set of gratings of various spatial frequencies ranging from 0 (uniform field) through 23 cycles/deg provided different adapting patterns that were viewed prior to threshold determinations by 3 Os with normal vision. The pattern of threshold elevations produced by the set of adapting gratings was different for different test-grating speeds. Results indicate that visual mechanisms with different spatial-frequency-tuning characteristics mediate the detection of a low-frequency grating when it is moved at different speeds. Results also suggest that the higher-harmonic components of a low-frequency grating contribute to its detection when it is moved at slow speeds. (18 ref.)—*Journal abstract.*

9211. Rudolph, James R. (U. Southern California) **Selective subliminal perception relative to approach/avoidance tendencies.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1695.

9212. Sadler, Timothy G. & Mefferd, Roy B. (Veterans Administration Hosp., Psychiatric & Psychosomatic Research Lab., Houston, Tex.) **Fluctuations of perceptual organization and orientation: Stochastic (random) or steady state (satiation)?** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 739-749.—Obtained intrareversal times, using flat drawings, for 2 kinds of fluctuations: (a) perspective reversals in a figure eliciting apparent depth, and (b) reversals of lateral organization in a figure not eliciting apparent depth. Ss were 40 undergraduates and 21 firemen, respectively. The durations of the alternate percepts (P1 and P2) between reversals early in a viewing session were compared with recently published data of the same type. In the latter study, P1 was of longer duration than P2, both with a flat drawing and a rotating skeletal cube, which were explained in terms of satiation theory. In the present study no significant differences were found between P1 and P2 with 2 different groups of Os and with 2 figures. Explanations for these differences in results are advanced. The use of grouped percept-duration data to support steady state (e.g. satiation) theories of perceptual fluctuation phenomena is criticized. (39 ref.)—*Journal abstract.*

9213. Stone, George C. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Response latencies in visual search involving redundant or irrelevant information.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 9-14.—Considered 3 properties of models for comparison of multiattribute visual stimuli: parallel vs. serial processing, efficient vs. exhaustive comparisons, and biased vs. unbiased acceptance of attributes for processing. Ss performed 2 comparison tasks, matching-to-sample and identification of odd stimuli, with color and form attributes presented singly and in redundant and nonredundant pairings. Analyses of means and of total distributions of response latencies support the conclusion that parallel and efficient comparisons were the rule, along with a kind of partial selection of attribute to be processed. Ss differed

in their relative speed of processing form and color attributes, and these differences accounted for most, but not all, of the differences among them in processing multiattribute stimuli. Ss were 3 males and 3 females, 9-76 yr. old.—*Journal abstract.*

9214. Townsend, J. T. (Purdue U.) **Theoretical analysis of an alphabet confusion matrix.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 40-50.—Attempted to acquire a confusion matrix of the entire upper-case English alphabet with a simple nonserified font under tachistoscopic conditions. This was accomplished with 2 experimental conditions, 1 with blank poststimulus field and 1 with noisy poststimulus field, for 6 Ss in 650 trials each. Results were: (a) the finite-state model that assumed stimulus similarity (the overlap activation model) and the choice model predicted the confusion-matrix entries about equally well in terms of a sum-of-squared deviations criterion and better than the all-or-none activation model, which assumed only a perfect perception or random-guessing state following a stimulus presentation; (b) the parts of the confusion matrix that fit best varied with the particular model, and this finding was related to the models; (c) the best scaling result in terms of a goodness-of-fit measure was obtained with the blank poststimulus field condition, with a technique allowing different distances for tied similarity values, and with the Euclidean as opposed to the city-block metric; and (d) there was agreement among the models in terms of the way in which the models reflected sensory and response bias structure in the data, and in the way in which a single model measured these attributes across experimental conditions, as well as agreement among similarity and distance measures with physical similarity. (24 ref.)—*Journal abstract.*

Size & Distance & Depth Perception

9215. Gärling, Tommy. (U. Stockholm, Psychological Lab., Sweden) **Studies in visual perception of architectural spaces and rooms: IV. The relation of judged depth to judged size of space under different viewing conditions.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 133-145.—Hypothesized that perceived size of space depends on perceived depth. Judgments of depth and size of space were obtained in 4 experiments by the magnitude estimation method under (a) binocular viewing of actual spaces, (b) monocular viewing of color photographs, (c) monocular viewing of detailed drawings, and (d) monocular viewing of undetailed drawings. Os were 48 undergraduates. Judged depth and size were found to be power functions of the physical measures. The exponents decreased successively under conditions a-d. Results support the hypothesis.—*Journal abstract.*

Color Vision

9216. Burnham, R. W., Onley, J. W., & Witzel, R. F. (Eastman Kodak Co., Research Lab., Rochester, N.Y.) **Exploratory investigation of perceptual color scaling.** *Journal of the Optical Society of America*, 1970(Oct), Vol. 60(10), 1410-1420.—Used a viewing situation of moderate complexity. 2 groups of color samples were used, 1 with constant hue and 1 with varied hue. Ratio judgments of color difference were obtained by having 7 Os set the physical distance between pairs of color samples to represent the ratio of the size of visual differences relative to a standard difference created by

setting 2 other color samples a fixed distance apart. The scaled color judgments were subjected to the R. N. Shepard-J. B. Kruskal nonmetric technique of multi-dimensional analysis. A comparison was made between the nonmetric analysis and more-conventional metric analyses where comparable scaling results were obtained. The outcome of this comparison was that with a nonmetric technique, and with an intrinsically imprecise scaling technique, meaningful metric visual-scaling information became available. Good agreement was found with Munsell scales and with I. H. Godlove and D. L. MacAdam predictions of visual distance. (16 ref.)—*Journal abstract.*

9217. Lederberg, Victoria. (Rhode Island Coll.) **Color recognition during voluntary saccades.** *Journal of the Optical Society of America*, 1970(Jun), Vol. 60(6), 835-842.—Measured color recognition during voluntary eye movements by presenting various luminances of red, blue, or green test flashes superimposed on a white adaptation field to 3 undergraduates. A 3- μ sec test flash was delivered at various times before, during, or after a saccadic eye movement, recorded on film by use of ultraviolet light reflected from the cornea. Color recognition was found to be best when the flash was presented during steady fixation, somewhat poorer just before a saccade, and still poorer just after a saccade. The poorest recognition of red and green test flashes occurred when the flash arrived precisely in the middle of a saccade; with blue stimuli, the maximum inhibition occurred when the flash arrived 40-80 msec. later. Recognition of colors was not impaired during a control procedure in which the S moved his hand to trigger the stimulus flash during steady fixation. It is concluded that a specific visual suppression accompanies eye movements but not other motor activities that might equally well divert attention from the visual task.—*Journal abstract.*

9218. Miller, Sheldon. (U. Michigan, Biophysics Research Div.) **Psychophysical spectral-sensitivity measurements and color-matching data.** *Journal of the Optical Society of America*, 1970(Oct), Vol. 60(10), 1404-1406.—Reports the consistency between psychophysical spectral-sensitivity measurements and color-matching data. The 2-color-threshold technique allowed the derivation of 3 spectral-sensitivity curves, which were used to generate a color space. This space was consistent (except for $\lambda > 650$ nm.) with the color-matching data of 3 normal-color-vision Os. (22 ref.)—*Journal abstract.*

Form & Pattern Discrimination

9219. Smith, Nathaniel C. (Ohio State U.) **Peripheral recognition thresholds for digits.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 732.—Compared peripheral viewing and foveal blurring in 4 Ss. Results indicate that "S can map a visual form field, differences lie in the extent of the boundaries of the field in each meridian, the extent of the inferior meridian is greater than the superior, form does not play a significant role, there is no significant relationship between foveal and peripheral recognition thresholds under the conditions of this study, and there is no significant relationship between the recognition thresholds and the free-recall value of the digits."—S. Knapp.

Eye Movement

9220. Graham, Kenneth R. (Stanford U.) **Eye movements during waking imagery and hypnotic hallucinations.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3887-3888.

9221. McFarland, William H. & Weber, Bruce A. (Southern Illinois U.) **An investigation of ocular response to various forms of sound field auditory stimulation.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 236-239.—3 different methods of sound field auditory stimulation were presented to 12 normal-hearing young adults (a stationary white noise, a white noise that alternated from side to side, and a rotating white noise). Only the rotating sound stimulus condition created changes in eye movements significantly different from those observed in controls. The highly variable form of the response, the high rate of spontaneous responses and the amount of time necessary to judge the records make this technique appear clinically unfeasible.—*Journal summary.*

Brightness & Contrast Discrimination

9222. Forbes, T. W., Pain, R. F., Bloomquist, D. W., & Vanosdall, F. E. (Michigan State U., Highway Traffic Safety Center) **Low contrast and standard visual acuity under mesopic and photopic illumination.** *Journal of Safety Research*, 1969(Mar), Vol. 1(1), 5-12.—Presents a study to obtain normative data using the Allen Night Visibility Performance Tester and the Titmus Visual Acuity Tester under low illumination (mesopic) and ordinary room illumination (photopic) testing conditions. Scores were obtained for 202 male and 194 female 15-60 yr. old Ss. Results indicate the standard decrease in visual acuity with increased age in all 4 tests. The Allen test (50-60% contrast) showed no greater loss in average scores than did the Titmus test (90% contrast) under mesopic conditions. The night visibility performance test scores correlated highly with each other (.84) and correlated about .50 with each of the normal acuity Titmus scores. Analysis of the poorest 20% of scores on each test showed that 46-78% were the same Ss. The question is raised whether 50% rather than the specified 10-20% contrast may not be more nearly what is met in night driving. In this case, results indicate a visual disadvantage in night driving by some Ss in all age groups. It is concluded that this type of test information is probably of more value for advising drivers with difficulties than for licensing procedures.—*Journal abstract.*

9223. Matteson, Halsey H. (Tulane U.) **Effects of surround luminance on perceptual latency.** *Journal of the Optical Society of America*, 1970(Aug), Vol. 60(8), 1125-1131.—Adjusted test-field luminance, in Exp. 1, to match the brightness of a reference stimulus. Over a wide range of surround luminance, latency was measured by comparing test-stimulus and surround-field onsets, using the perceived-order method, in which the temporal interval between the 2 stimuli is varied to obtain subjective simultaneity. Os were 2 males with normal vision. A series of control observations was made using test stimuli covering the same range of test-stimulus luminance used in the main series of observations, but with no surround field. Latencies of test stimuli were considerably shorter with high-luminance surround

fields than with no surround. Apparently, high-luminance surrounds resulted in reduction of latency of response to the test stimulus (facilitation of response to the test stimulus). In Exp. II, a constant test-stimulus luminance was used. Reduction of latency of response to the test stimulus increased with increasing surround luminance when surround luminance exceeded test-stimulus luminance. Supplementary observations indicate that the reduction of test-stimulus latency was not an artifact of dark adaptation. (34 ref.)—*Journal abstract*.

9224. Nachmias, Jacob & Kocher, Elizabeth C. (U. Pennsylvania) **Visual detection and discrimination of luminance increments.** *Journal of the Optical Society of America*, 1970(Mar), Vol. 60(3), 382-389.—Employed a rating-scale psychophysical method to obtain from 12 Os receiver operating characteristics for detection and discrimination of luminance increments. These curves were used to estimate the parameters of a normal probability-density function which was assumed to describe the relevant internal effects of the test flash. The over-all results strongly indicate that the mean of this distribution is a positively accelerated function of luminance of the test flash, and suggest that the standard deviation is a nonmonotonic function of luminance. It is argued that quantum and criterion fluctuations cannot account for these findings, whereas channel uncertainty may be at the root of some of them. (26 ref.)—*Journal abstract*.

9225. Weisstein, Naomi; Jurkens, Thomas, & Onderlin, Therese. (Loyola U., Chicago, Ill.) **Effect of forced-choice vs magnitude-estimation measures on the waveform of metacontrast functions.** *Journal of the Optical Society of America*, 1970(Jul), Vol. 60(7), 978-980.—Obtained metacontrast functions for 3 Ss using forced-choice and magnitude-estimation response measures, and for a 4th S using forced choice alone. The functions from these 2 measures were in every case U shaped and did not differ significantly from each other, even though the stimuli used for each measure differed slightly, and the forced-choice study was done 3 mo. after the magnitude-estimation study. Thus, U-shaped metacontrast functions are not artifacts of subjective response criteria. The relative merits of the subjective and objective response indicators as measures of metacontrast are discussed.—*Journal abstract*.

AUDITION

9226. Alexeenko, N. Y. (USSR Academy of Sciences, Inst. of Higher Nervous Activity & Neurophysiology, Moscow) **Directional hearing: Effect of unilateral change of the sound duration.** *Science*, 1970(Feb), Vol. 167(3920), 1009-1010.—In experiments with 12 human Ss monaural change of the duration of a binaural acoustic stimulus within the range of .5-1.5 msec. caused a considerable shift of the sound image. This could be counterbalanced by a unilateral change of the signal intensity. Further unilateral lengthening of the stimulus did not affect the sound localization, but revealed a masking aftereffect (4-10 msec.) of the binaural signal. Data define the temporal characteristics of binaural effect formation and the relative importance of duration and intensity parameters at different stages of binaural interaction.—*Journal abstract*.

9227. Hafter, Ervin V. & Carrier, Samuel C. (U. California, Berkeley) **Masking-level differences obtained with a pulsed tonal masker.** *Journal of the*

Acoustical Society of America, 1970(Apr), Vol. 47(4, Pt. 2), 1041-1047.—Obtained masking-level differences (MLDs) for the binaural condition NOSp with pulsed tonal signals masked by pulsed tones of the same frequency and duration. MLDs were measured in 2 male undergraduates and 1 of the co-authors, relative to the condition NOSO. Frequencies tested were 250, 500, and 1000 Hz.; the duration was 125 msec. Detection was measured with 4 values of the signal-to-masker phase, which for NOSp produced: (a) an interaural difference of time (Δt), (b) an interaural difference of intensity (ΔI), (c) Δt and ΔI both favoring the same ear (consonance), or (d) Δt and ΔI favoring opposite ears (dissonance). The magnitudes of the MLDs were largest for conditions of Δt alone, next largest for consonance, and least for dissonance and ΔI alone. The MLDs were positive in sign, in contrast to the negative MLDs that have previously been reported for similar stimuli. Data are shown to fit a lateralization model in which differential time-intensity trading occurs for consonance and dissonance. (18 ref.)—*Journal abstract*.

9228. Hatfield, Jimmy L. & Soderquist, David R. (U.S. Army Medical Research Lab., Ft. Knox, Ky.) **Practice effects and signal detection indices in an auditory vigilance task.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1458-1463.—Investigated the performance of 9 male volunteers over 10 90-min vigilance sessions. Trends in performance over and within sessions were examined in terms of 3 dependent measures: (a) correct detections, (b) errors of commission, and (c) theory of signal detectability (TSD) indices (d' and β). Results indicate that (a) TSD accounts for performance over sessions but is inadequate in accounting for within-sessions decrements unless basic tenets of the theory are altered; (b) performance decreases within sessions for the 1st 30 min. regardless of practice; and (c) within-sessions decrements may be accounted for by assuming either a decrease in the O's activation level, a distracted mode of observing, or both. (21 ref.)—*Journal abstract*.

9229. Miller, Harold. (U. Waterloo, Ontario, Canada) **The FROC curve: A representation of the observer's performance for the method of free response.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1473-1476.—Discusses the use of the receiver-operating characteristic (ROC) curve in representing the O's performance in a yes-no signal detection task. In a free-response task, a ROC curve cannot be plotted because the observation interval is not defined. If the responses can be partitioned into hits and false alarms, then O's performance can be represented by a FROC curve, which possesses many of the properties of a ROC curve. FROC curves were obtained from 1 undergraduate in a vigilance task to demonstrate its use.—*Journal abstract*.

9230. Schubert, Earl D. & West, Roger A. (Stanford U.) **Recognition of repeated patterns: A study of short-term auditory storage.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1493-1501.—Explored the parameters of waveform that enable listeners to recognize repetition of patterns within a signal using 4 types of waveform: random-amplitude constant-period, constant-amplitude random-period, random-amplitude random-period cophasic, and random-amplitude random-period antiphase. The number of repetitions/signal required to differentiate signals containing repetitions from random waveforms that did

not contain repetitions was the measure of comparison. It is concluded from 3 experiments with 4 Ss that (a) signals with 0-crossing information (random period) and signals of medium sensation level appear best for recognition of the repetition of patterns, (b) high-frequency information is more useful than low to the auditory system in identifying the repetitions within signals, and (c) no evidence of any difference in rate of learning to recognize patterns was found for the different types of waveform. (17 ref.)—*Journal abstract.*

Perception

9231. Durlach, N. I. & Braida, L. D. (Massachusetts Inst. of Technology, Research Lab. of Electronics) **Intensity perception: I. Preliminary theory of intensity resolution.** *Journal of the Acoustical Society of America*, 1969(Aug), Vol. 46(2, Pt. 2), 372-383.—Attempts to develop a quantitative theory of intensity resolution applicable to a wide variety of experiments on discrimination, identification, and scaling. The theory is composed of a Thurstonian decision model, which separates sensitivity from response bias, and an internal-noise model, which separates sensory limitations from memory limitations. It is assumed that the S has 2 memory operating modes, a sensory-trace mode and context-coding mode, and that the use of these 2 modes is determined by the characteristics of the experiment. In 1-interval paradigms, it is assumed that the context-coding mode is used, and the theory relates resolution to the total range of intensities in the stimulus set. In 2-interval paradigms, it is assumed that the 2 modes are combined, and the theory relates resolution to both the total intensity range and the duration between the 2 intervals. The theory provides, among other things, a new interpretation of the 7 ± 2 phenomenon. (22 ref.)—*Journal abstract.*

9232. Guiot, J. M. (Butler U.) **Temporary threshold shifts following pulsed monaural and alternate binaural exposure.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1449-1451.—Compared the temporary threshold shifts (TTS) produced by exposure to pulsed monaural and alternate binaural high-intensity stimuli (105-db sensation level, 1 kHz.) in 7 21-37 yr. old volunteers. All Ss showed greater TTS for monaural exposures than for binaural, except in 3 cases out of 21 (6 experimental conduction). However, monaural and binaural TTS were found to be significantly different (.01 level) in only 1 instance of the 3 paired conditions.—*Journal abstract.*

9233. Hafter, Ervin R., Bourbon, Walter T., Blocker, Anne S., & Tucker, Ann. (U. California, Berkeley) **A direct comparison between lateralization and detection under conditions of antiphase masking.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1452-1457.—Instructed 4 Ss (2 of the authors and 2 naive Ss) to indicate the lateral displacement of signals presented at 5 levels of signal-to-noise ratio. Signals were 500-Hz 100-msec bursts of tone heard in a wide-band noise mask. A likelihood ratio analysis of lateralization data allowed a direct comparison between detection based on lateralized differences and detection obtained in a standard 2-interval forced-choice detection experiment. It was found that the measure of detection based on lateralization is nearly the same as that actually obtained in the conventional detection experiment. (17 ref.)—*Journal abstract.*

9234. Hershkowitz, R. M. & Durlach, N. I. (Massachusetts Inst. of Technology, Research Lab. of Electronics) **Interaural time and amplitude jnds for a 500-Hz tone.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1464-1467.—Performed preliminary experiments on the discrimination of interaural time and amplitude for lateralization images both on and off the midline, using a common set of 4 experienced Ss, with normal audiograms, and a common experimental configuration. Results are compared with previous work on interaural discrimination and time-intensity trading and with the prediction of the equalization and cancellation model relating interaural time to interaural amplitude discrimination.—*Journal abstract.*

9235. Lawson, Robert F. (Wayne State U.) **Scientific approaches to problems of aural perceptivity in music.** *Michigan Academician*, 1970(Sum), Vol. 3(1), 7-18.—Deals with the problems and interrelated remedial approaches for individuals possessing low aural-response sensitivity, where aural perceptivity is defined as an ability encompassing the following areas: (a) recognition and discrimination of pitch, (b) tonal organization, (c) rhythm, (d) harmonic content, (e) timbre, (f) sight-sound recognition, and (g) vocal reproduction. 1st, the factors responsible for high- or low-aural perceptivity are analyzed. These factors, e.g., memory retention and amount of information similar to the stimulus previously stored in the memory, are then related to the above parameters. Finally, what is necessary to increase the aural perceptivity of individuals with difficulties in this area is indicated.—S. R. Diamond.

9236. Luterman, Barry F. & Karlovich, Raymond S. (U. Wisconsin) **Further observations concerned with auditory fatigue during vocal and nonvocal speech activities.** *Journal of the Acoustical Society of America*, 1969(Aug), Vol. 46(2, Pt. 2), 403-408.—Exposed 11 female Ss with normal hearing sensitivity to 90-db sensation levels (SLs) 2000 and 4000 Hz. fatigue stimuli for 3 min.; temporary threshold shifts (TTSs) were measured $\frac{1}{2}$ octave above the fatigue frequency. Over several experimental sessions separated by at least 24 hr., each S performed each of the following tasks during the exposure time for each fatigue frequency: reading a passage aloud (RA); reading a passage silently (RS); reading a passage silently while articulating the words without voicing or whispering (RSA); and reverie which involved no reading (REV). The RA task produced significantly greater TTS than the other task conditions when the fatigue frequency was 4000 Hz., implying that transmission of the fatigue stimulus was enhanced, perhaps owing to impedance changes resulting from contraction of the middle-ear muscles during speech production. The RA-task condition produced consistently, but not significantly, less TTS than the other task conditions when the fatigue stimulus was 200 Hz., which might indicate that transmission of the fatigue stimulus was being slightly attenuated during speech production. Data are discussed in terms of a hypothesis indicating that speech production alters the impedance of the auditory system, hence altering the transmission of sound. A TTS paradigm incorporating speech activities may be an indirect but useful method for assessing the sound transmission properties of the human auditory system. (15 ref.)—*Journal abstract.*

9237. Moray, Neville. (U. Sheffield, England) **Introductory experiments in auditory time sharing: De-**

tection of intensity and frequency increments. *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1071-1073.—Reports 2 preliminary experiments with 5 Ss in a program to investigate the psychophysics of auditory attention. Ss were required to detect changes in intensity and frequency in pure-tone bursts of 100-msec duration under 4 conditions of attention, including undivided and divided attention. In the divided attention conditions, there was a lowering of the proportion of targets detected, particularly true when targets occurred simultaneously on 2 channels with both requiring a response. It is concluded that "attentional time-sharing factors clearly alter the detectability even of pure tones, although not to so great an extent as when verbal signals are used. . . ."—*Journal abstract.*

9238. Mulligan, B. E. & Elrod, M. (U. Georgia) **Monaural detection and filtering.** *Journal of the Acoustical Society of America*, 1970(Jun), Vol. 47(6, Pt. 2), 1548-1556.—Examined parametrically monaural detection of sinusoidal signals in noise with an interest in extending earlier work on prediction by B. E. Mulligan and M. Elrod. The amplitude model is found to be compatible with empirical psychometric functions, human receiver operating characteristics, and the results of a narrow-band-noise experiment. Through an interpretation of the amplitude model in terms of filter bandwidth, an attempt is made to understand further the process of auditory filtering. Bandwidth is shown to vary as a function of both signal frequency and signal-to-noise (S/N) ratio. At very low S/N ratios, maximal tuning occurs in the region of 2200-2300 Hz. At higher S/N ratios, tuning improves as a function of frequency. To facilitate prediction, a table is provided. (39 ref.)—*Journal abstract.*

9239. Perrott, David R. & Nelson, Michael A. (California State Coll., Los Angeles) **Limits for the detection of binaural beats.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1477-1481.—Investigated the probability of detecting binaural beats as a function of the frequency of the standard signal used and of the dichotic frequency difference using 7 22-26 yr. old naive and experienced listeners. The probability of beat detections was maximal at 500 Hz., and decreased as frequency increased up to 1500 Hz. No reliable pattern of beat detections was observed above 1500 Hz. Binaural beats were obtained with both fused and nonfused dichotically presented signals. Findings indicate that the upper frequency limit for the perception of binaural beats depends upon the dichotic frequency differences employed, the psychophysical procedure used, and the criteria for a beat threshold.—*Journal abstract.*

9240. Pollack, Irwin. (U. Michigan, Mental Health Research Inst.) **Discrimination of restrictions in sequentially-encoded auditory displays: Block designs.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 57-60.—Sequential constraints, in the form represented by equal frequencies within blocks, were imposed upon finite-state statistical generators. The sequences were encoded in the form of interval-coded pulse trains and were transduced to sound by earphones. In discrimination tests, interval thresholds between the finite states provided a measure of the relative discriminability between different sequential constraints. These thresholds are shown to be quantitatively related to the difference in uncertainty in specification of the sequences. To a 1st approximation: equal interstate

interval thresholds are associated with equal differences in uncertainty.—*Journal abstract.*

9241. Richards, Alan M. (U.S. Naval Submarine Medical Research Lab., Groton, Conn.) **Perception of pitch in a white-noise mask.** *Journal of the Acoustical Society of America*, 1969(May), Vol. 45(5), 1180-1185.—Obtained 3 mel scales, derived from fractionation data, and representing 3 differential noise conditions using 12 normal hearing adults. The no-noise function differed in no essential manner from the generally accepted mel scale advanced by S. S. Stevens (see PA, Vol. 14:5382). However, upon the introduction of a wide-band masker, the shape of the mel function became more positively accelerated. In general, when holding the intensity of the masker constant, this acceleration was inversely related to the sensation level of the experimental tones above masked threshold, and was not frequency dependent. Although this relationship is not dependent upon frequency per se, the magnitude of pitch shift increases with frequency.—*Journal abstract.*

9242. Skinner, Paul H. & Antinoro, Frank. (U. Arizona) **Perstimulatory tracking in pitch perception at different sensation levels.** *Journal of the Acoustical Society of America*, 1969(Aug), Vol. 46(2, Pt. 2), 426-430.—Tracked the pitch of a continuous fatiguing tone over time to study the effects of frequency and sensation level of the fatiguing stimulus on pitch perception. Ss were 3 male and 4 female undergraduates highly experienced in making pitch judgments. Perstimulatory tracking in pitch perception was done at the following frequencies: 500, 1500, 2500, and 4500 Hz.; and at the following sensation levels (SLs): 20, 40, 60, 90, and 100 db. The perstimulatory or continuous fatiguing signals were presented initially in the experiment for a duration of 3-8 min., depending on the frequency and intensity of the fatiguing stimulus. The pitch of the continuous tone was tracked constantly over that period. Immediately after cessation of the continuous tone, poststimulatory tracking was done at preexposure SLs of from 10-30 db. with pulsed tones alternating between ears. Perstimulatory pitch shifts were never apparent at the lowest frequency at any SL. Perstimulatory pitch shifts occurred commonly in the midfrequencies and were more prevalent at the higher SLs. Perstimulatory pitch shifts were observed at all of the experimental sessions at 4500 Hz. regardless of SL. The direction of temporary pitch shift (TPS) was apparently related to SL of the fatiguing signal. The amount of TPS was significant and increased with increasing frequency. Poststimulatory tracking revealed a very rapid recovery of TPS. (17 ref.)—*Journal abstract.*

9243. Taylor, M. M. & Forbes, S. M. (Defence Research Establishment, Toronto, Ontario, Canada) **Monaural detection with contralateral cue (MDCC): I. Better than energy detector performance by human observers.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1519-1526.—Investigated detection performance as a function of the amount of relevant information provided by the cue in a monaural detection with contralateral cue task using the 2 authors as Os. When the cue and signal were independently generated but identically timed and filtered, performance was indistinguishable from the no-cue control condition, and was like that of an inefficient energy detector using a filter matched to the signal bandwidth. When the cue was an identical replica of the signal, performance was much better than that of

an ideal energy detector and, for bandwidths less than 1600 Hz., approached that of an equally inefficient likelihood-ratio detector for signal known exactly. Efficiency was 25-30% in both cases. When the cue was derived from the signal, but passed through a wide-band 90° phase shifter, it provided an intermediate amount of information, and detection performance was also at an intermediate level. Results show that when relevant information is available to the detection mechanism, it can be used; and that the usual finding of energy-detector-like monaural performance is due to lack of more precise information about the signal at the detector. (20 ref.)—*Journal abstract.*

9244. Viemeister, N. F. (Indiana U.) **Intensity discrimination: Performance in three paradigms.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 417-419.—Compared performance in the following auditory intensity-discrimination paradigms: (a) 2IFC, (b) single-interval rating with an intensity cue preceding each observation interval, and (c) single-interval rating with no cue. Receiver-operating characteristic curves obtained in the single-interval conditions could be approximated by assuming that the underlying distributions were both normal and had equal variance. No large difference was observed between performance in the cue and the no-cue conditions. The normalized separation of the means for 2IFC was approximately twice the corresponding estimate for the single-interval conditions, i.e., $d_2 = 1.91d_1$. This is consistent with the hypothesis that the O in intensity-discrimination tasks bases decisions on the difference between the observed input and that of a noisy stored reference. The familiar result that $d_2 = (2)^{1/2} d_1$ can be predicted for simple detection.—*Journal abstract.*

9245. Weerts, Theodore C. & Thurlow, Willard R. (U. Wisconsin) **The effects of eye position and expectation on sound localization.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 35-39.—Ss who are exposed to a sound coming from straight ahead, but who turn their eyes 20° to the side toward a visible speaker during the exposure period and expect to hear the sound coming from the visible source, show a shift in localization of the sound up to a maximum of about 9°. Ss who only turn their eyes 20° to the side during the exposure period show a smaller but significant shift in sound localization, while Ss who do not turn their eyes, but are led to expect that the sound will appear to come from a visible loudspeaker 20° to the side, show no significant shift. Comparison of test results before and after the exposure period, with eyes directed straight ahead and no visible speaker present, shows the presence of a localization aftereffect for those experimental groups that showed a significant localization shift during the exposure period. Sounds are localized a few degrees to the side of their physical location in the same direction as the shift in localization during the exposure period. Ss in 2 sets of experiments were 80 and 50 undergraduates, respectively. Further experiments show that part, but not all, of the shift in localization during the exposure period can be understood in terms of a shift in perceived head direction. The localization aftereffects are shown not to be due to change in physical or perceived eye or head position.—*Journal abstract.*

9246. Zwislocki, J. J. (Syracuse U., Lab. of Sensory Communication) **Temporal summation of loudness: An analysis.** *Journal of the Acoustical Society of America*, 1969(Aug), Vol. 46(2, Pt. 2), 431-441.—Develops a

quantitative psychophysiological theory for loudness level and loudness as a function of stimulus duration. It is based on the psychophysical and neurophysiological evidence that the apparent temporal summation of acoustic energy is a result of neural summation at a high level of the auditory system. The theory shows how this can be achieved in spite of a nonlinear relationship between sound intensity and neural excitation. The temporal decay of neural firing preceding the final stage of temporal summation seems to be responsible for overcoming the nonlinearity. (38 ref.)—*Journal abstract.*

Speech Discrimination

9247. Berger, Kenneth W. (Kent State U., Speech & Hearing Clinic) **A speech discrimination task using multiple-choice key words in sentences.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 247-262.—Describes a new speech discrimination test using sentences, the Kent State University Speech Discrimination Test. The test consists of 5 phonetically similar key words within each sentence, any 1 of which will complete the sentence. The tester, however, reads only 1 of the key words and the S is to cross out on the printed answer sheet the key word which he believes he heard. 8 equal forms of the test were developed. Within each form there are 13 sentences, which from a discrimination standpoint become progressively more difficult. Scoring is based on the difficulty of the item. It is recommended that the examiner read the sentences in a conversational manner and peak the key words as near 0 on the volume unit meter as possible. This manner of reading the test sentences is designed to produce better monitored live voice testing comparisons from clinic to clinic.—*Journal summary.*

9248. Dirks, Donald D. & Bower, Deborah. (U. California, Medical School, Los Angeles) **Effect of forward and backward masking on speech intelligibility.** *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1003-1008.—Obtained monaural-intelligibility functions for monosyllabic words from 7 undergraduates with normal hearing under the following experimental conditions: (a) speech interrupted by silence at the rates of 1, 10, and 100 interruptions/sec (ips); (b) speech alternating noise (80-db SPL) at rates of 1, 10, and 100 ips; and (c) speech in interrupted noise (80-db SPL) at rates of 1, 10, and 100 ips. Results indicate that the effect of forward and backward masking on intelligibility was substantial at 10 ips and even more pronounced at 100 ips. However, at 1 ips little masking effect was observed except at very adverse signal-to-noise (S/N) ratios. Speech heard within the noise burst contributed to intelligibility at favorable S/N ratios when the noise was 1 ips. At 100 ips, the speech signal within the noise burst made only a small contribution to the total intelligibility score, and at 10 ips the function was formed almost entirely by the speech heard during the noise-free intervals.—*Journal abstract.*

9249. Halwes, Terry G. (U. Minnesota) **Effects of dichotic fusion on the perception of speech.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1565.

9250. Thomas, I. B. (U. Massachusetts) **Perceived pitch of whispered vowels.** *Journal of the Acoustical Society of America*, 1969(Aug), Vol. 46(2, Pt. 2), 468-470.—Required 1 female and 2 male listeners to determine the pitch of the whispered vowels of a male

and a female speaker. Continuous tape loops of the vowels were played to the listeners who specified the perceived pitch by comparison with that of a pure-tone oscillator. Initially, the perceived pitch of each of the vowels corresponded very closely to F2 as measured from spectrograms. In subsequent tests in which the listeners were told to expect more than 1 pitch, 2 listeners identified additional pitches corresponding to F1 for certain vowels of both speakers. The accuracy and consistency of formant determination using this simple "listen-and-compare" method compare favorably with results obtainable from more complex analysis procedures.—*Journal abstract.*

9251. Tobias, Jerry V. (FAA, Civil Aeromedical Inst., Oklahoma City, Okla.) **Auditory processing for speech intelligibility improvement.** *FAA Office of Aviation Medicine Report*, 1970(Apr), No. 70-6, 7 p.—2 appropriately placed loudspeakers wired in opposite phase to each other but activated by the same signal source will improve speech intelligibility to an extent equivalent to a 5-db improvement in signal-to-noise ratio. (21 ref.)—*W. E. Collins.*

9252. Tsunoda, Tadanobu. (National Center of Speech & Hearing Disorders, Tokyo, Japan) **Contralateral shift of cerebral dominance for nonverbal sounds during speech perception.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 221-229.—Investigated the localization by normal-hearing adults of repetitive noise bursts in the vertical plane at 0° azimuth under monaural and binaural listening conditions, at 30- and 50-db sensation level. Noises were either unfiltered, 3.8 kcs low-pass, or 2.2-9 kcs band-rejected. Monaural listening was simulated by covering 1 ear with a muff giving a nominal 30-db attenuation. Accuracy of monaural localization was significantly inferior ($p < .01$). Attenuating the high-frequency components of the bursts always reduced performance ($p < .01$). It was speculated that a slight degree of asymmetry between ears might exist which could provide binaural spectral differences. When a listener is deprived of these cues in the monaural condition, the perceived spatial distinctiveness of the sound at a particular elevation is diminished, and localization judgments are less accurate.—*Journal summary.*

9253. Wingfield, Arthur & Klein, Jan F. (Brandeis U.) **Syntactic structure and acoustic pattern in speech perception.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 23-25.—The interaction of syntactic structure and acoustic pattern in perceptual segmentation of heard speech was investigated using sentences recorded with intonation patterns appropriate to their underlying structure and sentences where intonation was placed in direct conflict with the underlying structure. Speech samples were monitored through dichotic earphones with messages switched from 1 ear to the other either between or within major linguistic constituents. 30 undergraduates served as Ss. Analysis of errors in source localization and in sentence reproduction suggested a primary role of acoustic pattern in segmentation is to cue underlying syntactic structure. 2 subsidiary experiments provided evidence that observed effects were related to active perceptual processing of the speech signal.—*Journal abstract.*

Audiometry

9254. Ehmer, Richard H. & Ehmer, Barbara J. (U.

Bridgeport) **Frequency pattern of residual masking by pure tones measured on the Békésy audiometer.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1445-1448.—Obtained a Békésy audiogram for a 5-msec tone signal repeated 1/sec over the frequency range 100-10,000 Hz. Ss were 2 adults with audiometrically normal hearing. The audiogram was repeated with a 100-msec masking tone preceding the signal by 10 msec. The masking tones were presented at 20-100 db. sensation levels (SLs). Results show that 250 and 500 Hz. produce no masking at 20 db., but the greatest overall masking, without sharply defined maxima, occurs at higher SLs. Maskers of 1000, 2000, and 4000 Hz. produce masking at the 20-db level. At the low levels, there is a clear peak at the masking frequency; but as the masker level is raised, this peak begins to shift to increasingly higher frequencies, although it never reaches the 2nd harmonic.—*Journal abstract.*

9255. Fraser, Winifred D., Petty, Joseph W., & Elliott, Donald N. (Wayne State U., Auditory Research Lab.) **Adaptation: Central or peripheral?** *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1016-1021.—Measured adaptation using successive and simultaneous presentation of heterophonic stimuli to determine if adaptation is a central more than a peripheral phenomenon. Exp. 1, with 6 undergraduates, compared the method of delayed balance, method of simultaneous dichotic balances (SDB) involving tracking for 15-sec periods, and a modification of the SDB utilizing 1-sec tones. Only the homophonic SDB involving tracking produced noticeable adaptation. Exp. 11, with 3 undergraduates, studied several procedural variations of the heterophonic tracking SDB method. None of the variations produced the intensity decrement customarily associated with adaptation. It is concluded that, when binaural interactions (loudness and/or lateralization) are reduced or eliminated by test procedures, the adapted ear shows little if any shift. Decrements observed with the typical SDB procedure probably reflect slowly developing changes in binaural interactions—and, consequently, are central rather than peripheral changes. Judgments obtained with simultaneous stimulation, therefore, are not procedures that should be utilized for the study of peripheral adaptation effects.—*Journal abstract.*

9256. Harris, J. Donald. (U.S. Naval Submarine Medical Center, Groton, Conn.) **Efficient monaural procedure for the psychoacoustic calibration of earphones.** *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1048-1054.—Examined a new procedure for psychoacoustic calibration of earphones in which the air-conducted outputs of a standard and an unknown earphone were successively equated for loudness to a reference bone-conducted tone. 2 experiments were made with 20 graduate students. The problem to S was 1 of monaural loudness discrimination, with a relatively small variance, and involved only 4 sources of variance associated with coupling 2 earphones to the same ear, and 1 loudness discrimination judgment for each phone. The mean test-retest difference in the earphone transfer functions varied by 1.33-5.89 db. at different frequencies (midvalue = 3.36 db.). Only a few min. were required to complete S's observations at any frequency. Acceptable group means for transferring audiometric standards to an unknown earphone were obtained at any frequency by requiring as few as 9 Ss to make a single monaural loudness discrimination/ear-

phone by this technique. The mean test-retest difference in the earphone transfer functions by the traditional "ear-reversal" method varied by 4.16-7.54 db. at different frequencies (midvalue, 6.3 db.)—nearly twice that of the suggested procedure.—*Journal abstract.*

9257. Scharf, Bertram. (Northeastern U.) **Dichotic summation of loudness.** *Journal of the Acoustical Society of America*, 1969(May), Vol. 45(5), 1193-1205.—Measured overall and component loudness, cohesiveness (whether single or double) and location of the auditory image evoked by the dichotic complex in 5 undergraduates and the author. It was found that dichotic tone pairs were as loud as a binaural pair (same frequency to each ear), and both pairs were generally less than twice as loud as a component presented by itself. Overall loudness was invariant, even though at narrow frequency separations the components of a dichotic pair interfered with each other so that each component was softer when heard in the presence of the other than when heard by itself. At wide separations, where 2 distinct auditory images were reported, the loudness of a component was the same whether presented with or without the contralateral tone. It is concluded that the overall loudness of a pair of equally loud tones presented dichotically, a different frequency to each ear, is independent of the frequency separation between the 2 tones. (34 ref.)—*Journal abstract.*

9258. Young, I. M. (Jefferson Medical Coll., Philadelphia, Pa.) **Effects of pure-tone masking on low-pass- and high-pass-filtered noise.** *Journal of the Acoustical Society of America*, 1969(May), Vol. 45(5), 1206-1209.—Obtained threshold measurements for low-pass- and high-pass-filtered noises in the presence of pure tones in 3 trained listeners with normal hearing. High-pass-filtered noise with cutoff frequencies at 2400 Hz. and above yielded masking peaks near the cutoff frequencies. When noise was filtered with cutoff frequencies at 1200 Hz. and below, pure tones of 800 and 1000 Hz. had the greatest masking effect. For low-pass-filtered noise, as the bandwidth increased, masking peaks moved from low frequency to high. The masking effect was indistinguishable from that of white noise when filtered noise was cutoff at frequencies of 2400 Hz. and above. Results suggest that there is a definite mechanical resonant frequency effect on noise when the width of filtered noise exceeds a critical value. Masking effects are discussed in relation to mechanical resonant frequency and the interaction of difference and summation tones.—*Journal abstract.*

CHEMICAL SENSES

9259. Moskowitz, Howard R. (U. S. Army Natick Lab., Mass.) **Intensity scales for pure tastes and for taste mixtures.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 51-56.—Measured in 4 series of studies, taste intensities of sour, bitter, sweet, and salt by number matching (magnitude estimation), and by noise matching. The 2 procedures agreed in their estimates of the power-function exponent for each taste. Representative exponents obtained from the studies are 1-1.1 for sour and bitter and 1.3-1.5 for sweet and salt. In a 2nd set of studies each taste was judged against 3 or more background levels of a 2nd taste. Results suggest that the power-function exponent is unaffected when a 2nd taste is present in the solution. Whether the intercept changes

in taste mixtures was not determined in these experiments. (21 ref.)—*Journal abstract.*

SOMESTHESIA

9260. Blitz, Bernard & Dinnerstein, Albert J. (New York Medical Coll., N.Y.) **Role of attentional focus in pain perception: Manipulation of response to noxious stimulation by instructions.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 42-45.—Studied the effects of instructions on the pain induced by cold as a noxious stimulus in 18 male and 18 female paid volunteers. Pain threshold and quit point were obtained for 3 groups of Ss. Group I dissociated their experience of cold and pain, and focus on cold. Group II focused on cold and interpreted it as pleasant. Group III served as controls. Significant elevation in pain threshold (but not quit point) was found in both instruction groups. Males showed greater elevation in threshold than females in response to the instructions. Sex differences and response bias are discussed.—*Journal summary.*

9261. Dmitriev, A. S. **Labilintnye i ekstralabilintnye mekhanizmy nekotorykh somaticheskikh i vegetativnykh reaktsii na uskorenie.** [Labyrinthine and extralabyrinthine mechanisms of some somatic and autonomic reactions to acceleration.] Minsk, USSR: Nauka i Tekhnika, 1969. 252 p.—Presents original experimental data on the UCR and CR mechanisms of the labyrinthine and extralabyrinthine proprio-, intero-, and exteroceptive reactions of the striped and smooth musculature, which occur in man and animals when undergoing rotation and vertical displacement of the body. The features, characterizing the effects of acceleration on the activity of the higher divisions of the CNS, are described along with the involvement of labyrinthine and extralabyrinthine afferentation in these effects. Data are presented on (a) the efferent pathways and chain mechanism involved in the small intestinal vestibulomotor reaction to acceleration, and (b) the role of the humoral link (the catecholamines). The vestibular and visceral cutaneomuscular feather reflexes to rotation in birds are described.—I. D. London.

9262. MacKinnon, Mary M. (U. Arizona) **Adaptation level and perceptual anchors in multiple-stimulus successive discrimination.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3892.

9263. Vierck, Charles J. & Jones, Marshall B. (U. Florida, Center for Neurobiological Sciences) **Influences of low and high frequency oscillation upon spatio-tactile resolution.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1431-1435.—Tested the assumption that the major prerequisites for accurate spatio-tactile localization are small receptive fields with minimal overlap. Psychophysical thresholds for 2-point and point localization were obtained from 2 male and 3 female Ss with the usual steady stimuli and with stimuli oscillating at 10 or 300 Hz. Receptive fields have been shown in other studies to be smaller for oscillating than for steady stimuli. It was found that both 10- and 300-Hz oscillations decreased 2-point thresholds but increased point-localization thresholds with reference to the control series using steady stimulation. A theoretical account of these results is given.—*Journal abstract.*

9264. Walker, June. (U. Texas) **Pain parameters of athletes and non-athletes.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1607.

ENVIRONMENTAL EFFECTS

SLEEP & FATIGUE & DREAMS

9265. **Buscaino, G. A.** (U. Bari, Clinic for Mental & Nervous Illness, Italy) **Significato biologico del sonno con "MOR" ("REM-sleep")**: Importanza dei movimenti oculari rapidi per il determinismo del sogno pro-dipalmente visivo. [The biological significance of REM-sleep: The importance of rapid eye movements in the determinism of principally visual sleep.] *Acta Neurologica*, 1970(May), Vol. 25(3), 285-301.—Studied 2 questions of REM sleep: (a) Why do the eyes move with such rapidity? and (b) What significance does this type of sleep have? Of the 2 sleep phases which alternate in cycle, the REM phase is similar to the wakeful state and very rich mentation is present. REMs are involuntary. Ocular movements condition the onset and shape of the visual-motor components of dreaming. The appearance of the visual dream with moving images should be dependent upon the impulses reaching the cortical visual and paraviscual areas arising in the retina and in the proprioceptive receptors of ocular muscles activated by the REMs. REMs in newborns, and in congenital blind Ss support this interpretation. (English summary) (53 ref.)—*A. M. Farfaglia*.

9266. **Fisher, Jerome & Breger, Louis.** (Eds.) (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **The meaning of dreams: Some insights from the laboratory.** *California Mental Health Research Symposium*, 1969, No. 3, 119 p.—Presents the aims, theoretical basis, and preliminary results of ongoing research by 4 psychologists into individual differences in dreaming and the function of dreams. Study I outlines research into the transformation of presleep experience in dreams and individual methods in 28 male Ss at both extremes of the field dependency scale, with special attention to change in the position of self and dream recall and repression. Study II after describing a series of experiments, hypothesizes that dreams have their own function apart from REM sleep. Results indicate that "dreaming is motivated by a need for experiences having a certain organizational quality of which completeness is an important aspect." Study III deals with the content and function of the dreams of 8 6-10 yr. old children, suggesting that dreams serve as mastery exercises in which creative solutions to present concerns may emerge. Study IV, with 15 Ss, describes experiments with an hallucinogenic agent (ditran) and REM deprivation. High drug responders were found to be more field dependent and most likely to be disrupted by REM deprivation. It is suggested that "the amount of REM time yet to occur at any point in the sleep cycle is dependent on the amount of dreaming or related fantasy which has preceded it."—*S. Knapp*.

9267. **Koulack, David.** (U. Manitoba, Winnipeg, Canada) **Effects of thirst on the sleep cycle.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 143-145.—Examined the effects of thirst on EEG-recorded sleep. 10 male graduates and undergraduates slept for 2 nonconsecutive nights in the laboratory. 1 night was preceded by 22 hr. of water deprivation and 1 by normal food and drink intake. Thirst reduced the total amount of time spent in REM periods, reduced the length of the 1st REM period, and increased the number of body movements throughout the night. Findings

suggest that some stimuli remain too potent to be handled adequately by the dream and that the potential conscious anxiety they create may be warded off by a reduction in REM dream time.—*Journal abstract*.

HYPNOSIS & SUGGESTIBILITY

9268. **Arnold, Jay B.** (Temple U.) **The relationship between hypnosis and the learning of two selected motor skills.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1053.

9269. **Casler, Lawrence.** (State University Coll. New York, Geneseo) **Death as a psychosomatic condition: Prolegomena to a longitudinal study.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 953-954.—Assessed the effects of hypnotic suggestions for longevity. 50 volunteer undergraduates received suggestions that they would live to be at least 120 yr. of age without loss of physical or mental capacities. A control group, randomly selected from the same pool of volunteers, received no such suggestions. An account of the results will appear in about 100 yr.—*Journal abstract*.

9270. **Lenox, John R.** (Stanford U.) **A failure of hypnotic state to effect numerical task performance.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2186.

9271. **Meeker, William B. & Barber, Theodore X.** (Medfield Foundation, Harding, Mass.) **Toward an explanation of stage hypnosis.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 61-70.—Explains stage hypnosis by 8 principles which do not utilize the concept of hypnotic state or trance. To produce an amazing performance, stage hypnotists rely primarily on (a) the high base rate of waking suggestibility, (b) a highly selective procedure for screening Ss, (c) the heightened suggestibility that is produced when the situation is defined to Ss as hypnosis, and (d) important social-psychological variables that are present in the stage situation. In addition, some stage hypnotists at times use (e) the "stage whispers" technique (in which Ss are told privately, in whispers, to help make the demonstration a success); (f) the "failure to challenge" technique, where the audience is misled; (g) trained Ss to carry out the difficult stunts, and (h) 1 or more tricks, e.g., pressure on the carotid baroreceptors which produces stupor. (25 ref.)—*Journal abstract*.

9272. **Mordvinov, E. F. & Genkin, A. A.** **O vozmoshnostyakh prognozirovaniya vnushaemosti cheloveka po dannym spontannoï élektro-entselalogrammy.** [On the possibilities of predicting suggestibility in man through use of the data of the spontaneous electroencephalogram.] *Zhurnal Vyssheï Nervnoï Deyatel'nosti*, 1969(Nov), Vol. 19(6), 1027-1032.—39 18-30 yr. old Ss participated in a study of the possibility of a quantitative determination of suggestibility, when in a state of quiet wakefulness, through a consideration of 2 statistical parameters of the spontaneous EEG: average level of asymmetry of oscillations, and average period. Significant differences in average level of asymmetry existed between the readily suggestible (20 Ss) and the resistant (19 Ss); no differences in average period were disclosed. Differences in suggestibility effects existed in the state of hypnosis and wakefulness. Average level of asymmetry may serve as 1 of the "objective quantitative measures of suggestibility in man in the wakeful state." The test for suggestibility was the classical one wherein the inability to unlock

interlocked fingers of the 2 hands is suggested.—I. D. London.

9273. Podolnick, Edward E. (New York U.) **Oral anxiety and hypnotic susceptibility.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3873.

MOTIVATION & EMOTION

9274. Darley, Susan A. (New York U.) **Cognitive and personality factors in emotional expression under conditions of false heart-rate feedback.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1370-1371.

9275. Droppleman, Leo F. & McNair, Douglas M. (U. Tennessee) **An experimental analog of public speaking.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 91-96.—Tested an experimental model of a commonly reported stress-producing situation, public speaking, on 12 Ss, 23-42 yr. old, on 2 occasions. Finger sweat prints and arousal ratings taken during the simulated public speaking and during the anticipation of it were significantly different from each other and from those during pre- and poststress periods. There was consistency in slope and level of response both within and between Ss on the physiological and the psychological measures. Results indicate that the stress-producing properties of public speaking can be reproduced to some degree in somewhat artificial but controlled conditions of the laboratory. The model has acceptable stimulus properties and its use in experimental situations seems justifiable.—*Journal abstract*.

9276. Goldstein, Arnold D. (Colorado State U.) **A test of the Spence-Taylor drive theory through the use of hypnotically induced anxiety.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3887.

9277. Heinrich, P. (Technical U., Inst. of Psychology, Berlin, W. Germany) **"Free looking time": Eine Methode zur Präferenzbestimmung.** ["Free looking time": A method for the determination of preference.] *Psychologie und Praxis*, 1970(Apr), Vol. 14(2), 79-93.—Presents a summary report of research and theory with "free looking time," also known under "exploratory behavior," "duration of fixation," and other terminology. An attempt is made at a differential theory of free looking time without being systematic. Basic determiners are discussed, e.g., affective-personal meaning of the stimulus, difficulty of stimulus, or secondary motivation (sets). Free looking time seems to differ from other preference behavior, e.g., rating or choice, but specific characterization is not as yet possible.—R. F. Wagner.

9278. Kurie, George D. & Mordkoff, Arnold M. (New York U.) **Effects of brief sensory deprivation and somatic concentration on two measures of field dependence.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 683-687.—Conducted an experiment (a) to substantiate the indirect evidence that brief sensory deprivation (SD) has different effects on 2 measures of field dependence, the Rod-and-Frame Test (RFT) and the Embedded Figures Test (EFT); and (b) to investigate whether it is the increased awareness of somatic activity which is involved in the more veridical RFT performance while having no effect on EFT. The RFT and EFT were administered to 3 groups of 10 Ss each before and after 1 group had been submitted to 1 hr. of SD, a 2nd group to 1 hr. of somatic concentration, and a 3rd group to a control period. Results support the above hypothesis: the greatest changes in RFT performance occurred

in the somatic concentration condition which were significantly greater than those obtained in the SD condition, which in turn were significantly greater than those occurring in the control condition. No significant effects were obtained with respect to the EFT.—*Journal abstract*.

9279. Monge, Rolf H. & Blank, Harriett D. (Syracuse U.) **Is there an incentive magnitude effect on adult performance?** *Psychological Reports*, 1970(Dec), Vol. 27(3), 983-992.—4 experiments comparing the absolute and relative interpretations of the incentive magnitude effect failed to show the effect with normal, community-dwelling, adult female Ss (N = 40, 20, 46, and 40, respectively). Money was the incentive commodity used in both card-sorting and digit-symbol tasks. It was paid both to the individual S and to S's women's club, on both a per-task and per-unit-of-accomplishment basis. The limitations of both the incentive magnitude effect and of the methodology of these experiments are discussed.—*Journal abstract*.

9280. Morf, Martin E. & Howitt, Rhoderick. (U. Windsor, Ontario, Canada) **Rod-and-Frame Test performance as a function of momentary arousal.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 703-708.—Hypothesized that within a narrow range of intermediate arousal or disruption levels the greater the physiologically measured disruption, the greater the decrement in Rod-and-Frame Test (RFT) performance. 44 undergraduates were randomly assigned to 2 groups. Solvable anagrams were administered to the control group, unsolvable anagrams to the experimental group. Pre- and postanagram RFT and palmar sweat scores were obtained. Analysis of variance indicated no significant effect of the experimental treatment on either measure. A correlation of .44 ($p < .025$) between RFT and palmar sweat difference scores, obtained by subtracting post- from preanagram scores, was obtained for the experimental group. (20 ref.)—*Journal abstract*.

9281. Nerhardt, Göran. (U. Stockholm, Psychological Lab., Sweden) **Humor and inclination to laugh: Emotional reactions to stimuli of different divergence from a range of expectancy.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 185-195.—Conducted an experiment to test the general hypothesis, derived from the incongruity theory of humor, that the experience of humor or the inclination to laugh is a function of the divergence of a perceived state of affairs from the expected state. A pilot study determined the range of expectancy for men and women with a series of weights. In the main experiment, undergraduates closed their eyes and judged the weight handed to them as light or heavy, and whether the weight was very, quite, or not very heavy or light. Whether the S laughed or not was observed for each weight. Results indicate that women laughed more than men, laughter increased from the 1st to the last weights in the trials, and the proportion of laughter decreased for the middle weights and increased for the very light or very heavy weights. Results support the hypothesis.—*Journal abstract*.

9282. Raynor, Joel O. & Rubin, Ira S. (State U. New York, Buffalo) **Effects of achievement motivation and future orientation on level of performance.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 36-41.—Based on n Achievement and test anxiety scores, 588 undergraduates were divided into 4 motive groups. Performance on a 3-step arithmetic task presented as the 1st of a series of 4 tests was measured under

2 sets of instructions. In the contingent condition, success on a test was necessary to work on each successive test, while failure meant loss of the opportunity to continue. In the noncontingent condition, working on any test was not dependent upon prior success or failure. Ss were led to believe that their chances of success were .5 in each test. Ss high in Achievement and low in test anxiety (high-low) performed significantly better in the contingent than in the noncontingent condition, the opposite motive group (low-high) performed significantly worse in the contingent than in the noncontingent condition, and Ss classified low-low performed about the same in the 2 conditions. Results are as predicted by elaborated theory of achievement motivation. Findings for the high-high group were not. The superiority of the high-low over the low-high group was highly significant in the contingent condition but was not significant in the noncontingent condition. (19 ref.)—*Journal abstract*.

9283. Sales, Stephen M. (Carnegie-Mellon U.) **Some effects of role overload and role underload.** *Organizational Behavior & Human Performance*, 1970(Nov), Vol. 5(6), 592-608.—Simulated role overload and underload in working conditions in a laboratory setting, and examined the effects which they exerted on the behavior, attitudes, and physiology of 73 male undergraduates. Differences obtained among Ss who differed in need achievement and test anxiety in their reactions to these conditions were traced. Data suggest that role overload was stressful to overloaded Ss and that the effects of this stress were most severely experienced by Ss with specific personality constellations. Data also indicate that the effects of variations in objective work load may be substantially different from the effects of variations in subjective (experienced) work load. (23 ref.)—*Journal abstract*.

ATTENTION & EXPECTANCY & SET

9284. Bäumler, Günther. (Inst. of Ergonomy, Munich, W. Germany) **Verzögerte Sprachrückmeldung und Interferenzneigung: Überprüfung einer Hypothese.** [Delayed feedback of spoken words and tendency to interference: Test of a hypothesis.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(3), 357-370.—Compared 2 interference effects with spoken language: the Lee effect (delayed auditory feedback), and the Stroop effect (interference in color naming due to differences between the names of the colors and the color of the ink in which they are printed). The expectation that the Stroop conflict situation would increase the Lee effect could not be confirmed statistically although the results pointed to the expected direction. "Male Ss showed more dependency on interference than female Ss." (English & French summaries) (16 ref.)—*W. J. Koppitz*.

9285. Dooley, Roger P. & Harkins, Larry E. (Xerox Corp., Research Lab., Rochester, N.Y.) **Functional and attention-getting effects of color on graphic communications.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 851-854.—Compared the learning and attention effects of color when the color was used either as an information code or decoration on bar charts. 3 groups of 15 Ss were given the opportunity to study either a functionally colored, decoratively colored, or black and white chart which was placed in a room with each S while he was participating in another experiment. Ss

were not instructed to study the chart, and a test on the content was administered at the conclusion of the other experiment. Results show that the color, regardless of how it was used, increased the attention given the chart ($p < .05$). While the learning scores were somewhat higher for the colored charts, the effect was not significant. It is concluded that, for these charts, at least, color's principal effect was motivational, and a black and white code was equally effective as an information transmitter.—*Journal abstract*.

9286. Drucker, Ernest M. (City Coll., City U. New York) **The role of temporal uncertainty in the deployment of attention to external signals or stimulus-independent thought and fantasy.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3863-3864.

9287. Gulian, Edith. (Academy of the Romanian Socialist Republic, Inst. of Psychology, Bucharest) **Corrélat psychophysiologiques de la décision dans une épreuve de vigilance auditive.** [Psychophysiological correlates in decisions during an auditory vigilance test.] *Revue Roumaine des Sciences Sociales-Serie de Psychologie*, 1970, Vol. 14(1), 17-29.—Despite their relative simplicity, analysis of vigilance tests reveal complex mental processes dealing with attention, perception, and decision. The 2 most common errors in a vigilance task is nondetection of signals, or an individual's overconfidence in his inability to commit an error. In a research conducted on 15 individuals, it was noted that the percentage of omissions and incorrect detections varies little with various noise levels, but that the former exceeds the latter by almost double. It is affirmed that utilization of various indicators confirms the existence of differences in the certainty of detection of critical signals and that noise has a direct bearing on cerebral activity, thus contributing to the elevation or the reduction of assuredness in decisions pertaining to a vigilance task. (16 ref.)—*I. Sirotin*.

9288. Merrens, Matthew. (Western Illinois U.) **Generality and stability of extreme response style.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 802.—Measured extreme response style in 2 minimal-content situations in which the operation of response set or content factors would be negligible. 90 female adults were Ss. Both visual and auditory measures of extreme response style were stable over time, and also showed substantial generality. In contrast to L. G. Rorer's statement regarding the unimportance of response style, the present results suggest that stylistic factors are not test specific, are not unstable, and are important in evaluating behavior.—*Author abstract*.

9289. Spence, Donald P. & Grief, Barry. (New York U., Research Center for Mental Health) **An experimental study of listening between the lines.** *Journal of Nervous & Mental Disease*, 1970(Sep), Vol. 151(3), 179-186.—Monitored S's attention while he listened to an ambiguous passage by measuring the randomness of serial production of letters while Ss listened. 2 groups of 12 male undergraduates each were used—primed for ambiguous sexual content and unprimed. In both groups, randomness of the letters, as measured by H, an index of marginal frequencies, was significantly lower during distraction (passage being played) than during no distraction (no passage). In addition, more frequent letters (E, S, T, etc.) were used during distraction than during no distraction. Findings suggest that attention was being attracted by the distracting material. Of

crucial interest is the finding that recall of latent sexual content was higher in the primed group and positively correlated with randomness, i.e., recall of sexual content in the primed group was facilitated by listening away from rather than toward the passage.—*Journal abstract.*

9290. Weitzenhoffer, Andre M. & Brockmeier, James D. (Veterans Administration Hosp., Psychiatry Service, Oklahoma City, Okla.) **Attention and eye movements: Some results and general considerations.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 130-142.—Tested the hypothesis of M. Amadeo and C. Shagass that a nonspecific positive relationship exists between REM rate and degree of attentive activity. Horizontal conjugate eye movements were recorded from 11 female Ss, all but 1 of whom were nursing students, during conditions of relative inattention and attention with eyes open and eyes closed. Eye closure alone was observed to have a strong reducing effect upon the REM rate. Attention was found to have no significant effect upon REM rate when the eyes were closed. In contrast, when the eyes were open, there was a marked reduction in REM rate associated with attentive activity. Results are discussed as complementing and supplementing the earlier findings. Various problems relevant to research on attention and eye movements are considered.—*Journal abstract.*

MOTOR PERFORMANCE

9291. Higgins, Joseph R. (Stanford U.) **Performance phenomena involved in arresting errors in movement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1602-1603.

9292. Perret, Etienne & Estermann, Erwin. (Kanton Hosp., Zurich, Switzerland) **Visuell-motorischer und taktil-motorischer cross-modal Transfer.** [Visual-motor and Tactile-motor cross-modal transfer.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(3), 414-422.—A pursuit rotor task was used to study cross-modal transfer from visual-motor (VM) to tactile-motor (TM) performance and vice versa with 40 Ss. Significant positive transfer was found for male Ss in the VM and TM sequence; this was not true for female Ss. The reverse transfer from TM to VM performance did not yield any significant difference for either sex. (English & French summaries)—*W. J. Koppitz.*

9293. Stelmach, G. E. (U. California, Santa Barbara) **Learning and response consistency with augmented feedback.** *Ergonomics*, 1970(Jul), Vol. 13(4), 421-425.—Examined intraindividual variability in 2 groups of 50 male right-handed undergraduates while learning a discrete arm response. 1 group received no knowledge of results throughout the experiment; the other received knowledge of results immediately after each response during the 1st 30 trials. Knowledge of results significantly increased the amount of learning, but had no effect on the intraindividual variance. (French & German summaries)—*Journal abstract.*

REACTION TIME

LEARNING

9294. Gerst, Marvin S. (Stanford U.) **Symbolic coding processes in observational learning.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3886-3887.

9295. Kinney, Betty L. (Syracuse U.) **Stimulus**

generalization as a function of drive level and perceptual maturity. *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3889-3890.

9296. Lair, Charles & Smith, Richard K. (Auburn U.) **Utilization of verbal and non-verbal feedback among college Ss.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 807-810.—40 college Ss learned a discrimination task under conditions of verbal and nonverbal feedback. Prior information on meaning of overt and covert feedback cues was given to 1/2 of the Ss. Generally, Ss who had prior information on the nature of feedback were superior to those who did not. However, college Ss did appear to make significantly better use of verbal than nonverbal feedback regardless of the instructional condition.—*Journal abstract.*

9297. Thomson, William J. (Stanford U.) **Variables affecting human discrimination processes.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3898.

Conditioning

9298. John, Kenneth B. (George Washington U.) **The effects of respiration and unconditioned stimulus intensity in human cardiac conditioning.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3869.

9299. Presbie, Robert J. (State University Coll. New York, New Paltz) **Effects of instructions on human free-operant avoidance conditioning with white noise.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 895-898.—24 high school females in a free-operant avoidance procedure had a 100-db white noise of either .5-, 3-, or 6-sec duration as a stimulus to be avoided. The noise-noise interval was 7.5 sec., and the response-noise interval was 22.5 sec. Ss were given either minimal or more detailed instructions concerning the key-pressing response to be made. Ss getting the more detailed instructions avoided more of the programed noises. 1 effect of receiving only minimal instructions was that such Ss made a number of "odd" non-key-pressing responses, e.g., attempting to or actually breaking the apparatus.—*Journal abstract.*

Verbal Learning

9300. Abra, John C. (U. Calgary, Alberta, Canada) **List differentiation and the point of interpolation in free-recall learning.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 665-671.—Taught Ss 2 lists of unrelated items by free-recall learning. For list differentiation (LD), both lists were presented in a mixed order and S identified the list membership of each item. In Exp. I the interval between List-1 learning and the LD test was 48 hr.; List 2 was learned either 0, 24, or 48 hr. after List 1. The 3rd condition showed superior LD to the other 2, which did not differ. There were 23 high school Ss in each condition. In Exp. II, LD followed List 2 immediately, and List 2 was learned either 0 or 48 hr. after List 1. With 4 or 6 trials of List-2 learning the 48-hr condition showed superior LD, the 0 condition with 2 trials. There were 18 undergraduates in each of the 6 conditions. It is concluded that point of interpolated learning affects the difference in relative strength between competing lists, on which LD largely depends.—*Journal abstract.*

9301. Albinski, Ethel E. (Pennsylvania State U.) **Part, whole and added parts learning of same-stem words and the effect of stem learning on acquisition and**

retention of vocabulary. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1609.

9302. Bregman, Albert S. & Wiener, Judith R. (McGill U., Montreal, Quebec, Canada) **Effects of test trials in paired-associate and free-recall learning.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 689-698.—Gave 40 undergraduates either paired-associate (PA) or free-recall (FR) learning of CVC syllables. In each group, there were 2 conditions: (a) 1 test trial after each presentation, and (b) 3 test trials after each presentation. Analyses were performed of (a) total recall; (b) trial-to-trial acquisition, retention, and forgetting; and (c) trial-to-trial order stability (in FR). Results show that FR benefits more from test trials than does PA, is less stable from trial to trial, conforms better to the "total time hypothesis," and benefits more from short-term memory of the presentation trials.—*Journal abstract*.

9303. Cramer, Phebe. (U. California, Inst. of Human Learning, Berkeley) **Associative strength as a determinant of mediated priming.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 658-664.—Investigated the influence of number of priming words, as compared with the associative strength of the primers, in producing the priming effect. In Exp. I, 48 undergraduates were randomly assigned in blocks of 6 to receive 1, 2, or 3 medium associative strength priming words prior to the cue stimulus; in Exp. II, 3 groups of 16 Ss received 1 strong or weak primer, 3 groups received 1 medium plus 1 strong or weak primer, and 1 group received medium primers in the middle position with the 1st and 3rd primers being $\frac{1}{2}$ strong and $\frac{1}{2}$ weak; in Exp. III, 43 Ss received 1 of 3 conditions: 1 or 2 primers or a medium primer in the middle position. Results indicate that priming is a function both of the absolute and relative associative strength of the priming words, and that number of primers per se is not significant.—*Journal abstract*.

9304. Heiney, Walter F. (U. Georgia) **The use of values as reinforcers in verbal operant conditioning paradigms.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3888.

9305. Lerner, Richard M. (Eastern Michigan U.) **Semantic generalization of classically conditioned responses: A reinterpretative review.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 759-765.—Reports that E-expectancy effects upon Ss' responses do not appear to enter into all areas of psychological investigation. However, in 1 area of verbal learning, that of semantic generalization (SG), the presence of this variable and S set to conform to the demand characteristics of the experimental situation appear. It is hypothesized that an interaction between these 2 variables accounts for the SG phenomenon. Methodological and theoretical inadequacies of the research are discussed and the literature is reviewed in terms of this hypothesis. Based upon a reconceptualization of the E-expectancy \times S-set interaction, some heuristic implications of the present formulation for other areas of psychological investigation are discussed. (18 ref.)—*Journal abstract*.

9306. Steil, Peter & Hynum, Leslie. (Wisconsin State U., Whitewater) **The von Restorff isolation effect employing one and three isolates.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 963-966.—60 college students were required to learn a serial list of 13 3-letter nouns either with the middle item (E_1) or the 3 middle items (E_2) isolated, or without any isolates (C), to a

learning criterion of 2 perfect trials. Employing the perceptual enhancement of isolation, it was found that there was a significant facilitation of the learning of the isolated item in E_1 . This facilitation did not occur when 3 items were isolated, nor was the learning of the list as a whole facilitated in either E_1 or E_2 .—*Journal abstract*.

9307. Wiener, Yoash. (Case Western Reserve U.) **Rate of presentation as a factor in isolation.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 735-738.—Tested an hypothesis derived from the "differentiation" theory of E. Saltz that the relative effect of isolation would be greater in a list with a little degree of differentiation (fast rate of presentation) than in a more differentiated one. 80 undergraduates learned a serial list of 10 CVCs under 4 experimental conditions. 2 rates of presentation (fast and slow) and 2 isolation conditions (isolation and no-isolation of the 6th item) were combined in a 2×2 factorial design. A significant interaction of isolation and rate of presentation was found. The hypothesis was supported. 2 additional hypotheses based on this theory were tested and are discussed.—*Journal abstract*.

9308. Zeaman, David; Campione, Joseph, & Allen, Max. (U. Connecticut) **Opposing effects of redundancy in retention of a verbal discrimination.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 607-613.—Found in a verbal learning and memory experiment designed as an analog of standard 2-choice visual discrimination procedures that the addition of redundant word stimuli facilitated performance by 48 male and female undergraduates only if the words were highly associated ("chunked"). The addition of nonassociated redundant words ("unchunked") had a decremental influence. These effects were inferred to be more on retention than learning. (21 ref.)—*Journal abstract*.

Verbal Paired Associate Learning

9309. Butler, Brian E. & Merikle, Philip M. (U. Waterloo, Ontario, Canada) **Uncertainty and meaningfulness in paired-associate learning.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 634-641.—Examined the relationships among the number of encodings for a CVC trigram, meaningfulness (M), and the rate of learning in a paired-associate (PA) task. In Exp. I, 100 male undergraduates gave 1 association each to 100 CVCs. 4 scores representing encoding variability were derived. In Exp. II, learning scores were found for each CVC as a stimulus term and as a response term in a PA task. A factor analysis indicated that encoding variability is more important than M for the stimuli, while the reverse is true for the responses.—*Journal abstract*.

9310. Butter, M. Johnna & Palermo, David S. (Pennsylvania State U.) **Effects of imagery on paired-associate recall as a function of retention interval, list length, and trials.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 716-719.—Gave 2 alternate learning and recall trials to 96 undergraduates on 16 pair lists constructed to consist of concrete-abstract (CA), AC, CC, and AA pairs. Exp. II was conducted similarly with 96 undergraduates but either 2 or 4 trials were given on 32 pair lists. In both experiments recall of responses was measured immediately and 48 hr. later. Results in both cases indicate significant effects of stimulus concreteness, response concreteness, and retention interval; in Exp. II the number of learning trials was also a significant variable. In both experiments total

recall under all conditions was in the order CC>CA>AC>AA. These findings provide additional support and greater generality for the imagery hypothesis advanced by A. Paivio.—*Journal abstract.*

9311. Ley, Ronald & Locascio, David. (State U. New York, Albany) **Effects of associative reaction time and meaningfulness of stimulus terms in forward and backward paired-associate learning.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 867-873.—48 Ss learned a list of paired associates at either a 2- or 7-sec presentation rate (PR), in which the stimulus terms were assessed on the bases of associative RT and meaningfulness (M). In forward anticipation learning, the effect of RT of stimulus terms was not significant but M was, with the greatest effect at the 2-sec PR. In a backward recall test, the short-latency RT stimulus terms were recalled more frequently than the long-latency RT terms and high-M terms were recalled more frequently than low-M terms. Results were interpreted in terms of a 2-stage analysis in which the effects of M were related to stimulus recognition and the effects of RT to stimulus recall.—*Journal abstract.*

9312. Mills, John A. & Winocur, Gordon. (U. Saskatchewan, Saskatoon, Canada) **Inter-item associative strength and proactive inhibition in paired-associate learning.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 933-934.—Presents a 2×2 factorial experimental design with 2 levels of prior list (1 or none), 2 of response term interitem associative strength (high or low), and a 15-min retention interval. The expectation was that high interitem associative strength would reduce proactive inhibition. 48 Ss were used. The hypothesis failed; the proportion of function words/list had no effect on recall.—*Journal abstract.*

9313. Murray, Harry G. (U. Western Ontario, London, Canada) **Incidental paired-associate learning as a function of interstimulus interval.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 642-646.—Exp. I, presented pairs of CVC trigrams to 100 adults as distracting stimuli in the context of a probability learning task. The interstimulus interval (ISI), was 1, 2, 4, or 7 sec. for different groups of 20 Ss. Amount of incidental learning of the CVC pairs, as measured by facilitation of subsequent intentional learning of the same pairs, was a decreasing function of the ISI. Exp. II replicated this finding in a within-S design using 31 undergraduates. Data are contrary to the results of previous studies investigating paired-associate (PA) learning under intentional practice conditions. It appears that PA learning obeys the law of contiguity only under practice conditions which minimize covert rehearsal and mediation activities in the S.—*Journal abstract.*

9314. Peltonen, Jean B. (West Virginia U.) **Anxiety control as a function of instructional modifications in paired-associate learning.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1084.

9315. Schiffenbauer, Martin H. (New York U.) **The directionality of associative learning.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3895.

9316. Traxler, Anthony J. (Pennsylvania State U.) **Age, anticipation interval, and condition of transfer in verbal learning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1635-1636.

Reinforcement

9317. Angle, Hugh V. (Texas Christian U.) **The**

relationship of reinforcement and the prior IRT to the sequential response structure associated with probability space. *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3883.

9318. Murdock, Everett E. (U. Utah) **Detection of interval schedules.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2193.

MEMORY

9319. Adler, Marilynne J. (Yale U.) **Individual differences in the organization of free recall.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3882.

9320. Cohen, Ronald L. (U. Toronto, Ontario, Canada) **Recency effects in long-term recall and recognition.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 672-678.—In Exp. I, (N = 40 undergraduates) testing initially with ordered recall instead of free recall did not affect the recall level of terminal list-items in a 2nd recall test. In Exp. II (N = 48 undergraduates), a recognition test was given after the 2nd recall test. Items from terminal list-positions were recognized at least as well as most other list-items. It is concluded that the low recall level of terminal list-items in the 2nd recall test reflects the low retrievability of these items rather than weak registration of these items in memory.—*Journal abstract.*

9321. Goranson, R. E. & Theodor, L. H. (York U., Toronto, Ontario, Canada) **Optimal percent correct measures in recognition memory.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 848.—Considers the difficulty in the communication and comparison of the results of different experiments due to the use of different measures and procedures in recognition memory studies. The optimal percent correct (OPC) is an easily understandable measure which can be obtained from a variety of recognition procedures. Equations are presented which can be used to find OPC scores for 2 frequently used recognition procedures: yes-no, and confidence ratings.—*Author abstract.*

9322. Keesey, James C. (U. Oregon) **Memory for logical structure and verbal units in prose material and increased rates of presentation.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3889.

9323. Light, Leah L. (Stanford U.) **Effects of pretraining and cueing on recall and recognition.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3891-3892.

9324. McIntyre, John S. (U. Illinois) **Extraexperimental interference and forgetting.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3893.

9325. Murdock, Bennet; Penney, Catherine, & Aamiry, Arwa. (U. Toronto, Ontario, Canada) **Interactive presentation in multi-trial free recall.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 679-683.—Investigated interactive presentation in multi-trial free recall. 54 undergraduates were given 6 trials on a 30-word list of common words under 1 of 3 experimental conditions. Group C was the control group with standard (randomized) presentation order. In Group B, all words recalled on Trial n were presented at the beginning of list presentation on Trial n + 1. In group E, all words recalled on Trial n were presented at the end of list presentation on Trial n + 1. The groups differed in the slopes of the acquisition curves, serial position effects, and conditional recalls. Interactive presentation seems to be a feasible technique, and should

be useful in testing theories of learning and memory.
—*Journal abstract.*

9326. Oléron, G., Segui, J., & Lieury, A. (Sorbonne, Lab. of Experimental & Comparative Psychology, Paris, France) **Activités mnémoniques et nature linguistique des associations.** [Mnemonic activities and the linguistic nature of associations.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17-19), 1045-1059.—3 experiments were designed to evaluate the effects of linguistic structure upon the learning of word pairs, linguistic structure and a 10-sec interpolated activity upon short-term recall, and providing a reference word or title for a list of words of different linguistic classification to be learned. The hypotheses that words constituting a minimal syntactic sequence and those representing paradigmatic pairs would be best recalled were supported. The total number of words recalled in all linguistic classes was significantly fewer with an interpolated task (successive subtractions of 3 from an arbitrary number) than with no delay ($p < .0005$). Paradigmatic pairs were recalled a little less often than the other semantic classes but not significantly so. Items in Exp. III were composed of a list title or reference word (e.g., lion), 3 words of different linguistic relationship (e.g., tiger, African, ferocious), and 3 neutral words (e.g., concerto, residue, synovia). Order and frequency of presentation of the items were controlled and counterbalanced. The hypothesis that the linguistically related words could be recalled better than neutral words under both no delay and interpolated task conditions was supported ($p < .0005$). Studies of the effect of verbal relationship upon recall must take into account not only the strength of the association between the words themselves but the syntactic-semantic nature of their relationship as well. (26 ref.)—*R. E. Smith.*

9327. Parker, Janat F. (U. California, Berkeley) **The role of input and output interference on delayed recall.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1568.

9328. Postman, Leo; Burns, Sheila, & Hasher, Lynn. (U. California, Berkeley) **Studies of learning to learn: X. Nonspecific transfer effects in free-recall learning.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 707-715.—The experiment comprised a training and a test phase. 3 methods were used in the training phase: random order of presentation and free recall (RF); constant order of presentation and free recall (CF); and constant order of presentation and serial recall (CS). The method in the test phase was always RF. Consistency of output order was manipulated by instructions in both phases. There were 10 groups of 18 undergraduates. Acquisition of the training lists was faster for CF and CS than for RF but practice gains were comparable for the 3 methods. Method of prior practice per se did not influence test-list performance; however, there was an interaction of conditions of training and instructional treatments.—*Journal abstract.*

9329. Rosner, Sue R. (U. Connecticut) **The effects of presentation and recall trials on organization in multilateral free recall.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3895.

9330. Rundus, Dewey; Loftus, Geoffrey R., & Atkinson, Richard C. (Stanford U.) **Immediate free recall and three-week delayed recognition.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 684-688.—Showed 25 female undergraduates 10 lists of words, each list followed by a free-recall test. Overt rehearsal of the word lists was required during study and

was tape-recorded. 3 wk. later Ss returned for a recognition test on these words. Initial recall and 3-wk delayed recognition were increasing functions of amount of rehearsal accorded the item. The probability of delayed recognition decreased as a function of the initial serial study position, and appeared to increase as a function of its output position on initial recall. Further analysis of this latter result suggested that delayed recognition 1st rises and then falls as a function of output position in initial recall.—*Journal abstract.*

9331. Schnorr, J. A. & Atkinson, R. C. (Stanford U.) **Study position and item differences in the short- and long-term retention of paired associates learned by imagery.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 614-622.—Instructed 12 male and 12 female undergraduates to study a list of 96 concrete noun paired associates and imagine each pair in an interactive scene. Recall tests were administered immediately following study, and 1 wk. later. Recall on the initial test improved as the position of the noun-pair in the study list increased, but recall a wk. later was inversely related to study position. Analyses of item differences suggested that if an image is not immediately remembered during test, information derivable from the stimulus cue can serve to facilitate recall.—*Journal abstract.*

9332. Shapiro, Norman P. (New York U.) **The effects of perceptual isolation on recall for field-dependent and field-independent subjects.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2198.

9333. Slak, Stefan. (U. Toledo) **Memory span for quinary and decimal digits.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 750.—Tested 20 undergraduates with quinary digits (0-4) and 20 with decimal digits (0-9) in a classical memory-span test. Mean memory span for decimal digits was significantly higher than for quinary digits. It is concluded that the "superiority of decimal over quinary code... stems from the greater dissimilarity of various portions of decimal sequences and greater information content of decimal digits."—*S. Knapp.*

Short Term & Immediate Memory

9334. Bowen, John H. (State U. New York, Albany) **Effects on category clustering of category-name cues and frequencies of occurrence and familiarity scale values of nouns.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 859-864.—Measured the short-term organized recall (category clustering) of 756 undergraduates with the repetition ratio for 40-word stimulus lists. Each list, which was presented once to each S, contained 10 nouns from each of the animal, articles of dress, occupation, and persons' names categories. 3 independent variables were combined in a $3 \times 2 \times 2$ arrangement: 3 levels of the frequencies of occurrence of the words, $.22 < 1$, 1-4 and 5-100+ words/million; 2 levels of familiarity scale values of the words, low or high familiarity; and 2 levels of administration of retrieval cues in the form of category name instructions, instructions, or no instructions. The frequency of occurrence and familiarity variables produced separable effects on the category clustering of the nouns; the repetition ratio was an increasing function of each variable. The greatest effects of frequency variations were found at the highest frequency level. Retrieval cues did not influence category clustering. Comparison with previous work suggests that the inclusion of categorical

intrusions in the repetition ratio inflates that ratio when words have low familiarity and are of low and intermediate frequencies of occurrence. (15 ref.)—*Journal abstract*.

9335. Cavazzuti, Valeria & Canestrari, Renzo. (U. Bologna, Medical School, Italy) **Interferenza mnestica indotta da stimoli "marginali" in situazione di memoria a breve termine.** [Memory interferences induced by "marginal" stimuli in short term memory situations.] *Archivio di Psicologia, Neurologia e Psichiatria*, 1970(May), Vol. 31(3), 251-261.—Marginally interpolated materials interfere with learning but similarity does not seem to play so critical a role in short-term memory as in long-term memory in producing retroactive inhibition. Evidence for this hypothesis seems to support a dichotomic theory of memory.—L. L'Abate.

9336. Clark, W. Crawford & Greenberg, David B. (New York State Psychiatric Inst., New York) **Effect of stress, knowledge of results, and proactive inhibition on verbal recognition memory (d') and response criterion (L_z).** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 42-47.—Analyzed recognition memory for CVC trigrams within the context of signal detection theory with 32 undergraduates. Without feedback, instruction-induced stress caused Ss to perform well initially, but with a subsequent decline in performance. The nonstressed group, in contrast, showed poor recognition memory on the 1st trial, but improved later. The Stress \times Trials interaction revealed a positive relationship between recognition memory (d') and response criterion (L_z): under stress d' and L_z decreased over trials, while without stress both increased. Ss who received both stress-inducing instructions and knowledge of results were far more anxious according to the Zuckerman Affect Adjective Check List. This group also set the lowest response criterion and demonstrated the poorest memory by the final trial. Knowledge of results interfered with recognition memory and caused Ss to lower (optimize) their response criterion over trials. (19 ref.)—*Journal abstract*.

9337. Cohen, Shelby R. (New York U.) **Organizing strategies and performance on short-term memory tasks.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2172.

9338. Lee, David M. (U. California, Los Angeles) **Does color enhance short term memory?** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3890-3891.

9339. Zoh, Myeong-Han. (Seoul National U., Korea) **Influence of relative distance upon immediate free recall.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 687-690.—Examines accessibility of an item to recall by varying an associative hierarchy factor of relative distance (RD) which was defined as distance of communality of primary associate to secondary 1, 2 lists of remote distance (R) vs. near distance (N) words were randomized and verbally presented. 2 groups of Ss (N=64 and 43) were used. Ss' immediate free recall showed that amount of correct recall and extraneous intrusion was significantly more frequent in the N than in the R list. As the stimulus words were controlled for possible associative indices except RD, associative function recall was discussed.

THINKING

9340. Chlewiński, Zdzisław. **Charakterystyka głównych współczesnych podejść do badań w**

zakresie psychologii myślenia. [Characteristics of the main contemporary approaches to the problems of research into the psychology of thinking.] *Roczniki Filozoficzne: Annales de Philosophie*, 1969, Vol. 17(4), 53-78.—According to the author, describes Western investigations into the problems as objective, naturalistic, social, and psychophysiological. Learning and cognitive theories are considered as being basic and developmental, structural, and simulation by computers as additional. Ways to find bases for common terminology and perspectives for research are suggested. (53 ref.)—*English summary*.

9341. Foss, Donald J. (U. Texas) **Some effects of ambiguity upon sentence comprehension.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 699-706.—Presented auditorily 3 groups of 20 undergraduates with 24 ambiguous and 24 unambiguous sentences. 1 group was asked to push a button whenever a particular phoneme occurred. RT for this response was significantly longer in ambiguous sentences. A 2nd group had to classify each sentence as ambiguous or not after it was presented. Lexical ambiguities were discovered somewhat faster than underlying structure ambiguities. A 3rd group performed both of these tasks. In this group, RT to monitor for the phoneme was longer for ambiguous than for unambiguous sentences only when S himself classified the sentence as ambiguous. Ss in the 3rd group were significantly slower on both tasks.—*Journal abstract*.

9342. Hardyck, Curtis D. & Petrinovich, Lewis F. (U. California, Inst. of Human Learning, Berkeley) **Subvocal speech and comprehension level as a function of the difficulty level of reading material.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 647-652.—Took EMGs from the larynx, chin-lip, and forearm flexor of 3 groups of 6 undergraduates each during the reading of materials judged to be conceptually easy and difficult. A normal group had EMGs recorded during reading. A feedback group was required to keep laryngeal muscle activity at nonreading relaxation levels during reading through use of an audio signal activated by any increase in muscle action in the larynx. A control group was required to maintain similar relaxation of the forearm flexor by the same feedback apparatus. All Ss took examinations on the material read. The laryngeal feedback group did significantly less well on comprehension of the difficult material than the other groups. The mediating effects of speech at a subvocal level in information processing are discussed and a theoretical model developed.—*Journal abstract*.

9343. Leaf, William A. (Yale U.) **Subjective processes in the acceptance of verbal generalizations.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1373.

9344. Means, John R. & Harper, Jay W. (U. Montana) **Spontaneous change and voluntary time in a think tank.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 878.—Hypothesized that Ss "scoring high on spontaneous change would voluntarily keep themselves reinforced for cognitive activity when given the opportunity to think about anything they liked in a large empty room (think tank) for as long as they wished." 20 undergraduates were asked to arrange 4 lines of unequal length on 10 separate circles of filter paper. The arrangements were scored by taking the displacement of angles and distances summed across drawings. Ss were then given the opportunity to use the think tank for as long as they wished. A moderate correlation ($p < .01$)

between time in the think tank and spontaneous change was found which suggests "the importance of cognitive styles with respect to independently pursued activity in a rather unstructured situation."—*S. Knapp.*

9345. Oléron, Pierre. *Sur les stratégies dans l'identification des mots.* [Strategies in the identification of words.] *Journal de Psychologie Normale et Pathologique*, 1970(Jul), No. 3, 313-323.—Studied the role of letters, which are either stems of words or parts of their beginnings or endings, in the identification of words. 24 students associated 12 artificial words with 12 French words, after which 2 tests were given: (a) one in which the "parts" letters were replaced with others, and (b) one in which these letters were unchanged, but either the initial or final letters were modified. Confusions were much more numerous in the 2nd test which indicated that the Ss depended largely upon the "parts" letters for word identification. In addition, the beginnings of the words were more often used than the endings.—*L. A. Ostlund.*

Problem Solving

9346. Babcock, James G. (Utah State U.) *An experimental study to determine the effects that creative problem-solving situations have upon creative thinking ability and visual thinking ability of selected students enrolled in college descriptive geometry classes.* *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3659-3660.

9347. Pennington, Barbara A. (U. California, Los Angeles) *Behavioral and conceptual strategies as decision models for solving problems.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1630-1631.

9348. Simon, Laurence R. (New York U.) *Incidental stimulation and problem solving.* *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3877.

Concepts

9349. Fishkin, Steven M. & Pishkin, Vladimir. (Veterans Administration Hosp., Oklahoma City, Okla.) *Tactual and visual concept identification. Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 715-723.—Compared information processing efficiencies for the visual and tactual modalities in 128 male and female undergraduates. With the same set of stimulus objects used for the 2 modalities no difference between visual and tactual concept identification (CI) was obtained. Significant interactions were found between S's sex, relevant dimensions, and similarity of stimulus levels. Independent measures of the salience and discriminability of the stimulus dimensions were obtained in an attempt to relate these factors to CI performance. It is concluded that information presented in the tactual modality can be used in classifying stimulus objects into 2 categories with about the same facility as visual information from the same objects and along the same stimulus dimensions.—*Journal abstract.*

9350. Haupt, Edward J. (New York U.) *Dominance and partial reinforcement as determinants of hypotheses in a concept identification task.* *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1372.

9351. Krebs, Marjorie J. & Lovelace, Eugene A. (U. Virginia) *Disjunctive concept identification: Stimulus complexity and positive versus negative instances.* *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 653-657.—Used 80 undergraduates in a

disjunctive concept task, 20 in each of 4 conditions which differed in stimulus complexity (high vs. low) and type of instances the S received (positive vs. negative). Each S received 20 concept problems followed by 5 additional problems on which they received the opposite type of instances. Contrary to expected results, the negative instance groups were initially superior. An interaction of type of instances with complexity was found on later trials.—*Journal abstract.*

9352. Williams, Reed G. (Indiana U.) *Concept attainment within a hierarchically organized conceptual system: The effects of system-mediated conceptual shifts.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1638.

DECISION & CHOICE BEHAVIOR

9353. Lee, Wayne. (1516 Sonoma Ave., Albany, Calif.) *Preference strength, expected value difference and expected regret ratio.* *Psychological Bulletin*, 1971(Mar), Vol. 75(3), 186-191.—Reports that in previous research, strength of preference for 1 gamble of a pair has been related to expected value difference (D) or to an index based on regret (R). In previous studies, however, D and R values have been strongly confounded, and the relations reported could have been due to D, to R, or to both. The mathematical relationships between D and R are discussed, and constructing sets of gamble pairs orthogonal in D and R is presented.—*Journal abstract.*

9354. Rosenberg, Seymour & Markham, Bonnie. (Rutgers State U.) *Choice behavior in a referentially ambiguous task.* *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 99-106.—Studied the way a listener selects a speaker's referent object, when 2 or more objects in the environment appear to fit the speaker's description, as a particular instance of choice behavior. Results of previous studies suggest that the listener's choice process in such referentially ambiguous situations is a combination of probabilistic and deterministic processes. Speaker descriptions in these studies were limited to single-word cues. The generality of previous findings when listener choices are based on descriptions that are not restricted in length or type was tested. A series of 18 sets of 3 snowflakes each and 36 of their 54 (3×18) possible subsets of 2 snowflakes was presented to 115 listener Ss. A paragraph description previously given by other speaker Ss accompanied each set and was used by listener Ss to identify the referent. Results are similar to those found in previous work. The possibility is discussed that certain individual differences and/or unavoidable memory effects make the process appear more deterministic than in actuality.—*Journal abstract.*

9355. Williams, Fred E. (Purdue U.) *Some foundational aspects of classification-type decision problems.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1447.

PHYSIOLOGICAL PSYCHOLOGY

9356. Comfort, A. (University Coll., London, England) *Biological theories of aging.* *Human Development*, 1970, Vol. 13(2), 127-139.—Aging in mammals appears to be an information loss, probably at the cellular or molecular level. The current models for this process and the prospects for its controllability are reviewed. Stochastic, developmental, clonal, and im-

munological models of aging, which are not mutually exclusive, all offer possibilities for rate-modification in man, with reasonable prospects of clinical application during the next decade.—*Journal abstract.*

9357. DiCara, Leo V. (Rockefeller U.) **Learning in the autonomic nervous system.** *Scientific American*, 1970(Jan), Vol. 222(1), 30-39.—Reports studies showing that visceral (involuntary) responses in animals can be learned in the same manner as skeletal (voluntary) responses. Through instrumental training, it has been possible to produce changes in heart rate, blood pressure, intestinal contractions, control of blood vessel diameter, and the rate of formation of urine. Ss were rats whose skeletal muscles were paralyzed by curare, in whom reward for visceral learning was either electrical stimulation of the brain or avoidance of mild electrical shock. Other studies have shown "significant instrumental learning of heart-rate and blood-pressure control by human beings" and indicate that powerful techniques developed in animal experiments are being applied to the treatment of cardiovascular disorders in humans.—*P. McMillan.*

9358. Frankshtein, S. I. & Sergeeva, L. N. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Mekhanizmy depressii tormoznogo refleksa Gering-Breiera.** [Mechanisms involved in depression of the Hering-Breuer inhibitory reflex.] *Fiziologicheskii Zhurnal SSSR*, 1970(May), Vol. 56(5), 764-766.—11 cats were used to study the conditions leading to depression of the Hering-Breuer inhibitory respiratory reflex, involved in respiratory self-regulation and normally present in all animals, but not in man. Reflex apnea was elicited by stimulation of an electrode, chronically implanted in the central part of the vagus nerve. Reflex apnea constantly arose during sleep and was somewhat greater during the synchronized phase of sleep than during the desynchronized (paradoxal) phase. When S was awake, reflex apnea in response to electrical stimulation of the vagus nerve did not arise, as a result evidently of a postsynaptic inhibitory mechanism. It is thought that the absence in man of a "reflex apnea, evoked at each inspiration," is the result of the development of speech with its requirement of an uninterrupted flow of air for normal articulation. (English summary)—*I. D. London.*

9359. Konorski, Jerzy. (Nencki Inst. of Experimental Biology, Warsaw, Poland) **Pavlov and contemporary physiological psychology.** *Conditional Reflex*, 1970(Oct), Vol. 5(4), 241-248.—Presents reminiscences shedding light on Pavlov's personal character and scientific views. His contributions to the study of higher nervous activity are briefly discussed in light of more recent developments in the last 20 yr. in physiological psychology.—*M. West.*

9360. Laborit, H., et al. (Boucicaut Hosp., Lab. of Eutonology, Paris, France) **Etude stéréotaxique de l'activité analgésique du chlorhydrate de la morpholinylethoxy-3 méthyl-4 (2'-naphtyl)-6 pyridazine (Agr 614).** [A stereotaxic study of the analgesic activity of 3-ethoxymorpholinyl-4-methyl-(2'-naphtyl)-6-pyridazine hydrochloride (Agr 614).] *Agressologie*, 1970, Vol. 11(3), 221-242.—Presents a stereotaxic study of stimulation of various cerebral areas and of the consecutive central repercussions to slow (8 cps) and fast (70 cps) frequency scintillation stimulation. The stimulation occurred before and after iv perfusion of 40-80 mg. of 3-ethoxymorpholinyl-4-methyl-(2'-naphtyl)-6-pyridazine hydrochloride (Agr 614), the inhibiting effect of which on bradykinine, histamine,

serotonin, and nicotine, and slight on acetylcholine, was observed previously on isolated organs. These properties indicate that the drug possesses a peripheral analgesic activity which is confirmed by the p-phenylquinone and acetic acid tests. The majority of stimulated areas show a threshold increase of 1-2 V after perfusion of the drug. When the latter is injected rapidly in high doses (60-80 mg/kg), it causes a convulsive state, but without loss of consciousness or any clear EEG disturbances. This phenomenon suggests a medullar action as the origin of seizures. (German, Spanish, & Russian summaries)—*English abstract.*

9361. Lekhtman, Ya. B. & Shustin, N. A. (Pavlov Inst. of Physiology, Leningrad) **V. I. Lenin i razvitiye fiziologicheskoi nauki.** [V. I. Lenin and the development of physiological science.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 474-489.—Discusses the role of Lenin's ideas in the development of a "materialist physiology" and how the latter in turn serve to give them scientific support.—*I. D. London.*

9362. Quartermain, David; McEwen, Bruce S., & Azmitia, Efrain C. (Rockefeller U.) **Amnesia produced by electroconvulsive shock or cycloheximide: Conditions for recovery.** *Science*, 1970(Aug), Vol. 169(3946), 683-686.—Produced retrograde amnesia for a passive avoidance response in male Holtzman rats by ECS, and in male mice by cycloheximide, an inhibitor of protein synthesis. 1 day after training the memory could be restored if a reminder of the original foot shock was given after the retention test on which the amnesia was demonstrated. Memory did not return if the reminder was given without the prior retention test or if the reminder and the test were separated by 23 hr.—*Journal abstract.*

9363. Scrimshaw, Nevin S. & Gordon, John E. (Eds.) (Massachusetts Inst. of Technology) **Malnutrition, learning, and behavior.** Cambridge, Mass.: Massachusetts Inst. of Technology Press, 1968. xiii, 566 p. \$12.50.

9364. Treadway, J. E. (Baylor U.) **The effect of a supralethal dose of neutron-gamma radiation on the visual sensitivity of rhesus monkeys.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3898.

9365. Von Békésy, Georg. (U. Hawaii, Lab. of Sensory Sciences) **Localization of visceral pain and other sensations before and after anesthesia.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 1-4.—The localization of sensations in sense organs that developed ontogenetically from the ectoderm layer, e.g., vision, hearing, and skin, is much more precise than sensations inside the body, like pain in the chest or viscera, which are produced by receptors developed from the endoderm layer. Pain on the surface of the skin is much more sharply localized than is pain in the viscera. Personal experiences of pain sensations produced by an obstruction in the colon and the effects of anesthesia are described. It became evident that anesthesia can influence the activity of the vestibular organ for many days. (15 ref.)—*Journal abstract.*

9366. Voronin, L. G. (Moscow State U., USSR) **Ivan Petrovich Pavlov i sovremennaya fiziologiya golovnogo mozga.** [Ivan Petrovich Pavlov and contemporary physiology of the brain.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1969(Nov), Vol. 19(6), 911-920.—Presents an analysis of the "relationship of the most important ideas of I. P. Pavlov to those achievements which currently have enriched brain physiology" and which are represented within developments in 3 direc-

tions: (a) classical research on the higher functions of the brain, utilizing CR methods in combination with other methods; (b) general neurophysiological research, utilizing, in the main, electrophysiological and neurosurgical procedures for investigating the functions of the brain, in whole and in part; and (c) psychophysiological research on the functions of the sensory organs. Representative findings are surveyed and related to Pavlovian ideas and theses.—*J. D. London.*

9367. Welch, Annemarie S. & Welch, Bruce L. (U. Tennessee, Memorial Research Center & Hosp.) **Effect of stress and para-chlorophenylalanine upon brain serotonin, 5-hydroxyindoleacetic acid and catecholamines in grouped and isolated mice.** *Biochemical Pharmacology*, 1968(May), Vol. 17(5), 699-708.—Parachlorophenylalanine (PCPA), administered to mice only a few hr. before they were sacrificed, lowered whole brain serotonin (5-HT) only slightly but caused a marked (27%) reduction in 5-hydroxyindoleacetic acid (5-HIAA). Restraint stress for 2.75 hr. markedly elevated 5-HIAA in saline controls and largely prevented its reduction by PCPA. The elevation of brain 5-HT induced by fighting and by restraint stress was prevented by PCPA, although stress did not significantly accelerate the PCPA-induced depletion of 5-HT. Levels of 5-HT and 5-HIAA, and the 5-HIAA/5-HT ratio, were lower in Ss that had been isolated for 3 mo. than in their grouped littermates. Contingent upon future elucidation of possible effects of stress and of PCPA upon active transport of 5-HIAA from the brain, these observations suggest 6 factors. In unstressed Ss, norepinephrine (NE) and dopamine (DA) were lowered by PCPA to about the same small degree as 5-HT. Stress elevated DA which counteracted its tendency to be reduced by PCPA. This resulted in a reduction of the NE/DA ratio in stressed Ss, particularly in Ss pretreated with PCPA. The normal tendency for preisolated Ss to fight when placed together was immediately abolished by PCPA concomitant with an immediate small reduction of NE in the pons and medulla oblongata; aggressive tendencies gradually returned over a period of 1 1/2-5 hr.—*Journal summary.*

NEUROLOGY

9368. Burt, Cyril. **The field concept in psychology.** *Bulletin of the British Psychological Society*, 1969(Oct), Vol. 22(77), 267-271.—Presents a rejoinder to J. G. Taylor's criticisms of Burt's (see PA, Vol. 42:8426) earlier paper on brain and consciousness.—*V. S. Sexton.*

9369. Collins, Robert L. (Jackson Lab., Bar Harbor, Me.) **Unilateral inhibition of sound-induced convulsions in mice.** *Science*, 1970(Feb), Vol. 167(3920), 1010-1011.—Reports that loud sound repeatedly presented to 1 ear after an initial bilateral exposure produced a lateralized inhibition of convulsibility in 50 male SJL/J mice. Inhibition of the right side did not affect the convulsible state of the left side. Processes leading to inhibition and convulsibility may develop independently within the same animal.—*Journal abstract.*

9370. Frommer, Gabriel P. (Indiana U.) **A simple method for terminating chronically implanted electrodes in small animals.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1501-1502.—Describes a method for terminating chronic electrodes in small animals. The

procedure is simple and uses only inexpensive, commercially available parts. A large number of electrodes can be terminated, and the connection is good enough to permit recording routinely from freely moving animals.—*Journal abstract.*

9371. Gil'man, I. M. (Inst. of Normal & Pathological Physiology, Moscow, USSR) **Sravnitel'nyi analiz uchastiya kaudal'nykh i rostral'nykh otdelov stvole v geneze korkovoi sinkhronizatsii.** [Comparative analysis of the participation of the caudal and rostral parts of the brainstem in the genesis of cortical synchronization.] *Zhurnal Vyssheĭ Nervnoi Deyatel'nosti*, 1970(Jul), Vol. 20(4), 585-593.—17 unanesthetized, unrestrained cats with implanted cortical and subcortical electrodes were used in a comparative study of synchronization effects in the EEG after extirpation and low-frequency stimulation of a number of subcortical structures. The most marked synchronization effect was connected with the medial and superior vestibular nuclei and also with the mammillary bodies. These regions possess the greatest number of switchovers and afferent connections per unit volume as compared with the hypothalamus, thalamus, and caudal parts of the brainstem. The specific and nonspecific nature of these subcortical structures is of no importance for the emergence of synchronization in the EEG. The data underscore the important role of the 2 nuclear complexes in the mechanisms of activation and sleep and do not accord with conceptions postulating the existence of special synchronizing and desynchronizing structures or systems to account for either sleep or the wakeful state.—*J. D. London.*

9372. Horn, Gabriel & Hinde, Robert A. (Eds.) (U. Cambridge, England) **Short-term changes in neural activity and behavior: A conference sponsored by King's College Research Centre, Cambridge.** Cambridge, England: Cambridge U. Press, 1970. vi, 628 p. \$28.50.

9373. Mihailescu-Urechia, Venera. **L'étude mathématique de l'émotion de peur.** [The mathematical study of fear.] *Revue Belge de Psychologie et de Pédagogie*, 1970(Mar), Vol. 32(129), 7-25.—In 1949 Hess discovered the "flight center" in the posterior and lower thalamus, electric excitation of which provokes reactions of flight. In this paper, the physiological and psychological conditions which might inhibit or trigger this reaction are studied. Research over a 20-yr period conducted in psychiatric clinics and in laboratories is condemned for it has not provided realistic or conclusive results. This is because the experiments incorporated important confounding variables as well as patently contrived situations and questionable psychic states.—*L. A. Ostlund.*

9374. Schrameck, Joan E. (Stanford U.) **Crayfish swimming: Alternating motor output and giant fiber activity.** *Science*, 1970(Aug), Vol. 169(3946), 698-700.—Disagrees that the crayfish giant fibers trigger swimming movements or tail flips during escape responses. Recordings from small intact animals show that both swimming and single tail flips can occur in the absence of giant fiber activity. Swimming movements and tail flips are coordinated by neural mechanisms not involving the giant fibers. When giant fibers are active, they may trigger the 1st flexion in a swimming sequence, initiate a single tail flip, or synchronize the muscular activity in the several segments of the abdomen, but they are not a necessary part of the neural oscillator which drives swimming. (17 ref.)—*Journal abstract.*

Neuroanatomy

LESIONS

9375. Cooper, Kenneth K. (New York U.) **An electrophysiological study of the effects of castration on the afferent system of the glans penis of the cat.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3509.

9376. Fernández-Collazo, Edmundo L. & Foglia, Virgilio G. (U. Buenos Aires, Medical School, Argentina) **Sexual behavior of the male diabetic rat.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1451-1454.—Observed that 56 white male rats with subtotal pancreatectomy (95% showed a reduction in sexual behavior with blood sugar above 200 mg % during 1-hr tests in observation chambers facing a female receptive rat. Occasionally they did not achieve ejaculation, displaying a behavior similar to that after castration, but more often lacking any sexual drive. Results were corroborated by a parallel reduction of the ability to inseminate normal female rats in the usual cages, as revealed by daily vaginal smears during 5 days of cohabitation tests. These facts were not related to body weight. The likely dependence of these findings on alterations in the anterior zone of hypothalamus is also discussed. (25 ref.)—*Journal abstract.*

9377. Peretz, Bertram. (U. Kentucky, Medical School) **Habituation and dishabituation in the absence of a central nervous system.** *Science*, 1970(Jul), Vol. 169(3943), 379-381.—Observed habituation and dishabituation in a semi-intact Aplysia preparation in which the CNS was removed. The amplitude of withdrawal responses in the gill decreased in proportion to the rate of water drops applied (1 drop/.5 min. to 1 drop/2.5 min. at 15° C). The effects of habituation lasted for at least 2 hr. A dishabituated response was elicited by stopping the water drops or electrically stimulating the preparation. The gill contained nerve cell bodies, and habituation and dishabituation appeared to be properties of these peripheral neurons.—*Journal abstract.*

Brain Lesions

9378. Finger, Stanley & Frommer, Gabriel P. (Washington U.) **Effects of cortical and thalamic lesions on temperature discrimination and responsiveness to foot shock in the rat.** *Brain Research*, 1970, Vol. 24(1), 69-89.—Assigned 40 male albino Sprague-Dawley rats to receive lesions in 1 or both somatosensory cortical areas or in thalamic nuclei which receive lemniscal or extralemniscal somatosensory input. 16 control Ss received lesions of the occipital cortex or sham operations. Measures were obtained for (a) acquisition of a series of temperature discriminations as fine as 3° C difference; (b) reflexive flinch, jump, and vocalization responses to foot shocks graded in intensity; (c) a battery of neurological tests; and (d) cortical evoked potentials elicited by shocks to the forepaws. Somatosensory cortical and thalamic lesions produced statistically significant deviations from normal performance when reflexive response threshold to shock and temperature discrimination data were analyzed together or when the former were analyzed alone. Refined statistical analyses failed to reveal specific lesions responsible for these deviations, although 3 of 5 Ss with lesions of the parafascicular complex performed poorly on the tem-

perature discrimination test. Experimental Ss also showed some deficiencies on a number of neurological tests. Short latency cortical evoked potentials to forepaw shocks were present in several Ss which exhibited deficits in temperature discrimination or deviant responsiveness to foot shock. The increased variability in performance among the experimental Ss is discussed. (40 ref.)—*Journal summary.*

9379. Guilbaud, G. & Menetrey, D. (Inst. National de la Santé et de la Recherche Médicale, Paris, France) **Rôle joué par les voies et aires de projection lemniscales dans le contrôle des afférences extralemnisciales au cours du sommeil naturel chez le chat.** [The role of the lemniscal projection areas and tracts in the control of extralemniscal afferents during natural sleep in the cat.] *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 295-302.—Studied the evolution during sleep of somatic responses recorded in the centrum medianum (CM) of 20 cats with implanted electrodes, following section of the lemniscal paths or uni- or bilateral ablation of the primary somatomotor cortex. Changes in amplitude of the CM responses during the various stages of sleep were almost completely abolished and the responses during wakefulness and fast sleep remained similar to those normally encountered during slow wave sleep. A reduction in the amplitude of the responses during fast sleep and wakefulness was again found 4 wk. after uni- or bilateral lemniscal section or unilateral cortical ablation, but not after bilateral ablation of the somatomotor cortex. During slow wave sleep, there appeared to be a reduction of the inhibitory influence which the somatomotor cortex exercises on extralemniscal afferents while this influence is increased during fast sleep and wakefulness. The site of action of this inhibitory influence, the mechanisms of its action, of its suppression after lesions, and of its reappearance are discussed. (21 ref.)—*English summary.*

9380. Kelly, Jack B. (Vanderbilt U.) **The effects of lateral lemniscal and neocortical lesions on auditory absolute thresholds and frequency difference thresholds of the rat.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1566-1567.

9381. Petřek, J., Golda, V., & Lisoněk, P. (Palacky U., Medical School, Olomouc, Czechoslovakia) **Orbital cortex of the cat's brain and the orienting reflex to acoustic stimuli.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jun), Vol. 28(6), 619-624.—Describes the dynamics of the poststimulation changes of the EKG and EEG in cats before and after orbital resection. In Ss with intact CNS, the application of an acoustic stimulus produced desynchronization of the EEG and a change in the heart rate. The duration of poststimulation changes of the EEG and EKG depends on the number of repetitions of the stimulus which evoked them. With increasing numbers of repetitions of the stimulus the changes usually grow gradually smaller. An analysis of poststimulation changes of the EEG and EKG in Ss with lesions of the CNS has shown that an acoustic stimulus which evokes marked changes in the EEG and EKG in Ss without lesions fails to do so in Ss with bilateral ablation of the orbital cortex of the brain. A total of 22 Ss were used. (German summary) (32 ref.)—*Journal summary.*

9382. Reeves, Alexander G. & Hagamen, Wilbur D. (U. Rochester, Medical School) **Behavioral and EEG asymmetry following unilateral lesions of the fore-**

brain and midbrain in cats. *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 83-86.—Destroyed the caudate and ventromedial internal capsule in 10 cats and destroyed the midbrain reticular formation, sparing the direct sensory pathways in 11 cats. Contralateral sensory neglect and ipsilateral over-reactivity resulted. Cortical EEG ipsilateral to the lesions when Ss were alert consistently had a pattern usually associated with sleep in normal Ss, whereas the contralateral EEG showed an alert pattern. Asymmetry was enduring when Ss were awake but tended to decrease when asleep. Mechanisms involved in the behavioral asymmetries are discussed. (French summary)—*Journal summary*.

9383. **Sechzer, Jeri A.** (New York Hosp., Cornell Medical Center, White Plains) **Prolonged learning and split-brain cats.** *Science*, 1970(Aug), Vol. 169(3948), 889-892.—Shows a definite relation between inter-hemispheric transfer and speed of learning. 49 split-brain cats were trained in a variety of discriminations, and the success or failure of interhemispheric transfer was evaluated with regard to rate of learning. When inter-hemispheric transfer succeeded, learning time was normal; when interhemispheric transfer failed, learning time was prolonged, becoming at least twice that of normal. Retention was also poor in Ss that exhibited prolonged learning. A normal learning curve appears to be the product of interaction between both cerebral hemispheres during learning.—*Journal abstract*.

9384. **Thomas, Roger K.** (U. Georgia) **Mass function and equipotentiality: A reanalysis of Lashley's retention data.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 899-902.—Detailed analyses of subgroups of rats, defined by lesion size and locus, for K. S. Lashley's (see PA, Vol. 38:8938) retention data suggest that parietal neocortical damage resulted in deficits that were relatively independent of total lesion size. It is suggested that Lashley's retention data provided questionable support for the principles of equipotentiality and mass function as he presented them, and did not include enough Ss to assess the validity of these principles for measures of acquisition following brain damage.—*Journal abstract*.

9385. **Trahiotis, Constantine & Elliott, Donald N.** (Indiana U., Center for Neural Science) **Extension of the Neff neural model to situations demanding discrimination among complex stimuli.** *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1116-1127.—Reports results of 4 experiments dealing with the auditory performance of 4 adult brain-damaged cats. Ss with the auditory areas of both cortices ablated were able to discriminate auditory stimuli whose frequency components were present in an ongoing neutral background. Ablated Ss were also able to discriminate in situations demanding responses to more than 1 positive cue over trials, though not within trials. Transfer tasks provided evidence that the basis for auditory discrimination could not have depended exclusively on the occurrence of a greater neural event. The inability of the brain-damaged Ss to perform a Neff pattern discrimination was again demonstrated. However, Ss easily performed a frequency discrimination whose frequency components and intensities were identical to those in the pattern task. Both conditions lend credence to results of prior investigations and attest to the adequacy of the ablations performed on Ss. Results of the main experiment are difficult to interpret in terms of W. D. Neff's neural theory. General questions about pattern

discriminations are discussed. (26 ref.)—*Journal abstract*.

9386. **Wishart, Thomas B. & Mogenson, Gordon J.** (U. Western Ontario, London, Canada) **Effects of food deprivation on water intake in rats with septal lesions.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1481-1486.—Subjected 36 Wistar male albino rats to lesions of the septum or to sham operations. Septal lesions caused hyperdipsia in nearly $\frac{2}{3}$ of the animals (septal drinkers) while water intake remained unchanged in the other $\frac{1}{3}$ (septal nondrinkers). During periods of food deprivation sham-operated controls reduced water intake and urine output. Septal drinkers remained hyperdipsic during food deprivation although total water intake was reduced somewhat with longer deprivation periods. Septal nondrinkers became markedly hyperdipsic during food deprivation, drinking as much water as the septal drinkers. Although urine outputs were elevated for septal drinkers throughout the study and for septal nondrinkers during food deprivation, the polyuria was shown to be secondary to hyperdipsia. It is concluded that the septum has a role in the control of water intake but not in the control of urine output. Results are consistent with the hypothesis that the septum is part of a satiety mechanism for the control of water intake. (26 ref.)—*Journal abstract*.

Brain Hypothalamic & Hippocampal Lesions

9387. **Coover, Gary D.** (U. Oregon) **The effects of bilateral hippocampal lesions on avoidance behavior in the two-way shuttlebox and operant box: Performance and extinction.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1560-1561.

9388. **Rolls, Barbara J.** (U. Oxford, England) **Drinking by rats after irritative lesions in the hypothalamus.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1385-1393.—The deposition of metallic ions in or near the lateral hypothalamus with a stainless-steel anode caused primary polydipsia in albino male rats lasting about 6 hr. During this time Ss were hyperactive and drank as much as 2 to 3 times their normal daily intake. This irritative effect accounts for the polydipsia which sometimes follows lesions in the median eminence of the tuber cinereum of nephrectomized rats. Nonirritative lesions there did not cause primary polydipsia. After 6 hr. Ss with chronic diabetes insipidus produced by lesions in the median eminence did not show any effects of irritative lesions on water intake. In addition, when their urine output was suppressed these diabetic Ss drank almost exactly the amount of water needed to dilute a cellular thirst stimulus (hypertonic saline) to isotonicity and drank the same amount as controls after equivalent extracellular thirst stimuli (polyethylene glycol) suggesting that important drinking mechanisms are not located in the median eminence. (20 ref.)—*Journal abstract*.

9389. **Katz, Phyllis A., Albert, Janet, & Atkins, Margery.** (City Coll., City U. New York) **Mediation and perceptual transfer in children.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 268-276.—Investigates variables expected to influence verbal mediation of children's perceptual responses in 2 interrelated studies. In Exp. I, judgments of stimulus similarity made to systematically varying random form pairs were obtained from 60 1st and 6th grade children. The older Ss differentiated the forms more. On the basis of the 1st study, slide pairs of high, intermediate, and low simi-

larity were selected. 5 label conditions were introduced in a factorial design with 240 1st and 6th grade Ss. Age, stimulus similarity, and label condition were significantly associated with degree of perceptual differentiation. An Age \times Treatment interaction revealed that labeling training had more pronounced perceptual effects for the younger Ss. These effects varied differentially with the level of stimulus similarity employed. (20 ref.)—*Journal abstract*.

BRAIN STIMULATION

9390. Maekawa, K. & Rosina, A. (Max Planck Inst. of Psychiatry, Munich, W. Germany) **Caratteristiche della trasmissione sinaptica nel nucleo genicolato laterale del gatto.** [Observations on synaptic transmission in the lateral geniculate nucleus of the cat.] *Rivista di Neurobiologia*, 1968(Oct), Vol. 14(4), 626-631.—Studied the activity evoked in the lateral geniculate neurons of the cat by electrical stimulation of the optic nerve and by diffuse light stimulation. Intracellular recordings were obtained in nearly 100 neurons. The electrical stimulation of the optic nerve emits monosynaptic excitatory postsynaptic potentials (EPSP) which can reach the threshold for the cellular discharge. Supra- and subthreshold EPSPs were generally followed by a long inhibitory postsynaptic potential (IPSP) of probable recurring nature. The possible interrelationships between EPSPs and IPSPs are illustrated. Light stimulation could also evoke isolated IPSPs.—*A. M. Farfaglia*.

9391. Tatton, W. & Crapper, D. (U. Toronto, Ontario, Canada) **A marking method for stimulating electrode locations.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 621-622.—Describes a simple method for localization of stimulating locations in the CNS, using adult cats. The method utilizes radio frequency current to destroy the blood-brain barrier locally without coagulating the tissue and allows trypan blue to extravasate into the marking site from the intravascular compartment. (French summary)—*Journal summary*.

Chemical Stimulation

9392. Beckman, Alexander L. (U. California, Santa Barbara) **The effect of intrahypothalamic application of norepinephrine on behavioral and physiological thermoregulation in the rat.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3884.

9393. Bhargava, V. K. & Meldrum, B. S. (Neuropsychiatric Research Unit, Carshalton, England) **The strychnine-like action of curare and related compounds on the somatosensory evoked response of the rat cortex.** *British Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 112-122.—Applied drugs to the cerebral cortex of male Sprague-Dawley rats anesthetized with pentobarbitone and changes measured in the somatosensory primary evoked response. Computer-derived averages of 32 consecutive responses yielded stable and consistent measurements of the potential changes comprising the evoked response, and comparable records from the opposite (non-drug treated) cortex provided an essential control for systemic actions of the drug. Modifications produced by curare and strychnine were indistinguishable. Observations of the drug reaction are consistent with an action of curare and strychnine on

an intracortical cholinergic inhibitory system, however, other possibilities including a "non-specific excitatory action" cannot be excluded. (28 ref.)—*Journal abstract*.

9394. Bobo, E. Gary & Bonvallet, M. **Réponses associées incrémentales corticales et oculaires d'origine amygdallienne.** [Associated incrementing cortical and ocular responses of amygdaloid origin.] *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 473-487.—Investigated previous findings by M. Bonvallet and E. G. Bobo (see PA, Vol. 45:Issue 6) that stimulation of amygdala can elicit discharges from the ocular accommodative fibers together with arousal and mydriasis. The accommodative impulses were recorded from the short ciliary nerves (SCN) of 31 cats with high spinal transection maintained under flaxedil (gallamine). It is concluded from stimulation of the magnocellular part of the basal amygdaloid nucleus, the longitudinal association bundle, and the stria terminalis that (a) the stria terminalis is the afferent limb of a circuit activating the basal nucleus, (b) the studied responses are mediated by the ventral amygdalofugal pathway, and (c) the ultimate relay of the amygdaloid projections is probably located in the pruberul field. Findings are correlated with histological, electrophysiological, and functional data. (42 ref.)—*English summary*.

9395. Bonvallet, M. & Bobo, E. Gary. **Contrôle de l'accommodation oculaire par l'amygdale et par les corps striés.** [Control of ocular accommodation by the amygdala and the corpus striatum.] *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 461-472.—Studied the effects of stimulation of amygdala and corpus striatum upon the tonic electrical activity of the parasympathetic neurons controlling ocular accommodation in 38 cats with the spinal cord divided at C₁ or T₁-T₂ and maintained under flaxedil (gallamine). Responses were recorded from the short ciliary nerves and a subthalamic relay station between the forebrain and the Edinger-Westphal nucleus. Data suggest that the ultimate relay of the pallido- and amygdalofugal projection to the Edinger-Westphal nucleus is located in the pruberul field. Oculomotor pathways descending from various cerebral areas converge on the same region which may be an integrating center for extra- and intraocular motor control. Results show that a part of the supranuclear control of accommodation may be exerted by the amygdala and the striatum. (35 ref.)—*English summary*.

9396. Carew, Thomas J., Crow, Terry J., & Petrinovich, Lewis F. (New York U., Medical School) **Lack of coincidence between neural and behavioral manifestations of cortical spreading depression.** *Science*, 1970(Sep), Vol. 169(3952), 1339-1342.—Questions the assumption that the presence of hypesthesia is necessarily indicative of the presence of cortical spreading depression (CSD). The EKG and slow-potential change were recorded during CSD in 6 male hooded Long-Evans rats, and it was found that hypesthesia remained long after the cortex recovered from neural depression. Hypesthesia, therefore, is an unreliable indicant of CSD; if CSD is used as a research tool, neural activity must be monitored. These data offer a special problem for memory transfer studies.—*Journal abstract*.

9397. Grimm, R. J., Frazee, J. G., Kawasaki, T., & Savić, M. (Good Samaritan Hosp. & Medical Center, Portland, Ore.) **Cobalt epilepsy in the squirrel mon-**

key. Electroencephalography & Clinical Neurophysiology, 1970(Nov), Vol. 29(5), 525-528.—Placed 1.2-3.5 mg. of cobalt powder on the piaarachnoid surface of somatosensory cortex of 10 monkeys and injected 1 monkey with 20 mg. of cobalt via cannula into the hippocampal cortex. It was found that small amounts of cobalt powder generated paroxysmal activity for 48-72 hr. in the unanesthetized squirrel monkey cortex. Using halothane anesthesia with a rapid recovery time, paroxysmal activity may begin within 30 min. of cobalt application. Discharges can be segregated by wave form, frequency, and pattern into 4 clearly identifiable phases. Illustrations of these phases are given. As good signal-to-noise characteristics of paroxysmal events are obtainable, this model of focal epilepsy in squirrel monkeys is open for quantification techniques. (French summary)—*Journal summary*.

9398. Huston, Joseph P. & Bureš, Jan. (Czechoslovak Academy of Sciences, Inst. of Physiology, Prague) **Drinking and eating elicited by cortical spreading depression**. *Science*, 1970(Aug), Vol. 169(3946), 702-704.—Administered single waves of unilateral and bilateral cortical spreading depression to 12 hooded male rats by electrophoretic injection of potassium ions into the occipital cortices. Aggressive and stereotyped eating, drinking, and exploratory behavior were elicited by unilateral and bilateral spreading depression. Onset of the elicited behaviors varied among Ss from 4-8 min. after injection of the ions. Direct activation of, or rebound from, inhibition of subcortical motivational mechanisms may be responsible for the effects.—*Journal abstract*.

9399. Morris, H., Walker, R., & Margules, D. L. (Wyeth Lab., Philadelphia, Pa.) **A cannula of variable depth for chemical stimulation of the brain**. *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 521-523.—Describes a cannula with capability to treat various brain sites below the original site, and to return repeatedly to precisely the same brain region. This allows crystalline or liquid drugs to be directly applied to a series of fixed brain sites, maps to be made of drug induced changes in the brain, and sites of optional activity to be localized. (French summary)—*Journal summary*.

9400. Mutani, R., Doriguzzi, T., Fariello, R., & Furlan, P. M. (U. Torin, Clinic for Nervous & Mental Illness, Italy) **L' "Irritazion" cronica del nucleo caudato: Effetti elettroencefalografici e comportamentali**. [Chronic irritation of the caudate nucleus: Electroencephalographic and behavioral effects.] *Acta Neurologica*, 1969(Jan), Vol. 24(1), 78-84.—In unanesthetized, unrestrained cats the effects of chronic introduction of cobalt powder into the head of the caudate nucleus were studied. If the introduction was monolateral, a slowing of the EEG pattern on the anterior cerebral leads, ipsilaterally to the "irritated" caudate, appeared. If the introduction was bilateral, the EEG slowing was bilaterally synchronous and symmetric; moreover, behavior changes appeared consisting of an important decrease in the spontaneous and provoked motility of the S. Results confirm the "inhibitory" function played by the caudate nucleus and are discussed in relation to the modern findings on the caudate physiology. (23 ref.)—*English summary*.

Electrical Stimulation

9401. Atrens, Dale M. (American U., Beirut,

Lebanon) **Reinforcing and emotional consequences of electrical self-stimulation of subcortical limbic-forebrain**. *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1461-1471.—Investigated the anatomical distribution of electrical self-stimulation in the subcortical limbic-forebrain of 88 male hooded Long-Evans rats using a number of different response measures. These included lever-press rates on continuous and variable interval reinforcement, as well as latencies to initiate and terminate stimulation in a shuttle-box. Self-stimulation at many limbic sites was found to produce striking increases in emotionality. The anatomical distribution of these stimulation-induced emotionality changes closely parallels that described in recent lesion studies. In contrast, while self-stimulation may be obtained in all major subdivisions of the subcortical limbic-forebrain, the differences in performance appear to be as great within these subdivisions as between them. With respect to reinforcement, this area may, therefore, be considered a heterogeneous functional unit throughout which stimulation is rewarding although much less so than in the hypothalamus. The satiation tests and rate-intensity functions reported indicate that, apart from the quantitative difference, limbic stimulation is motivationally homologous with stimulation of the hypothalamus. (43 ref.)—*Journal abstract*.

9402. Ball, Gordon G. (Rockefeller U.) **Hypothalamic self stimulation and feeding: Different time functions**. *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1343-1346.—Investigated the duration of stimulation necessary to elicit feeding, the duration preferred for self-stimulation, and the relation between these 2 in Charles River Sprague-Dawley rats. Ss which fed to electrical stimulation of the hypothalamus also self-stimulated at the same current level. However, there was minimal overlap between the train length that Ss preferred in the self-stimulation situation and that required to produce feeding. The evidence suggests that the rewarding properties of the stimulation decline as the apparent hunger builds up. The data are incompatible with an interpretation of the reinforcing properties of self-stimulation being positively correlated with hunger, consummatory responses, or fixed action patterns. (16 ref.)—*Journal abstract*.

9403. Black, William C. & Cooper, Barrett R. (Indiana U., Medical Center, Indianapolis) **Reduction of electrically-rewarded behavior by interference with monamine synthesis**. *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1405-1409.—Evaluated with 2 behavioral techniques the effects of blockade of brain catecholamines (CA) and brain serotonin (5-HT) synthesis upon electrically-rewarded behavior in 8 male Long-Evans rats. Comparison of free-operant responding in 12 additional unoperated Ss and a rate-free measure suggests that interference with CA synthesis has a minimal effect on specific task performance, the effects being preponderantly exerted on an adrenergic motivational substrate. Interference with 5-HT synthesis produced no effect on performance or motivation. (20 ref.)—*Journal abstract*.

9404. Colavita, Francis B. (U. Pittsburgh) **The reticular formation and avoidance conditioning**. *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1423-1426.—Trained 7 adult cats to make a double grill-box shock-avoidance response with direct electrical stimulation of the inferior colliculus serving as a CS. Near perfect transfer of the response was shown when the stimulation was delivered to an untrained electrode site

in the mesencephalic reticular formation. Other animals trained with reticular stimulation as a CS failed to show any transfer of the avoidance response when tested with electrical stimulation of the inferior colliculus. Avoidance responses acquired with stimulation of the inferior colliculus as the CS failed to transfer to either the superior colliculus or to area A_1 of the cortex. These results were interpreted as suggesting that the mesencephalic reticular formation is involved in some aspect of the conditioning process. (22 ref.)—*Journal abstract.*

9405. Gersch, Will & Goddard, G. V. (Stanford U., Medical School, Div. of Neurology) **Epileptic focus location: Spectral analysis method.** *Science*, 1970(Aug), Vol. 169(3946), 701-702.—Describes a spectral analysis technique for locating the site of an epileptic focus in the cat brain with the use of multielectrode data, obtained during a generalized seizure. Data, indicating widespread appearance of epileptic activity, did not lend itself to conclusive analysis by conventional means. 3 channels of data were examined. 1 channel is said to drive the other channels if the 1st channel explains or accounts for the linear relation between the other 2 over a frequency interval corresponding to the interval of greatest energy concentration. The method of analysis involved computation of the coherence and partial coherence between data from all electrode pairs.—*Journal abstract.*

9406. Gray, J. A. & Ball, G. G. (Rockefeller U.) **Frequency-specific relation between hippocampal theta rhythm, behavior, and amobarbital action.** *Science*, 1970(Jun), Vol. 168(3936), 1246-1248.—Describes a simple learning situation in which the frequency of the hippocampal theta rhythm in freely moving male Sprague-Dawley rats varied predictably in relation to behavior. The theta rhythm was driven by electrical stimulation of the medial septal area at frequencies within the theta range. The threshold for septal driving was lowest at that frequency which 7 Ss displayed in response to frustrative nonreward; the driving threshold was selectively raised at this frequency, in 2 groups of 5 Ss, by sodium amobarbital. It is suggested that the behavioral effects of amobarbital are due to a disruption of the theta frequency normally displayed in response to nonreward.—*Journal abstract.*

9407. Hine, Bromfield & Paolino, Ronald M. (Purdue U.) **Retrograde amnesia: Production of skeletal but not cardiac response gradient by electroconvulsive shock.** *Science*, 1970(Sep), Vol. 169(3951), 1224-1226.—108 male Holtzman rats, given a single ECS immediately after but not 60 sec. after an aversive conditioning trial, exhibited behavioral retention deficits 24 hr. later in a 1-trial passive avoidance task. In contrast to these differential performance deficits, similar heart-rate changes, indicative of fear retention, were seen in punished Ss irrespective of the time of delivery of the shock. Data suggest retention of a generalized fear to the training experience that was not revealed by the behavioral measure. The potential usefulness of concomitant behavioral and physiological response assessment in consolidation research is discussed.—*Journal abstract.*

9408. Hupka, Ralph B. (California State Coll., Long Beach) **Electrical stimulation of the septum and hypothalamus as conditioned stimuli in the rabbit.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1355-1363.—Investigated the effect on the onset of CR performance, the rate of CR acquisition, and the rate of

differentiation of the rabbit nictitating membrane response when the CS consisted of electrical stimulation of the brain (ESB) in rewarding, aversive and neutral septal and hypothalamic locations. During 2 days of acquisition training 36 male and female naive New Zealand white rabbits received 100 daily trials of Pavlovian conditioning to 2 electrode loci. 4 days of differentiation training followed acquisition and consisted of nonreinforcement of 1 locus (CS-) while the other locus continued to be reinforced (CS+) by the eyeshock serving as the UCS. Onset of CR performance was faster in rabbits receiving the CS in 2 rewarding brain loci than in 2 neutral or aversive loci. Asymptotic CR performance was attained 1st by rabbits receiving the CS in 2 rewarding loci, 2nd by neutral CSs, and 3rd by aversive CSs. The motivational properties of the 2 CSs interacted to determine CR performance, such that onset of CR performance and CR acquisition rate were faster for ESB combinations which included a neutral locus. The fastest rate of differentiation occurred when CS+ and CS- consisted of stimulation of an aversive locus and neutral locus, respectively. Differentiation was generally attained more quickly when CS- was a neutral locus. Differentiation was impeded and led to a loss of differentiation between days when 1 of the loci was rewarding. (26 ref.)—*Journal abstract.*

9409. Paolino, Ronald M. & Levy, Harold M. (Purdue U.) **A cannula assembly for inducing cortical spreading depression in free-moving animals.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1499-1500.—Describes a simple cannula system which permits application of potassium chloride solution directly onto the dura of the free-moving rat. This system should be useful in situations where handling and stressing of animals must be minimized and where timing of induction of cortical spreading depression is critical.—*Journal abstract.*

9410. Storck, Lauren E. (City Coll., City U. New York) **Topologic and temporal characteristics of lateral geniculate projections in the cat.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1575.

9411. Trowill, Jay A. & Hynek, Kathleen. (U. Massachusetts) **Secondary reinforcement based on primary brain stimulation reward.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 715-718.—Trained 15 rats to run in a straight runway for rewarding brain stimulation (ESB). A consistent color of goal box—ESB reward pairing—existed during runway training. When subsequently tested in a T maze where the goal box associated with ESB was placed on the initially non-preferred side, Ss learned to run to that side with only the goal box color as the reward. Results demonstrate that secondary reward can be based on ESB as a primary reward. Results appear to challenge the view that drive is necessary for the demonstration of secondary reward.—*Journal abstract.*

9412. Vergnes, M. & Karli, P. (National Center of Scientific Research, Lab. of Neurophysiology, Strasbourg, France) **Déclenchement d'un comportement d'agression par stimulation électrique de l'hypothalamus médian chez le rat.** [Elicitation of mouse-killing behavior by electrical stimulation of medial hypothalamus in the rat.] *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1427-1430.—Elicited interspecific aggressive behavior in natural nonkiller adult male Wistar rats by electrical stimulation of various sites located in the ventromedial and dorsomedial hypothalamus. Intense emotional reactions and flight re-

sponses were regularly associated with the experimentally induced mouse-killing behavior. Emotional reactions and flight responses without any aggressive behavior were elicited from other sites located within the same hypothalamic region. (21 ref.)—*English summary.*

9413. Wayner, M. J., Cott, A., & Greenberg, I. (Syracuse U., Brain Research Lab.) **Stimulus bound nitrogen licking evoked during electrical stimulation of the lateral hypothalamus.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1455-1460.—Obtained an analysis of data from studying 3 Sprague-Dawley male albino rats indicating that it is possible to evoke stimulus bound licking for nitrogen puffs during electrical stimulation of the lateral hypothalamus (LH). However, Ss were very finicky about nitrogen licking under these conditions; the effect was difficult to obtain and different from the phenomenon observed following water deprivation when it occurred readily. Some evidence indicates that LH stimulation increased an S's sensitivity to the aversive qualities of nitrogen licking. Additional anecdotal data on poststimulation effects are presented.—*Journal abstract.*

9414. Wester, Knut. (U. Oslo, Inst. of Neurophysiology, Norway) **Habituation to electrical stimulation of the thalamus in unanesthetized cats.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 52-61.—Studied electrical high frequency stimulation of widely separate thalamic areas in 29 unanesthetized, freely moving cats. Orienting responses were yielded which looked identical at the 1st presentation of the stimulus, but marked differences appeared when it was repeated. Ss soon habituated to stimulation of a lateral group of nuclei, consisting mainly of the sensory relay nuclei. Orienting responses elicited from the intralaminar nuclei were highly resistant to such habituation, whereas a dorsomedial group took an intermediate position. Suggested explanations of the observed differences are: (a) stimulation of the lateral nuclear group produces some kind of sensory experience of no signal value, and the S therefore soon ceases to respond; (b) stimulation of the intralaminar group either directly activates neurons involved in an arousal or orienting mechanism, or it is negatively or positively reinforcing, and (c) the prolonged habituation observed in the dorsomedial group may be explained by the negatively reinforcing properties of such stimulation. (French summary) (21 ref.)—*Journal summary.*

9415. White, Silas D. (Syracuse U.) **The effects of stimulus intensity, water deprivation, and prior water ingestion on drinking elicited by electrical stimulation of the lateral hypothalamus in rats.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3900.

9416. Wishart, Thomas B. & Mogenson, Gordon J. (U. Western Ontario, London, Canada) **Reduction of water intake by electrical stimulation of the septal region of the rat brain.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1399-1404.—Implanted chronic, bipolar stimulating electrodes in the same region of the septum of 10 male hooded rats in which lesions have been shown to produce hyperdipsia. Intermittent electrical stimulation of the septum administered over a 24-hr period resulted in a decrease in water intake. Septal stimulation during a 1-hr session following 23 hr. of water deprivation also reduced water intake. The stimulation did not reduce the rate of lapping at the water spout but rather shortened

the period to the termination of drinking. Results are consistent with the hypothesis that the septum is part of an inhibitory system for water intake. It is suggested that the septum has an inhibitory influence on the lateral hypothalamic drinking system, either mediated directly or mediated indirectly via the ventromedial hypothalamus. (21 ref.)

9417. Sharkawi, Mahmoud & Goldstein, Avram. (U. Montreal, Quebec, Canada) **Antagonism by physostigmine of the "running fit" caused by levorphanol, a morphine congener, in mice.** *British Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 123-128.—Drugs of the morphine type caused a stereotyped running fit in male Swiss-Webster mice. The intensity and duration of this response were related to dose. Measurement of this phenomenon served as a good method for the quantitative comparison of drugs of this type and for the study of their antagonists. Intracerebral injection of physostigmine antagonized the running fit induced by a wide range of doses of levorphanol. Results are consistent with the hypothesis that drugs of the morphine type act by retarding the release of acetylcholine at some central cholinergic synapses.—*Journal abstract.*

ELECTRICAL ACTIVITY

9418. Bathien, Nguyen. (St. Antoine Medical School, Physiology Lab., Paris, France) **Réflexes spinaux chez l'homme et niveaux d'attention.** [Human spinal reflexes and attention levels.] *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 32-37.—Recorded human spinal reflexes of 9 Ss during tests which induced various levels of attention. Tests were (a) tracing a circle using an XY table (XY); (b) finding and counting CVC sequences in an unknown language (Lett); (c) recognition of a word spelled backwards (Epel); (d) mental addition (Add); (e) mental multiplication (Mult); and (f) finding a combination of the numbers 1, 2, 4, and 8 adding up to a 2-figure number (IBM). The Hoffmann (H) reflex, soleus tendon (TSol) reflex, biceps tendon (TBi) reflex, and the polysynaptic nociceptive reflex induced by electrical stimulation of cutaneous Group III afferents (IIIBi) were studied. Analysis of results indicate that (a) the IBM test did not significantly modify any of the reflexes, (b) the Epel test facilitated the TSol, (c) the Mult test facilitated the TSol and TBi, (d) the Add test produced an inhibition of the IIIBi, and (e) the XY and Lett tests modified all reflexes. It is concluded that the facilitation of γ motoneurons is obtained for a low level of activation, that an inhibition of the flexor reflex afferents is obtained for a higher level, and that facilitation of the H reflex, produced by the highest levels of activation, indicates the lower sensibility to χ motoneurons to reticular discharge.—*English summary.*

9419. Berkinblit, M. B., Vvedenskaya, N. D., Gnedenko, L. S., & Kovalev, S. A. (Inst. on Problems of Information-Transmission, Moscow, USSR) **Issledovanie na EVM osobennosti provedeniya nervnogo impul'sa po voloknam s raznoi krutiznoi rasshireniya.** [Electronic computer study of the features characterizing conduction of the nerve impulse along fibers with various rates of increase in diameter.] *Biophysika*, 1970(Nov), Vol. 15(6), 1081-1089.—Reports results of a study on the influence of sharp and gradual

changes in diameter of the nerve fiber on propagation of the nerve impulse. Besides determination of the critical diameter, quantitative determinations were procured for changes in nerve impulse amplitude, velocity, and form. Included is a mathematical formulation of the problem and the proposed method of solution, based on the Hodgkin-Huxley model. Abrupt changes in nerve fiber (greater than 5.5 times) produced nerve impulse blockade. A smaller ratio of change, but 1 close to the critical, produced a sharp drop in amplitude of action potential (to 20-30% of the initial value) and a sharp reduction of conduction velocity (from 18 to 2 m/sec). At the same time, action potential form underwent marked changes. With decrease in the gradient of diameter increase, nerve impulse conduction was very much facilitated. (English summary)—*I. D. London.*

9420. Bruner, Jan & Kennedy, Donald. (Stanford U.) **Habituation: Occurrence at a neuromuscular junction.** *Science*, 1970(Jul), Vol. 169(3940), 92-94.—Reports that at the neuromuscular junctions between the motor giant axon and fast flexor muscle fibers in crayfish, stimulation at frequencies of 1/min produced a large decline in the amplitude of excitatory junctional potentials. Recovery (dishabituation) was brought about by increases in stimulus frequency, which triggered a potentiation process; at still higher frequencies, a 2nd form of depression intervened. The last process appeared to be due to depletion of transmitter; the 1st probably depended upon electrical changes in presynaptic terminals. Because of the interactions between the 3 processes, the junctions displayed the properties of habituation and dishabituation usually associated with complex central nervous networks.—*Journal abstract.*

9421. Cohn, Robert. (National Naval Medical Center, U.S. Naval Hosp., Bethesda, Md.) **Bilateral simultaneous summated cortical responses to delayed bilateral and single median nerve stimulation.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 612-615.—Applied known electrical pulses synchronously, and with variable time delays, to each median nerve simultaneously and observed the summated cortical responses from homologous scalp derivations in over 100 Ss. Single and bilateral electrical stimulation of the median nerves show evidence of hemispheric interaction by (a) alterations of summated responses contralateral to the delayed stimulus, and (b) the appearance of a new wave on the delayed side, with bilateral stimulation, and on the same side in single nerve stimulation. This new wave has a delay in major peaking of 2-4 msec. (French summary)—*Journal summary.*

9422. Ghelarducci, B., Pisa, M., & Pompeiano, O. (U. Pisa, Inst. of Human Physiology, Italy) **Transformation of somatic afferent volleys across the prethalamic and thalamic components of the lemniscal system during the rapid eye movements of sleep.** *Electroencephalography & Clinical Neurophysiology*, 1970(Oct), Vol. 29(4), 348-357.—Implanted electrodes in the medial lemniscus and the nucleus ventralis posterolateralis of the right side of 19 unrestrained, unanesthetized cats. A single shock of the left superficial radial nerve and the medial lemniscal electrode were used as stimuli. Responses from both electrodes and stimuli were studied during episodes of REM sleep. Results indicate that some part of the efferent activity giving rise to contractions of the limb musculature during REM sleep is

fed into the somatic sensory system, particularly the nucleus ventralis posterolateralis, where it interacts with the incoming somatic information filtered at dorsal column level. (French summary) (39 ref.)—*Journal summary.*

9423. Greenwood, Donald D. & Goldberg, Jay M. (U. British Columbia, Vancouver, Canada) **Response of neurons in the cochlear nuclei to variations in noise bandwidth and to tone-noise combinations.** *Journal of the Acoustical Society of America*, 1970(Apr), Vol. 47(4, Pt. 2), 1022-1040.—Performed experiments in which bands of noise were widened (arithmetically) around the best frequencies of single units in the cochlear nuclear complex of 12 cats. 2 types of effect were studied: (a) summation, in which increasing bandwidth from narrow widths (constant spectrum level) produced increases in firing; and (b) suppression, in which increasing bandwidth beyond the range in which summation occurred produced systematic reductions in firing. In monotonic units, in which summation was more readily observed, increasing bandwidth was approximately equivalent to increasing the spectrum level of a narrow band of constant width; the subsequent suppression at larger bandwidths ranged from slight to very marked. The bandwidths at which summation ceased and suppression began, decreased somewhat at higher spectrum levels and were similar in width on a log scale for units of differing best frequency but, for several reasons, these turnover bandwidths were not readily interpretable. Tone-noise combination stimuli were also used to study some units, and it was possible to repeat and extend earlier observations by D. D. Greenwood and N. Maruyama to the effect that—depending on intensity—a band of noise centered at 1 frequency may eliminate, i.e., mask, a unit's response to a tone at a different frequency either (a) by inhibiting that response, or (b) activating the unit itself so that the tone has no additional effect. (21 ref.)—*Journal abstract.*

9424. Halas, Edward S., Beardsley, James V., & Sandlie, Mary E. (U. North Dakota) **Conditioned neuronal responses at various levels in conditioning paradigms.** *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 468-477.—Implanted monopolar macroelectrodes in 7 chronic and 36 acute cats. Brain sites investigated were the medulla and mesencephalic reticular formation, diffuse thalamic system, cochlear nucleus, inferior colliculus, brachium of the inferior colliculus, medial geniculate, and the auditory cortex. All Ss were given classical conditioning, consisting of a tone paired with a mild shock to 1 hind paw. The chronic Ss were given instrumental avoidance conditioning. Results indicate that conditioned neuronal responses develop sequentially, starting with the reticular formation and progressing upward from the cochlear nucleus to the auditory cortex. Results are statistically significant for both classical and instrumental conditioning. Control experiments for general bodily movements, alerting or arousal, and pseudoconditioning were negative. (French summary)—*Journal summary.*

9425. Humphry, Donald R. (National Inst. of Health, Lab. of Neural Control, Bethesda, Md.) **A chronically implantable multiple micro-electrode system with independent control of electrode positions.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 616-620.—Describes a chronically implantable, multiple microelectrode system for use with

unanesthetized animals. The system may be left on the S's head for extended periods of time, yet its parts can be decoupled so that electrodes are easily changed. The device is comparatively small, provides for independent control of several closely spaced microelectrodes and is designed so that a single implant allows for sets of electrode penetrations over a relatively large expanse of neural tissue. The system has been used, with excellent results, for recording simultaneously from several individually selected neurons in the motor cortex of an unanesthetized monkey. (French summary) (19 ref.)—*Journal summary*.

9426. Jeannerod, M. & Putkonen, P. T. (U. Lyon, Medical School, France) **Oculomotor influences on lateral geniculate body neurons.** *Brain Research*, 1970, Vol. 24(1), 125-129.—Investigated the relations between the eye movements and vision in a study of the lateral geniculate body (LGB). LGB neurons were recorded in 10 encéphale isolé cats. The eyes of the Ss were covered with a mask which was lit from the inside by a lamp which when lit formed a random textured pattern. Atropine was used to dilate the pupils of the Ss. Direct electrical stimulation of the vestibular nuclei was also used to produce a reliable and long lasting after-nystagmus. Results "show that during eye movements of vestibular origin, definite changes in activity occur in a significant population of geniculate neurons, independently of visual input."—S. Knapp.

9427. Kamenskaya, M. A. & Kirzon, M. V. (Moscow State U., USSR) **Analiz protsessy utomleniya izollirovannoi skeletnoi myshtsy lyagushki s pomoshch'yu kratkovremennoi tetanizatsii raznoi chasty.** [Analysis of the process of fatigue in isolated frog skeletal muscle by means of short-term tetanization of various frequency.] *Fiziologicheskii Zhurnal SSSR*, 1969(Nov), Vol. 55(11), 1369-1377.—Used isolated frog sartorius muscle as material for a microelectrode study, utilizing (a) frequencies of 20-300 cps of tetanic stimulation of the sciatic nerve, and (b) extracellular recordings of action and end plate potentials from the fibers of the muscle. Several stages of fatigue were disclosed during which a block of neuromuscular transmission occurred and intensified. The electrical reaction of fatigued muscle fiber was characterized by (a) the presence of a preliminary period of summation of end plate potential, necessary for the emergence of action potential; (b) the transformation of action potential rhythm; and (c) the appearance of variations in the amplitude of action potential. Therefore, electrical reaction was formed by the interaction of 2 basic processes—summation of excitation and transformation of action-potential rhythm. As in myographic experiments, in intracellular registration of potentials a level of optimal frequencies (50-70 cps) was distinguished. For a response at optimal frequency the following were characteristic: (a) a shorter period of summation of end plate potential than in low frequencies, and (b) a lesser degree of transformation of action potential rhythm compared with the reaction to high frequencies. (English summary) (24 ref.)—I. D. London.

9428. Karmos, G., Martin, J., Kellényi, L., & Bauer, M. (U. Pécs, Medical School, Hungary) **Constant intensity sound stimulation with a bone conductor in the freely moving cat.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jun), Vol. 28(6), 637-638.—Bone conductors used in human audiology are recommended for stabilizing the auditory input in

behavioral experiments. If the sound is given through a bone conductor fixed on the head of a cat bearing chronically implanted electrodes, the factors modulating the auditory input of an air-conducted sound stimulus (room acoustics, middle ear muscles) can be excluded. As witnessed by the cochlear microphonic responses continuously recorded with chronically implanted round window electrodes, the auditory input remained unaltered even during vigorous motor activity. (French summary)—*Journal summary*.

9429. Krnjević, K., Reiffenstein, R. J., & Silver, Ann. (McGill U., Montreal, Quebec, Canada) **Inhibition and paroxysmal activity in long-isolated cortical slabs.** *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 283-294.—Compared the effectiveness of inhibition in small, long-isolated (8-48 wk.) slabs of suprasylvian cortex and in intact control areas of cats, using extra- and intracellular recordings. Glutamate-induced discharges of neurons were inhibited by stimulation of the cortical surface. The inhibitory pause was longer than normal, but the threshold stimulus was not significantly altered. Membrane potentials could be recorded only transiently. Inhibitory postsynaptic potentials were readily evoked by surface stimulation, but there was some indication of a reduced inhibitory conductance change. It is concluded that the normal inhibitory mechanisms are substantially preserved in long-isolated slabs and that the tendency to seizure discharges cannot be ascribed to total loss of inhibitory control. The incidence and activity of neuroglia, the absence of unit spikes and discharges, and the effect of γ -aminobutyric acid are noted and discussed. (French summary) (31 ref.)—*Journal summary*.

9430. Kuhnt, U. & Creutzfeldt, O. D. (Max Planck Inst. of Psychiatry, Munich, W. Germany) **Decreased post-synaptic inhibition in the visual cortex during flicker stimulation.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 79-82.—Investigated the effects of changing the intensity and the repetition rate of flash stimuli on the postsynaptic cellular response. Diffuse flash stimuli at high intensity and low repetition frequency (below 2/sec) evoked in most neurons of Area 17 of the cat an inhibitory postsynaptic potential (IPSP) which might be preceded by an excitatory postsynaptic potential (EPSP). At flash rates above 2-4/sec, the amplitude of the IPSP decreased and disappeared completely above stimulus frequencies of 10-15/sec. At the same time, the EPSP was unmasked and appeared as a long compound EPSP of about 50-msec duration. Amplitude of the EPSP decreased at stimulus frequencies above 10-12/sec. This was explained by the decreased spike rate/flash of the afferent fibers in the optic radiation. It is suggested that the decreased inhibition in the visual cortex during repetitive flicker stimulation above 5-10/sec is related to the increased epileptic activity of certain epileptic patients during flicker stimulation. (German summary)—*Journal summary*.

9431. Lehtinen, Lauri O. & Bergström, Lea. (U. Helsinki, Lapinlahti Hosp., Finland) **Naso-ethmoidal electrode for recording the electrical activity of the inferior surface of the frontal lobe.** *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 303-305.—Describes a nasoethmoidal electrode for recording the activity of the basal aspect of the frontal lobe. Records with this electrode in 5 healthy Ss and 48 epileptic patients are described. The value of this

method in recording focal activity from the frontal lobe is reviewed. In 25% of the patients investigated more information concerning brain activity was obtained by this method. (French summary)—*Journal summary*.

9432. Macadar, O., Roig, J. A., Monti, J. M., & Budelli, R. (U. Republic, Lab. of Neurophysiology, Montevideo, Uruguay) **The functional relationship between septal and hippocampal unit activity and hippocampal theta rhythm.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1443-1449.—Studied the correlation between septal and hippocampal unit activity and hippocampus EEG in 40 unanesthetized curarized male Wistar rats. Extracellular recordings were statistically analyzed in order to obtain the time interval histograms and auto- and cross-correlograms. During the induction of a hippocampal theta rhythm by sensory stimulation or physostigmine injection the septal units showed a bimodal time interval histogram. The autocorrelograms of septal and hippocampal unit activity and the cross-correlograms between units and from them with the hippocampal EEG showed 4-6 waves of decreasing amplitude in 1-sec interval. The autocorrelograms showed serial dependence. LSD-25 abolished the hippocampal rhythmic activity. During the control period as well as after LSD-25 treatment in physostigmine injected Ss there was a significantly smaller number of spikes in each septal burst. Scopolamine and pentobarbitone disorganized septal and hippocampal activity. (16 ref.)—*Journal abstract*.

9433. McCarley, Robert W. & Hobson, J. Allan. (Harvard Medical School, Boston, Mass.) **Cortical unit activity in desynchronized sleep.** *Science*, 1970(Feb), Vol. 167(3919), 901-903.—Reports that bursts of unit firing associated with surface positive EEG waves and REMs account for the mean increase in discharge rate in desynchronized sleep over that of the synchronized phase. Firing rate begins to change toward the value it will assume in desynchronized sleep in the minute before the usual electrographic criteria of desynchronized sleep are present. (17 ref.)—*Journal abstract*.

9434. Naitoh, P., Johnson, L. C., & Lubin, A. (U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif.) **Modification of surface negative slow potential (CNV) in the human brain after total sleep loss.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 17-22.—Investigated the effects of total sleep deprivation on the contingent negative variation (CNV) and the utility of Hotelling's T^2 in comparing 2 CNVs. CNV was studied under base-line, total sleep deprivation, and recovery conditions in 8 Ss. Warning stimulus (S1) was a click, followed in 4.5 sec. by the imperative stimulus (S2), which was a set of flashes. During base line all Ss developed the CNV during the 4.5-sec foreperiod. 1 night of sleep loss decreased the CNV, and 2 nights of sleep loss abolished the CNV. The CNV wave was examined in 3 ways: (a) the univariate 0-mu t test which was applied repeatedly at various points during the 4.5-sec foreperiod, (b) the multivariate 0-mu Hotelling T^2 , and (c) the correlation between paired CNVs. The Hotelling T^2 shows the loss of the CNV during total sleep deprivation. (French summary) (20 ref.)—*Journal summary*.

9435. Nozdrachëv, A. D., Bezenkina, G. I., & Efimova, N. I. (Pavlov Inst. of Physiology, Leningrad, USSR) **Provodyashchie puti kaudal'nogo bryzhechnogo simpaticeskogo gangliya koshki.** [Conduction pathways of the caudal mesenteric sympathetic ganglion in

the cat.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 543-551.—Of 47 adult Ss under urethane or chloralose-urethane narcosis, 10 were subjected to decentralization of the mesenteric sympathetic ganglion and others to spinal section in order to exclude the influence of anesthesia. The presence of 3 types of fibers was established in the conduction pathways of the ganglion. The 1st 2 types with a conduction velocity of excitation of 12.9 ± 1.36 and $3.31 \pm .39$ m/sec were represented without interruption both ipsi- and contralaterally. These fibers are probably afferent conductors or preganglionic fibers of intramural ganglia. The 3rd type of fiber displayed synaptic switchover in the ganglion. Synaptic delay came up to $12.8 \pm .98$ m/sec. in ipsilateral recording and 63.1 ± 15.9 m/sec. in contralateral. For the latter it was possible to conjecture the presence of internuncial neurons. The conduction velocity of excitation in the preganglionic fibers of this pathway was $2.85 \pm .16$ m/sec; in postganglionic fibers it was $1.49 \pm .04$ m/sec. The existence of "true peripheral reflex pathways" with closure in the ganglion is confirmed. These pathways were represented exclusively by synaptically interrupted fibers. Synaptic delay came up to $30-45 \pm .4$ m/sec. (English summary) (21 ref.)—*I. D. London*.

9436. Oniani, T. N., Molnár, P., & Naneishvili, T. L. (Inst. of Physiology, Tbilisi, USSR) **O prirode paradoxal'noi fazy sna.** [On the nature of the paradoxal phase in sleep.] *Fiziologicheskii Zhurnal SSSR*, 1970(May), Vol. 56(5), 689-695.—Cortico- and subcorticograms were recorded for 35 cats in natural sleep. The paradoxal phase of sleep is shown to be a complex phenomenon, divisible into 3 stages: (a) general activation or desynchronization of slow electrical activity in all the structures of the brain, unaccompanied by REMs or muscle twitches; (b) prevalence of hippocampal theta-rhythm, accompanied by REMs, muscle twitches, and arrhythmic heart rate and respiration; and (c) prevalence of hippocampal delta rhythm, accompanied by occasional REMs and the absence of muscle twitches. These stages have corresponding "neurophysiological subcortical mechanisms." The first is due to excitation of the reticular formation, the second, to excitation of the hypothalamic drive centers, and the third, to that of the hypothalamic centers, bringing about drive inhibition. (English summary)—*I. D. London*.

9437. Peters, Jon F., et al. (Louisiana State U., Medical School, New Orleans) **Response variables and magnitude of the contingent negative variation.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 608-611.—Tested 13 right-handed male medical students in a fixed foreperiod RT task. Results indicate that with a repetitive stimulus that is terminated by the manual response made to it, the contingent negative variations following the warning stimulus will be of greater magnitude than when a single stimulus, over which S has no control, is used. It is suggested that different levels of motivation are involved in these 2 conditions. (French summary) (22 ref.)—*Journal summary*.

9438. Petsche, H., Rappelsberger, P., & Trappl, R. (Austrian Academy of Sciences, Brain Research Inst., Vienna) **Properties of cortical seizure potential fields.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 567-578.—Mapped potential fields of seizure waves in the cortexes of 11 rabbits by means of a computer and studied the relationships

between their behavior and the graphoelements. Findings indicated that (a) elementary seizure waves are due to circular potential fields moving in the 10^{-1} m/sec range over the cortex; (b) more complex graphoelements are due to the superimposition of potential fields of different characteristics; and (c) usually, regular repetitive seizure waves are due to potential fields moving in the same direction. At cytoarchitectonic borderlines the potential fields became distorted and faded out or elicited other potential fields to arise in the contiguous area. Transverse vertical incisions in the cortex prevented the potential fields from transgressing the incision and from spreading along it. The polarity of the potential field that moves corresponded to the polarity of the more "peaked" phase (the steeper phase) of the graphoelement. In most cases the positive fields were the moving ones. The consequences of these observations for the nature of the EEG are discussed. (German summary) (26 ref.)—*Journal summary*.

9439. Porter, R., Lewis, M. McD., & Linklater, G. F. (Monash U., Clayton, Victoria, Australia) **A headpiece for recording discharges of neurons in unrestrained monkeys.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 91-93.—Describes a headpiece which can be attached conveniently and readily to a monkey's skull. The headpiece carries extensions that allow for fixation of S during recording sessions and a cylindrical receiver for the microdrive assembly which allows microelectrodes to be inserted into chosen brain structures while S is free to move and carry out manipulative tasks. (French summary)—*Journal summary*.

9440. Prince, D. A. & Futamachi, K. J. (Stanford U., Medical School, Div. of Neurology) **Intracellular recordings from chronic epileptogenic foci in the monkey.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 496-510.—Administered 2-4 intracortical aluminum hydroxide gel injections to 4 rhesus monkeys. Extra- and intracellular recordings were obtained from neurons of chronic alumina epileptogenic foci during focal epileptiform discharges. It was found that (a) Alterations in the frequency of spike discharge occurred during interictal surface epileptiform waves. (b) Spontaneously occurring slow membrane depolarizations and hyperpolarizations were closely associated with surface epileptiform waves. (c) Depolarizations generated bursts of spikes similar to those characteristically seen in extracellular recordings from the alumina focus. (d) Discharge patterns of involved neurons were similar qualitatively to those of acute epileptogenic foci, and (e) amplitudes of surface epileptiform discharges and intracellularly slow membrane events were smaller and the proportion of neurons involved in epileptogenesis was lower in the chronic focus. It is suggested that these differences may result from the more diffuse nature of the chronic alumina focus. Intracellular data are discussed in relation to proposed mechanisms of burst generation in neurons of the chronic epileptogenic focus. (French summary) (32 ref.)—*Journal summary*.

9441. Saunders, James C. (Monash U., Clayton, Victoria, Australia) **Cochlear nucleus and auditory cortex activity during threshold discriminations in cats.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 73-78.—Investigated the relationship between sensorineural activity and behavioral discriminations of acoustic stimuli in 2 experiments. Exp. I compared simultaneously the behavioral detection of 1

and 2 kcps tones of varying intensity with the amplitude of a frequency-following response in the cochlear nucleus in 3 cats. In Exp. II with 2 cats, behavioral thresholds for the detection of a cochlear nucleus electrical pulse were related to threshold levels of auditory cortex evoked responses. Results of both experiments demonstrate a correspondence between the level of neural activity and the behavioral detection of acoustic stimuli. It is suggested that simultaneous acquisition of neural and behavioral data are unsuited to an absolute threshold discrimination task. (French summary) (15 ref.)—*Journal summary*.

9442. Sherwin, Ira. (Harvard Medical School, Boston, Mass.) **Burst activity of single units in the penicillin epileptogenic focus.** *Electroencephalography & Clinical Neurophysiology*, 1970(Oct), Vol. 29(4), 373-382.—Studied burst firing patterns of single units in the penicillin epileptogenic focus in the cerebral cortex of 18 cats. Based on an analysis of their interspike interval histograms, it is suggested that within a burst the spike intervals tend to be distributed logarithmic-normally. A possible model, based on logarithmic-normal theory, is proposed for spontaneous unitary activity in epileptic and nonepileptic cortex. These data appear to support the concept of the "epileptic-aggregate" as a basic mechanism underlying epileptogenesis. (22 ref.)—*Journal summary*.

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9443. Menini, C., Dimov, S., Vuillon-Cacchiuto, G., & Naquet, R. (National Center of Scientific Research, Inst. of Neurophysiology, Marseille, France) **Réponses corticales évoquées par la stimulation lumineuse chez le Papio papio.** [Cortical responses evoked by light stimulation in *Papio papio*.] *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 233-245.—Studied the cortical reactivity to light stimuli (potentials evoked by isolated stimuli and excitability cycles) using paired stimuli at different intervals in 19 photosensitive and nonphotosensitive monkeys. The occipital evoked potential and the excitability cycle of the occipital cortex were similar to those classically described in man. No significant differences were observed between photosensitive and nonphotosensitive Ss. Evoked responses of small amplitude and short latency were observed in the rolandic, frontorolandic, and oculomotor regions. The frontorolandic and oculomotor regions showed striking hyperexcitability involving the late part of the response, particularly marked when S's eyes were closed. The hyperexcitability of the frontorolandic region was 3-4 times greater in photosensitive Ss. It appeared as an oscillatory late activity, particularly clear when the stimulus interval corresponded with the most epileptogenic frequency of stimulation in this animal. The role of reactivity of the frontorolandic cortex in the triggering of paroxysms by flicker is discussed. (41 ref.)—*English summary*.

9444. Barlow, John S. & Estrin, Thelma. (Massachusetts General Hosp., Boston) **Comparative phase characteristics of induced and intrinsic alpha activity.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 1-9.—Compared the phase characteristics of intrinsic alpha activity and of the alpha activity induced by slowly repeated flashes (i.e., rhythmic afterwaves) in 9 adult Ss. EEG recordings from a midline

5-electrode array from the midocciput to the vertex were analyzed by averaging. For most Ss the waves tended to peak progressively earlier at the more anterior locations for both activities than at the occiput where there was considerable variation. No close parallel between induced and intrinsic activity emerged with respect to phase characteristics along the electrode array. Comparison of the amplitude characteristics of the averaged curves indicated that the generators giving rise to the flash-induced alpha activity at the different points along the electrode array are synchronized to a greater degree than are those that give rise to the intrinsic alpha activity. Results are discussed in relation to possible generator mechanisms and function of the induced and intrinsic alpha activity. (French summary) (47 ref.)—*Journal summary*.

9445. **Batuev, A. S. & Pirogov, A. A.** (Leningrad State U., USSR) *Analiz korkovykh vyzvannykh potentsialov pri posloinoi registratsii*. [Analysis of cortical evoked potentials in recording by layer.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 518-526.—24 cats under nembutal and chloralose narcosis were Ss in a study of the inversional effect involving the phases of (a) the primary responses in the visual cortex to light flashes (not more than 50 microsec.), and (b) the associative responses to light in the region of the posterior sigmoid gyrus. On comparison of latent periods before the beginning of the 1st phases of the primary response from the cortical surface and cortical depth of 1300-1500 microns, a significant difference of 1.6-2.9 msec. was disclosed, and the difference in latent periods before the amplitudinal maximum of both initial phases might attain a value of up to 2.4-10 msec. Under chloralose narcosis the deep negative phase of the primary response began later than surface positiveness (in 1.5-3.5 msec. for short-latency primary responses; in 6-7.5 msec. for long-latency primary responses). The amplitudinal maxima of both phases also did not coincide. Associative responses to a light flash, recorded from the surface of the posterior sigmoid gyrus, did not under chloralose narcosis undergo inversion in depth and maintain their positive-negative pattern throughout the layers of the cortex. (English summary) (32 ref.)—*I. D. London*.

9446. **Clusin, William; Giannitrapani, Duilio, & Roccaforte, Peter.** (Michael Reese Psychosomatic & Psychiatric Inst. for Research & Training, Chicago, Ill.) *A numerical approach to matching amplification for the spectral analysis of recorded EEG*. *Electroencephalography & Clinical Neurophysiology*, 1970(Jun), Vol. 28(6), 639-641.—Reports that certain previously inconsequential discrepancies in the amplification provided by EEG equipment were found to introduce considerable inaccuracy into measurements of spectral density and average phase angle over a broad frequency range. These discrepancies seem to be a necessary consequence of small inaccuracies in gain adjustment between amplifiers, of drift in the postamplifiers and of minor asymmetries in the RC coupling of the preamplifiers. By measuring the extent of discrepancies among the spectral measurements of simultaneously amplified versions of an EEG calibration signal, it was possible to develop a reliable procedure for correcting these measurements arithmetically. (French summary)—*Journal summary*.

9447. **Gardiner, Martin F.** (U. California, Los Angeles) *Changes in evoked electrical activity at the scalp of man associated with change in a stimulus-analysis task: A study employing step-wise dis-*

criminant analysis. *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3845.

9448. **Gofman, S. S. & Freidin, Ya. V.** (Research Inst. of Industrial Hygiene & Occupational Diseases, Sverdlovsk, USSR) *Dannye mnogokanal'noi radio-élektroéntsefalografii u cheloveka pri nervno-émotsional'nom napryazhenii*. [Multichannel radio-electroencephalographic data in man under neuro-emotional tension.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970(Nov), Vol. 70(11), 19-22.—10 18-37 yr. old Ss participated in a radiotelemetric study of the changes occurring in cerebral bioelectrical activity during tense mental activity under conditions of stress. Radio-EEG recordings with open and closed eyes were made (a) at 2-50 min. intervals before an oral examination, (b) while preparing to answer, (c) during the process of answering, and (d) twice after the examination. Behavior under conditions of stress is shown to correlate with definite EEG manifestations, predominantly expressed (when eyes are open) by increased high-amplitude, periodically regular or paroxysmal slow activity, especially in the occipital regions. (English summary)—*I. D. London*.

9449. **Goldring, Sidney; Aras, Erturan, & Weber, Peter C.** (Washington U., Medical School) *Comparative study of sensory input to motor cortex in animals and man*. *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 537-550.—Identified sensory inputs by transcortical recording of evoked responses and by observations of anesthetized and waking states in 13 cats, 8 squirrel monkeys, and 18 human patients with craniotomies. Input in cats could only be identified in the waking state. The response had a long latency, compared to that in the somatosensory area (S1), and could be evoked by ipsilateral and contralateral somesthetic stimulation and auditory stimuli, but not by visual excitation. Input in monkeys under anesthesia had the same features as that projecting to S1. In the waking state, S1 type input and a long latency ipsilateral and polysensory input were observed similar to that of the cat. Input in man varied. Some showed no contralateral sensory input to motor cortex; others showed only an S1 type projection, or a response of slightly longer latency. Both absence and presence of input could be seen in either the anesthetized or waking S. Ipsilateral somesthetic stimulation evoked no response or a very small potential of nonlocal origin. A response to click was not seen. It is concluded that human motor cortex plays a less important role in integration of disparate sensory inputs from the periphery than does motor cortex of lower animals. (French summary) (28 ref.)—*Journal summary*.

9450. **Hardin, William B. & Castellucci, Vincent F.** (Washington U., Medical School) *Analysis of somatosensory, auditory and visual averaged transcortical and scalp responses in the monkey*. *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 488-498.—Recorded averaged evoked responses (AERs) to median nerve, auditory, and photic stimulation with scalp vertex-to-nose or vertex transcortical electrodes in 45 unanesthetized squirrel monkeys. The AERs of all 3 modalities were compared with respect to peak amplitudes and wave shapes in the same and different Ss, and a characteristic pattern for each modality was constructed from the total group. The photic AER differed clearly from the other 2, which were similar. The referentially recorded vertex-to-nose AER

was identical to the single flash electroretinogram. Transcortical recordings were made of AERs from 202 cortical points in 21 Ss using shock, click, and photic stimuli. The frontal cortex and vertex produced locally generated long latency waves to shock and click but not to flash. Only the occipital cortex was productive of true photic responses. The importance of recording with bipolar electrodes across small distances, when studying small-brained animals, to eliminate confusion from unwanted potentials is emphasized. (French summary) (31 ref.)—*Journal summary*.

9451. Hjorth, Bo. (Elema-Schönaner AB, Research & Development Lab., Solna, Sweden) **EEG analysis based on time domain properties.** *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 306-310.—Presents a method describing the general characteristics of an EEG trace in a few quantitative terms. Its descriptive parameters are entirely based on time, but they can be derived also from the statistical moments of the power spectrum. The method provides a bridge between a physical time domain interpretation and the conventional frequency domain description. The parameters are also based on the concept of variance, giving them an additive property so that the measured values pertain also to any basic elements from which a complex curve may be composed by superposition. The proposed method offers a way to on-line measurement of basic signal properties by means of a time-based calculation, requiring less complex equipment compared to conventional frequency analysis. The data-reducing capability of the parameters has been experimentally stated in the recording of sleep profiles. (French summary)—*Journal summary*.

9452. Jewett, Don L. (U. California, Medical Center, San Francisco) **Volume-conducted potentials in response to auditory stimuli as detected by averaging in the cat.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jun), Vol. 28(6), 609-618.—With the tongue as a reference point in 18 deeply anesthetized cats, recordings from the scalp or rostral brain locations were obtained by repeated averaging, time-locked to an auditory click, which showed 4 positive waves which were labeled P₁, P₂, P₃, and P₄. P₁ occurs simultaneously with N₁ recorded at the round window and is probably generated by the VIIIth nerve. The other waves are likely to be composites of both slow and fast wave activity, but each shows increased amplitude or inversion of polarity or both in the vicinity of classical auditory structures: P₂ near the cochlear nucleus, P₃ near the superior olive, and P₄ in and on either side of the inferior colliculus. A P₅ wave was observed in the inferior colliculus or slightly rostral to it. The medial geniculate and auditory cortex showed no evoked potentials. Results indicate that widely spaced electrodes can detect potentials, by means of averaging, at considerable distances from the generator of the potentials, so that additional evidence about the location of the generator must be provided when using this recording arrangement. The technique can be used to record a sensory system from a single electrode outside the system. (French summary) (26 ref.)—*Journal summary*.

9453. Larsen, L. E. & Walter, D. O. (U. California, Brain Research Inst., Los Angeles) **On automatic methods of sleep staging by EEG spectra.** *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 459-467.—Describes a comparison of the multiple regression (MR) technique for sleep stages classification and the technique of multiple discriminant

(MD) analysis, using data provided by the experiments of L. C. Johnson, et al. (see PA, Vol. 44:20286). Application of MD analysis showed an improvement in the identification of Stage-3 sleep (from 0-77%) and REM (from 70-75%) and greatest loss in Stage 4 (from 91-69%). High- and low-alpha Ss, as identified by waking records, were easily discriminated in all stages studied, except REM, where only 1 record was misclassified from each group. Other techniques were investigated to improve the MD method. The combination of a layered decision process that is based on the identification of "clumps" in the test space and the use of smooth curved decision boundaries (i.e., quadratic discriminant functions) raised performance to the following agreements with clinical classification: (a) waking, 91%; (b) Stage 1, 64%; (c) REM, 66%; (d) Stage 2, 85%; (e) Stage 3, 85%; and (f) Stage 4, 85%. It is concluded that the spectra are adequate measurement parameters for all sleep stages, with the exception of Stage 1 and REM where the level of performance is marginally acceptable. (French summary)—*Journal summary*.

9454. Lessard, C. S. & Paschall, R. C. (U. S. Air Force School of Aerospace Medicine, Brooks Air Force Base, Tex.) **A system for quantifying EEG slow wave activity.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 516-520.—Describes a system for quantification of sleep EEG slow wave activity by compressing the EEG information and presenting sleep trends. Rationale for the design originates from computer studies into signal decomposition and variability of the EEG activity during a normal night of sleep. A digital, time interval, delta filter system sums and plots the amount of delta activity occurring in each 1-min epoch in discrete steps. A high degree of correspondence is apparent from the resulting plots between the depth of sleep and the delta activity level. (French summary)—*Journal summary*.

9455. Lopes da Silva, F. H., van Rotterdam, A., van Leeuwen, W. Storm, & Tielen, A. M. (Inst. of Medical Physics, Brain Research Group, Utrecht, Netherlands) **Dynamic characteristics of visual evoked potentials in the dog: I. Cortical and subcortical potentials evoked by sine wave modulated light.** *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 246-259.—Recorded and analyzed, by discrete Fourier analysis, potentials evoked by sine wave modulated light (SML) from the lateral geniculate nucleus and occipital cortex of 5 unanesthetized dogs. The harmonic components of SML evoked potentials were described by frequency response functions. A linear description was only possible regarding the SML evoked potentials recorded from the posterior marginal gyrus. 3 types of nonlinearities were characterized: saturation, nonlinear oscillations responsible for the generation of subharmonics, and essential nonlinearities. The essential nonlinearities corresponded to rectification occurring in "on" and "off" neuronal populations; they were the dominant features of SML evoked potentials in the lateral geniculate nucleus and the calcarine region of occipital cortex. Phase functions were determined in part by a delay time. Relations between SML evoked potential parameters and data obtained at the unit level are discussed. (French summary) (23 ref.)—*Journal summary*.

9456. Lopes da Silva, F. H., van Rotterdam, A., van Leeuwen, W. Storm, & Tielen, A. M. (Inst. of Medical Physics, Brain Research Group, Utrecht, Netherlands)

Dynamic characteristics of visual evoked potentials in the dog: II. Beta frequency selectivity in evoked potentials and background activity.

Electroencephalography & Clinical Neurophysiology, 1970(Sep), Vol. 29(3), 260-268.—Investigated beta selectivity noted in previous research with sine wave modulated light (SML) stimulation by F. Lopes da Silva, A. van Rotterdam, W. van Leeuwen, and A. Tielen (see PA, Vol. 45:Issue 6). SML evoked potentials in dogs, recorded from the posterior marginal gyrus, were described as generated by a beta frequency selective system. Beta resonance was related to the dominant mode of spontaneous activity recorded from the same brain area and characterized by means of power spectra. The resonance behavior of cortical SML evoked potentials was dependent on the state of the S and disappeared during light nembutal anesthesia. A linear model including resonance was devised to account for the cortical frequency selective system. The model was tested experimentally by obtaining the system's impulse response by means of cross-correlating the input and output of the system excited with noise modulated light. The implications of beta selectivity in terms of neural pathways and networks are discussed. (French summary) (23 ref.)—*Journal summary*.

9457. Lüders, Hans. (Kyushu U., Fukuoka, Japan) **The effects of aging on the wave form of the somato-sensory cortical evoked potential.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 450-460.—Studied cortical evoked responses to stimulation of the median nerve in 40 normal 19-69 yr. old Ss. Latency, interpeak delay, absolute amplitude, and ratio of amplitudes were classified according to their relation with the positive peaks P_1 - P_4 in 4 principal components. The effects of aging observed were (a) latencies of Components 1 and 4 presented no significant alteration, but the latencies of Components 2 and 3 lengthened significantly with older age; and (b) amplitudes described a U-shaped curve, decreasing at the 30-45 yr. age level and increasing again in older age. In the amplitudes of Component 2, the descending limb of the U was not significant, and in Component 4, no ascending limb of the U was noticed. Each of the 4 principal components that presented a characteristic alteration with aging corresponded to the following functional units: late part of the classical positive-negative primary response, association response, 1st late component, and "V" potential. Findings suggest a selective sensitivity of the different functional units of the somatosensory evoked potential to the aging process. (French summary) (33 ref.)—*Journal summary*.

9458. Norton, P. R. (B.D.H. Research Ltd., Godalming, England) **Differences in the electrophysiological correlates upon receipt of food reward and nonreward in the rat.** *Brain Research*, 1970, Vol. 24(1), 134-138.—Studied the electrophysiological manifestations of emotion in 5 male Wistar rats. Ss were trained to press a lever to receive food pellets in response to an auditory signal. Ss were tested in 38 sessions, each consisting of 20 rewarded and 20 unrewarded trials presented randomly. Analyses of EEGs indicate that potential and amplitude changes differ in the 2 situations, especially in the reticular formation and amygdala. Since these areas have been found in previous research to be connected with emotion, it is suggested that the observed differences between receipt and nonreceipt of a reward are probably correlated with the emotional significance of the situations. The possible impact of the

variables of olfaction and grasping of food are noted.—S. Knapp.

9459. Rebert, Charles S. & Knott, John R. (Stanford Research Inst., Menlo Park, Calif.) **The vertex non-specific evoked potential and latency of contingent negative variation.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jun), Vol. 28(6), 561-565.—Compared potentials evoked at the vertex of 10 adults by clicks or light flashes to potentials elicited during conditions that gave rise to contingent negative variations (CNVs). It was tentatively concluded the CNV onset does not occur before 400 msec. after a warning stimulus, and that CNV onset, or amplitude, or both are related to the optimal CS-UCS interval in classical conditioning. The data were also interpreted as suggesting independent genesis of initial and late components of the vertex evoked potential-CNV complex. Methodological problems associated with the analysis of CNV experiments are suggested. (French summary)—*Journal summary*.

9460. Rhodes, Leland E. & Fleming, Donovan E. (Veterans Administration Hosp., Phoenix, Ariz.) **Sensory restriction in the albino rat: Photically evoked after-discharge correlates.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 488-495.—Examined visually evoked responses (VERs) in sensory deprived and control rats with particular attention to after-discharge (AD) patterns affected by sensory restriction. In Exp. I 16 littermate albino rats were raised under sensory deprived and 16 under usual laboratory conditions. Amplitudes of the early N_1 - P_2 component and the later AD activity of the deprived Ss were reduced in size. In Exp. II 16 Ss were raised under deprived conditions, 8 receiving 4 hr. of pulsed light each day. No reliable differences were noted between the 2 groups. Treatment of 8 Ss with pentylenetetrazol (metrazol) produced a reliable VER mean excursion increment, while sodium pentobarbital (nembutal) had no notable effect of VER AD. Extended exposure of 8 Ss to usual laboratory conditions resulted in significant increments in AD amplitude. It is suggested that within the limits of this investigation the effects of sensory deprivation on the rat nervous system are reversible. (French summary)—S. Knapp.

9461. Rhum, Howard B. & Jansen, John W. (U. Oklahoma, Medical Center, Oklahoma City) **Rate of stimulus change and the evoked response: I. Signal rise-time.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 211-216.—The latency and amplitude of summed EEG responses, evoked by tonal stimuli, were measured as a function of signal rise-time on 10 normal-hearing adults. Response latency, measured from an estimated threshold of auditory sensitivity, varied irregularly across rise-times from 10-100 msec. The most salient finding was that latency remained constant between rise times of 100 and 500 msec. This finding is contrasted with measurements made from the beginning of signal onset, which do not take into consideration audiometric threshold, and show an apparent increase in latency as a function of increasing signal rise-time. Response amplitude is a sensitive index of the rate at which signal amplitude changes. The N_1 - P_2 component decreases by approximately .75 microV for each 100-msec decrease in rate of signal onset (increase in rise-time).—*Journal summary*.

9462. Roessler, R., Collins, F., & Ostman, R. (Baylor Coll. of Medicine, Houston, Tex.) **A period analysis classification of sleep stages.** *Electroencephalography*

& *Clinical Neurophysiology*, 1970(Oct), Vol. 29(4), 358-362.—Describes the predictive application of a period analysis classification of waking and sleep stages which achieved an overall agreement of 69% with visually classified epochs among 18 young male Ss. The classification was based upon the number of sec/20 sec epoch of major period counts in each of 3 bandwidths: 0-3, 4-7, and 8-30 cps. Agreement with Stages W (waking), 3, and 4 exceeded the interrater (76%) and intrarater (77%) reliability of visually classified epochs, whereas the identification of Stages 1 and 2 was 45% and 63%, respectively. It is proposed that Stages 1, 1-REM, and 2 may be identified accurately by period analysis of electrooculogram and EMG and by shortening the resolution of 1 sec. used in this study to .5 sec. (French summary)—*Journal summary*.

9463. Rothman, Howard H., Davis, Hallowell, & Hay, Izak S. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Slow evoked cortical potentials and temporal features of stimulation.** *Electroencephalography & Clinical Neurophysiology*, 1970(Sep), Vol. 29(3), 225-232.—Evoked slow cortical responses from 6 16-47 yr. old Ss by either shocks or clicks. Electrodes were at the vertex and the right mastoid region. Various temporal features of stimulation were explored, e.g., regularity of stimulus intervals, duration of intervals, background stimulation rate, and the effect of prolonged exposure to stimulation. In general, the amplitude of response (N_1-P_2) is considerably increased by lengthening the intervals between stimuli. The last interval is the most important but the mean interval, over the prior 10 sec., is also significant. The recovery process for shocks appeared to be faster than for clicks. Irregularity of stimulation per se gives only a slight enhancement. (French summary)—*Journal summary*.

9464. Sagalovich, B. M. & Shipova, L. I. (Research Inst. of Otorhinolaryngology, Moscow, USSR) **Sootnoshenie velichin elektricheskoi reaktivnosti ulitki na deistvie zvukovykh i ul'trazvukovykh stimulov pri vozdušnom i pri kostnom ikh provedenii.** [Relationship between magnitudes of cochlear electrical reaction to the action of sound and ultrasound stimuli conducted through air and bone.] *Fiziologicheskii Zhurnal SSSR*, 1970(Aug), Vol. 56(8), 1118-1124.—The cochlear microphonic potentials of 24 rabbits and 19 guinea pigs were recorded. The ratio of thresholds of stimulation through air and bone is shown to be a function of the frequency of the test tones. In all Ss, the thresholds of auditory stimulation through bone conduction exceeded those through air conduction in the range of frequencies up to 25-27 kcps for rabbits and 27-32 kcps for guinea pigs. With higher frequencies, thresholds for bone conduction progressively dropped below those for air conduction. Analogous relationships obtained in cochlear reactions to stimuli of suprathreshold intensity. (English summary)—*I. D. London*.

9465. Sarne, Yosef & Feldman, Shaul. (Hadassah U. Hosp., Jerusalem, Israel) **Sensory evoked potentials in the hypothalamus of the rat.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 45-51.—Recorded sciatic, acoustic, and photic evoked potentials in the hypothalamus in 32 male albino rats under urethane anesthesia. While the sciatic and acoustic responses were of short latency and had a short neuronal recovery, the photic responses were of long latency and their recovery was prolonged. Evoked potentials in the

lateral hypothalamus were of shorter latency than those recorded in the medial regions. Possible neural pathways involved in the mediation of the sensory impulses to the hypothalamus are discussed. (French summary) (16 ref.)—*Journal summary*.

9466. Shaw, J. C. (Graylingwell Hosp., Clinical Psychiatry Unit, Chichester, England) **A method for continuously recording characteristics of EEG topography.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 592-601.—Describes a method for continuously recording characteristics of EEG topography. The signal derived from 1 electrode is chosen as a reference signal and the activities at other electrodes are compared with it. Comparison is made by using exponentially weighted moving average estimates of the correlation coefficient, regression coefficient, and time difference between signals. The presence of focal activity in noise can be detected provided the signal is available noise-free at 1 channel. The technique is used to show that the topographical change in alpha activity, as a result of doing mental arithmetic, differs from that due to opening the eyes. The asymmetry of alpha time relationships in the 2 hemispheres is confirmed and the relation of these measures to models of alpha distribution is discussed. (French summary) (42 ref.)—*Journal summary*.

9467. Sommer-Smith, J. A. & Morocutti, C. (Inst. of Investigation of Biological Sciences, Montevideo, Uruguay) **Cortical and subcortical evoked potentials during conditioning.** *Electroencephalography & Clinical Neurophysiology*, 1970(Oct), Vol. 29(4), 383-391.—Studied the amplitudes of the waves of cortical and subcortical potentials evoked by a sound in relation to behavior, EEG, and learning procedure during the classical conditioning stages in 10 cats. The stages were completed without concomitant regular evolution of the evoked potentials, either specific or nonspecific, e.g., consistent diminution during habituation and extinction, and increase during reinforcement. Results indicate that intrinsic increase of the evoked potentials, independent of voltage modifications of the basal EEG, were systematically evident when the stimulus provoked an actual state of alertness. (French summary) (21 ref.)—*Journal summary*.

9468. Sterman, Maurice B., Howe, Richard C., & MacDonald, Lorraine R. (Veterans Administration Hosp., Sepulveda, Calif.) **Facilitation of spindle-burst sleep by conditioning of electroencephalographic activity while awake.** *Science*, 1970(Feb), Vol. 167(3921), 1146-1148.—Correlated behaviorally a slow-wave EEG rhythm recorded from the sensorimotor cortex of 8 adult waking cats with the suppression of movement. Facilitation of this rhythm through conditioning selectively enhanced a similar pattern recorded during sleep, the familiar spindle burst. The training also produced longer epochs of undisturbed sleep. The specific neural mechanism manipulated during wakefulness appeared to function also in sleep and to be involved with the regulation of phasic motor behavior.—*Journal abstract*.

9469. Symmes, D., Prichard, J. W., & Mann, L. I. (National Inst. of Health, Bethesda, Md.) **Spectral analysis of fetal sheep EEG during hypoxia.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 511-515.—Obtained power spectra and coherence functions on samples of EEG recorded from fetal sheep in utero. Hypoxia was

produced by respiring the ewe on gas mixtures containing reduced oxygen pressure. With both halothane and local anesthesia, the EEG changes associated with hypoxia consisted of an early power reduction in higher frequencies followed by a reduction of overall amplitude leading to the isoelectric state. Results show that the times at which statistically significant changes occur are not earlier during the progressive fall of fetal arterial pO_2 than visual estimates of abnormality made on line from the paper record and are in all cases later than significant cardiovascular changes. (French summary)—*Journal summary*.

9470. Vlakovitsch, Stephan. (Swiss Inst. for Epileptics, Zurich) **The technique and preliminary results of intraventricular EEG recording (brain-stem EEG).** *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 513-517.—Presents a method of intraventricular EEG recording: Suboccipital puncture is made with a special needle which consists of 2 barrels, 1 inside the other, each of which has a longitudinal slit on opposite sides. After the bundle of electrodes, which is composed of 2-8 insulated silver wires (diameter of each wire .065-.12 mm.) is inserted, it glides forward along the dorsal plane of the medulla and, by its medial position, reaches the ventricular system through the foramen of Magendi. Out of a total of 22 punctures the ratio of successful to unsuccessful attainment of the ventricular system was 1:3. The same insertion of the electrodes was performed on 4 dogs. Histopathological examinations showed neither damage nor later reactions of the brain tissue. A case of Jacksonian epilepsy is presented in which, during an attack, theta activity could be recorded in the brainstem area. It is suggested that this method will open new sources of clinically useful information in brain, epilepsy, and dream research. (German summary)—*Journal summary*.

9471. Weiss, Marc S. (U. Rochester) **The effects of changes in conditioned behavior on some properties of the evoked potential.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3509-3510.

SENSORY PHYSIOLOGY

9472. Beitel, Ralph E. (U. Wisconsin) **The head orienting response, sound localization and habituation in the cat.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1557.

9473. Fergenson, Prosper E. (U. Massachusetts) **The effect of signal probability, food intake, sex, and smoking on the gustatory response to sucrose, as measured by the theory of signal detectability.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3885.

9474. Ganchrow, Judith R. (Duke U.) **Neutral encoding of gustatory intensity and quality.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1563.

9475. Guedry, Fred E., Owens, Gale G., & Norman, Joel W. **Assessment of semicircular canal function: I. Measurements of subjective effects produced by triangular waveforms of angular velocity.** *USNAMI Army-Navy Joint Report*, 1969(Jun), No. 1073, 16 p.—Compared 2 methods for measuring subjective angular displacement produced by triangular waveforms of

angular velocity while young naval officers were enclosed in a vertical-axis rotation device that excluded visual and auditory cues of angular motion. Accuracy of subjective estimates was influenced by the methods and by the magnitudes of the acceleration comprising the stimulus waveforms. Results suggest that 1 of the methods, with slight modification, will provide reliable indication of the subjective effects of controlled semicircular canal stimulation. (20 ref.)—*Journal abstract*.

9476. Gusef'nikov, V. I. **Pervaya vsesoyuznaya konferentsiya po strukture i funktsii obonyatel'nogo analizatora zhivotnykh i cheloveka i ikh modelirovaniyu.** [First All-Union Conference on the Structure and Function of the Human and Animal Olfactory Analyzer and Their Modeling.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 676-678.—Presents an account of the 1969 conference, held in Moscow. Summaries of a number of papers are provided, dealing with (a) the morphology and histochemistry of the olfactory analyzer, (b) the theory of olfactory perception and the mechanisms involved in the primary processes of olfactory reception, (c) the features characterizing the functional organization and the course of the basic nervous processes at all levels of the olfactory analyzer (epithelium, bulb, and higher centers), (d) the role of olfaction in animal behavior, (e) research methodology and modeling of olfactory functions, and (f) clinical analysis.—I. D. London.

9477. Liff, Harold J. & Goldstein, Moise H. (Johns Hopkins U., Medical School) **Peripheral inhibition in auditory fibers in the frog.** *Journal of the Acoustical Society of America*, 1970(Jun), Vol. 47(6, Pt. 2), 1538-1547.—Studied 2-tone interactions in complex units in 20 bullfrogs and 44 leopard frogs. The discharges of a complex unit in response to a tone at its best excitatory frequency (BEF) could be suppressed by addition of a 2nd, higher-frequency tone. The best inhibitory frequency (BIF) was that for which the least intense tone totally suppressed the response to a BEF tone. Between BEF and BIF, there was a frequency range in which tones had both excitatory and inhibitory effects, called the "gray region." During prolonged continuous presentation of a high-level inhibiting tone, the inhibitory effect showed no adaptation. A rebound in firing rate occurred when a unit, which had been previously adapted and then inhibited, was released from the inhibition by terminating the inhibitory tone. The level of an inhibitory tone necessary for total inhibition depended on excitator level, even for levels at which the spike rate in response to the excitator alone had saturated. Results are discussed regarding the stage in the process leading to neuronal excitation at which inhibition occurs, and 2-tone interactions in frog complex units are compared with those in mammalian 1st-order units. (21 ref.)—*Journal abstract*.

9478. Meiselman, Herbert L. & Halpern, Bruce P. (U.S. Army Natick Lab., Mass.) **Effects of Gymnema sylvestre on complex tastes elicited by amino acids and sucrose.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1379-1384.—Studied the effects of an aqueous decoction of the taste modifier, *Gymnema sylvestre*, on 2 amino acids, glycine and dl-alanine, and on sucrose. Each of 6 nonsmoking undergraduates estimated the magnitude of each taste quality response category (sour, salty, bitter, and sweet) on each presentation of a solution. G extracts produced the expected depression of sweetness for all 3 chemicals, and also produced

depressions and enhancements of some of the other taste quality categories for these stimuli. Results are discussed in terms of: (a) possible reciprocal characteristics of taste quality categories, (b) taste mixtures, and (c) simple and complex taste sources. (31 ref.) *Journal abstract.*

9479. Owens, Gale G. & Guedry, Fred E. **Assessment of semicircular canal function: II. Individual differences in subjective angular displacement produced by triangular waveforms of angular velocity.** *USN AMI Army-Navy Joint Report*, 1969(Jun), No. 1074, 15 p.—Mean estimates ($N=26$) of short arcs of passive whole-body rotation about an Earth-vertical axis were accurate when Ss used a psychophysical procedure that involved counterdisplacement of a pointer on a dial. 26 19-25 yr. old navy midshipmen, officer flight candidates, and medical students served as Ss. The required retrospective displacement judgments yielded more accurate mean estimates of angular displacement than were obtained previously. The differences in response curves in the various conditions of the 2 experiments illustrate the importance of attention to psychophysical procedures prior to attempting to develop models of the vestibular endorgans to explain results. The method used is sufficient to detect prominent individual differences within a sample of aviation training candidates, and the results obtained thus far indicate high test-retest reliability ($r_{12}=.94$).—*Journal abstract.*

9480. Pearlman, Alan L. & Daw, Nigel W. (Washington U., Medical School) **Opponent color cells in the cat lateral geniculate nucleus.** *Science*, 1970(Jan), Vol. 167(3914), 84-86.—Describes a microelectrode survey of the lateral geniculate in 3 adult cats which uncovered an infrequent new type of lateral geniculate cell in Layer B with "on" center responses to short wavelength and "off" center responses to long wavelength. The short wavelength responses were mediated by cones with peak sensitivity at about 450 nm., and the long wavelength responses by cones with peak sensitivity at 556 nm. 2 of the 3 opponent color cells also had double opponent features. *Journal abstract.*

9481. Shaifut, E. P. (Leningrad State U., USSR) **Rol' antennnykh svoistv setchatki v analize zritel'nogo prostranstva.** [Role of the antennal properties of the retina in analysis of visual space.] *Fiziologicheskii Zhurnal SSSR*, 1970(Feb), Vol. 56(2), 137-143.—A new mechanism is suggested for the estimation of distances and sizes of objects within the visual system. It is shown that, as a result of neuronal processing of distributional data accruing from the activity of directionally sensitive cones, information could be gained on the relative positions of objects in the visual field independently of whether their images are in or out of focus on the retina, and the state of accommodation of the eye. Such information is procurable if the retina is thought as having the properties of a "polyclemental antenna": (a) the individual receptor possesses angular selectivity, (b) the cylindrically symmetrical axes of all receptors pass through the center of the crystalline lens, and (c) there is lateral processing of the distributional data on receptor activity. 2 stages of central processing of retinal information are postulated: a projective stage of analysis, and an associative stage which involves the use of past experience. Thus, the first corresponds to the "projection of sensation" of an object, and the other to determination of the "quality of the object in sensation." The neuronal processing of retinal activity is presented in the

form of formulae whose consequences agree quite well with the experimental facts derived from the study of size constancy. (English summary)—*I. D. London.*

9482. Young, Laurence R., Meiry, Jacob L., Newman, Joel S., & Feather, James E. (U.S. Air Force Systems Command, Wright-Patterson Air Force Base, O.) **Research in design and development of a functional model of the human nonauditory labyrinths.** *USAF AMRL Technical Report*, 1969, No. 68-102, 1-107.—Describes a physical functional model of the human vestibular system which may be exposed to the same linear and angular motions which men normally receive. The model indicates the predicted vestibular outputs which correspond to nonvisual perception or orientation in space, and nystagmus. It may be used as a guide to experiments, for prediction of unusual effects, and as a training aid. The vestibular model consists of 2 major subassemblies: a 3-axis gimbal system for simulating head motion; and a special purpose analog computer which permits simulation of the semicircular canal and otolith dynamic response and nonlinearities. (27 ref.)—*Journal abstract.*

BIOCHEMISTRY

9483. ———. **Resumes of research projects in psychopharmacology.** *Psychopharmacology Bulletin*, 1969(Jul), Vol. 5(3), 42-48.—Presents 10 resumes prepared by the extramural research branch of the National Institute of Mental Health, describing studies devoted to psychological, biochemical, pharmacological, and toxicological mechanisms of action of psychotropic drugs. Specific topics include: neurochemical correlates of behavior, neuropharmacology of local brain function, drug-receptor interactions, and hypothalamic control of behavioral thermoregulation. Resumes include a statement of purpose, Ss, method, results, and implications of each study.—*P. McMillan.*

9484. Braud, William G. (U. Houston) **Extinction in goldfish: Facilitation by intracranial injection of RNA from brains of extinguished donors.** *Science*, 1970(Jun), Vol. 168(3936), 1234-1236.—Prepared extracts rich in RNA from the brains of 16 goldfish that had acquired and then extinguished a light-signaled avoidance to shock in an aquatic shuttle-box. 14 naive recipient Ss injected intracranially with such extracts, extinguished the response significantly faster than 14 Ss injected with extracts prepared from brains of 16 naive donors.—*Journal abstract.*

9485. Cabibbe, F. & Mangoni, A. (U. Milano, Psychiatric Clinic, Italy) **Livelli di amine cerebrali in animali trattati con carbonato di litio.** [Brain amine levels in animals treated with lithium carbonate.] *Acta Neurologica*, 1970(Mar), Vol. 25(2), 170-175.—Studied the effects of lithium, used in manic-depressive illness, on cerebral amines (dopamine, serotonin, and norepinephrine). 13 white rats were treated for 60 days with 100 mg/kg of lithium. The method of extraction adopted was that of G. Brownlee and T. Spriggs. For the reading, the spectrophotometer of Aminco-Boman was used. The brain level of dopamine decreased while the norepinephrine and serotonin levels increased. It is concluded that lithium affects the metabolism of brain amines. There is an increased turnover of amines; their catabolism accelerates through oxidative deamination. (English summary) (16 ref.)—*A. M. Farfaglia.*

9486. Chowdury, A. K., et al. (Guy's Hosp., Medical

School, London, England) **The influence of psychotropic drugs on aldolase, mitochondrial malic dehydrogenase and $Mg^{++}Na^{+}K^{+}$ adenosine triphosphatase.** *British Journal of Pharmacology*, 1969(Oct), Vol. 37(2), 459-467.—Investigated the effects of psychotropic drugs on enzymes in vitro. Chlorpromazine inhibited mitochondrial malate dehydrogenase in concentrations of 1.4×10^{-4} M and above. No effect was observed below this concentration. A sharp inflection in the $1/v$ drug plot was also seen with chlorpromazine (1.4×10^{-4} M), trifluoperazine (1×10^{-5} M), prochlorperazine (1×10^{-4} M), and amylbarbitone (8×10^{-3} M) acting on rat brain ($Na^{+}-K^{+}$) Mg^{++} -ATPase and with chlorpromazine (10^{-4} M) and imipramine (3×10^{-4} M) acting on aldolase.—*Journal abstract*.

9487. Franksson, Gunhild & Änggård, Erik. (Karolinska Inst., Stockholm, Sweden) **The plasma protein binding of amphetamine, catecholamines and related compounds.** *Acta Pharmacologica et Toxicologica*, 1970, Vol. 28(3), 209-214. Studied the plasma protein binding of amphetamine, phenmetrazine, adrenaline, noradrenaline, dopamine, normetanephrine, and metanephrine using equilibrium dialysis with human plasma. The binding of amphetamine and phenmetrazine at 5×10^{-7} M to 5×10^{-6} M was about 20%. No difference in the binding of amphetamine was found between 6 drug nondependent and 6 tolerant dependent Ss. At physiological concentrations ($< 10^{-6}$ M) adrenaline was bound to about 20%, noradrenaline and dopamine to about 13%. The binding of metanephrine and normetanephrine was of a lower order, i.e., about 5%. It is suggested that the results are of value for the understanding of the overall pharmacodynamic situation in amphetamine dependence. *Journal abstract*.

9488. Wiltzig, John; Woods, A. E., & Anthony, E. J. (Veterans Hosp., Murfreesboro, Tenn.) **Mechanisms of lithium action: Endogenous tissue levels, excretion in emotional states, and behavioral effects.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 767-771.—Reports investigations into possible roles played by endogenous and exogenous lithium in normal or abnormal physiological and psychological processes in animal and human Ss. Results of endogenous studies suggest that lithium is present in widely varying amounts in biological tissue. Difficulties in measuring lithium are reviewed. "Pharmaceutical lithium has little effect on standard behavioral measures of laboratory rats, but it may interact differentially with hormonal substances." —P. McMillan.

Hormones

9489. Moltz, Howard; Lubin, Michael; Leon, Michael, & Numan, Michael. (U. Chicago) **Hormonal induction of maternal behavior in the ovariectomized nulliparous rat.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1373-1377.—Attempted to improve maternal behavior via a triad of the hormones estrogen, progesterone, and prolactin in 10 ovariectomized nulliparous female Wistar rats. Ss were administered subcutaneously estradiol benzoate, progesterone, and prolactin. The estradiol was injected from Day 1 through Day 11; the progesterone from Day 6 through Day 9; and the prolactin on the evening of Day 9 and the morning of Day 10. 40 control females, assigned respectively to 4 groups, were administered either only 2

of the 3 inductor hormones—the vehicle in each case having been substituted for the hormone omitted—or simply all 3 vehicles. On the afternoon of Day 10, 6 normally-delivered foster young, 6-20 hr. of age, were proffered each female. Of the 10 experimental Ss, each, without exception, showed full maternal behavior at between 35 and 40 hr. Not only does this represent a significant reduction in latency from the average of 6-7 days characteristic of untreated nulliparae, but represents as well a uniformity in time of onset closely approaching that exhibited by the puerperal female. In contrast, each of the control groups showed marked variability in onset and a significantly higher median latency. Just how estrogen, progesterone, and prolactin acted to induce maternal behavior and the possibility of reducing even further the obtained latency of 35-40 hr. are discussed. (28 ref.) *Journal abstract*.

9490. Thoman, Evelyn B., & Levine, Seymour. (Stanford U. Medical School) **Hormonal and behavioral changes in the rat mother as a function of early experience treatment of the offspring.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1417-1421. Investigated the long-term effects on 48 Sprague-Dawley rat mothers of early mother-infant manipulations; maternal rats were assigned to groups in which, for 16 days following parturition, the offspring were handled, or rotated among Ss. S alone was disturbed, or no treatment was given. Beginning 3 wk. after the litters were weaned, newborn foster pups were placed with the maternal females and maintained with them for 20 days thereafter. Groups of foster pups were alternated between the Ss and lactating females twice daily. The 3 treated groups differed from the controls on each measure taken, in that: the original litters weighed less at weaning, retrieving scores on all tests with the foster pups were higher, 1) was reinstated earlier, and diestrous cycles were more prolonged during the fostering period. There was a significant negative correlation between retrieving scores and the number of estrous periods that occurred during the fostering period, and also between retrieving and initiation of lactation as measured by milk in the duodenum of the pups. Since the variations in behavior as a function of the early mother-infant manipulations preceded hormonal changes, it was postulated that the behavioral response may act to initiate changes in the CNS regulation of the hormones involved in maternal behavior. (18 ref.) *Journal abstract*.

9491. Yamori, Yukio; Lovenberg, Walter, & Sjoerdsma, Albert. (National Inst. of Health, Bethesda, Md.) **Norepinephrine metabolism in brainstem of spontaneously hypertensive rats.** *Science*, 1970(Oct), Vol. 170(3957), 544-546.—Reports that concentrations of norepinephrine in lower brainstem and hypothalamus of 24 genetically hypertensive rats were significantly lower than in 24 Wistar and Sprague-Dawley control rats. There was a concomitant reduction (50%) in aromatic L-amino acid decarboxylase but not in tyrosine hydroxylase activity. A possible relation of this central catecholamine deficiency to the hypertension is discussed. (18 ref.) *Journal summary*.

Drug Effects—Human

9492. ———. **Sleeping pills.** *British Medical Journal*, 1970(Aug), Vol. 3(5718), 296-297.—Describes the effect of sleeping pills on healthy volunteers used in a

previous study by J. I. Evans and O. Ogunremi (see PA, Vol. 45:Issue 6). Chloral hydrate (.8 gm.) produced a suppression of REM; dichloralphenazone (1.3 gm.) or mandrax (methaqualone and diphenhydramine) had no such effect. Methaqualone (150 mg.) reduced the intensity of REM; nitrazepam (5 or 10 mg.) is safe in overdosage, has a low toxic value, but seems to produce a hangover, also amylobarbitone has a hangover effect. A physician, who prescribes sleeping pills, must consider their effect on normal sleep, relative safety when abused, and possible hangover effect.—*I. Halev.*

9493. **Cappiello, Jole & Balacco Gabrieli, Corrado.** (U. Bari, Clinic for Nervous & Mental Diseases, Italy) **Il campo visivo dopo somministrazione di nicotinamide.** [The visual field after the administration of nicotinamide.] *Acta Neurologica*, 1970(Jul), Vol. 25(4), 457-461.—Studied the importance of the emotive state of mesodiencephalic hyperexcitability in determining campometrical variations, i.e., the visual field. 15 young normal Ss were studied before and after the administration of nicotinamide. The perimeter of Goldman and the scotometer of Bjerrum were used. No variation in peripheral limits was found, but there was a slight increase in the width of the physiological scotoma recognizable after 1 gm. of the drug. There was not a change in the caliber of the retinal vessel, nor were there any side effects except a modest hyperemia of the face. It is concluded that nicotinamide (in doses of 1, 2, and 3 gm.) does not provoke variations in the peripheral limits of the visual field. (English & French summaries)—*A. M. Farfaglia.*

9494. **Evans, J. I. & Ogunremi, O.** (U. Edinburgh, Scotland) **Sleep and hypnotics: Further experiments.** *British Medical Journal*, 1970(Aug), Vol. 3(5718), 310-313.—Investigated the effects of clinical doses of chloral hydrate (800 mg.), dichloral phenazone (1300 mg.), and mandrax (methaqualone 250 mg. and diphenhydramine 25 mg.) in 2 experiments over a 1-2 wk. period. 4 healthy males were used in each experiment and received placebo or drug throughout a 6-8 wk. period when control records, drug records, and drug withdrawal records were obtained. Chloral hydrate was found to depress REM sleep appreciably though less consistently than amylobarbitone. No withdrawal REM sleep rebound was found. Neither dichloralphenazone nor mandrax was found consistently to depress REM sleep, though occasional nights when REM sleep was low occurred more often with mandrax. It is postulated that there exists a "threshold" in the dose of a hypnotic, and that when this is exceeded the drug will produce REM reduction. It is concluded that it may be possible to prescribe a drug which is clinically useful while avoiding withdrawal effects.—*Journal abstract.*

9495. **Hurst, P. M., Radlow, R., & Bagley, Sallyann K.** (Inst. for Research, State College, Pa.) **Drug effects upon data processing as functions of storage and retrieval parameters.** *Ergonomics*, 1970(Jul), Vol. 13(4), 435-444.—Performed a series of experiments to investigate the effects of various stimulant and depressant drugs upon performance under task-induced stress. The 1st 4 experiments, each of which included d-amphetamine in 1 or more dosage, are summarized. This compound was generally the most facilitative of all the drugs tested, but Exp. IV, reversed its enhancement effect. Exp. V, with 48 undergraduates, which is presented in detail, was performed to isolate the crucial task parameters which determine whether d-amphetamine enhances performance or impairs it. To assess

further the relationship between mood and performance effects, sodium amylobarbitone was also given, either alone or in combination with d-amphetamine. Results indicate that the enhancement reversal under amphetamine was specific to high input rates, rather than a function of difficulty per se or of other alternative mechanisms. Amylobarbitone given separately was closely comparable to placebo. When combined with d-amphetamine, it yielded results not significantly different from those of d-amphetamine given by itself, both with performance and mood ratings. The latter are at variance with published results, and precluded 1 additional test of the relationship between mood effects and performance under stress. (French & German summaries) (15 ref.)—*Journal abstract.*

9496. **McGlothlin, William H. & Arnold, David O.** (U. California, Los Angeles) **LSD revisited: A ten-year follow-up of medical LSD use.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 35-49.—Conducted a follow-up survey of 247 persons who received LSD in either an experimental (nonmedical) or psychotherapeutic setting to determine the lasting effects, if any, related to use of the drug. A comparison group of 50 controls who had never received LSD or other hallucinogen was also used. Information was collected from each S by a structured interview and self-administered questionnaire. Some subsequent non-medical use of LSD was reported by 23%, who attributed more personality changes to the drug's use. There is, however, little evidence that measurable, lasting personality, belief, value, attitude, or behavior changes were produced in the sample as a whole. Compulsive patterns of LSD use rarely developed; the nature of the drug effect apparently is such that it becomes less attractive with continued use and, in the long-term, is almost always self-limiting. (26 ref.)—*Journal abstract.*

9497. **Moylan-Jones, R. J.** (Chemical Defence Establishment, Medical Research Div., Salisbury, England) **The effect of a large dose of atropine upon the performance of routine tasks.** *British Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 301-305.—Assessed the effect of a 6-mg atropine sulphate injection on tasks, including hard labor, skilled work, use of instruments and tools, and shooting. 23 adult male military volunteers served as Ss. Impairment of performance was seen, but was statistically significant only in some tasks. Drowsiness occurred in 21 Ss and perceptual disorders were common, but 2 Ss were almost completely resistant to the drug. Implications of the therapeutic use of comparable doses of atropine are discussed.—*Journal abstract.*

9498. **Ruttkay-Nedecký, I. & Cagán, S.** (Slovak Academy of Sciences, Inst. of Normal & Pathological Physiology, Bratislava, Czechoslovakia) **Blood pressure of students the day before examination: A double-blind study of the effects of barbiturate and placebo.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 196-200.—Selected 2 samples, 38 low blood pressure reactors and 41 high blood pressure reactors, from a group of 402 healthy male undergraduates. Late orthostatic diastolic blood pressure rose gradually in both samples during the period of examinations, reaching peak values the day before the last examination. This rise of blood pressure could be alleviated and converted to a fall in high reactors either by administration of low phenobarbital doses, or by administration of placebo.—*Journal summary.*

9499. **Schieser, David W. & Cohen, Seymour.** (State

Dept. of Public Health, Bureau of Food & Drug Inspection, Berkeley, Calif.) **Drugs and their effects.** *California's Health*, 1968(Feb), Vol. 25(8), 2-6, 21.—Describes various drugs grouped in classes of depressants, stimulants, and hallucinogens, and their effects on mind and behavior.—*J. Canada*.

9500. Snyder, Solomon H., Weingartner, Herbert, & Failace, Louis A. (Johns Hopkins U., Medical School) **DOET (2,5-dimethoxy-4-ethylamphetamine), a new psychotropic drug: Effects of varying doses in man.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 50-55.—Examines DOET, a new psychotropic agent which chemically resembles mescaline and amphetamine. It is essentially the ethyl homolog of DOM (2,5-dimethoxy-4-methylamphetamine), a psychotomimetic drug widely used by hippie populations and designated "STP." DOET was administered to normal male white 21-35 yr. old college graduates in doses ranging from .75-4 mg. and contrasted with effects of a water placebo. In all cases DOET produced subjective effects including a mild euphoria, a feeling of enhanced self-awareness, and a tendency to feel anxious at higher doses. Although there was some increase in subjective effects at higher doses, this was not marked. No hallucinogenic or psychotomimetic effects were observed at any dose. Over a five-fold range of pharmacologically active dosage, the enhanced awareness produced by DOET was not associated with psychotomimetic or hallucinogenic actions.—*Journal abstract*.

9501. Tjio, Joe H., Pahnke, Walter N., & Kurland, Albert A. (National Inst. of Health, National Inst. of Arthritis & Metabolic Disease, Bethesda, Md.) **LSD and chromosomes: A controlled experiment.** *JAMA: Journal of the American Medical Association*, 1969(Nov), Vol. 210(5), 849-856.—Studied chromosomes of lymphocytes in 32 patients before and after they took LSD as part of double-blind, controlled research of the effects of the drug in psychotherapy and in 5 black-market LSD users who volunteered to take pure LSD in a research setting. Statistical analysis revealed no significant difference between the before- and after-LSD chromosomal aberration rates. A post-LSD study of 8 normal Ss who had received LSD in previous research experiments was also performed with the same cytogenetic methods. Results of these experiments consistently support the conclusion that at this time there is no definite evidence that pure LSD damages chromosomes of human lymphocytes in vivo as studied from 72 hr. cultures. (27 ref.)—*Journal abstract*.

9502. Vogel, W. H., McFarland, H., & Prince, L. N. (Jefferson Medical Coll.) **Decarboxylation of 3,4-dihydroxyphenylalanine in various human adult and fetal tissues.** *Biochemical Pharmacology*, 1970(Feb), Vol. 19(2), 618-620.—Compared differences in decarboxylation of 3,4-dihydroxyphenylalanine (DOPA) by aromatic amino acid decarboxylase in various human adult and fetal tissues. DOPA end products have been implicated in the pathogenesis of schizophrenia. Results of decarboxylation in adult human samples varied greatly and were much weaker than those in the rat or other animal tissues. The addition of pyridoxal phosphate increased the decarboxylation of DOPA. The pyridoxal phosphate-induced increases in decarboxylation were found to be greatest in adult heart and fetal lung tissues. Results also demonstrated that fetal tissue decarboxylation activities were higher than those of adult tissues (except in heart and brain tissues where no significant differences were observed).—*B. A. Stanton*.

9503. von Wright, J. M. & Mikkonen, Valde. (U. Turku, Finland) **The influence of alcohol on the detection of light signals in different parts of the visual field.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 167-175.—Male undergraduates, 3 experienced and 3 naive, and all accustomed to moderate social drinking, performed 12 times each a signal detection task lasting 40 min. in parallel with a simple tracking task. Ss reported every 2nd sec. whether or not a signal was given in any 1 of 10 widely spaced locations. .5 or 1 ml. alcohol/kg body weight or no alcohol was given 35 min. prior to the task. Hit rate (HR) covaried with tracking efficiency; false alarm rate was uniformly low. Variation in signal probability had no effect. Alcohol had a strong and uniform effect on experienced Ss, reducing HR for all signals and producing a funneling effect, but had little effect on the performance of naive Ss. Motivational variables which may account for the individual differences are discussed.—*Journal abstract*.

Drug Effects-Animal

9504. Albanus, Lennart. (Research Inst. of National Defence, Stockholm, Sweden) **Central and peripheral effects of anticholinergic compounds.** *Acta Pharmacologica et Toxicologica*, 1970, Vol. 28(4), 305-326.—Compared the pharmacological effects of some piperidyl-, tropinyl-, and quinuclidinylesters of glycolic acid with atropine, scopolamine, and methyl atropine. The peripheral anticholinergic effects are also studied in relation to their effects on behavior in 50 adult dogs. All glycolates elicited behavioral effects, especially on locomotion, similar to those seen following atropine and scopolamine. Even high doses of methyl atropine produced effects indistinguishable from those produced by atropine and scopolamine. The most active compounds affected behavior at a dose of 10 µg/kg body weight given subcutaneously. All compounds elicited anticholinergic activity, i.e., tachycardia, mydriasis, inhibition of salivation, and block of acetylcholine hydrochloride response. The most potent compounds on behavior were quinuclidinylesters of phenyl and/or thienyl glycolic acid which also had the strongest and most prolonged classical anticholinergic effects. Results indicate that behavioral effects are related to anticholinergic activity but that other factors, e.g., lipid-solubility and metabolism interfere with the central activity.—*Journal abstract*.

9505. Allan, Dorothy; Baird, J. R., & Ellis, Kathleen E. (U. Glasgow, Scotland) **Interaction between (±)-amphetamine and atropine on the rat cardiovascular system.** *British Journal of Pharmacology*, 1969(Oct), Vol. 37(2), 367-370.—Effects of atropine on pithed blood pressure after (±)-amphetamine depended on the pattern of the cardiovascular responses to the latter in male rats. If the pressor response to amphetamine was followed by oscillations of blood pressure and a reduction in pulse pressure, or by a fall in blood pressure terminating in circulatory failure, atropine increased blood pressure, but if it was not followed by these patterns, atropine decreased blood pressure. It is suggested that the fall in blood pressure produced by atropine after amphetamine is due to weak alpha-adrenoceptor blockade.—*Journal abstract*.

9506. Andreola, M. L. & Cocchi, A. (U. Milan, Psychiatric Clinic, Italy) **Aspetti morfologici della somministrazione nell'animale di un nuovo antidepressivo: il BAY 1521.** [Morphological aspects of the administering to animals a new antidepressant: BAY 1521.] *Acta Neurologica*, 1970(Mar), Vol. 25(2), 147-155.—Conducted an experiment on mice to analyze the effect of BAY 1521, a new antidepressant from Bayer laboratories. 3 dosages were administered: $\frac{1}{3}$, $\frac{1}{50}$, and $\frac{1}{200}$ LD₅₀. With the 1st 2 dosages, there was motor hyperexcitability, without muscular hypotonia, proportionate to the intensity and duration of the dosage administered. From a morphological viewpoint, pericellular and intracellular edema was observed. The thalamic neurons demonstrated morphological alterations characterized by a disappearance of the cellular membrane and an absence or reduction of the cytoplasmic volume and site. Compared to the effects of imipramine and amitriptyline, the new derivative is like amitriptyline in its symptomatological effects but differs from both in cellular action. It is concluded that BAY 1521 is a "deep action" drug, and possesses a great power of penetration on neuron structure. (French & English summaries)—A. M. Farfaglia.

9507. Basset, J. R., Cairncross, K. D., Hackett, N. D., & Story, Margot. (Riker Lab., Research Div., Hornsby, New South Wales, Australia) **Studies on the peripheral pharmacology of fenazoxine, a potential antidepressant drug.** *British Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 69-78. Investigated the hypothesis that the cyclization of the alkyl amino chain of orphenadrine results in a molecule which retains the noradrenaline sensitizing action of orphenadrine but lacks the antimuscarinic activity. The antimuscarinic activity of fenazoxine on a guinea pig ileum was approximately $\frac{1}{30}$ that of orphenadrine. Fenazoxine, dexamethylimipramine, and cocaine potentiated the response to noradrenaline and sympathetic nerve stimulation on the cat nictitating membrane, isolated rabbit ear artery, and isolated driven atrial strip preparations. On the driven atrial strip preparation, fenazoxine produced a small potentiation of the inotropic response to isoprenaline. Fenazoxine antagonized the inotropic response to tyramine. Chronic denervation of the cat nictitating membrane abolished the potentiating action of fenazoxine. Results suggest that fenazoxine inhibits catecholamine uptake similar to desmethylimipramine and cocaine effects. It is also suggested that fenazoxine possesses antinoradrenaline activity at higher concentrations. (25 ref.)—*Journal abstract.*

9508. Blackman, A. & Spencer, S. J. (U. Aston, Birmingham, England) **The effects of oestrogens and progestins on the response of mice to barbiturates.** *British Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 129-139. Mestranol (estrogen) prolonged, while lynestrenol (progestin) reduced, the duration of pentobarbitone and hexobarbitone sleep, while the effects of barbitone were not altered. Ss were 16 male and 16 female albino mice. The effects of these drugs are presented and discussed. It is concluded that these steroids alter the duration of action of pentobarbitone and hexobarbitone by changing the rate of barbiturate metabolism. In the case of mestranol, this may be a combination of an effect upon basal metabolic rate (enhancing hypothermia) and a direct effect on the liver. An effect upon renal clearance cannot be excluded by these results. (21 ref.)—*Journal abstract.*

9509. Breda, J. B., Carlini, E. A., & Sader, F. A.

(Dept. de Ciencias Fisiológicas, Faculdade Medicina, Santa Casa Misericórdia, São Paulo, Brazil) **Effects of chronic administration of (+)-amphetamine on maze performance of the rat.** *Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 79-86.—Studied the influence of (+)-amphetamine, given 1 min. after each training session, on the performance of 124 male Wistar rats in a Lashley III maze. The 1st-3 injections significantly improved naive Ss' learning ability. With prolonged treatment, maze performance was strongly impaired. Chronic administration to trained Ss produced the same adverse effect. Amylobarbitone sodium given to trained Ss 30 min. before training sessions blocked the adverse effect of (+)-amphetamine. (+)Amphetamine did not produce impairment of performance when given chronically 30 min. before training sessions to trained Ss. (18 ref.)—*Journal abstract.*

9510. Burov, Yu. V. (Inst. of Pharmacology, Moscow, USSR) **Proyavleniye reaktsii ugrozy i begstva, vyzvannykh elektricheskimi razdrazheniyami perednego gipotalamusa koshek, na fone deystviya psikhotropnykh veshchestv.** [Emergence of threat and flight reactions in cats, induced by electrical stimulation of the anterior hypothalamus superimposed upon the action of psychotropic drugs.] *Byulleten' Eksperimental'noi Biologii i Meditsiny*, 1970(May), Vol. 69(5), 66-69.—21 cats, with electrodes implanted in the anterior hypothalamus and paraventricular nucleus, were used in this study which employed the following drugs: 1-8 mg/kg chlorpromazine, 1-4 mg/kg trifluoperazine, 1-5 mg/kg perphenazine, 1-4 mg/kg haloperidol, 1-10 mg/kg imipramine, 80-100 mg/kg meprobamate, .5-3 mg/kg benactazine, 1-10 mg/kg chlordiazepoxide, and 1-6 mg/kg morphine. 3 mg/kg benactazine and 10 mg/kg chlordiazepoxide significantly increased the threshold of electrical stimulation for the threat reaction. 4 mg/kg haloperidol completely blocked the flight reaction. With a marked increase of stimuli, superimposed on the effect of haloperidol, instead of the flight reaction, components of the threat reaction were evoked—growling and hissing. All the drugs, with the exception of morphine, inhibited the autonomic components of the threat and flight reactions. These facts point to the region of the anterior hypothalamus and the paraventricular nucleus as loci of drug action with respect to the "emotional reactions" of threat and flight.—I. D. London.

9511. Burov, Yu. V. & Kurochkin, I. G. (Inst. of Pharmacology, Moscow, USSR) **Vliyanie kholinoliticheskikh veshchestv na reaktsiyu ugrozy koshki.** [Influence of cholinolytic agents on the threat reaction in the cat.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Jul), Vol. 20(4), 668-670.—Attempted to determine through the use of pharmacological agents the neurodynamic nature of the threat reaction in cats, evoked by electrical stimulation of the paraventricular nucleus and anterior region of the hypothalamus. Out of 6 possible mediators of the CNS investigated, only acetylcholine evoked the external signs of threat. Cholinolytic agents were then employed to determine the specific nature of this effect. It is shown that anterior hypothalamic injections of acetylcholine and of the chemically close cholinomimetic agent, carbacholine, produced the threat reaction—one which is probably a specific reaction since the cholinolytic agents, amizyl and atropine, prevented its development and, on local application, served to raise the threshold of electrical stimulation for its emergence.—I. D. London.

9512. Bynum, T. E., Ruoff, Paul A., Richert, John, &

Wolf, Stewart. (Tott's Gap Inst., Bangor, Pa.) **The smoke reflex in rabbits: An example of autonomic control of cardiorespiratory function.** *Conditional Reflex*, 1970(Oct), Vol. 5(4), 233-240.—Discusses aspects of autonomic behavior as reflected in the "smoke reflex" in 40 rabbits. Allowing smoke to envelop the nostrils of an S resulted in prompt apnea, bradycardia, diminution of peripheral pulse, and elevation of systemic blood pressure. Atropine and vagotomy, or both, mitigated the bradycardia, but the combined effect of propranolol and vagotomy was required to abolish bradycardia. Phenoxylbenzamine (dibenzylamine) alone blocked only the peripheral vasoconstriction and pressor response. The combination of vagotomy, propranolol, and phenoxylbenzamine blocked all manifestations of the reflex with the exception of apnea. A classical concept holds that responses of the autonomic nervous system must be either distinctly adrenergic (sympathetic) or cholinergic (parasympathetic), and that visceral regulation is achieved by an antagonism between the 2. This study introduces contrary evidence. In certain adaptive behavior there is a patterned response that includes activation of discrete elements of both cholinergic and adrenergic divisions, as well as inhibition of 1 component of the latter. (17 ref.)—*Journal abstract*.

9513. Caujolle, F., Chanh, Pham H., & Pène, A. M. (Centre National de la Recherches Scientifiques, Toulouse, France) **Recherches pharmacodynamiques sur le di-(p-méthylbenzèneboronate) de pentaerythritol.** [A pharmacological study of pentaerythritol di-(p-methylbenzeneboronate).] *Agressologie*, 1969, Vol. 10(2), 145-153.—Studied the action of pentaerythritol di-(p-methylbenzeneboronate) on the CNS, the cardiovascular system, and on ventilation. Results are summarized: (a) pentaerythritol di-(p-methylbenzeneboronate) has no hypnotic effect; however, it potentiates, in this instance, chloral hydrate and hexobarbital. This action is not accompanied by any central analgesic or local anesthetic effect. (b) Pentaerythritol di-(p-methylbenzeneboronate) acts as an anticonvulsant on metrazol and ECT seizures, but without any effect on strychnine seizures. (c) Its hypothermic effect is weak and transitory. (d) Pentaerythritol di-(p-methylbenzeneboronate) causes a substantial decrease in general arterial pressure. It is a peripheral vasodilator; depresses the cardiac contractile activity and inhibits the hypertensive action of exogenous amines and indirect amines. And (e) pentaerythritol di-(p-methylbenzeneboronate) reduces amplitude and slows down ventilation. (16 ref.)—*English abstract*.

9514. Cole, Sherwood O. (Rutgers State U., Camden) **Note on amphetamine and food-motivated discrimination.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 774.—Studied the effects of .5 or 1 mg/kg d-amphetamine sulfate on the learning of food-motivated discrimination. A previous experiment with 2 mg/kg by S. Cole (see PA, Vol. 42:6843) had shown retardation of learning. Results of this study with 12 male albino rats indicate that while both dosages mildly facilitated discrimination during CRF, the overall operant rates were significantly depressed ($p < .01$). It is concluded that "the effect of amphetamine on food-motivated discrimination is dose dependent."—S. Knapp.

9515. Czech, Donald A. (Syracuse U.) **The effect of ether on "salt arousal" of drinking in the hooded rat.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3855.

9516. Davenport, John W. (U. Wisconsin, Regional Primate Research Center) **Cretinism in rats: Enduring behavioral induced by tricyanoaminopropene.** *Science*, 1970(Feb), Vol. 167(3920), 1007-1009.—Reports that pregnant albino Holtzman rats reared on diets containing tricyanoaminopropene, the antithyroid compound that stimulates RNA synthesis, showed a deficit in performance on automated closed-field maze tests many wk. after discontinuation of the drug. Ss were also tested while still receiving the drug, and performance deficits were indicated in tests of Y-maze reversal and manual closed-field maze performance; Ss treated with the drug and with thiouracil behaved in a highly similar fashion on several tasks. No evidence of facilitation by tricyanoaminopropene appeared in any of the 8 learning situations used. Exposure to tricyanoaminopropene before and after birth, at doses sufficient to produce anatomical cretinism, apparently induces an enduring behavioral deficit which is similar to that of neonatal thyroidectomy-induced cretinism in rats and which parallels the mental retardation associated with human cretinism. (17 ref.)—*Journal abstract*.

9517. Davis, Virginia E. & Walsh, Michael J. (Veterans Administration Hosp., Houston, Tex.) **Alcohol, amines, and alkaloids: A possible biochemical basis for alcohol addiction.** *Science*, 1970(Feb), Vol. 167(3920), 1005-1007.—Tetrahydropapaveroline is a benzyltetrahydroisoquinoline alkaloid derivative of the biogenic amine, dopamine. Alcohol, by way of its primary metabolite, acetaldehyde, competitively inhibits nicotinamide-adenine dinucleotide-linked aldehyde dehydrogenase and augments the formation of tetrahydropapaveroline in vitro. The limited capacity of brain to oxidize aldehydes may be of pharmacological importance because it facilitates the production of tetrahydropapaveroline in the presence of drugs which inhibit this enzyme. (16 ref.)—*Journal abstract*.

9518. Fennessy, M. R., Heimanns, L. H., & Rand, M. J. (U. Melbourne, Victoria, Australia) **Comparison of effect of morphine-like analgesics on transmurally stimulated guinea-pig ileum.** *British Journal of Pharmacology*, 1969(Oct), Vol. 37(2), 436-449.—Morphine-like analgesic drugs caused depression of twitches of the isolated guinea pig ileum in response to transmural electrical stimulation. Drugs included codeine, diamorphine, fentanyl, morphine, morphine-N-oxide, normorphine, oxymorphone, pethidine, phenazocine, and phenoperidine, nalorphine, and pentazocine. With 1st application, the extent of depression of twitches was proportional to concentration. There was no further depression when an additional drug was added to the organ bath, except with pethidine. With the 2nd application, tolerance developed. With pethidine, tolerance was not observed. The reactions of the ileum to the various drugs are presented and discussed. Observations are discussed in relation to analgesic activity, and dependence in man. (20 ref.)—*Journal abstract*.

9519. Ferguson, James, et al. (Stanford U., Medical School) **"Hypersexuality" and behavioral changes in cats caused by administration of p-chlorophenylalanine.** *Science*, 1970(Apr), Vol. 168(3930), 499-501.—Systematically observed the behavior of 26 male cats before, during, and after daily administration of the tryptophan hydroxylase inhibitor, p-chlorophenylalanine. These observations established that "hypersexuality," increased aggression, and perceptual disorientation are sequelae of the chronic administration of the drug in cats. (21 ref.)—*Journal abstract*.

9520. Forrester, I. S., Kosek, J. C., Aber, R. C., & Serra, M. T. (Veterans' Administration Hosp., Biochemical Research Lab., Palo Alto, Calif.) **Rabbit as model for chlorpromazine-induced hyperpigmentation of the skin.** *Biochemical Pharmacology*, 1970(Mar), Vol. 19(3), 849-852.—Produced hyperpigmentation of exposed areas, comparable to that seen in less than 1% of patients chronically dosed with chlorpromazine after intensive long-term therapy, in 16 out of 16 chronically dosed pigmented Dutch Belt and Flemish Giant adult female rabbits, receiving between 20-30 mg/kg/day. 30-min ultraviolet irradiation of a clipped or shaved area produced clear-cut hyperpigmentation of naturally pigmented skin areas in about 4 wk. The characteristic occurrence of granular pigment in the dermis which is normally free of pigment was also observed. Hyperpigmented Ss did not develop any concomitant ocular pathology, as seen in some patients on long-term, high-dosage chlorpromazine therapy.—*Journal abstract.*

9521. Gehrmann, John E. (Stanford U.) **A neuropharmacological and behavioral study of phencyclidine and two of its congeners.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3790-3791.

9522. Goldstein, M., Battista, A. F., Nakatani, S., & Anagnoste, B. (New York U., Medical School) **Drug-induced relief of experimental tremor in monkeys.** *Neurology*, 1970(Nov), Vol. 20(11, Pt. 2), 89-95.—Drugs which affect the disposition, metabolism, and biosynthesis of dopamine and serotonin were tested for their effects on the tremor intensity in monkeys with mesencephalic lesions. The tremor in the monkeys was temporarily relieved by the administration of dopa or 5-hydroxytryptamine. The effects of various antiparkinsonian drugs were related to their anticholinergic properties and to their ability to inhibit the uptake of striatal dopamine.—*F. O. Triggs.*

9523. King, Alan R. (Medical Research Council, Neuropharmacology Unit, Birmingham, England) **Drive related effects of amylobarbitone and chlorpromazine on appetitive and aversively controlled behavior in the rat.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1365-1371.—Systematically varied the intensity of shock and water deprivation in 3 experiments in order to examine their effects on 2 kinds of instrumental behavior possibly related to the CER. Amylobarbitone sodium (10 and 20 mg/kg) and chlorpromazine (.375 and .750 mg/kg) were administered in stimulus intensity condition to 18 male albino rats. Similar effects were obtained with both drugs, water deprivation interacting with each drug in an additive manner, whereas shock intensity showed a multiplicative relationship. Since both drugs had similar effects, it was concluded that the type and intensity of stimulus control were not variables which would distinguish between the actions of amylobarbitone and chlorpromazine on the CER. It was found that shock avoidance became more sensitive to both drugs with decreasing stimulus control whereas the water deprivation effect remained constant. On the basis of other experiments it is concluded that the greater sensitivity of shock avoidance was due to the temporal structure of the response which has similar characteristics to responses which occur in a fixed-interval reinforcement schedule. (24 ref.)—*Journal abstract.*

9524. Lehner, Philip N. (Utah State U.) **The effect of dieldrin on the color vision of juvenile mallards.**

Dissertation Abstracts International, 1970(Feb), Vol. 30(8-B), 3891.

9525. Manani, G., et al. (General Hosp., Padua, Italy) **Mechanism of action of ajmaline on neuromuscular junction.** *Agressologie*, 1970, Vol. 11(3), 275-282.—Studied ajmaline activity on frenic-diaphragm preparations where it is shown to induce a Wedensky-like inhibition. EMG studies demonstrate that ajmaline is a neuromuscular blocking agent, but its action is different from the action of both competitive and depolarizing drugs. Chemical studies document a direct interaction between ajmaline and acetylcholine in vitro and to a similar interaction is ascribed the mechanism of action of ajmaline in vivo. (French, German, & Spanish summaries)—*Journal abstract.*

9526. Marcus, R. J., Wetterberg, L., Yuwiler, A., & Winters, W. D. (U. California, Medical School, Los Angeles) **Electroencephalographic and behavioral effects of experimental porphyria in the rat.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 602-607.—Investigated the relationship of allylisopropylacetamide (AIA) induced porphyria to changes in biochemical, behavioral, and CNS function. The possible central effect of the porphyrin precursor δ -aminolevulinic acid (ALA) was also studied. EEG and behavior were observed and urine collected from freely moving female Long-Evans rats with chronically implanted cortical electrodes. A single dose of 400-500 mg/kg of AIA induced a reversible progression of EEG changes characteristic of CNS excitation and elevated urinary levels of ALA and porphobilinogen. Repeated daily injections of 400 mg/kg of AIA led to a progressive reduction in the duration and degree of EEG and behavioral changes and a reduction of porphyria. ALA, 400 mg/kg, did not produce any abnormal EEG or behavioral effects. Similarities between the effects of AIA and hallucinogenic and cataleptoid agents are noted. (French summary) (25 ref.)—*Journal summary.*

9527. Mayor, Stephen J. (U. Kentucky) **The effects of puromycin on memory in the Japanese quail.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3847.

9528. McGaugh, James L. & Krivanek, Jara A. (U. California, School of Biological Sciences, Irvine) **Strychnine effects on discrimination learning in mice: Effects of dose and time of administration.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1437-1442.—Examined in Exp. I the dose response effects of posttrial injections of strychnine sulphate (.012-1.25 mg/kg) on learning in 60 male and 60 female Swiss-Webster mice. Injections were given each day immediately after 3 massed training trials on a food reward visual discrimination task. Facilitation was found with low (.25, .05, .10 mg/kg) and high (1 and 1.25 mg/kg) doses, but not with intermediate doses (.20, .40, .80 mg/kg). Exp. II examined the effects on 138 male and 138 female Swiss-Webster mice of time of pre- or posttrial drug injection of 2 doses: .10 and 1 mg/kg. With both doses significant facilitation of learning was obtained with posttrial injection intervals of 1 hr. or less. With 1 mg/kg facilitation was obtained with all pretrial injection times examined (longest interval was 1 hr.). With .10 mg/kg significant facilitation was obtained with injections given 30 min. but not 60 min. pretrial. These findings are interpreted as providing further evidence that strychnine

facilitates learning by affecting posttrial neurobiological processes underlying memory storage. (32 ref.)—*Journal abstract*.

9529. McMillan, D. E., Harris, Louis S., Frankenheim, J. M., & Kennedy, James S. (U. North Carolina, Medical School, Chapel Hill) **1- Δ^9 -trans-tetrahydrocannabinol in pigeons: Tolerance to the behavioral effects.** *Science*, 1970(Jul), Vol. 169(3944), 501-503.—Injected Δ^9 -tetrahydrocannabinol daily, in increasing doses, into 2 pigeons under a multiple schedule of food presentation. Within a wk., a dose that initially abolished responding completely was without effect. This dose was gradually increased to 20 times its original value without disrupting the behavior. No withdrawal syndrome was detected when the cannabinol was discontinued.—*Journal abstract*.

9530. Meldrum, B. S., Balzano, E., Gadea, M., & Naquet, R. (Medical Research Council, Neuropsychiatry Unit, Carshalton, England) **Photic and drug-induced epilepsy in the baboon (*Papio papio*): The effects of isoniazid, thiosemicarbazide, pyridoxine and amino-oxyacetic acid.** *Electroencephalography & Clinical Neurophysiology*, 1970(Oct), Vol. 29(4), 333-347.—Administered iv drugs modifying γ -aminobutyric acid metabolism to 12 baboons manifesting photosensitive epilepsy. Isoniazid (INH) and thiosemicarbazide (TSC) increased the tendency of the Ss to respond to intermittent light stimulation (ILS) with generalized myoclonus or tonic-clonic seizures. Pyridoxine did not diminish the tendency of the Ss to respond to ILS with generalized myoclonus. Pyridoxine given before INH did not modify its effects, but did completely block seizures normally produced by TSC. Amino-oxyacetic acid (AOAA) had a marked protective effect against myoclonus induced by ILS, but spontaneous or ILS-induced cortical spikes or spikes and waves were not diminished. The occurrence of multiple seizures and the shift to an occipital point of origin for the seizures after INH and TSC suggest that it is unlikely that the same biochemical derangement is responsible for the photically- and drug-induced seizures. The persistence of spontaneous spikes and waves after AOAA suggests that this drug does not correct the primary abnormality but modifies its clinical expression. (French summary) (35 ref.)—*Journal summary*.

9531. Meldrum, B. S., Naquet, R., & Balzano, E. (Medical Research Council, Neuropsychiatric Research Unit, Carshalton, England) **Effects of atropine and eserine on the electroencephalogram, on behaviour and on light-induced epilepsy in the adolescent baboon (*Papio papio*).** *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 449-458.—Administered iv injections of atropine or eserine to 12 conscious adolescent baboons (*Papio papio*) selected for a range of photosensitivity and observed the effects on the EEG, behavior, and myoclinic responses to intermittent light stimulation (ILS). The classical alerting effects produced by eserine were maximal 5-10 min. after injection and were accompanied by a sustained high voltage fronto-Rolandic rhythm resembling human μ rhythm in morphology and reactivity. Periods of agitation and sedation were seen after atropine injection. Sedation was most marked 20-60 min. after injection, with an enhancement of EEG paroxysmal features. Spikes and poly-spikes and waves occurred predominately in the fronto-Rolandic cortex, but also

more diffusely. Enhancement of amplitude and frequency of lambda waves, which appeared in sustained bursts during agitation phases, began 1-3 min. after injection and continued for several hr. Ss with high, low, and variable photosensitivity continued to display their characteristic responses to ILS. It is concluded that the paroxysmal motor responses of baboons to ILS are not determined by the degree of activity in cholinergic nonspecific cortical afferent or cortico-cortical cholinergic systems. (French summary) (27 ref.)—*Journal summary*.

9532. Miller, F. P., Cox, R. H., Snodgrass, W. R., & Maickel, R. P. (Lakeside Lab., Milwaukee, Wis.) **Comparative effects of p-chlorophenylalanine, p-chloroamphetamine and p-chloro-N-methylamphetamine on rat brain norepinephrine, serotonin and 5-hydroxyindole-3-acetic acid.** *Biochemical Pharmacology*, 1970(Feb), Vol. 19(2), 435-442.—The time-course of effects of a single dose of p-chlorophenylalanine on rat brain amines shows a significant lowering of serotonin (5HT) and 5-hydroxyindole-3-acetic acid (5HIAA) beginning on Day 1 and lasting for about 8 days. In most brain areas, levels of norepinephrine (NE) are also lowered significantly on Days 1 through 5. In contrast, both p-chloroamphetamine and p-chloro-N-methylamphetamine decrease brain 5HT and 5HIAA, beginning at 2-4 hr. after dosage and continuing for > 4 days, with no depleting effect on brain NE.—*Journal summary*.

9533. Morrison, Cathleen F. & Stephenson, Jane A. (Tobacco Research Council Lab., Harrogate, England) **Drug effects on a measure of unconditioned avoidance in the rat.** *Psychopharmacologia*, 1970, Vol. 18(2), 133-143.—Rats avoided the elevated open-sided arm of a Montgomery Y maze in which the other 2 arms were enclosed by walls. Tranquilizers and barbiturates reduced avoidance of the open-sided arm and increased total activity. Chlorpromazine did not affect avoidance, and amphetamine and nicotine reduced high and increased low avoidance levels.—*Journal abstract*.

9534. Mulé, S. J. (New York State Narcotic Addiction Control Commission, New York) **Morphine and the incorporation of 32 orthophosphate in vivo into phospholipids of the guinea pig cerebral cortex, liver and subcellular fractions.** *Biochemical Pharmacology*, 1970(Feb), Vol. 19(2), 581-593.—Morphine stimulated the incorporation of 32 orthophosphate into whole cerebral cortex phospholipids 119% at 16 hr. and 87% at 24 hr. after 32 orthophosphate as determined by total radioactivity measurements. A significant stimulation of the incorporation of 32 orthophosphate ranging from 41-207% occurred at 16 and 24 hr. with individual phospholipids. No statistically significant effect was observed with total radioactivity data obtained from whole liver, although significance was observed with phosphatidylinositol and phosphatidic acid at later time intervals. A predominantly stimulatory effect on phospholipid metabolism was obtained with total radioactivity determinations on the subcellular fractions of the cerebral cortex. Morphine had both an inhibitory and stimulatory effect on the total radioactivity determinations of mitochondrial subfractions from the cerebral cortex at 16, 24, and 48 hr. A similar effect was observed with mitochondrial fractions subjected to osmotic shock. It is concluded that morphine alters phospholipid metabolism in vivo and thus may directly affect cellular

function in liver and neuronal activity in the CNS. (38 ref.)—*Journal summary*.

9535. Nachman, Marvin; Lester, David, & Le Magnen, Jacques. (U. California, Riverside) **Alcohol aversion in the rat: Behavioral assessment of noxious drug effects.** *Science*, 1970(Jun), Vol. 168(3936), 1244-1246.—Injections of p-chlorophenylalanine or n-butylaloxime given after 48 male Wistar rats were 1st given a 10-min drinking test with saccharin or ethanol solutions produced a learned aversion to these solutions. Findings suggest that the reduced self-selection of alcohol (preference) resulting from the administration of these drugs, reported by others, is not specifically alcohol-related. The technique described offers a sensitive procedure for the assessment of unpleasant effects of drugs.—*Journal abstract*.

9536. Prinz, Patricia A. (Stanford U.) **Pharmacological alterations of patterns of sleep and wakefulness in the cat.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3794-3795.

9537. Rodin, E., et al. (Lafayette Clinic, Neurological Research Div., Detroit, Mich.) **Neurophysiological mechanisms involved in grand mal seizures induced by metrazol and megrimide.** *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 62-72.—Studied electroclinical correlations during metrazol (pentylentetrazol) or megrimide (bemegrid) induced grand mal seizures in 57 cats. Conventional EEG tracings suggested that earliest and maximal seizure activity occurred in the cerebral cortex or thalamus, but photographs of the Ss' behavior failed to show consistent relationships between any aspect of the EEG and behavior. High frequency activity recorded from cortical and intracerebral structures showed good relationships with the Ss' behavior. Clinical myoclonic jerking was associated with large amplitude bursts of high frequency activity maximally in the brainstem reticular formation, a generalized seizure occurring when the discharge became continuous. The clonic phase of the generalized seizure was characterized by bursts of high frequency activity which gradually decreased in duration and amplitude toward the end of the seizure. The paralyzed and unanesthetized Ss showed less intense activity, and the maximum of seizure activity was in the thalamus and cortex. It is concluded that the recording of high-frequency discharges adds a valuable dimension to electroclinical correlations, and that the functional state of the S may be an important variable in the amount and relative distribution of seizure activity. (French summary) (21 ref.)—*Journal summary*.

9538. Salama, A. I. & Goldberg, M. E. (Union Carbide Corp., Tuxedo, N.Y.) **Neurochemical effects of imipramine and amphetamine in aggressive mouse-killing (muricidal) rats.** *Biochemical Pharmacology*, 1970(Jun), Vol. 19(6), 2023-2032.—Mouse killing (muricidal) rats have higher forebrain levels of norepinephrine than control nonkiller Ss and elicit higher rate constants for the decline of ³H-norepinephrine given intraventricularly into the brain, consequently, with much higher turnover rates for norepinephrine than controls. These differences have not been obtained in the hindbrain region. No differences in the levels or rate of turnover of serotonin were observed in either brain region studied. The elevated rate constant seen in forebrain norepinephrine turnover studies using the isotopic procedure was not observed in nonisotopic turnover studies in which a α -methyl-p-tyrosine was used

to inhibit tyrosine hydroxylase. Differences between the 2 methods may be attributable to the inhibitory action of muricidal behavior by α -methyl-p-tyrosine. The effects of imipramine and amphetamine on norepinephrine turnover in the forebrain of killer Ss were compared with those of drug-treated, nonkiller and with untreated Ss. Both agents, given at doses which inhibit mouse-killing behavior, accelerate the turnover rate of brain norepinephrine in nonkiller Ss, but do not influence the previously elevated levels of norepinephrine nor the elevated rate constants and turnover rate for this amine in killer Ss. Suggestions involving altered reuptake mechanisms, as well as divergent effects of the antidepressants in muricidal Ss, are offered to explain these differences. (38 ref.)—*Journal abstract*.

9539. Schildkraut, Joseph J., Schanberg, Saul M., Breese, George R., & Kopin, Irwin J. (Harvard Medical School, Massachusetts Mental Health Center, Boston) **Effects of psychoactive drugs on the metabolism of intracisternally administered serotonin in rat brain.** *Biochemical Pharmacology*, 1969(Aug), Vol. 18(8), 1971-1978.—Examined the effects of various psychoactive drugs on the metabolism of radioactive serotonin administered intracisternally in rat brain. Ss were Sprague-Dawley rats. More radioactive serotonin was retained in the brains of Ss anesthetized with pentobarbital during the intracisternal injection than in Ss anesthetized with ether. Prior treatment with pargyline increased levels of intracisternally administered serotonin-³H and decreased its deaminated metabolites; reserpine decreased levels of serotonin-³H. Imipramine slowed the disappearance of radioactive serotonin from brain. Chlorpromazine increased, whereas LSD decreased, the levels of radioactive deaminated metabolites of previously injected serotonin-¹⁴C in brain. When lithium chloride was administered after the intracisternal injection of serotonin-¹⁴C, levels of radioactive serotonin and deaminated metabolites in brain were increased above control values. Findings are discussed in relation to studies of the actions of these drugs on the metabolism of endogenous serotonin in brain, and to previous studies of the effects of these drugs on the metabolism of intracisternally administered norepinephrine. (25 ref.)—*Journal abstract*.

9540. Schmidt, Hans; Summe, James P., & Coby, William F. (Xavier, U., Cincinnati, O.) **Phenobarbital withdrawal and behavioral disruption in the rat.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1473-1479.—Found in Exp. I that 40 male albino rats given 70 mg/kg phenobarbital for 15 days after learning a locomotor response showed only gradual improvement in responding when the phenobarbital was withdrawn. A 5-day delay without practice resulted in very similar improvement as was gained by practice. This indicates a spontaneous diminution of a withdrawal effect which retards behavior. Comparable findings were obtained during the treatment period itself indicating an evolution of the response contingent upon the response to the drug. Exp. II with 40 male and female hooded rats employed training under the influence of phenobarbital and found insignificant improvement in responding after a 7-day delay as compared with no delay. Marked improvement in responding after 7- and 30-day delays as compared with no delay was found in Exp. III, with 50 albino male rats. This latter result suggests that there is a time dependent factor which directly interferes with responding during barbiturate withdrawal. While the data do not

totally negate state dependent learning, some methodological issues about it are raised.—*Journal abstract.*

9541. Spencer, P. S. & Turner, T. A. (U. Aston, Birmingham, England) **Blockade of biogenic amine synthesis: Its effect on the responses to leptazol and dexamphetamine in rats.** *British Journal of Pharmacology*, 1969(Sep), Vol. 37(1), 94-103.—Convulsions produced by leptazol were potentiated by prior treatment with dexamphetamine in adult male Wistar albino rats. An intact dopamine synthesis was necessary for the potentiation of the convulsive action of leptazol. An intact noradrenaline synthesis was not necessary for this action of amphetamine as long as the dopamine synthesis was intact. An intact 5-hydroxytryptamine synthesis was not necessary for the potentiation to be shown. Blockade of either noradrenaline, dopamine, or 5-hydroxytryptamine synthesis had no effect on leptazol convulsions. It is suggested that an intact 3-4 dihydroxyphenylalanine synthesis rather than an intact dopamine synthesis is involved. (33 ref.)—*Journal abstract.*

9542. Stolk, Jon M., Nowack, William J., Barchas, Jack D., & Platman, Stanley R. (Stanford U., Medical School) **Brain norepinephrine: Enhanced turnover after rubidium treatment.** *Science*, 1970(Apr), Vol. 168(3930), 501-503.—In 2 experiments with male Long-Evans rats, in groups of 16 and 6, it was found that after biosynthesis of norepinephrine was inhibited, treatment of Ss for 10 days with rubidium chloride (6 milliequivalent/kg of body weight) caused an increase in the rate of disappearance of norepinephrine in the brainstem but not in the telencephalon. Also the utilization of intracisternally injected tritiated norepinephrine was increased and was accompanied by a shift in the pattern of norepinephrine metabolism to normetanephrine. Data suggest that greater amounts of neuronally stored norepinephrine were released to central adrenergic receptors.—*Journal abstract.*

9543. Weber, B., De Las Mulas Bejar, M., & Laborit, H. (Bouciaut Hosp., Lab. of Eutonology, Paris, France) **Localisation médullaire de l'activité d'un analgésique, l'Agr 614: Synergie et antagonisme vis-à-vis de la strychnine.** [The medullar localization of the action of an analgesic, Agr 614: Synergy with strychnine.] *Agressologie*, 1970, Vol. 11(3), 255-267.—Agr 614 (3-ethoxymorpholinyl-4-methyl-(2-naphthyl)-6-pyridazine hydrochloride) induces typical motor seizures in the mouse when it is combined with a nonconvulsive dose of strychnine. Glycine, which is a medullar inhibitor and whose action is inhibited by an ip injection of strychnine, delays the appearance of these seizures; sodium 4-hydroxybutyrate does not delay them. Conversely, strychnine does not improve the analgesia obtained with Agr 614, as is shown by the hot plate or peritoneal irritation tests. Results indicate that Agr 614 possesses a medullar effect which could result in an inhibitor of an inhibitor, thus producing analgesia and motor seizures. Physiological and pharmacological studies of the conduction pathways of the pain at the level of the spinal cord and its diffusion through the lemniscal pathway and multisynaptic pathways are suggested. (German, Spanish, & Russian summaries)—*English abstract.*

merdam Inst., Netherlands) **Blood pressure changes during mental load experiments in man.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 191-195.—Discusses several experiments showing an increase in systolic and diastolic blood pressure as a function of the amount of information handling/time unit. An auditive binary choice task (high or low tone in random sequence and of differing frequency to be answered by pressing a right or a left pedal) was used to evoke mental load. In short-term experiments, the rise in blood pressure was not very impressive and remained within the normal physiological range. There are some indications, however, that prolonged intensive mental load induces a more important increase in blood pressure. Increase in blood pressure, together with changes in other physiological phenomena, e.g., heart rate, sinus arrhythmia, etc., indicate that mental load may alter the level of activity of the autonomic nervous system.—*Journal summary.*

9545. Fichtel, K. (Inst. for Corticovisceral Pathology & Therapy, Berlin-Buch, E. Germany) **Ob osobennostyakh vyrabotki uslovnykh sosudorassh-iruyushchikh refleksov u cheloveka.** [On the features characterizing the elaboration of vasodilatational conditioned responses in man.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 610-617. Ss were 8 16 38 yr. olds. A biphasic thermovascular response was evoked by utilizing arm baths of increasing temperature: a vasoconstrictive phase for temperatures of 32-34° C, followed by a vasodilatational phase for higher temperatures. Combining such arm immersions with prolonged acoustic stimulation in the form of tape-recorded music, it is possible to elaborate a vasodilatational CR to a stimulus, eliciting initially an orienting vasoconstrictive reaction. An odd byproduct of the study was the finding that the music, itself, exhibited a vasodilatational effect after many arm baths without pairing with music as stimulus. (English summary) (22 ref.)—*J. D. London.*

9546. Parolla, D. I. & Mikhailova, G. P. (Pavlov Inst. of Physiology, Leningrad, USSR) **Primenenie termograficheskoi metodiki dlya issledovaniya autoregulyatornoi reaktsii sosudov mozga.** [Application of the thermographic method for study of the cerebrovascular autoregulatory reaction.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 625-631.—107 urethanized cats were used in a thermographic study to determine the possibility of ascertaining that level of critical arterial pressure, below which the reaction of circulatory autoregulation is no longer observed in the brain. In 63 Ss decrease of arterial pressure to the critical level of 41 ± 1.1 mm. Hg was not accompanied by a significant decrease in cerebral blood flow due to compensatory dilatation of the cerebral vessels. With further fall in arterial pressure the blood supply of the brain was diminished. Level of critical arterial pressure served as a quantitative criterion for evaluating the autoregulatory reaction of cerebral vessels. Thermographic utilization of this criterion was thereupon utilized to provide the basis for a further study to ascertain the influence of initial cerebrovascular tonus, iv injection of hemolytic blood, atropine (4 mg/kg), and inhalation of CO₂ on the cerebrovascular autoregulatory reaction. A sharp increase in the level of critical arterial pressure occurred with inhalation of CO₂ (the greater the concentration of CO₂, the greater the increase). Hemolytic blood also produced an increase. However, the level of critical arterial pressure was unaffected after

CARDIOVASCULAR PROCESSES

9544. Ettema, J. H. (U. Amsterdam, Jan Swam-

atropine injection and following sectioning of the vagus and sympathetic nerves in the neck. (English summary) (17 ref.)—*I. D. London.*

ENVIRONMENT & STRESS

9547. Allnutt, M. F. (Royal Air Force, Inst. of Aviation Medicine, Farnborough, England) **Thermal stress and human performance.** *Flight Safety*, 1970(Feb), Vol. 3(4), 7-9.—Reviews recent research and discusses the variables which determine human performance on a high mental, low physical work load under varying temperatures. It is suggested that (a) the lowest point at which a reliable decrement in performance has been found (an environmental temperature of 30° C or deep body temperature of 37.5° C) be adopted as a base line; (b) performance predictions above that base line be made after close analysis of the intervening variables; and (c) all Es in the field give fullest data on Ss, tasks, and environments used. (28 ref.)—*M. West.*

9548. Deaux, Edward & Kakolewski, Jan W. (Antioch Coll.) **Emotionally induced increases in effective osmotic pressure and subsequent thirst.** *Science*, 1970(Sep), Vol. 169(3951), 1226-1228.—Following a brief period of handling or enclosed rotation, 22 male Holtzman albino rats increased the frequency of drinking relative to eating. Handling also delayed or eliminated eating behavior in 36 hypoosmotic Ss. In further experiments with 11 Holtzman Ss and 12 hooded heterozygotic Ss of the Battleboro strain, osmometric analysis revealed a rapid increase in serum osmolality during stress which may account for the emergence of thirst and disruption of eating.—*Journal abstract.*

9549. Ledwith, F. (U. St. Andrews, Scotland) **The effects of hypoxia on choice reaction time and movement time.** *Ergonomics*, 1970(Jul), Vol. 13(4), 465-482.—Investigated the effects on choice RT and movement time of hypoxia (oxygen deprivation) induced by a reduction in total air pressure inside a decompression chamber. Ss were 32 18-38 yr. old air force personnel who were given no pretraining on the task used, were tested once at a pressure level equivalent to some altitude between ground level and 15,000 ft., and were given no information on the altitude attained. A variety of tasks were used with simple and complex spatial and code relationships between stimulus and response. In 3 experiments with 60 undergraduates in addition to Exp. 1 Ss, the most consistent finding was that from ground level to 7000 or 10,000 ft. there was a significant increase in RT and decrease in movement time. Above 10,000 ft., results were less consistent. It is suggested that in young adult Ss and in tasks of low mental load, the inverse variation of RT and movement time was quite consistent and was possibly a result of an unimpaired total response time plus a selective impairment of the time taken to initiate a response found only at intermediate altitudes. In tasks with more mental work involved, hypoxic impairment of total response time was found at altitudes as low as 5000 ft. Above 10,000 ft. there was little further impairment. The great discrepancy between these results and previous literature, and the additional finding of quicker response times with prolonged exposure to experimental conditions, were attributed to the separate analysis of RT and movement time and the use of naive Ss in a novel experimental design. (French & German summaries) (27 ref.)—*Journal abstract.*

9550. Smith, Robert M. & Hain, Jack D. (U. Alabama, Birmingham) **Relationship between somatization and effects of stress on electrogastric waveforms in humans.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 755-765.—Examined electrogastric waveforms of 20 human Ss in relation to conditions of response contingent avoidance of a noxious tone, altered feedback of successful and unsuccessful avoidance, nonresponse contingent aversive stimulation, and somatization scores on the Mini-Mult Test. Significant differences were observed in electrogastric waveform frequency measures between base line and tone periods. There was a significant difference for amplitude measures between trials based on presence and absence of tone, and in the interaction between presence and absence of tones and somatization. A trend was observed for amplitude in an interaction effect of successful vs. unsuccessful avoidance and high vs. low somatization.—*Journal abstract.*

9551. Zhukov, E. K. & Fedorov, V. V. (Sechenov Inst. of Evolutionary Physiology & Biochemistry, Leningrad, USSR) **Vliyaniye okhlazhdeniya na sokrashchenie skeletnykh myshts mlekopitayushchego.** [Influence of cooling on skeletal muscular contraction in the mammal.] *Fiziologicheskii Zhurnal SSSR*, 1970(Apr), Vol. 56(4), 575-581.—White rats were used in a comparative study of the values of the intensity and time parameters of the phasic and tonus-like contractions of skeletal muscles (mm. extensor digitorum longus, plantaris, and soleus as well as m. levator scapulae dorsalis) for temperatures of 20 and 37° C, i.e., the strength and velocity characteristics of single isometric contraction, isometric tetanus, and potassium contracture (80 and 160 mM KCl). With decrease in muscle temperature from 37 to 20° C, the magnitude of tension in single contraction underwent practically no change, but tension in maximal tetanus decreased somewhat. Together with this, time of premaximal single contraction was found to increase by 3.3-3.5 times, 1/2-life time of a single contraction by 3.5-4.5 times, but developmental time of maximal tetanus by 1.7-2.3 times. Duration of active-state decline increased by 2.4-2.9 times. With decrease in temperature from 37 to 20° C, the amplitude of K-contracture changed very slightly, premaximal developmental time of contracture increased by 1.3-2.3 times, while time of adaptational relaxation increased by 5-9 times. (English summary) (24 ref.)—*I. D. London.*

GENETICS

9552. Lindzey, Gardner & Thiessen, Delbert D. (U. Texas) **Contributions to behavior-genetic analysis: The mouse as a prototype.** New York, N.Y.: Appleton-Century-Crofts, 1970. xviii, 336 p. \$16.50.

9553. Singh, M. P., Kalia, C. S., & Jain, H. K. (Indian Agricultural Research Inst., Div. of Genetics, New Delhi, India) **Chromosomal aberrations induced in barley by LSD.** *Science*, 1970(Jul), Vol. 169(3944), 491-492.—Germinated seeds of hulled barley (*Hordeum vulgare*) and treated them with LSD. Preparations of squashed root tips stained with Feulgen revealed extensive chromosomal aberrations, most of which were chromosome breaks. Nearly 1/2 of the breaks occurred in the region of the primary constriction.—*Journal abstract.*

PERSONALITY CORRELATES

9554. Edwards, Kenneth R. (U. Miami) **Psychological changes associated with pregnancy and obstetric complications.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3864-3865.

9555. Goldstein, Harris S., Pardes, Herbert; Small, Arthur M., & Steinberg, Maurice D. (State U. New York, Downstate Medical Center, Brooklyn) **Psychological differentiation and specificity of response.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 97-103.—Investigated empirically the relationship between field dependence and specificity of physiological response by use of a visual attending task which elicited directional fractionation. GSR and heart rate were recorded from 10 field-independent (FI) and 10 field-dependent (FD) undergraduates before and during a visual attending period which consisted of looking for brief periods at a small light. Results are summarized as follows: (a) directional fractionation of response was demonstrated for all 20 Ss, (b) the GSR activity of FD Ss was at a higher level during the resting period than the FI Ss, (c) the GSR activity of the FI Ss showed a larger rise during the attending period than the FD Ss, and (d) the heart rate deceleration was larger for the FI Ss than for the FD Ss. (15 ref.)—*Journal abstract*.

9556. Kasl, Stanislav V., Brooks, George W., & Rodgers, Willard L. (Yale U., Medical School) **Serum uric acid and cholesterol in achievement behavior and motivation: I. The relationship to ability, grades, test performance, and motivation.** *JAMA: Journal of the American Medical Association*, 1970(Aug), Vol. 213(7), 1158-1164.—Examined the possible involvement of serum uric acid and serum cholesterol concentrations in the achievement behavior and achievement motivation of 149 male high school students and recent graduates. The study attempted to replicate and extend the existing body of data which has suggestively linked serum acid and achievement. Blood samples were collected from the Ss, and brief questionnaires administered. Also high school GPAs and IQ scores were obtained from school records as well as Ss' extracurricular activities. The major findings were: (a) uric acid showed a positive association with grades and with over-achievement (grades adjusted for IQ); (b) uric acid was positively related to performance on aptitude (speed) tests; and (c) a positive association was obtained between uric acid and the "slope" measure of achievement motivation, and a negative association between uric acid and test anxiety.—*Journal abstract*.

9557. Segraves, Robert T. (Vanderbilt U., Medical School) **Personality, body build and adrenocortical activity.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 405-411.—Data from 100 English male college students showed relationships between body build and urinary excretions and the dimensions on the Eysenck Personality Inventory, PEN Inventory, and the Markey-Nyman Temperament Schedule. Neuroticism was found with small, feminine, and narrow-shouldered men. Psychoticism had a negative relation to muscularity as did extroversion with hip width. An environment-physique interaction hypothesis is rejected for the more likely idea that hormone or neural differences could affect both personality and growth. A urine difference (ratio of total 17-oxogenic excretion to 17-oxosteroid excretion) for extroversion adds to the large body of

evidence that strongly suggests endocrinological correlates of personality. (39 ref.)—*R. L. Sulzer*.

9558. Watson, Guy A. (U. Southern California) **An exploratory study of the validity of the pupillary response of the eye as a measure of attitude.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1092.

NUTRITION & GASTROINTESTINAL PROCESSES

9559. Stillman, Robert D. (Syracuse U.) **Some behavioral and physiological measures on food deprived and non-deprived gerbils (*Meriones unguiculatus*) with particular reference to food deprivation polydipsia.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3897-3898.

ANIMAL PSYCHOLOGY

9560. Gallup, Gordon G. (Tulane U.) **Chimpanzees: Self-recognition.** *Science*, 1970(Jan), Vol. 167(3914), 86-87.—Reports that after prolonged exposure to their reflected images in mirrors, 4 preadolescent chimpanzees marked with red dye showed evidence of being able to recognize their own reflections. 4 adult stump-tailed macaques, 2 adult male rhesus monkeys, and 4 preadolescent cynomolgus monkeys, tested later, did not appear to have this capacity.—*Journal abstract*.

9561. Hinde, Robert A. (U. Cambridge, England) **Animal behaviour: A synthesis of ethology and comparative psychology.** (2nd ed.) New York, N.Y.: McGraw-Hill, 1970. xvi, 876 p. \$15.50.

9562. Jeddi, Essedik. (Lyon Dept. of Physiology, France) **Confort du contact et thermoregulation comportementale.** [Contact comfort and behavioral thermoregulation.] *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1487-1493.—Placed 8 newborn dogs in the presence of 2 metallic artificial mothers, 1 of which was covered with fur. In a neutral ambient temperature, Ss chose comfortable contact with the fur. This observation is in agreement with H. F. Harlow's studies on newborn monkeys. When the metallic mother was warmed and the fur metallic mother was cooled, however, S preferred the warmed metallic mother. The newborn's research for contact with a natural mother could therefore be related to behavioral thermoregulation. A semantic study indicated that the thermoregulatory concept of cold is associated with displeasure in Arabic, Bambara, French, and Wolof people. Pleasure in these people was associated with words related to warmth or heat. In phases of affective regression in 4 schizophrenic children, a behavior related to previous observations in young dogs of comfort contact was observed: the children searched for contact with fur or for contact with a warm radiator. This behavior is interpreted as an adaptive regression to the primitive mechanism of the newborn-mother relationship: a thermoregulatory mechanism. (27 ref.)—*English summary*.

9563. Johnson, Cecil E. (Ed.) (Riverside City Coll.) **Contemporary readings in behavior.** New York, N.Y.: McGraw-Hill, 1970. xi, 292 p. \$3.95(paper).

9564. Kawamichi, Takeo. (Hokkaido U., Zoological Inst., Sapporo, Japan) **Behaviour and daily activities of the Japanese pika, *Ochotona hyperborea yessoensis*.** *Journal of the Faculty of Science, Hokkaido U., Series VI, Zoology*, 1969(Sep), Vol. 17(1), 127-151.—Owing to their peculiar habits, involving

stenotopic habitat preference, production of characteristic calls, and hoarding of food for winter, the pikas have attracted the attention of many naturalists. Nevertheless, knowledge of their ethology, sociology, and ecology is still far from complete. This is also true for the Japanese pika. Reasons for the lack of precise information are (a) their habitat preference for high altitudes or barren lands, hardly accessible to research workers; and (b) the difficulty of rearing them under laboratory conditions, because of their high susceptibility to pneumonia and aspergillosis. (19 ref.)—*Journal abstract.*

COMPARATIVE PSYCHOLOGY

9565. Drewe, E. A., Ettlinger, G., Milner, A. D., & Passingham, R. E. (Inst. of Psychiatry, London, England) **A comparative review of the results of neuropsychological research on man and monkey.** *Cortex*, 1970(Jun), Vol. 6(2), 129-163.—"A comparative review of the neuropsychological evidence from man and non-human primates. It concentrates on those areas of research in which evidence is found for possible qualitative differences between man and monkey in the neural basis of behavior. This paper is divided into 2 major sections, the 1st part is a review of the evidence relating to 'associative' and other areas of the cerebral cortex; the 2nd, a review of the evidence from the study of language and non-verbal behaviour. Unilateral visual neglect is found after unilateral parietal damage in man but not in monkey. Furthermore, the misreaching reported after unilateral parietal damage in man is found only in the contralateral half-field whereas the misreaching studied in monkeys after unilateral ablation is found in either visual half-field but only with the hand contralateral to the ablation. The differences between the results of neuropsychological studies on man and monkey reviewed in this paper suggest the need for caution in generalizing from monkey to man in such research. Further comparative research is desirable to establish those areas within which such generalization may be valid."—R. Gunter.

9566. Michael, Charles R. (Yale U., Medical School) **Retinal processing of visual images.** *Scientific American*, 1969(May), Vol. 220(5), 105-114.—Discusses aspects of retinal transformation and integration of visual images among various species of animals. 2 principal types of visual systems are identified: (a) in the frog, rabbit, and ground squirrel, "the individual ganglion cells of these animals are usually highly specialized in terms of stimulus requirements, and fundamental variables, e.g., edges, color, contrast, orientation, and directional movement, are processed intensively within the retina"; and (b) in cats, monkeys, and presumably man, the ganglion cells in the retina "are concerned only with the simultaneous contrast between the centers and the surrounds of their receptive fields, and in some cases with color information." In the latter group, aspects of edge detection, orientation, and directional selectivity are dealt with only in the visual cortex, and then in a detailed and precise manner. The presence or absence of a visual cortex is given as a factor in explaining the differences between these 2 visual systems.—P. McMillan.

NATURAL OBSERVATION

EARLY EXPERIENCE

9567. Russell, P. A. (King's Coll., Aberdeen, Scotland.) **"Infantile stimulation" in rodents: A consideration of possible mechanisms.** *Psychological Bulletin*, 1971(Mar), Vol. 75(3), 192-202.—Reviews 4 major types of hypothesis concerned with the mediation of the effects of handling or otherwise treating infant rodents and some evidence bearing on them. Existing experiments do not allow a clear statement of the possible roles of (a) tactile stimulation (direct action), (b) hypothermia, (c) maternal behavior, and (d) stress. These hypotheses may not be mutually incompatible, and some possible lines of synthesis are suggested. Conceptual problems attaching to them are emphasized regarding the choice between a relatively nonspecific theory ("total stimulus input," "stress") or 2 or more separate mechanisms (hypothermia, tactile stimulation). It is suggested that the solution may come from a clearer understanding of the physiological systems affected by treatment. (43 ref.)—*Journal abstract.*

9568. Williams, Madeline M. (Lehigh U.) **Schooling behavior and its modifiability: The role of experience.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3901.

INSTINCTS

9569. Bjerke, Tore & Bjerke, Lelf G. (U. Oslo, Psychological Inst., Norway) **Note: Imprintability of Goldeneyes (*Bucephala clangula*).** *Psychological Reports*, 1970(Dec), Vol. 27(3), 981-982.—Exposed 17 Goldeneye ducklings to traditional audiovisual and auditory training stimuli 12-20 hr. after hatching. None of the Ss followed the stimuli, which suggests differences in the mechanisms mediating species-identification between this species and the earlier studied Wood duck (*Aix sponsa*). The differences are ascribed to the emotional development of Goldeneyes, since all Ss showed a high level of fear responding during testing.—*Journal abstract.*

MOTIVATION & EMOTION

9570. Boyaner, H. G. (Laval U., Montreal, Quebec, Canada) **Effect of REM sleep deprivation on exploration in rats.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 918.—10 rats deprived of REM sleep by the island method showed no significant differences in exploration (entries and rearings) on subsequent testing after 1, 2, 3, and 4 days of REM deprivation in a Y maze as compared to 10 controls.—*Author abstract.*

9571. Bruning, James L. & Parker, Vivian J. (Ohio U.) **Altruism in rats?** *Psychological Reports*, 1970(Dec), Vol. 27(3), 993-994.—Approach toward a squealing, distressed animal was not observed in 10 laboratory rats, indicating that there is no basis to conclude that altruistic behavior exists in rats.—*Journal abstract.*

9572. Ezinga, Gerard & Becker, Gilbert. (U. Manitoba, Winnipeg, Canada) **Is hunger drive held constant in the behavior experiment employing a fixed food-deprivation schedule?** *Psychological Reports*, 1970(Dec), Vol. 27(3), 735-742.—Reports body-weight curves based on 4 fixed-amount and 4 fixed-time maintenance schedules. An examination of the literature, using those curves as criteria, suggested an unequivocal "no" to the question posed in the title. The same curves

can serve as one basis for more knowledgeably designed experiments in which fixed-deprivation schedules are deemed necessary or convenient.—*Journal abstract.*

9573. Fischer, Gloria J. (Washington State U.) **Developmental changes in chick approach preference for social and food stimuli.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 155-157.—White leghorn chicks 4-10 days old were given choice preference trials in a T maze with other chicks visible on 1 side and food visible and available on the other side. $\frac{1}{3}$ of the Ss in each age group were tested when hungry, another 3rd when hungry and socially deprived (4-hr isolation from brooder mates), and the remaining 3rd were nondeprived when tested. The nondeprived Ss in all age groups showed a high and persistent preference for social stimuli over food. Hungry Ss, however, preferred food stimuli after the 4th day. Hungry and socially deprived Ss did not clearly prefer food stimuli until after their 1st wk. A 2nd set of nondeprived Ss were given choice preference trials between other chicks on 1 side of the T and nothing on the other side. They too preferred social stimuli at all ages, without even a clearly reliable decline in choice response speed. It is concluded that chicks raised with other chicks evidence no decline of interest in social stimuli through their 1st 10 days of life. In turn, diminished interest in social stimuli could not account for the upper limit on the critical period for imprinting.—*Journal abstract.*

9574. Hsiao, Sigmund & Pertulakes, William. (U. Arizona) **Feeding-drinking interaction: Food rationing and intake of liquids varying in taste, caloric and osmotic properties.** *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1495-1497.—Gave 30 rats either 0, 3, 6, 9 gm., or unlimited amounts of food accompanied by either water, .45% NaCl, .9% NaCl, .4% saccharin, .46% sucrose, or 9.3% sucrose solutions for 24 hr.; liquid or food intake for this period was recorded. Results indicate that (a) as food ration is decreased rats drink less water or saline solution but more sucrose or saccharin solutions, and (b) with ad lib food, food intake is reduced when accompanied by the liquids with calories but food intake is constant with liquids having no calories regardless of the osmotic or taste differences. (23 ref.)—*Journal abstract.*

LEARNING

Conditioning

9575. Antal, Juraj & Gantt, W. Horsley. (Comenius U., Medical School, Bratislava, Czechoslovakia) **Blood flow, blood pressure and heart rate changes accompanying hind leg flexion in conditional and unconditional reflexes.** *Conditional Reflex*, 1970(Oct), Vol. 5(4), 197-206.—Formed a flexor CR of the hind leg in 7 mongrel dogs. The UCS was an electrical shock on the skin of the paw, and the CS was a whistle. After stabilization of the CR, the following were recorded: flexor movement to UCS and to CS of the hind leg, blood flow in the femoral artery on the same leg, blood pressure in the carotid artery, heart rate, and respiration. During UCR, CR, and acute extinction of the CR, the changes of the above-mentioned parameters were investigated. The sequence of extinction of the individual measured parameters was as follows: flexion, blood pressure, blood flow, heart rate, and respiration. In the

mechanism of the vegetative changes accompanying the conditional hind leg flexion, 3 main components were involved: (a) muscular-visceral reflexes originating from different receptors of the contracting muscles, (b) emotional changes, and (c) the conditional component as a separate CR for each measured parameter. Principles underlying the formation of CRs are discussed under the headings of schizokinesis, peripheral and central stimulations. (15 ref.)—*Journal abstract.*

9576. Dumas, Carol O. (U. Southern Mississippi) **The effect of systematic desensitization and implosive therapies for introverts and extraverts: An experimental analogue.** *Southern Quarterly*, 1970(Jan), Vol. 8(2), 211-220.—Investigated 2 types of behavior therapy, implosive therapy (IT) and systematic desensitization (SD), in relation to their effectiveness for Ss defined in terms of Eysenck's personality categories (introversion—I—and extroversion—E). 63 male albino rats were defined as I and E on the basis of a preliminary conditioning task. 40 Ss falling at the extremes of the conditioning continuum were then subjected to an approach-avoidance conflict situation to induce experimental neurosis. Reversal of neurosis consisted of reestablishing eating behavior by approximations of IT and SD. Results suggest that for E, IT provided a more efficient reversal technique. For I the method appeared to be of little consequence.—*Journal summary.*

9577. Gardner, William M. (U. Alabama) **An analysis of auto-shaping.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3886.

9578. Herbert, Emily W. (U. Utah) **Effects of response-reinforcement contingencies and blackouts on two key concurrent responding.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3888.

9579. Hyde, Thomas S. (U. Minnesota) **Effects of Pavlovian conditioned stimuli on discriminative instrumental baseline responding.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3889.

9580. Will, Bruno. (U. Strasbourg, Lab. of Psychophysiology, France) **Expérience préalable et stratégie dans le conditionnement opérant.** [Prior experience and strategies in operant conditioning.] *Physiology & Behavior*, 1970(Dec), Vol. 5(12), 1411-1415.—8 groups of 4 albino rats obtained a similar number of precision food pellets after 12 conditioning sessions; but, according to age or strain, they achieved this result by different strategies. These strategies, studied by means of close analysis of the response, did not depend on previous reinforcement: a previous treatment of 6 sessions had only had a short-term effect and cannot account for the effective difference observed at the 12th session.—*English summary.*

Discrimination

9581. Jackson, William J. & Pegram, G. Vernon. (U. South Florida) **Acquisition, transfer, and retention of matching by rhesus monkeys.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 839-846.—Acquisition of non-corrective simultaneous matching by 11 rhesus monkeys varied a good deal, especially in the number of trials spent on position preference. When Ss were required to transfer from color to form matching, there was a decrement in performance with only 2 of 10 Ss performing above chance during the 1st day of transfer, although most of the remaining Ss performed above chance during the 2nd day. The acquisition curves for

form were more gradual than for color and the Ss did not revert to a position preference during transfer. After 14 days of form matching the Ss were retested on color matching and showed very high savings.—*Journal abstract.*

9582. McCroskery, James H. (U. Kentucky) **Extinguishing, abolishing, and reversing discriminative responding.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3893.

9583. Morrison, Robert R. & Ludvigson, H. Wayne. (Texas Christian U.) **Discrimination by rats of conspecific odors of reward and nonreward.** *Science*, 1970(Feb), Vol. 167(3919), 904-905.—Tested the hypothesis that, after receiving reward and nonreward, rats excrete differential odors perceptible to other rats, by making the correct turn in a T maze contingent on discrimination of any such odors. Clear evidence for an "odor of nonreward or frustration" was obtained, and there was the suggestion of a transitory odor after early reward trials.—*Journal abstract.*

9584. Schulte, Vincent G. (U. Kentucky) **The discrimination of the stimulus consequences of responses differing in work requirement.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3896.

Avoidance & Escape

9585. Waltz, George B. (Lehigh U.) **Choice avoidance learning: The effects of shock-escape and CS termination on the conditioning of choice avoidance responses.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3898-3899.

Reinforcement

9586. Carder, Brooks & Berkowitz, Kenneth. (U. California, Los Angeles) **Rats' preference for earned in comparison with free food.** *Science*, 1970(Feb), Vol. 167(3922), 1273-1274.—Trained 6 male albino rats to eat free food from a dish, and to press a lever for similar food. The free food was then presented while Ss were pressing on several reinforcement schedules. Ss continued to press for reinforcement when 1 or 2 presses were required for reinforcement, and ate little free food. When 10 presses were required for reinforcement, Ss preferred free food and pressed little or not at all. It is concluded that, when work demands are not too high, rats prefer earned food to free food.—*Journal abstract.*

9587. Ciminero, Anthony R. (Ohio U.) **Electric shock as a positive conditioned reinforcer.** *Journal of the Scientific Laboratories, Denison U.*, 1969(Jun), Vol. 50(1-4), 9-12.—Ran 12 male hooded rats through a series of 24 alternated training and extinction sessions. On 12 training days the experimental group had shock and water paired, contingent upon lever pressing. A 2nd group had tone instead of shock paired with water. The 3rd group responded for 40 water reinforcements and received 40 noncontingent shocks in the experimental chamber after bar press training was completed. During extinction 3 different response contingent stimulus conditions were available: (a) shock-dipper click, (b) tone-dipper click, or (c) dipper click. Results demonstrate that Ss receiving shock-water pairings in training responded more often during extinction when shock was presented than during other extinction sessions. For other Ss, shock presentations during extinction suppressed bar pressing. Results suggest that shock can

function as a positive conditioned reinforcer and that habituation is insufficient to account for this.—*Journal abstract.*

9588. Hartley, Donald L. (U. Delaware) **Sources of reinforcement in learned avoidance.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3856.

Reinforcement Schedule

Punishment & Extinction

9589. Campbell, Patrick E., Crumbaugh, Charles M., Snodgrass, M. Emily, & Knouse, Stephen B. (Southern Methodist U.) **Resistance to extinction as a function of the number of small and large rewarded runway trials.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 925-926.—Trained 4 groups of 10 rats each in a runway for 0, 5, 10, or 15 small rewarded (2 pellets) trials prior to being shifted to large reward (24 pellets) for the remainder of 45 trials. Acquisition performance was slower for small than for large reward during the early trials, but the groups were not different by the end of acquisition. Resistance to extinction was an increasing linear function of the number of small rewarded trials.—*Journal abstract.*

9590. Dunlap, William P. & Dachowski, Lawrence. (Tulane U.) **Effects of drive and partial reinforcement on extinction both between and within daily sessions.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 875-885.—40 albino rats were assigned randomly to the cells of a 2 x 2 factorial design consisting of % reinforcement (50 and 100%) by deprivation (high and low). Speed measures were obtained from 2 segments of a straight-alley runway for 80 acquisition and 56 extinction trials with 4 trials given/day. Deprivation effects were found over the closely spaced trials within daily sessions for both acquisition and extinction. In extinction the interaction of drive and % reinforcement within daily sessions supports a frustration-theory explanation of extinction behavior. The lack of deprivation-produced differences in the size of the PRE over days is also consistent with this explanation. (19 ref.)—*Journal abstract.*

9591. Kimbrell, G. M. (Denison U.) **Effects of social stimuli during extinction on bar pressing and food directed behavior in albino rats.** *Journal of the Scientific Laboratories, Denison U.*, 1969(Jun), Vol. 50(1-4), 1-4.—Housed 29 male Charles River CD strain rats either singly or in groups of 4. Ss were bar press trained and extinguished in 1 of 3 conditions: Social A, with another S who had access to food cup; Social B, with another S who did not have access to food cup; and Control with no other S. During extinction none of the test Ss had access to the food cup due to an interposed barrier. Bar presses and barrier contacts were recorded. It was found that presence of another S during extinction resulted in greater frequency of barrier contacts but not of bar presses. Results are interpreted consistent with other social facilitation phenomena.—*Journal abstract.*

SOCIAL & SEXUAL BEHAVIOR

9592. Scudder, C. L., Richardson, D., & Karczmar, A. G. (Loyola U., Medical School, Hines, Ill.) **Aggression and the orienting reflex in several genera and strains of mice.** *Aggressologie*, 1969, Vol. 10(2), 135-

144.—Studied 4 genera and 3 strains of mice involved in a social situation. A quantitative measurement of noncompetitive aggression as well as an evaluation of other activities, e.g., exploration and stereotypic behavior was carried out. Results show that the mouse types in question could be arranged in the following order of increasing aggressiveness: *peromyscus* < *microtus* < *onychomys* < *mus musculus* CF-1 < *mus musculus* C 57 B1/6J < *mus musculus* "mo." (wild type). Results are discussed in terms of various interdependent factors which control aggression, particularly the exploratory behavior and the brain levels of catecholamines and serotonin. (German, French, & Spanish summaries) (30 ref.).—*Journal abstract*.

SENSORY PROCESSES

9593. Bragg, Vernon C. & Dreher, Daniel E. (U.S. Air Force School of Aerospace Medicine, Brooks Air Force Base, Tex.) **A shock-avoidance technique for determining audiologic thresholds in the cebus monkey.** *Journal of Auditory Research*, 1969(Jul), Vol. 9(3), 270-277.—Behavioral audiometric thresholds were determined from .5-4 kcps in 14 white-throated *Cebus capucinus* monkeys using a shock-avoidance method; the nature of the data indicated that shock avoidance is an effective technique for use with this species. Stable and consistent thresholds within Ss were found but a wide range existed between animals. A hearing loss brought about by infection after middle ear surgery on 1 of the monkeys was detected on a shock-avoidance audiogram. Stable prepathology thresholds had been previously established, and the course of infection and recovery after treatment was clearly reflected by the audiogram, thus bearing on the validity of the method.—*Journal summary*.

9594. Stern, Ferdinand & Holmes, Nan K. (Eastern Michigan U.) **Reactions of two strains of young chicks to depth.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 803-806.—Utilized an auditory stimulus, cheeping, in an attempt to establish a preference in 40 DeKalb No. 131 and 40 Ghostley chicks for the deep side of a visual cliff. Approximately 80% of all responses were made to the shallow side. The cheeping, however, did have a differential effect on the number of deep responses by the 2 strains; in 1 strain a significantly greater number of deep responses was made when the deep side of the cliff faced in the direction of the noise, while in the other strain this difference was not observed. Some theoretical aspects of depth perception are discussed.—*Journal abstract*.

DEVELOPMENTAL PSYCHOLOGY

9595. Aebli, Hans. (U. Konstanz, Div. of Psychology, W. Germany) **Kognitive Entwicklung als Aufbau in einem sozio-kulturellen Kontext.** [Cognitive development as a construction in a socio-cultural context.] *Schweizerische Zeitschrift für Psychologie und ihre Anwendungen*, 1970, Vol. 29(3), 389-403.—Views the formation of cognitive structures in human development as a construction process establishing relationships between elements and generating hierarchical schemata. The most important construction processes do not occur spontaneously, but rather come about under guidance, i.e., in a sociocultural context. A new interpretation of

the processes in Geneva-type experiments and a new model of development are derived from this conception. (French summary) (18 ref.).—*English summary*.

9596. Bernard, Harold W. **Human development in Western culture.** (3rd ed.) Boston, Mass.: Allyn & Bacon, 1970. xi, 642 p.

9597. Blakely, Karen B. & Somerville, Addison W. (Sacramento State Coll.) **An investigation of the preference for racial identification terms among Negro and Caucasian children.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 314-319.—400 children, Grades 1-12, participated in this study in May, 1968. All schools involved serve a mixed low-middle and middle-class socioeconomic area in California. Ss above Grade 3 completed a questionnaire in their classroom setting by indicating their preference among the racial names "Negro," "black," "colored," and "Afro-American," and between "white" and "Caucasian." Preferences of Ss in Grades 1-3 were obtained on an individual basis. All Ss indicated a desire to avoid using terms pertaining to color when designating the Negro race; less than 1/4 of the total sample selecting either "colored" or "black." This tendency toward the Caucasian race is not as apparent. Data also show that children learn the correct racial designation for the Negro race prior to learning the proper anthropological designation for the Caucasian race.—S. R. Diamond.

9598. Borich, Gary D. (Indiana U., Inst. for Child Study) **Preferences for color, form, borders, lines, and dots by preschool children and adults.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 811-817.—2 groups of 25 preschool children and 25 graduate students strongly preferred form over color and borders. In the presence of form, children preferred color over borders, while adults preferred the reverse. Some variations of form were significantly more preferred than others, but the order of these variations was constant across groups. Adults preferred borders and form similarly, but children preferred form significantly more often than borders. Adults preferred lines and dots similarly, but children preferred lines significantly more often than dots. Results illustrate the use of R. D. Luce's choice axiom in predicting form preference in the context of a larger number of dimensions.—*Journal abstract*.

9599. Edwards, Diane & Edwards, Joseph S. (U. Missouri, Kansas City) **Fetal movement: Development and time course.** *Science*, 1970(Jul), Vol. 169(3940), 95-97.—In an experiment with 8 pregnant women, designed to determine the time course of changes in fetal movement, it was found that prenatal behavior develops in 3 phases: early rates, acceleration and maintenance, and deceleration to birth. Fetal activity occurs as discrete movements, bursts of activity, and prolonged activity. 4-hr samples were most representative of the daily rates of movement.—*Journal abstract*.

9600. Elkind, David. (U. Rochester) **Exploitation and the Generational Conflict.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 490-497.—Proffers an explanation of generational conflict as a developmental phenomenon in the process of self-differentiation. As the "implicit contract" between adult and child is fulfilled or violated at successive developmental levels, the adolescent tends to adopt a value system and becomes self-disciplined, or rebellious and delinquent.—A. M. Cawley.

9601. Freedle, Roy. (Educational Testing Service, Princeton, N.J.) **A stimulus similarity scale for temporal measures of attention in infants and**

children. *Developmental Psychology*, 1971(Mar), Vol. 4(2), 240-247.—Extends a theory which predicted viewing times for stimuli in a subset of alternatives chosen from a larger set by constructing a stimulus similarity scale which allows disclosure of the psychological space (the dimensionality and relative distances for a given set of stimuli) implied by the matrix of similarity values. Hypotheses regarding changes in perceived dimensionality over different age groups are able to be formed, and enable the study of developmental trends using the similarity scale. This scale is shown to have a close connection with Y. N. Sokolov's theory of an orienting response. Empirical data are presented illustrating the theory.—*Journal abstract*.

9602. Groth, Hilde; Weled, Barry, & Batkin, Stanley. (U. Hawaii, Honolulu) A comparison of monocular visually evoked potentials in human neonates and adults. *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 478-487.—Obtained summated visually evoked responses (VERs) to monocular and binocular light flash stimulation simultaneously from each cerebral hemisphere in 22 newborn infants and 10 young adults. Amplitude analyses and interhemispheric statistical comparisons show a significantly greater amplitude of the contralateral VER in infants in response to monocular stimulation. This difference did not reach significance in adults although the trend was maintained. Left-right hemispheric comparisons of amplitude did not reach significance for any group. Interhemispheric correlation coefficients were computed and were found to be considerably greater for the adult group. Results are discussed in terms of their relationship to fiber counts in the ipsilateral and contralateral tracts, the respective fiber diameters and functional changes related to progressive myelination of the developing visual system. Several indices for assessing the degrees of functional maturity of the developing human visual system are considered. (French summary) (26 ref.)—*Journal summary*.

9603. Jacobi, Yolande. La contribution de Jung a la psychologie de l'enfant. [Jung's contribution to child psychology.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17 19), 1040-1044.—Jungian analytic psychology is ordinarily considered to be concerned with adults and the elderly rather than with children. However, particularly in his later writing, Jung devoted considerable attention to the formative influences of the collective unconscious, archetypes, and typology on the child's personality.—R. E. Smith.

9604. Madsen, Clifford K., Edmonson, Frank A., & Madsen, Charles H. (Florida State U.) Modulated frequency discrimination in relationship to age and musical training. *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1468-1472.—Tested auditory discrimination of a modulated frequency in 200 2nd, 5th, 8th, and 11th graders, college nonmusic and music majors, graduate music students, and music faculty. Stimulus frequency was F# (369.99 Hz), which was presented to Ss individually in 15 randomized 30-sec trials in 3 categories: without frequency alteration, ascendingly, and descendingly. Modulation for the ascending and descending tones was 2c/sec during the last 25 sec. of the stimulus tone. Results indicate that: (a) auditory discrimination is partially a function of age as well as of music training; (b) younger Ss respond to tonal stimuli "incorrectly and sharp" while older Ss evidence better discrimination

while demonstrating a proclivity toward flatness; (c) perception of the modulated frequency is best during the 1st 5 sec. (10c) of frequency change; and (d) auditory tests that assess discrimination should control for guessing as well as for directional, i.e., up-down, propensities. (27 ref.)—*Journal abstract*.

9605. Megargee, Edwin L., Parker, George V., & Levine, Robert V. (Florida State U.) Relationship of familial and social factors to socialization in middle-class college students. *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 76-89.—Reviews sampling problems encountered in the studies of factors associated with poor socialization using adjudicated delinquents and nondelinquents. To determine the familial and social factors associated with differences in socialization in a nondelinquent population, the CPI Socialization (So) scale and a personal history questionnaire were administered to 208 female and 280 male college students. Ss scoring low on the So scale revealed the same basic pattern of associations usually encountered in studies of delinquents, indicating that the previous studies were not simple artifacts of the judicial process. Differences between high and low So scale scorers and male and female delinquents are discussed. (26 ref.)—S. Knapp.

9606. Montada, Leo. (U. Konstanz, Div. of Psychology, W. Germany) Entwicklung und Lernen. [Development and learning.] *Schweizerische Zeitschrift für Psychologie und ihre Anwendungen*, 1970, Vol. 29(3), 423-429.—Compares cumulative social learning as a model of cognitive development with Piaget's equilibration theory. Some learning studies demonstrating precocious acquisitions are discussed within this context. (French summary) (17 ref.)—*English summary*.

9607. Montagu, Ashley. The direction of human development: New and revised edition. New York, N.Y.: Hawthorn, 1970. ix, 406 p. \$7.95(cloth), \$3.95(paper).

9608. Stein, Aletha H. (Pennsylvania State U., Coll. of Human Development) The effects of sex-role standards for achievement and sex-role preference on three determinants of achievement motivation. *Developmental Psychology*, 1971(Mar), Vol. 4(2), 219-231.—Hypothesizes that children's sex-role standards for 6 achievement areas (mechanical, athletic, math, reading, artistic, and social skills) are related to their attainment values, expectancies, and standards of performance in these areas. Ss were 235 6th and 9th graders divided into 2 socioeconomic status (SES) groups. The major hypothesis is supported. Further, as predicted, 9th graders' attainment values were more influenced by sex typing than 6th graders', and expectancies and standards of lower SES Ss were more influenced by sex typing than those of higher SES Ss. There were no age or SES differences in sex-role standards, but individual differences in sex-role standards were correlated with motivation scores. Sex-role preferences were not related to the pattern of motivation scores. (16 ref.)—*Journal abstract*.

INFANCY

9609. Bench, John & Parker, Anne. (Royal Berkshire Hosp., Audiology Research Unit, Reading, England) On the reliability of the Graham/Rosenblith Behavior Test for neonates. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(Nov), Vol. 11(2),

121-131.—The Graham Test as modified by J. F. Rosenblith and further modified by the present authors was slightly, but not significantly, more reliable (inter-O reliability) than the original tests, although an attempt was made to achieve more rigorous control over presentation of test items to 19 infants. However, the reliability obtained was still of a high order. 4-hr test-retest reliability was also found to be slightly higher than 24-hr test-retest reliability for most items as expected, although again the difference was not significant. Evidence on the effect of pretest arousal on test scores confirms Rosenblith's suggestion that the arousal variable needs to be carefully controlled. In general, a state of light sleep or wakefulness seems required.—*Journal summary.*

9610. Colligan, Robert C. (U. Minnesota) **Deficits in psychometric performance related to perinatal stress.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1068-1069.

9611. Earle, Anna M. (New York U.) **The effect of supplementary post-natal kinesthetic stimulation on the developmental behavior of the normal female newborn.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3721-3722.

9612. Herbert, Edward W. (Syracuse U.) **The effect of contingent social reward upon the vocal rate of infants residing under different conditioning.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3857.

9613. Lebedev, D. D. (1st Moscow Medical Inst., USSR) **O znachenii biologicheskikh ritmov v pediatrii.** [On the significance of biological rhythms in pediatrics.] *Pediatrics*, 1970(Aug), Vol. 49(8), 59-64.—Presents a survey of various daily rhythms (physiological and biochemical), characteristic of the child up to the age of 12 mo. Data are submitted on changes in the daily distribution of wakeful periods during the 1st yr. of the child's life.—*I. D. London.*

9614. Lovric, V. A. (Royal Alexandra Hosp. for Children, Camperdown, New South Wales, Australia) **Normal haematological values in children aged 6 to 36 months and socio-medical implications.** *Medical Journal of Australia*, 1970(Aug), Vol. 2(8), 366-370.—Presents normal hematological values from a survey of healthy children aged 6-36 mo. and regularly attending various metropolitan baby health centers in Sydney. Anemia, defined as a hemoglobin level of 10 gm/100 ml or below, in association with a microcytic, hypochromic blood film, was found in only 3% of children. In hospital practice, 20% of children have this disease. Circumstantial evidence linking anemia and childhood morbidity is presented.—*Journal abstract.*

9615. Turnure, Cynthia. (U. Minnesota, Inst. of Child Development) **Response to voice of mother and stranger by babies in the first year.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 182-190.—6 boys and 5 girls at each of 3 ages (3 mo., 6 mo., and 9 mo. were presented with 3 tape-recorded auditory stimuli: mother's normal voice, mother's voice slightly distorted, and mother's voice grossly distorted. 1/2 of the Ss at each age also heard the voice of an unfamiliar woman. There was greater motor quieting with age to all versions of the mother's voice and to the stranger's voice, suggesting increased attention to these verbal stimuli with age. The 6-mo-old Ss cried more than the 3-mo-old Ss during all versions of the mother's voice, especially her normal voice. There was also more mouthing during the

mother's vs. the stranger's voice at 3 mo. (20 ref.)—*Journal abstract.*

9616. Weizmann, Frederic; Cohen, Leslie B., & Pratt, R. Jeanene. (Purdue U.) **Novelty, familiarity, and the development of infant attention.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 149-154.—Examines changes in infants' attention to novel or familiar stimuli in novel and familiar environments as a function of age. 16 male and 16 female 4-wk-old infants were exposed for 30 min. daily to 1 of 2 stables in 1 of 2 bassinets. Fixation times at 6 wk. indicate more attention to the familiar than the novel stable. By 8 wk., fixation time to the novel increased and overall differences in attending to the 2 types of stables disappeared. However, a significant Sex \times Environmental Novelty \times Stable Novelty interaction indicates that at 8 wk., males fixated a novel stable more if in a familiar environment, while females fixated the novel stable more if in a novel environment.—*Journal abstract.*

CHILDHOOD

9617. Crockenberg, Susan C. (Stanford U.) **The effect of a child's expectancy of success on his persistence.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1616.

9618. Garrett, Gladys E. (Purdue U.) **Methodology for assessing movement individuality: A computerized approach.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1601.

9619. Girard, Giorgio. **Décision révoquée et fruitée du conflit.** [Revocable decision and evasion of conflict.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Oct), Vol. 17(4), 245-251.—Evaluates comparisons between revocable and irrevocable decisions and their aftermaths. The level of conflicts are analyzed and an experiment which was conducted on 135 9-13 yr. old females involving sets of color cards is described. It is concluded that the tendency to evade a conflict after a revocable decision is far less than after an irrevocable 1. (English summary) (18 ref.)—*I. Sirotnin.*

9620. Hindelang, Michael J. (State U. New York, Albany) **Educational and occupational aspirations among working class Negro, Mexican-American and white elementary school children.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 351-353.—Used a pretested interview schedule in interviewing 187 Grades 4, 5, and 6 working-class pupils from a West Coast community of 95,000. The racial breakdown of the sample was 68 Negroes (N), 74 Mexican Americans (MA), and 45 whites (W), and the racial composition of the interviewer was fixed in the same proportion. Ss were asked how much longer they would like to go to school, how far in school they thought their parents and teachers wanted them to go, and what they wanted to do when they grew up. The N subsample had the highest education aspirations, followed by the W, and finally the MA subsamples. When educational aspiration is held constant, W and MA pupils are found to aspire to higher educational categories. It is suggested that Negro students may be preparing themselves for job discrimination in the future.—*S. R. Diamond.*

9621. Koslin, Sandra C., Amarel, Marianne, & Ames, Nancy. (Riverside Research Inst., New York, N.Y.) **The effect of race on peer evaluation and preference in primary grade children: An exploratory study.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 346-350.

—Explored the use of children's preferences for sketches of classrooms which differ in racial composition as a measure of school related racial attitudes in the primary grades. 120 Grade 1 and 2 children from 3 elementary schools in a middle-sized Eastern city served as Ss. 1 school was all white, 1 all Negro, and the third $\frac{1}{2}$ white and $\frac{1}{2}$ Negro. Pairs of sketches depicting classroom scenes, differing only in racial composition, were used. In individual interviews Ss were shown the pictures 1 pair at a time. No questions indicating preference were asked. The white Ss showed an overwhelming preference for the white classrooms. The Negro Ss were divided in their preferences.—*S. R. Diamond.*

9622. Kuldau, Janice E. (Ball State U.) **Occupational development among upper elementary school age children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1576.

9623. Lefebvre, Andre & Bohn, Martin J. (Loyola U., Chicago) **Occupational prestige as seen by disadvantaged black children.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 173-177.—Studies developmental and differential aspects of occupational prestige among 300 disadvantaged Negro children in Grades 4-8. Ss ranked 12 occupations representative of high and low socioeconomic levels. There was high agreement in the rankings among grades ($p \leq .81$), and between boys and girls ($p \leq .81$). In comparison with the general population, the Ss' rankings also showed high similarity at all grade levels ($p \leq .75$). By the 4th grade, disadvantaged Ss of both sexes show a high level of awareness of adult, standard concepts of occupational prestige.—*Journal abstract.*

9624. Lichtman, Marilyn V. (George Washington U.) **Intelligence, creativity, and language: An examination of the interrelationships of three variables among preschool, disadvantaged Negro children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1625.

9625. Lurcat, L. **Evolution de l'activité graphique entre 5 et 6 ans: Multiplication et diversification des réalisations.** [The evolution of graphic activity between 5 and 6 years: Multiplication and diversification of realizations.] *Journal de Psychologie Normale et Pathologique*, 1970(Jul), No. 3, 325-341.—Different characteristics of design and writing between 5-6 yr. of age were identified during the continuous observation of the graphical production of a child. This period has been characterized as being the age of the model: models of design and writing which are scholarly acquisitions become integrated with spontaneous productions. At the same time nonfigurative forms disappear, and figurations become progressively the exclusive theme of drawings. The mastery of directions of space manifests itself particularly in the appearance of attitudes in the drawing of a person. During this period one can observe the progressive canalization of graphism controlled in the scholarly exercises of writing and drawing. Recreational graphism expressed in figurations or in kinesthetic play remains very apparent.—*L. A. Ostlund.*

9626. Mann, Leon. (Harvard U.) **Effects of a commitment warning on children's decision behavior.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 74-80.—Conducted 3 studies with 104 preschool children in the United States and Australia to determine whether a commitment warning (admonition that a decision will be binding) would influence behavior on immediate and on unrelated decisions. In comparison

with Ss in the noncommitment condition, commitment Ss took longer to announce their choice of a gift toy and showed greater willingness to make some sort of decision on an unrelated problem. Contrary to expectation, the commitment warning did not produce an increase in postdecisional bolstering. 5 yr. olds tended to show more mature decisioning than 4 yr. olds. Negro and white United States children were very similar to Australian children in their responses. Findings suggest that even in young children, issuing a commitment warning initiates a psychological set to approach decision problems carefully and decisively.—*Journal abstract.*

9627. Neill, Neva A. (U. California, Berkeley) **The effect of stories on responses of first grade children toward fear of the dark.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1514-1515.

9628. Rebelsky, Freda & Dorman, Lynn. (Eds.) (Boston U.) **Child development and behavior: Readings.** New York, N.Y.: Alfred A. Knopf, 1970. xix, 399 p.

9629. Solov'eva, V. S. & Fetisov, G. V. (Inst. of Anthropology, Moscow, USSR) **Sravnitel'nye dannye po polovomu sozrevaniyu russkikh shkol'nikov Moskvy i dolgan Taimyra.** [Comparative data on sexual maturation in the Russian children of Moscow and the Dolgans of Taimir.] *Voprosy Antropologii*, 1968, No. 29, 72-89.—Presents comparative data collected in the early 1960s. The view that in the Far North the onset of sexual maturation is significantly delayed is not upheld.—*I. D. London.*

Learning

9630. Aldrich, Byron V. (U. Michigan) **A study of classification and Piaget's theory of concrete operations.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2164-2165.

9631. Bachman, Darrell W. (U. Oregon) **A demonstration of stimulus control and extinction of an operant response using a conceptual s^o.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2166.

9632. Cohen, Phyllis M. (Boston U., School of Education) **Social and mechanical reinforcement of children's learning.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2171-2172.

9633. Cole, Michael; Frankel, Frederick, & Sharp, Donald. (Rockefeller U.) **Development of free recall learning in children.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 109-123.—In 3 experiments, performance of children in grades ranging from 1-9 ($N=120$, 40, and 80) was investigated in a repeated trials, free recall experiment. Variables found to improve recall were presenting objects or pictures, rather than saying words, written instead of verbal recall, grouping of stimuli according to semantic category at the time of learning, and lists composed of items from a set of identifiable categories rather than randomly chosen words. The relation between accuracy of recall and various organizational aspects of Ss' recall was investigated using measures of (a) category clustering, (b) components of clustering scores, (c) serial position effects, and (d) seriation of response orders. In general, manipulations which increased amount recalled did so by increasing accuracy in the middle or early portions of the recall list. For instance, age differences did not occur in late serial positions, but were restricted to the early and middle portions of the list. Category clustering

ordinarily increased with increased accuracy; when category clustering was of sufficient magnitude, it reduced serial position effects. Analysis of the S's tendency to output the lists in serial order indicate a large difference between the 1st and subsequent learning trials; serial outputting was characteristic of Trial 1 only. Although performance on the accuracy and clustering measures increased with grade, interactions between grade and other independent variables were generally lacking. (36 ref.)—*Journal abstract.*

9634. Eisler, Hannes & Spolander, Krister. (U. Stockholm, Psychological Lab., Sweden) **On the sign of slope in the learning of linear functions.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 176-184.—Presented 21 6th graders in 3 equal groups with pairs of values (E and S) of 3 different linear functions $E = a + bS$. In a test phase Ss indicated the E values that corresponded to the S values. Values were represented as distances marked on straight lines. 2 groups, 1 a control group, had a positive slope, and the 3rd group a negative. The squared sum of the S-E differences was kept constant. All groups had roughly the same performance as measured by the squared sum of deviations from empirical and correct E values. The learning curves, however, indicate that some learning had taken place in the group with the negative slope. It is concluded that a principle rather than a function was learned.—*Journal abstract.*

9635. Fraunfelker, Barbara S. (Rutgers State U.) **Phonetic compatibility (PC) in paired-associate verbal learning of first and third grade children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1072-1073.

9636. Friedrichs, Ann G., et al. (U. North Carolina, Chapel Hill) **Interrelations among learning and performance tasks at the preschool level.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 64-172.—Administered 8 learning and 8 performance tasks to 50 4- and 5-yr-old preschoolchildren. The median correlation among the learning tasks was .17, indicating a high degree of differentiation of learning abilities in preschoolchildren. There were significant relations among simple learning tasks and tasks dependent upon more complex cognitive processes (i.e., paired-associate learning with observational learning, problem solving, and category sorting; observational learning with problem solving and category sorting). The 2 performance tasks yielding the greatest number of significant positive relations with the learning tasks were attention and following instructions. Scores on the attention task were significantly related to performance on oddity learning, observational learning, problem solving, and category sorting. The significant correlations for following instructions were those with paired-associate learning, serial memory, observational learning, incidental learning, and problem solving. Level of aspiration was negatively related to performance on serial memory, observational learning, and incidental learning. In general, there were few sex differences in level of performance or incidence of significant correlations.—*Journal abstract.*

9637. Gallagher, Joseph W. & Reid, Donald R. (U. Alabama) **Paired-associate learning of children with mixed list designs.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 300.—Tested 37 male and 38 female 1st graders and 35 male and 40 female 3rd graders with 2 types of weak normatively associated

pairs (List 1) and nonassociated pairs (List 2). It was found that 1st graders made significantly fewer errors ($p < .02$) on the 0% pairs in List 1, while only small differences were found among 3rd graders. Results suggest that 1st and 3rd graders "may employ different processes or strategies in learning mixed lists."—P. Hertzberg.

9638. Kobasigawa, Akira. (U. Windsor, Ontario, Canada) **Effects of model's problem-solving behavior and vicarious reinforcement on children's learning.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 700.—Investigated whether (a) observation of an expert model (M) is more effective than the trial-and-error method of learning, and (b) observation of M may lead to a more generalized problem-solving strategy. 48 2nd graders observed a rewarded and unrewarded M, heard an M being rewarded, or were not exposed to any M. Ss were then tested with a different but similar concept-identification task. Ss who observed the model had significantly fewer errors than those who did not observe a model or only heard the reward. Results support both a and b.—S. Knapp.

9639. McCarron, Carole & Daves, Walter F. (Georgia State U.) **Free recall of object names in preschoolchildren as a function of intracategory variation.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 295.—Tested 2 groups (10 Ss each) of 5- and 6-yr-old middle-class preschoolchildren (mean ages of 58 and 63 mo.). Ss were shown and asked to recall 48 common objects, comprising 12 categories. Data was subjected to analysis of variance with variety level as a within-Ss variable, and age as the between-Ss variable. The variety effect was found to diminish with age, and recall appeared to be better for older Ss. However, a negative correlation between variety effect and age suggested a need for further investigation.—P. Hertzberg.

9640. Norton, J. C., Versteeg, Arlen D., & Rogers, Cecil A. (U. Arizona) **Discrimination learning, social class, and type of reward.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 803-805.—Used a visual discrimination task to determine the effectiveness of verbal reward alone vs. a combination of candy and verbal reward with 16 middle-class 5-yr-old children and 16 5-yr-old children from a Head Start class. Social class proved to be the only significant variable, the performance of the higher status group being superior to that of the lower status group. Only a tendency for the verbally rewarded Ss to be superior to combined reward Ss was noted.—*Journal abstract.*

9641. Peterson, Rita W. (U. California, Berkeley) **Identification and analysis of some aspects of exploratory behavior (curiosity) in elementary school children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1516-1517.

9642. Repucci, N. Dickon. (Yale U.) **Parental education, sex differences, and performance on cognitive tasks among two-year-old children.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 248-253.—The relation between sex of child, parental educational level, and performance on 3 different types of cognitive tasks—2 vocabulary tasks, an embedded figures task, and a 2-choice discrimination task—was investigated among 48 2-yr-old children. It was expected that parental education would be positively related to superior performance on all of the tasks for girls but unrelated for boys. Results confirmed this expectation.—*Journal abstract.*

9643. Schiopu, Ursula. (U. Bucharest, Romania) **Thinking strategy in positional games by young children.** *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(1), 3-15.—Studied the approach to the thinking strategy among young children in positional games. It is noted that even the weakest player can observe a certain strategical approach. A difference in approach is observed between various players with the conclusion that total information is more evident in children from the higher school grades. Saturated by psychological factors, the game shows passive, defensive, active and simple, and complex attitudes. The strategies applied to the game are described as engaging, combinatory, and amelioration strategies.—*I. Sirodin*.

9644. Voronin, L. G., Konovalov, V. F., Gromyko, N. M., & Serikov, I. S. (Inst. of Biophysics, Pushchino-Oka, USSR) **Elektrofiziologicheskie dannye o vzaimodeistvii osoznannykh i neosoznannykh sledovykh protsessov u chelovek v ontogeneze.** [Electrophysiological data on the interaction of cognized and uncognized trace processes in human ontogenesis.] *Zhurnal Vysshei Nervnoi Deyatel'nosti*, 1970(Mar), Vol. 20(2), 431-440.—41 4-16 yr. old children were Ss in an ontogenetic study of the dynamics of formation of various trace CRs as reflected in their interactions at the levels of the 1st and 2nd signal systems. In the 1st series of experiments S opened his eyes and pressed a button only when a light was turned on; in the 2nd series he did this only when the light was due to be turned on; in the 3rd, he did so just before the light was to be turned on. Formation of trace CRs was achieved in all Ss. Even in the 1st experimental session EEG reactions, GSRs, oculomotor and motor reactions arose before the light was turned on. By the 2nd-3rd session these reactions were stabilized and appeared 80-90% of the time. In the 2nd series, involving "conscious evaluation of the trace interval," in most cases an underestimation of the time the light was to be turned on was observed. In the 3rd series, underestimation occurred only in 4-8 yr. old Ss. 14-16 yr. old Ss were accurate, since they employed counting. In 4-8 yr. old children, it is concluded, the trace processes are formed chiefly at the level of the 1st signal system, but in 14-16 yr. old children at the level of both signal systems. (English summary)—*I. D. London*.

9645. Welch, Louise M. (Yale U.) **The role of verbalization in learning from demonstrations.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3899-3900.

Concepts & Language

9646. Bajard, Guy. (U. Bordeaux, Lab. of Genetic & Comparative Psychology, France) **Essai de quantification des conduites dans la découverte de lois de séries.** [An experiment in the quantification of responses in the discovery of laws of series.] *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 141-148.—Using the Apparatus for the Resolution of Simple Problems (ARPS) primary schoolchildren were required to discover rules of series without the knowledge of the first term. Each S's response was recorded by means of polygraph recording equipment, giving an objective record of the methods of approach used in the attempts to discover the rule of the series. This made possible a quantification of the results and an assessment of the differences between scholastic levels, and between the different experimental conditions obtaining during the task. 1 of the most important discoveries was the

crucial role played by intellectual attitudes induced by the assigned rules of procedure, and the material given to finish the task. These seemed to be generally independent of the scholastic level.—*L. A. Ostlund*.

9647. Bellugi, Ursula. (Salk Inst. for Biological Studies, San Diego, Calif.) **Learning the language.** *Psychology Today*, 1970(Dec), Vol. 4(7), 32-35, 66.—Intensive observations of the language development of 3 children during their 3rd, 4th, and 5th yr. revealed several common patterns. At first, children did not use auxiliary verbs; however, when they began to use these verbs, they seldom contracted them as their parents nearly always did. The irregular verbs and nouns were often used correctly until the general rules were discovered. Then, for a time, the rules were overgeneralized to the irregular words. It is concluded that children are active in analyzing language and developing rules of maximum usefulness. Some cross-cultural evidence suggests that such tendencies are general and may be biological.—*E. J. Posavac*.

9648. Bentler, P. M. (U. California, Los Angeles) **Evidence regarding stages in the development of conservation.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 855-859.—Analyzed standardization data collected from 4-8 yr. old children for the Goldschmid-Bentler Conservation scales for evidence of continuity or discontinuity in growth of conservation skills. At younger and older age groupings the resulting total score distributions were strongly unimodal, indicative of nonconservation and conservation, respectively. In age groupings containing extremes of nonconservers as well as conservers, S's scores were not obviously trimodal as a 3-stage hypothesis would predict. Score distributions appeared continuous but were not normal in nature.—*Journal abstract*.

9649. Bernstein, Norma T. (New York U.) **The effect of training in the cognitive uses of language on the attainment and retention of double classification concepts by kindergarten children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1065-1066.

9650. Bonney, Lewis A. (U. Arizona) **Relationships between content experience and the development of seriation skills in first grade children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2167.

9651. Bradley, Hayworth L. (Michigan State U.) **Verbal concept learning among the disadvantaged as a function of stimulus predifferentiation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2167.

9652. Buchanan, William A. (U. Colorado) **Children's performance in attribute identification tasks as a function of availability of previous stimulus information and task complexity.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1558-1559.

9653. Coxon, Mary L. (U. Arizona) **The cognitive patterns of organization used by children at the time they enter first grade.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2172-2173.

9654. Evans, Dorothy A. (U. Minnesota) **Word associations among students of low and middle socioeconomic status.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1071.

9655. Fein, Greta. (Yale U.) **Age differences in the classification of size: The influence of measurement scale and instructions on transposition behavior.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3885.

9656. Hansen, Zona S. (U. Michigan) **The effects of training on the cognitive development of nursery school children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2181.
9657. Higgs, Jo A. (U. Edinburgh, England) **The phonetic development of word initial /s/ plus stop clusters in a group of young children.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 130-138.—Elicited the words spoon, stamps, and scarf from 133 2-5 yr. old children for the purpose of phonetically analyzing and describing the sounds which occur at the /sp-/, /st-/, and /sk-/ places in structure. The resulting utterances are classified by age and certain phonetic characteristics: place of articulation, manner of articulation, state of glottis, length, and the sequencing of segments. The distributional changes which occur from the young age groups to the older age groups verify the notion that the phonetic acquisition of these initial clusters and perhaps of speech generally is best viewed as a step-by-step development.—*Journal summary*.
9658. Jensen, Jørgen A. (Danish Inst. of Educational Research, Copenhagen, Denmark) **Concrete transitivity of length: A method of assessment.** *Scandinavian Journal of Psychology*, 1970, Vol. 11(3), 196-212.—Explored the problem of assessing concrete transitivity of length in 20 52-80 mo. old children, using an essentially nonverbal design employing 9 sets of 3 sticks each. In the training phase, Ss learned that a bead was hidden in the longest stick and information was given by the E as to correct and incorrect choices. In the test phase of 8 trials, Sticks A, B, and C were presented in a systematic variation. S displayed transitivity when more than 5 times in the 8 trials he chose the largest of the 3 sticks, A, on the basis of the information $A > B$ and $B > C$. 50% of Ss showed transitivity. The youngest S with 6 correct responses was 5½ yr. old; the youngest S with 8 correct responses was 6¼ yr. old. Extensions of the design are discussed.—*Journal abstract*.
9659. Kuypers, David S. (U. Illinois) **The development and utilization of hypotheses by children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3890.
9660. Laurendeau, Monique & Pinard, Adrien. (U. Montreal, Quebec, Canada) **The development of the concept of space in the child.** New York, N.Y.: International Universities Press, 1970. ix, 465 p. \$12.50.
9661. Lenneberg, Eric H. (Cornell U.) **The neurobiology of language: Practical applications.** *Bulletin of the Orton Society*, 1970, Vol. 20, 7-13.—Defends the theory that language may have biological roots. The interrelationships between biology and environment was stressed. Language was proposed to be a differentiation of psychological processes. A "maturational threshold" is the deciding factor in language acquisition. Puberty was theorized as the anatomical and psychological upper limit of that threshold. It is stressed that absence of a capacity for language acquisition is not identical to failure to speak. Clinical examples are cited. It is suggested that the theory has relevance not only in academic circles but also in the clinic.—C. O'Donnell.
9662. Minsky, Raphael. (U. Maryland) **An investigation into children's conceptualization of proportionality as expressed in their drawings of the male human figure.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1082.
9663. Odom, Richard D. & Mumbauer, Corinne C. (Vanderbilt U.) **Dimensional salience and identification of the relevant dimension in problem solving: A developmental study.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 135-140.—A color-form salience task was presented to 277 Ss, 6-19 yr. of age. Ss were free to choose a comparison stimulus that was like a standard stimulus in form or to choose a 2nd comparison that matched the standard in color. No feedback was given by the E regarding the Ss' choices. A concept-identification problem with either form or color relevant was then presented to a selected sample of Ss for whom form was assessed to be more salient. Analyses of errors indicate that the performance of the 2 youngest groups who had a color-relevant problem did not differ, but that both of these groups made more errors than any other group. No differences in performance among the other groups were found. (18 ref.)—*Journal abstract*.
9664. Parker, Virjean. (Boston U., School of Education) **Pupil performance of cognitive tasks in the development and application of phonic generalizations: Primary grades.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 936-937.
9665. Robinson, Lucile T. (Claremont Graduate School & University Center) **An exploratory study of the utilization of spatial concepts by children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1631.
9666. Robinson, Violet H. (Stanford U.) **An investigation of the performance of kindergarten children on quantitative class inclusion tasks.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1631-1632.
9667. Roll, Samuel. (Yale U.) **Conservation of number: A comparison between cultures and subcultures.** *Revista Interamericana de Psicología*, 1970(Mar), Vol. 4(1), 13-18.—Investigated cultural influence on task performance, specifically conservation of number. Ss were 58 6-11 yr. old children from the United States, and 6-10 yr. olds from Colombia, 70 middle class and 34 working class. Chi square procedures were used to analyze the data with no significant differences between the United States sample as compared with the total sample and Colombian working-class children compared with Colombian middle-class children. Findings endorse Goodnow's conclusions that similarities across milieus are more striking than their differences and uniformities in cognitive development of children across cultural strata. (Spanish & Portuguese summaries)—H. Lohn.
9668. Ryan, Mary R. (Catholic U. of America) **A study of verbal reasoning ability in children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1087.
9669. Silver, Archie A. (New York U., Bellevue Medical Center) **Discussion: The neurobiology of language (Lenneberg).** *Bulletin of the Orton Society*, 1970, Vol. 20, 14-16.—Reviewed the points stressed by Lenneberg's thesis that language may have biological roots. Language may have resulted from an interaction of the environment and biology. Language is related to time. Language is basically a biological phenomenon, with the possible exception of some of the practical applications proposed by Lenneberg. He objected to "drowning" children with reading disabilities in a language atmosphere. Immediate feedback was advanced as a sound clinical method.—C. O'Donnell.
9670. Simmons, Helen. (U. Oregon) **Decision strategy as a function of sensory modality.** *Dissertation*

Abstracts International, 1970(Sep), Vol. 31(3-A), 1089-1090.

9671. Steinbrecher, Andrew W. (U. Rochester) **Effects of reversibility training on conservation attainment.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1633-1634.

9672. Tapp, June L. (U. Chicago) **A child's garden of law and order.** *Psychology Today*, 1970(Dec), Vol. 4(7), 29-31, 62-64.—406 10-14 yr. old Ss from 7 cultures were intensively interviewed concerning their conception of the meaning and purpose of rules and laws. Ss focused on the content and benefits of rules, not on punishment for disobedience, and believed that chaos and conflict would follow if rules did not exist. Fair rules were defined as those based on consensus and applied equally. While obedience seemed most likely encouraged by nurturant strategies, disobedience was felt to be right under some circumstances.—*E. J. Posavac.*

9673. Vezin, L. & Mathieu, J. P. (Sorbonne, Lab. of Genetic Psychology, Paris, France) **Mode de transmission d'un principe technique et acquisition de ce principe chez des enfants de C.E.1 et C.M.1.** [Mode of transmission of a technical principle and acquisition of that principle by children in C.E.1 and C.M.1.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17-19), 1060-1065.—Evaluated the ability of 72 boys to comprehend the principal of converting rotary to reciprocal motion following the demonstration of the principle in 3 different ways. Evidence of understanding of the principle involved was assessed in 3 ways: by recognition from a drawing of the essential parts of the apparatus, by means of an 8-item TF test regarding operation of the parts, and by recognizing and designating in several ways the parts and functioning of a similar apparatus. Comprehension of the principle of functioning showed no significant difference under the 3 situations for the younger boys. Transfer of the principle learned to a different apparatus showed no better performance under 1 condition than the others. The different methods of presenting the principle showed the advantage of the older child.—*R. E. Smith.*

9674. White, Kathleen. (Boston U., School of Education) **Conceptual style and conceptual ability from kindergarten through the eighth grade.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2200-2201.

9675. Williamson, Leon E. (U. New Mexico) **An explorational study in conceptual clarity using Farradane's nine-stage model.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1638-1639.

9676. Wingfield, Arthur. (Brandeis U.) **Methodology in psycholinguistics research.** *British Journal of Disorders of Communication*, 1969(Oct), Vol. 4(2), 117-126.—Presents a sampling of research questions and methodology having specific reference to the study of 1st-language learning in children. 3 major topics are considered: (a) investigations into the possible role of language in regulating behavior, (b) studies of the development of semantic categories in normal and mentally retarded children, and (c) research on the acquisition of grammatical rules which may be thought to structure fluent discourse. The general problem area, specific examples of the type of investigations conducted in that area, and some illustrations of the kinds of information such experiments may yield are described. (22 ref.)—*Journal summary.*

9677. Wooster, Arthur D. (U. Nottingham, Inst. of

Education, England) **Assessment of the ability to respond to verbally labelled concepts.** *British Journal of Disorders of Communication*, 1969(Oct), Vol. 4(2), 127-133.—Presents a method of investigating the young child's ability to respond to verbal instruction which does not require speech from him. From a series of varied blocks or photographs the S is instructed to pick 1 embodying a relational adjective, e.g., biggest or longest. Reliability of the method was examined in 24 5-5.5 yr. old upper-, middle-, and lower-class children. Material of increased complexity for use with older children was evaluated with 36 6-6.5 yr. old West Indian, British lower- and middle-class children. It is concluded that this is a valid method for investigating the existence of verbally labeled concepts whose meaning for the individual, whether public or private, is determined by reference to his nonverbal responses. Social class and a Creole language background are considered as possible sources of difficulty impairing the processes of acquiring and employing the adjectives signifying relational concepts studied.—*Journal summary.*

Abilities

9678. Ayllon, Maurie & Snyder, Susan. (Southern Illinois U.) **Behavioral objectives in creative dramatics.** *Journal of Educational Research*, 1969(Apr), Vol. 62(8), 355-359.—Attempted to measure the effects of 2 distinct types of stimuli on the behavior of 5 1st grade children in a creative dramatics situation. The 1st stimulus class used was verbal prompts. The number of responses to these prompts was counted for each child in each of 5 sessions. The number of prompts was increased from 1-17 and then decreased to 1. 1 prompt produced a median of 6 responses and 17 produced a median of 35. The 2nd type of stimulus was the performance of a child used as a model. The number of motor and verbal responses to this stimulus/child were counted. When the model used was a consistently high scorer, the scores of the others were high, and when the model was a low scorer, the scores of the others were lower. Both experiments indicate that the performance of children in a creative dramatics situation is influenced by the stimuli presented to them and that the relationship between the stimuli and the performance can be quantified.—*Journal abstract.*

9679. Goyeche, John R. (U. Waterloo, Ontario, Canada) **The development of children's reaction time set: The significance of time estimation and cardiac activity.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1620.

9680. Martens, Rainer. (U. Illinois, Children's Research Center) **Social reinforcement effects on preschool children's motor performance.** *Perceptual & Motor Skill*, 1970(Dec), Vol. 31(3), 787-792.—Determined the effects of positive, negative, and combined social reinforcement on the accuracy of motor performance among 50 preschool boys and girls. Reinforcement was administered on a contingency basis. Arithmetic error indicates significant differences between the sexes for initial trials. No significant social reinforcement effects were obtained. The failure of social reinforcement to influence complex motor performance is explained by the lack of control by an individual in varying his own performance.—*Journal abstract.*

9681. Phillips, C. J. (U. Birmingham, England) **The**

Illinois Test of Psycholinguistic Abilities: A report on its use with English children and a comment on the psychological sequelae of low birth-weight. *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 143-149.—Hypothesizes that the lower IQs reported in low birth weight children may be derived from the chronic impairment of specific areas of functioning rather than an inferiority of the whole mental system. 48 normal and 116 low birth weight British children (mean age 5.5 yr.) were tested with a modified form of the Illinois Test of Psycholinguistic Abilities (ITPA) and the Stanford-Binet, Form L-M. In the 3 tests of visual input on the ITPA, the low birth weight Ss were inferior to the normals at the .01 level of probability. On the 3 Auditory-Vocal tests differences did not reach significance. It is concluded that "below average cognitive development among prematurely born children may be associated at an early age with specific lower order functions in the visual rather than the auditory modality, and that traces of this condition are still found at ages 5 and 8 years."—S. Knapp.

9682. Roberge, James J. & Paulus, Dieter H. (Temple U., Coll. of Education) **Developmental patterns for children's class and conditional reasoning abilities.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 191-200.—Examines quantitative differences in the development of children's class and conditional reasoning abilities at specific grade levels (4, 6, 8, and 10) and for different types of content (concrete-familiar, abstract, and suggestive). Tests of class and conditional reasoning were administered to 263 Ss who were members of 13 classes which were drawn randomly from 3 suburban public school systems. An analysis of variance for a random sample of the students (100 boys and 100 girls) revealed significant ($p < .01$) differences between types of reasoning and among grade levels and content dimensions. Significant ($p < .01$) Grade Levels \times Types of Reasoning and Types of Reasoning \times Content Dimensions interactions were also obtained. Sex differences were slight and nonsignificant ($p < .05$). (33 ref.)—*Journal abstract*.

9683. Roberts, Arthur J. (Oregon State U.) **The relationship between kindergarten experience and fine-muscle eye-hand coordination abilities of first grade children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2019.

9684. Siegel, Alexander W. & Kresh, Esther. (U. Pittsburgh) **Children's ability to operate within a matrix: A developmental study.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 232-239.—80 white and Negro preschool and elementary schoolchildren, 4, 5, 6, 7, and 8 yr. of age, were presented 3 tasks intended to investigate their ability to deal with certain aspects of classification in a 3×3 matrix format. Stimuli were the 9 combinations of 3 shapes and 3 colors, set in a matrix, and the 6 attribute stimuli. Performance on all 3 tasks increased with age. On all 3 tasks the performance of the 4-yr-olds was minimal and little different from chance, whereas the performance of the 8 yr. olds was near maximum. The performance of white Ss was slightly, but not significantly, superior to that of Negro Ss at all age levels on all tasks. Differential patterns of task inter-correlations, and differential performance increments on the different tasks as a function of age are discussed in terms of the oldest Ss' "concrete-operational" functioning, and the required production of different kinds of verbal mediators.—*Journal abstract*.

Perception

9685. Abbs, Mary S. & Minifie, Fred D. (U. Wisconsin) **Effect of acoustic cues in fricatives on perceptual confusions in preschool children.** *Journal of the Acoustical Society of America*, 1969(Dec), Vol. 46(6, Pt. 2), 1535-1542.—Tested 17 3-5 yr. old children with normal hearing to determine their ability to discriminate among fricatives presented in consonant-vowel (CV) and vowel-consonant (VC) combinations with 3 vowels. Syllable pairs were presented to Ss for each possible fricative comparison, with consonant position and vowel being the same in any 1 pair. The stimulus tape was analyzed to determine durations of the consonants and vowels, peak amplitude of the fricatives, and center frequency and bandwidth of the resonance curves of each of the fricatives. The contribution of these acoustic cues to discrimination among the fricatives was evaluated. Data indicate the voiced-unvoiced distinction to be facilitated in VC syllables by the ratio of consonant duration to vowel duration. The fricatives /s/ and /z/ were set apart from the other fricatives by their high intensity, high frequency, and shorter spectrums, thus making discriminations between /s/ or /z/ and the other fricatives considerably easier. The highest discrimination error rates were observed in the pairs where there were neither voicing differences nor significant spectral differences between the 2 fricatives. Considerably lower discrimination error rates were observed when either voicing differences were present between 2 fricatives or there were significant spectral differences.—*Journal abstract*.

9686. Bown, Jesse C. (U. Utah) **The extent that a battery of auditory perceptual tests measure general and specific listening skills; and the degree the profile meets standards for measuring devices.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3905.

9687. Burnett, William L. (U. North Carolina, Greensboro) **Effects of recency of habituation of varied auditory, visual, and audio-visual stimuli on the perceptual investigatory responses of kindergarten children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1559.

9688. Fisher, Virginia L. & Price, Jill H. (U. Missouri) **Cues to word similarity used by children and adults: Supplementary report.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 849-850.—Investigated the use of letter and shape cues in visual recognition of 3- and 5-letter nonsense words by 1st and 3rd graders, and college students (50 in each group). Shape cues were used less frequently than letters; use of shape cues decreased with increasing educational level of Ss and were more frequently used with longer words.—*Journal abstract*.

9689. Goodfriend, Ronnie S. (Columbia U.) **Training effects with four year old children in visual perception tasks.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1073-1074.

9690. Kaess, Dale W. (Washington State U.) **Measures of form constancy: Developmental trends.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 296.—54 children (6, 8, and 10 yr. old) were randomly assigned to 2 treatment groups denoted by the variation between angles at which 3 rectangular forms were presented. Ss identified the objective shape of a single form by pressing 1 of 3 buttons. 144 responses were subjected to 2

separate analyses. It appeared that form constancy performance increased with age, when form constancy involved perception of the same physical shape regardless of its angle of orientation.—*P. Hertzberg.*

9691. Kempler, Bernhard. (Georgia State U.) **Stimulus correlates of area judgments: A psychophysical developmental study.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 158-163.—59 children from the 1st, 3rd, 5th, and 7th grades made "large-small" judgments of the areas of 100 rectangles differing systematically from each other in heights and widths. The method of single stimuli was used and the Ss were retested 1 wk. after their 1st session. Results were (a) all 4 age groups applied the term large to about the same number of stimuli; (b) there was a significant increase in the mean width of the large category between Grades 1 and 3; and (c) linear discriminant weights for heights and widths showed a shift with age from an overemphasis on height to an approximately equal weighting of height and width. Results support Piaget's theory of "decentration" in perceptual development, i.e., the increasing attention to and coordination of multiple attributes of stimuli. It is suggested that research into the stimulus correlates of quantity judgments is valuable to current studies of the conservation of quantity.—*Journal abstract.*

9692. Milgram, Joel I. (U. Maryland) **The relationship between the measures of the reflection impulsivity dimension of cognitive style and visual perception.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1081.

9693. Nash, Mary S. (U. Kentucky) **The development of depth perception in intermediate age children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3894-3895.

9694. Taylor, John A. & Wales, Roger J. (U. Edinburgh, Scotland) **A developmental study of form discrimination in pre-school children.** *Quarterly Journal of Experimental Psychology*, 1970(Nov), Vol. 22(4), 720-734.—Using a matching-from-sample technique, the discriminative ability of 24 preschool children was tested twice, at mean ages 3.8 yr. and 4.9 yr., in relation to an independent test of their comprehension of the notion "same." A sequence of 3 stages is described, for both shape and orientation discrimination; in the 1st, characterized by a large number of errors, S appears to respond largely in terms of proximity of a comparison figure to the standard; in the 2nd his responses reflect gross aspects of similarity between the figures in the comparison set, in that several matches are made to 1 standard all of which have certain attributes in common with it. Finally, correct and unique choices are made. Attributes are used in differentiating figures are described, and a number of theoretical methodological problems are discussed. (23 ref.)—*Journal abstract.*

9695. Thurner, Ronald D. (U. Minnesota) **Children's perceptions of linear dot patterns.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1091.

9696. Unikel, Irving P. & Harris, Charles N. (U. Georgia) **Experience and preference for complexity in children's choices.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 757-758.—Investigated the effects of experience upon preference for stimulus complexity. On each of 8 trials, 64 4-5 yr. old white children chose a colored candy from 4 simultaneously presented stimulus arrays of differing complexity levels. Results indicate a significant increase in the level of complexity chosen from Trial 1-2, a decrease from 2-4, and an increase

from 4-8 ($p < .01$). Results support predictions of adaptation level theory but differ from those of W. Dember and R. Earl (see PA, Vol. 32:5022).—*Journal abstract.*

Personality

9697. Chambers, Norman S. (U. South Carolina) **An investigation into group and individual assessment of creativity.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1614.

9698. Deal, Therry D. (U. North Carolina, Greensboro) **A measure of children's reasoning about interpersonal relations.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1359.

9699. Decker, Celia A. (U. Arkansas) **Young children's moral judgments: An examination of Piaget's theory.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1133-1134.

9700. Hammett, Benjamin C. (U. North Carolina, Chapel Hill) **A dependence and independence anxiety pictures test for elementary school children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3867.

9701. Newton, Eunice S. (Howard U.) **Bibliotherapy in the development of minority group self concept.** *Journal of Negro Education*, 1969(Sum), Vol. 38(3), 257-265.—Reviews psychological theory on the development of the self-concept through the process of identification with various models and presents a rationale for the use of bibliotherapy in this process. Bibliotherapy is defined in education as the use of directed readings to aid in the modification of attitudes and behavior of students. Its use in the development of the self-concept is viewed as the supplying of significant models and wish fulfillment which may lead the student to the learning of new values and self-enhancement. Bibliotherapeutic procedures are suggested for use with children from minority groups and bibliographic sources noted. It is concluded that bibliotherapy may be an effective method of achieving positive self-concept and improved literacy in minority children.—*S. Knapp.*

9702. Robens, Anneliese M. (Rutgers State U.) **A validation study of the Behavioral Interpersonal Personality Test—Aggression.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1086-1087.

9703. Sisenwein, Martin. (Columbia U.) **A comparison of the self concepts of Negro and white children in an integrated school.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1633.

9704. Vroegh, Karen. (Inst. for Juvenile Research, Chicago, Ill.) **Masculinity and femininity in the elementary and junior high school years.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 254-261.—Investigates the correlates of masculinity and femininity as determined by teachers and peers, and their relationship in Grades 1-3, 4-6, and 7-8. 209 boys and 201 girls took a personality test, and were judged as to appropriateness of gender identity. Ss in Grades 1-3 took the Early School Personality Questionnaire; Ss in Grades 4-6 took the Children's Personality Questionnaire; and Ss in Grades 7-8 took the Junior-Senior High School Personality Questionnaire. Although there was agreement between teachers' and peers' concepts of gender identity, the data involving the peers allowed more specific conclusions about masculinity and femininity in Grades 1-8. In Grades 4-6, the correlates of masculinity

were social, intellectual, and psychological competence. The correlates of femininity in that grade group indicate traits of traditional "femininity" (e.g., patient) as well as of competence. Masculinity and femininity in Grades 4-6 were related to their counterparts in Grades 7-8, but not in Grades 1-3.—*Journal abstract.*

9705. Walls, Richard T. & Cox, Janet. (West Virginia U.) **Disadvantaged and nondisadvantaged children's expectancy in skill and chance outcomes.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 299.—Tested 80 disadvantaged and nondisadvantaged children, 3 2nd, 42 3rd, and 35 4th grade Ss, randomly assigned to 4 perception-reality treatments: perceive skill-actually skill, perceive skill-actually chance, perceive chance-actually chance, and perceive chance-actually skill. Ss were also asked questions concerning their occupational aspirations and were administered the Internal-External Locus of Control Scale for Children. Findings indicate "greater aspiration discrepancy scores in chance controlled conditions as well as in those perceived to be chance controlled." More downward shifts following success in the chance condition were noted than in the skill condition. While more disadvantaged girls had a general external control expectancy than nondisadvantaged girls, the opposite was true of boys. Among disadvantaged Ss, males showed a more internal locus to control while females were more external.—P. Hertzberg.

9706. Weithorn, Corrine J. (City Coll., City U. New York) **The relationship between hyperactivity and impulsive responsiveness in elementary school children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3899.

9707. Wohlford, Paul; Santrock, John W., Berger, Stephen E., & Liberman, David. (U. Miami) **Older brothers' influence on sex-typed, aggressive, and dependent behavior in father-absent children.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 124-134.—Explores the role of the older male sibling as a potential surrogate male role model for father-absent children, using 66 impoverished black preschool boys and girls. The variables of masculinity-femininity, aggression, and dependency were assessed by 2 instruments, the doll-play interview, and the maternal interview. Ss with older male siblings were significantly more aggressive on the maternal interview aggression score, less frequently, and less intensely dependent on both dependency measures than Ss with no older male siblings. The presence or absence of older female siblings did not affect the older brother's influence. While there were also some significant main effects of sex, the Sibling \times Sex interaction effects were nonsignificant. (17 ref.)—*Journal abstract.*

Social Behavior

9708. Arnote, Thelma E. (U. North Carolina, Greensboro) **Variations in amount of indoor play space as associated with certain physical aggressive contacts of young children in group settings.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1369.

9709. Borowitz, Gene H., Hirsch, Jay G., & Costello, Joan. (U. Illinois) **Play behavior and competence in ghetto four-year olds.** *Journal of Special Education*, 1970(Spr), Vol. 4(2), 215-221.—Describes and evaluates the play behavior of 4-yr-old boys from an urban housing project. Data were obtained from the obser-

vation of individual play sessions where a single S interacted with 2 Es. Observations were made via a 1-way mirror and the session tape recorded. Ss' behavior was rated as to competence and content as outlined by Erikson in his phase-specific developmental tasks. Results show that Es' judgments of overall competence correlated significantly with teacher ratings and psychological test scores (e.g., Stanford-Binet and Peabody Picture Vocabulary Test). Certain behaviors contributed more than others to the judgment of competence. Organization of play and developmental level reflected by the psychosexual content of the play were most highly correlated with judged competence. Quantity of speech was not significantly related to judged competence.—L. M. Glidden.

9710. Durojaiye, M. O. (Makerere U., Kampala, Uganda) **The relationship between controlled projection responses and sociometric status.** *Journal of Child Psychology & Psychiatry & Allied Discipline*, 1970(Nov), Vol. 11(2), 143-148.—Supports, using a Controlled Projection Test, previous findings using other projective techniques, on the relationship between sociometric status and responses to projective tests using verbal responses only. Sociometric tests were administered to 420 11-yr-old boys and retested 8 wk. later. Raven's Controlled Projection Test is demonstrated to be a sensitive tool for differentiating between popular and unpopular boys. (17 ref.)—*Journal summary.*

9711. Farnham-Diggory, S. & Ramsey, Barbara. (Carnegie-Mellon U.) **Play persistence: Some effects of interruption, social reinforcement, and defective toys.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 297-298.—56 Negro 5-yr-old girls were randomly assigned to 1 of 4 10-min treatment programs: (a) neutral (free play), (b) defective (free play with defective toys), (c) intervention (play interrupted by E), and (d) social reinforcement (matched S on interruption schedule socially reinforced on same schedule). Play persistence on parquetry blocks followed by the 10-min treatment and was the independent variable of interest. Success of the treatment variables was checked by comparing toy change on the 1st task. Interruption was the most significant factor, reducing persistence by about 1/2 compared to yoked controls. Results "suggest that constant intrusions upon the play activities of young children may set up emotional tensions, and/or scrambled expectancies, that interfere significantly with subsequent play persistence."—P. Hertzberg.

9712. Gilligan, Marjorie C. (New York U.) **The effects of varied playground space on certain behavioral aspects of four- and five-year-old children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2003.

9713. Kamp, L. N. & Kessler, E. S. (State U., Utrecht, Netherlands) **The World Test: Developmental aspects of a play technique.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(Nov), Vol. 11(2), 81-108.—Confronted 4 groups of 20 6-9 yr. old public school children with World Test material. Indoor (beds, teacups, etc.) and outdoor (houses, cars, etc.) representations were included in the total number of 431 toys. A 4-stage developmental scale was used to score the end products: juxtapositional, schematic, depictive, and realistic. The influence of CA and MA on the developmental level of the World Test end products was found to be positive with CA somewhat stronger. A number of other factors possibly influencing the play are

also discussed. Finally a slightly different way of judging the end products of the World Test is described. (44 ref.)—*Journal summary*.

9714. Kärjel, Barbara. **Angepasstes Spielen: Ein wichtiger Entwicklungsfaktor.** [Relevant play activities: An important developmental factor.] *Heilpädagogische Werkblätter*, 1970(Sep), Vol. 39(5), 248-253. —Children of all ages need a wide selection of play activities to find out what they really like and let them choose between senseless and meaningful, destructive and constructive, solitary and social, and free vs. organized play. Programs for playgrounds are still experimental in nature, done on a trial-and-error basis and without experience. Setbacks must be considered positively as valuable experience gained in such activities.—R. F. Wagner.

9715. Owens, Kenneth L. (Texas Technological Coll.) **Competition in children as a function of age, race, sex, and socio-economic status.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3873.

9716. Ransom, Robert S. (U. Denver) **Effects of the age of reinforcing agent and the sex of reinforcing agent on social reinforcement.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1570.

9717. Risley, Todd R. & Reynolds, Nancy J. (U. Kansas) **Emphasis as a prompt for verbal imitation.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 185-190.—Investigated the role of stressing or emphasizing certain words in a verbal presentation in determining which aspects of that presentation preschool children would imitate. 4- and 5-yr-old disadvantaged children were read sentences composed of varying numbers of short phrases. Ss repeated each sentence, but the accuracy of their imitations was not differentially reinforced. The teacher stressed (emphasized) certain words as she read each sentence. The proportion of words that were stressed was systematically varied. In general, Ss imitated only parts of most sentences. Stress was effective in influencing which parts of a sentence Ss would imitate, but only when relatively few words were stressed. Stressing a word increased the probability of S's imitating that word (and, to a large extent, the entire phrase containing that word) as an inverse function of the proportion of the words that were stressed.—*Journal abstract*.

9718. Ross, Sheila A. (Palo Alto Medical Research Foundation, Calif.) **A test of the generality of the effects of deviant preschool models.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 262-267.—Exposed 48 preschool children to a deviant model, a nondeviant model, or no model, in a toy store situation. Each S learned storekeeper procedures from a trained child model, served independently as storekeeper, then, while alone, selected 1 toy to keep. While the verbal instructions for the 3 conditions were identical, the behavior of the models differed, i.e., the deviant model took 3 toys, the nondeviant model took only 1 toy. The hypotheses were confirmed that Ss in the deviant model condition would exhibit the most deviant behavior and experience the most conflict.—*Journal abstract*.

9719. Steinman, Warren M. (U. Illinois) **The social control of generalized imitation.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 159-167.—Manipulated instructions, discrimination procedures, and sources of reinforcement to determine the bases for the maintained "nonreinforced" imitations observed in generalized imitation research. 6 7.2-9 yr. old girls

received imitation training from 2 female graduate student Es. 1 E modeled only reinforced responses; the other modeled only nonreinforced responses. Ss imitated all responses when no reinforced alternative was available, even though results of choice procedures and special instructions clearly demonstrated that they discriminated reinforced from nonreinforced responses. Instructions not to perform nonreinforced imitations immediately eliminated these behaviors. It is suggested that social and instructional variables may be largely responsible for generalized imitation. (19 ref.)—*Journal abstract*.—*Journal abstract*.

9720. Ware, Catherine K. (Yale U.) **Cooperation and competition in children: A developmental study of behavior in Prisoner's Dilemma and Maximizing Differences games.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3857-3858.

Parent-Child & Family Relations

9721. Anthony, E. James & Koupernik, Cyrille. (Eds.) (Washington U.) **The child in his family.** New York, N.Y.: Wiley-Interscience, 1970. xxxii, 492 p. \$12.50. —Presents papers written for members of the 7th Congress of the International Association for Child Psychiatry and Allied Professions. This collection offers extensive coverage of variations in family life from primitive, isolated areas to sophisticated urban centers and views the displacement of family roles in a changing world.

9722. Armentrout, James A. (St. Louis U., Medical School) **Relationships among preadolescents' reports of their parents' child-rearing behaviors.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 695-700. —Calculated intercorrelations among Child's Report of Parental Behavior Inventory dimension scores attributed by 147 5th and 113 6th graders to their mothers and fathers. Although the dimensions are hypothetically orthogonal, consistent patterns of negative correlations were found between the extent of parental control and both the degree of parental acceptance and the laxness of parental discipline. Consistently high positive correlations were found between parent pairs' scores on each of the separate dimensions. Characteristics of the S population and method of questionnaire administration were discussed; it was suggested that young children's reports of parental behavior may not be sufficiently differentiated to support a 3-dimensional model appropriate for the views of older children and adults.—*Journal abstract*.

9723. Braginsky, Dorothea D. (Fairfield U., Inst. for Human Development) **Parent-child correlates of Machiavellianism and manipulative behavior.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 927-932. —Reports the primary findings of a study to establish certain relationships between 10-yr-old children and their parents with respect to the Machiavellian (Mach) scales and the children's manipulative interpersonal behavior: (a) the parents' scores on both the Mach IV and Mach V were, individually, unrelated to their children's Mach scores; (b) although various combinations of the Mach scales (category patterns) were inversely related for mothers to the children's Mach scores, there was no relationship between these 2 variables for fathers; (c) these combinations for each parent, separately, were inversely related to the chil-

dren's success at manipulative behavior. (18 ref.)

—*Journal abstract.*

9724. Devor, Geraldine M. (U. California, Los Angeles) **Parental perception of children as agents of socialization.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2492.

9725. Gordon, Thomas. **Parent effectiveness training: The "no-lose" program for raising responsible children.** New York, N.Y.: Peter H. Wyden, 1970. xi, 338 p. \$6.95.

9726. Hamid, Paul N. (U. Waikato, Hamilton, New Zealand) **Birth order and family schemata.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 807-810.—Investigated family schemata by examining spatial placements of mother, father, younger sibling, and self in 150 5-11 yr. old 1st- and later-born children. 1st borns placed themselves further away from mother, and younger sibling, and closer to father than later-borns. Implications and restrictions of the data are discussed.

—*Journal abstract.*

9727. Harris, Alice M. (U. Oregon) **Observer effect on family interaction.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1075.

9728. Howard, Doris. **The professional parent.** *Journal of Emotional Education*, 1969(Sum), Vol. 9(3), 96-101.—Describes the professional parent as 1 who "knows his child's behavior patterns and can 'read' his actions, knows his child's abilities and weaknesses, knows how to handle him at various stages in his growth, and treats his child with the dignity and respect to which every human being is entitled." Attempts to move parents toward "professional" status through training are described.—S. Appelle.

9729. Morrison, Donald W. (Wayne State U.) **Anxiety, parent-oriented life conditions and test performance.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1627.

9730. Reiss, David. (National Inst. of Mental Health, Bethesda, Md.) **Individual thinking and family interaction.** *Journal of Nervous & Mental Disease*, 1970(Sep), Vol. 151(3), 187-202.—Studied the relationships among a set of variables derived from 3 experiments on family interaction and individual thinking. 12 variables were factor analyzed, and factor scores were obtained for 14 of 16 families in the sample. Findings suggested grouping the variables into those that estimated experiential sensitivity of the family group and those that measured the pervasiveness of particular expressive forms. It is suggested that variables of shared experiential sensitivity in families are more closely and generally related, either as cause or effect, to the thinking of its members than variables of expressive form. The latter, it was postulated, had unique or distinctive function and meaning for each family, and this meaning could be estimated through the use of the family's scores on the 2 experiential sensitivity factors. (36 ref.)—*Journal abstract.*

9731. Romaine, Michael F. (Pennsylvania State U.) **Parental cognitive modes and teaching style with preschool children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1694.

9732. Swenson, Stephen S. (Boston U., School of Education) **Changing expressed parental attitudes toward child-rearing practices and its effect on school adaptation and level of adjustment perceived by parents.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2118-2119.

ADOLESCENCE

9733. Bejat, Marian. (Academy of the Romanian Socialist Republic, Inst. of Psychology, Bucharest) **Conceptual and imaginal thinking in problem-solving.** *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(1), 65-77.—Emphasizes the influence exerted on the problem-solving process by individual differences related to the level reached in the development of abstract and imaginal thinking and by the degree of their correlations. Experiments conducted on 32 mathematically-inclined students of higher grades are described involving application of perspicacity, as well as recurrent and geometrical problems. It is noted that usage of graphs and symbols proves helpful in grasping the relations, in increasing the speed of thinking, and in improving the results. It is concluded that high performances in math depend on certain intellect, and the conscientious effort applied.—f. Sirotnin.

9734. Biller, Henry B. & Bahm, Robert M. (U. Rhode Island) **Father absence, perceived maternal behavior, and masculinity of self-concept among junior high school boys.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 178-181.—Explores the relationship between perception of maternal encouragement of masculine behavior and masculinity of self-concept in father-absent and father-present junior high school boys. Ss were 10 early father-absent (beginning before age 5) boys, 10 late father-absent (beginning after age 5) boys, and 20 father-present boys. An adjective checklist was used to measure masculinity of self-concept, and a Q-sort technique (Block's Child Rearing Practices Report) was employed to assess perceived maternal encouragement of masculine behavior. Compared to the father-present boys, the early father-absent boys were found to have significantly less masculine self-concepts. For early father-absent boys, but not for late father-absent boys or father-present boys, a significant positive relationship was found between perceived maternal encouragement of aggression and masculinity of self-concept.—*Journal abstract.*

9735. Borowicz, Norbert J. (Pennsylvania State U.) **A semantic differential study between lower-class and middle-class pupils in the seventh and twelfth grades.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1612.

9736. Cook, Keith E. (U. Maine) **Differences between self-concepts of disadvantaged and non-disadvantaged high school students within certain types of rural and urban communities.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1615.

9737. Dawson, Ford. (American U.) **An analytical study of the effects of maternal employment, of same-sex chum denial in preadolescence, and of residential mobility on self-actualization achievement in a sample of adolescents.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 925.

9738. Douce, Pearl D. (Utah State U.) **Selected aspects of personality related to social acceptance and clothing oriented variables.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3730.

9739. Frisch, Rose E. & Revelle, Roger. (Harvard U., Center for Population Studies) **Height and weight at menarche and a hypothesis of critical body weights and adolescent events.** *Science*, 1970(Jul), Vol. 169(3943), 397-398.—Analyzed the adolescent growth

spurt by determining the height and weight for 181 girls at the age of initiation of the spurt of growth, and at the time of maximum rate of growth, using data from 3 longitudinal growth studies. Data indicate that early and late maturing girls had menarche at the same mean weight, but late maturers were taller at menarche. 2 other major events of adolescence, initiation of the weight growth spurt and maximum rate of weight gain, also occurred at an invariant mean weight. The hypothesis is proposed that a critical body weight may trigger each of these adolescent events. Such an interaction would explain the secular trend to an earlier menarche. (20 ref.)—*Journal abstract.*

9740. Head, Charles B. (U. Oklahoma) **Differences under social stress between accepted and rejected children during the adolescent phase of ego development.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3856-3857.

9741. Himber, Charlotte. (YMCA, New York, N.Y.) **Inside teenagers.** *Adolescence*, 1970(Fal), Vol. 5(19), 285-302.—A plea for the use of sensitivity training for teen-agers including a guide for parents and ground rules for participants.—A. B. Warren.

9742. Holstein, Constance B. (U. California, Berkeley) **Parental consensus and interaction in relation to the child's moral judgment.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1888-1889.

9743. L'Abate, Luciano. (Georgia State U.) **The status of adolescent psychology.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 201-205.—Presents 3 different analyses to assess the status of adolescent psychology: (a) number of publications relating to adolescence, (b) extent of training facilities, and (c) frequencies of citation for significant contributors to this field. The overall ratio of adolescence references to total number of abstracts is slightly above 1. Training facilities, on the basis of a questionnaire, are meager and little actual faculty interest appears, while there are no contributors who have specifically contributed to adolescence. Results suggest that increasing status should be accorded to this stage of development. (33 ref.)—*Journal abstract.*

9744. Laosa, Luis M. (U. Texas) **La expresión y el control de la impulsividad como una función de la conducta intelectual en niños.** [Expression and control of impulsiveness as a function of intellectual behavior in children.] *Revista Interamericana de Psicología*, 1970(Jun), Vol. 4(2), 123-129.—Attempted to understand the relationship, by sex and age, between intellectual performance variables and measures of impulse expression and control. Scores on 4 subtests of the WISC and WAIS were compared with performance on 3 Personality Research Form scales—Impulsivity (Imp), Harmavoidance (Ha), and Order (Or)—for 297 children of 3 age groups (11.7, 14.7, and 17.7 yr.). No significant relationships were found between Imp or Ha and any of the measures of intellectual performance. Significant relationships ($>.01$) between Or and WISC and WAIS variables show that untidy Ss perform better in vocabulary and arithmetic than neat or organized Ss. (Portuguese summary)—*English summary.*

9745. McClure, James M. (State U. New York, Buffalo) **The responses of senior high school students to questionnaire items reflecting three provisions of the Bill of Rights.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1514.

9746. Nguyen-Xuan, Anh. (Centre National de la

Recherche Scientifique, Paris, France) **Etude par le modèle factoriel d'une hypothèse sur les processus de développement: Recherche expérimentale sur quelques aptitudes intellectuelles chez des élèves du premier cycle de l'enseignement secondaire.** [Investigation of a hypothesis concerning the development process using a factorial model: Experimental research on intellectual aptitude of students in the initial phase of secondary education.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1969, Série 2, Vol. 25(Numéro Spécial), 235 p.—Tested the hypotheses that (a) from 9-10 and 16-17 yr. of age there occurs a differentiation of primary mental abilities, which become less and less connected with the verbal integrative function, and (b) toward age 12-13, and up to age 17-18, primary reasoning ability emerges and becomes more importantly involved in the performance of a greater number of intellectual tasks. A battery of 12 aptitude and relational reasoning tests were administered for a transverse study of 556 11-17 yr. olds, and a battery of 15 similar tests for a longitudinal study from age 11-13 to 17-18. Factor analysis of results show: (a) confirmation of the integrative and developmental nature of general relational reasoning ability; (b) spatial tests are the best indicators of relational reasoning ability; (c) toward age 15-16, a "spatio-symbolic" factor emerges, hypothesized as a high-level integrative factor concerned with education of relationships; (d) at the age when general integrative ability is of a relational reasoning nature, it influences all intellectual tasks; (demonstration of the 1st hypothesis can only be quantitative, results suggesting that both developmental processes occur at the same time); and (e) in cyclic succession, the processes of differentiation and hierarchical integration occur by the emergence of higher level integrative ability as a limited ability which increases in importance until it becomes a general ability, simultaneously displaying qualitative and quantitative development in the factorial model. (152 ref.)—T. N. Webster.

9747. Pauker, Jerome D. (U. Missouri, Medical School) **Fathers of children conceived out of wedlock: Prepregnancy, high school, psychological test results.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 215-218.—Compares 9th grade MMPIs and other information of 94 boys reported to have fathered out-of-wedlock children at some later date with data from 94 control 9th grade boys, each of whom was matched with an out-of-wedlock group for age, socioeconomic status, and school attended. Critical ratios for differences between means of correlated samples revealed the out-of-wedlock group to be significantly ($<.02$) higher on MMPI Scales F, 8, and 9, but with the overlap very great and the differences small. The 2 groups were virtually identical on 2 tests of intellectual functioning. The out-of-wedlock boys were much more similar to their controls than different.—*Journal abstract.*

9748. Schwartz, Richard K. (U. Colorado, School of Education, Colorado Springs) **An interview procedure for studying adolescent perceptions.** *Adolescence*, 1970(Fal), Vol. 5(19), 313-322.—150 adolescents were interviewed using a technique designed to evoke either positive or negative feelings. Content was categorized according to topics and affective tone. The self was most often discussed, peers second, and then authority figures.—A. B. Warren.

9749. Smith, Thomas E. (U. South Carolina) **Some bases for parental influence upon late adolescents: An application of a social power model.** *Adolescence*, 1970(Fal), Vol. 5(19), 323-338.—Studied 228 college freshmen using a questionnaire regarding parental influences and power. A social power theory defining 5 types of power was used.—A. B. Warren.

9750. Thomas, L. Eugene. (U. Connecticut) **Family correlates of student political activism.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 206-214.—The sample consisted of 1 parent and a college-age child from 60 white upper-middle-class families, in which the parent was visible in the community for political participation; $\frac{1}{2}$ of the parents held liberal, and $\frac{1}{2}$ conservative political views. Liberal and conservative children differed significantly in radical activism, with 57% of the liberal and only 17% of the conservative group having taken part in 2 or more such activities; both groups were high in conventional political participation. For the liberal sample, parental dedication to ideological causes was found to be significantly associated with radical political activism for male and female students, with family permissiveness also significantly associated with activism for female students. Extent of family interaction was found to be negatively associated with student activism of males, but not for females, in the conservative sample. Disapproval of radical activism by conservative parents apparently contributed to the low level of activism of their children. Overall data suggest a rather strong family influence in predisposing a college-age child to radical political activism.—*Journal abstract*.

9751. Wagner, Hilmar. (U. Texas, El Paso) **Adolescent problems resulting from the lengthened educational period.** *Adolescence*, 1970(Fal), Vol. 5(19), 339-344.—A. B. Warren.

9752. Wyman, Rachel. (New York U.) **Adolescents' attitudes toward sex as related to their perception of their parents.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1094-1095.

ADULTHOOD & OLD AGE

9753. Bellino, Robert. **Perspectives of military and civilian retirement.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 580-583.—A. M. Cawley.

9754. Blum, June E. **Psychological changes between the 7th and 9th decades of life.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3854.

9755. Boyarsky, Rose E. (Duke U.) **Deficits in memory for paired associates in older persons.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3861-3862.

9756. Hansen, Gary D. (Oregon State U.) **Home managerial tasks, perceived competence, and related social, psychological, and economic consequences for retired couples.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3730-3731.

9757. Kaplan, Howard B. & Pokorny, Alex D. (Baylor U., Medical School, Houston, Tex.) **Age-related correlates of self-derogation: Report of childhood experiences.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 533-534.—Data from 500 adults showed high negative affect evoked by subjective consideration of personal qualities, achievements, and behavior associated with a different pattern of remembered fears and circumstances for subgroups of different age at the time of retrospective report. Young adults had high self-

derogation (SD) scores with memory of childhood fear of parental punishment, report of poorer grades than most, and feelings of having been poorer looking than other children. Ss aged 30-39 had high SD scores when they reported having been afraid of being laughed at by other children. 40-49 yr. old Ss had high SD with memory of having had poor health.—R. L. Sulzer.

SOCIAL PSYCHOLOGY

9758. Möbus, Claus & Ahrens, Hans J. (U. Heidelberg, Inst. of Psychology, W. Germany) **Multivariate Weiterentwicklung eines Modells zur Prognose von Wahlergebnissen.** [Further development of a model to predict election results based on multivariate analysis.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(3), 386-413.—The model was based on "indifference curves," i.e., isobaric curves of degrees of satisfaction or expected usefulness of decisions in a multidimensional space. The predictive power of the model was tested by collecting initially judgments on 70 variables for 6 candidates from 40 Ss and a subsequent mock election. Differences between the observed results and the predicted outcome are discussed in terms of discrepancies between judgments and actual behavior. (English & French summaries) (42 ref.)—W. J. Koppitz.

9759. Ross, Kenneth W. (American U.) **Ultimate values in political theory: Traditionalism vs. behaviorism.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2464-2465.

9760. Stoessinger, John G. (United Nations, Political Affairs Div., New York, N.Y.) **China and America: The burden of the past.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 579-596.—Traces America's involvement in Chinese affairs through recent centuries, and the accompanying misinterpretations by both sides regarding the nature of the other's intent. Contends modern attitudes have seeds in specific historical events. (15 ref.)—W. Vernon.

CULTURE & SOCIAL PROCESSES

9761. Angel, Ernest. (New York U.) **Cultural distance: A study of measures and modes of the distance felt by groups of American intellectual professions in relation to contemporary American culture and its practiced "values."** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3882-3883.

9762. Barron, Frank & Young, Harben B. (U. California, Santa Cruz) **Personal values and political affiliation within Italy.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 355-367.—Statements in a questionnaire about personal and social philosophy were correlated with the position on the political spectrum of 82 young Italian males. The influence of the Catholic church was found to be quite strong. The Left splits sharply from Center and Right on matters having to do with divorce and sexual freedom; the Center is less exclusively determined by dogma but still is clearly orthodox and conservative, while the Right is dominated by its hatred of communism and its emphasis on formalism and central authority. (22 ref.)—*Journal abstract*.

9763. Darnton, Robert. (Princeton U.) **Mesmerism**

and the end of the enlightenment in France. New York, N.Y.: Schocken, 1970. xiii, 218 p. \$2.45(paper).

9764. Gadlin, Howard & Garskof, Bertram E. (Eds.) (U. Massachusetts) **The uptight society: A book of readings.** Belmont, Calif.: Brooks/Cole, 1970. ix, 470 p.

9765. Gulian, C. Y. **Mit și cultura.** [Myth and culture.] Bucharest, Romania: Editura Politica, 1968. 222 p.—Views myth as a “complex phenomenon of human culture, “reflecting” social and anthropological factors” and performing a variety of useful functions, e.g., as carriers of ethical norms and ideals.—*I. D. London.*

9766. Lauterbach, Albert. (2353 Casilla, Santiago, Chile) **Psychocultural roots of America's self-image.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 627-642.—A permissive, child-centered United States culture is presumed to have developed infantile and adolescent fixations in the national thinking process, manifest in illusions of omnipotence and short-range thinking. The United States also has the habit of viewing other nations in its own image. Contends that a therapeutic process might have some influence on the basic problem.—*W. Vernon.*

9767. Manning, Roy O. (New York U.) **Sociological and non-sociological collective behavior: A cross-disciplinary perspective of crowds, civil disorder, and social movements.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1920.

9768. Sarup, Glan. (Pennsylvania State U.) **Reference groups: Some determinants and consequences.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1890.

Ethnology

9769. Burkett, LeGay S. (U. Alabama) **Race, ethnic attitude and verbal interaction behavior.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3862.

9770. Canonici, Paul V. (Mississippi State U.) **Characteristics associated with socio-economic success of an emerging black middle class of Mississippians: A study in need gratification.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1901.

9771. Couchman, Iain S. (U. Oregon) **The self-concept of low-income blacks: A descriptive evaluation.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1400-1401.

9772. Gardiner, Harry W. & Lematawekul, Dalad. (Coll. of St. Teresa) **Second-generation Chinese in Thailand: A study of ethnic identification.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 333-344.—176 adolescents were separated into those who used Chinese and those who used Thai family names; and those who did not attend Chinese schools. A number of standardized measures were used. 2nd-generation Chinese who used Chinese family names and/or attended Chinese schools had closer ethnic identification with the Chinese. Scores on various scales did not correlate with identification. Areas of possible future research are suggested. (32 ref.)—*A. Krichev.*

9773. Gift, Mack D. (U. Utah) **Self-concept and social change among black youth.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1372.

9774. Hartsough, W. Ross & Fontana, Alan F. (Veterans Administration Hosp., West Haven, Conn.) **Persistence of ethnic stereotypes and the relative importance of positive and negative stereotyping for association preferences.** *Psychological Reports*,

1970(Dec), Vol. 27(3), 723-731.—Examined the stereotyping of 10 ethnic groups by American college students over a 30-yr period by comparing data from 1932, 1950, and 1961. 87 Ss were used. There was much variation among the time periods but persisting, “core” stereotypes were found for 8 of the groups. Evaluative stereotyping was highly related to preferences for association with ethnic group members in both 1932 and 1961. Subdivision of evaluative stereotyping into its positive and negative components showed that associative preferences were completely predicted by the negative component. The positive component was unrelated to association preferences and served to weaken the predictive power of the negative component when combined with it. The interpretation is offered that substantial stereotyping and prejudice remain among college students but that students are becoming increasingly sophisticated and subtle in their manifestations of them. (15 ref.)—*Journal abstract.*

9775. Hayes, Edward D. (U. Florida) **A comparative study of the manhood experiences of black and white young adult males.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2105.

9776. Henry, Franklin J. (McMaster U., Hamilton, Ontario, Canada) **The measurement of perceived discrimination: A Canadian case study.** *Race*, 1969(Apr), Vol. 10(4), 449-461.—Studied the amount and kind of discrimination perceived among 82 Negroes and 109 Japanese in a Canadian urban area. Objective indices indicate that Japanese were not discriminated against but the Negroes were. The Japanese were not residentially concentrated, and their occupations, housing, level of education, and incomes were equal or superior to the average person in the area. The Negroes, however, were residentially concentrated, and their level of income, occupations, and housing were below average. The memory of discrimination among Ss interviewed is examined.—*G. Steele.*

9777. Lammers, Donald M. (Syracuse U.) **Self concepts of American Indian adolescents having segregated and desegregated elementary backgrounds.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 930.

9778. Marx, Gary T. (Harvard U.) **Protest and prejudice: A study of belief in the black community.** New York, N.Y.: Harper & Row, 1967. xxviii, 228 p. \$8.95.

9779. Peres, Yochanan & Levy, Zipporah. (Columbia U.) **Jews and Arabs: Ethnic group stereotypes in Israel.** *Race*, 1969(Apr), Vol. 10(4), 479-492.—Discusses the concept stereotype and investigates “the stereotype which Arabs and Jews have of each other, and also the stereotyped image each group has of itself.” 60 Arab and Jewish undergraduates were interviewed. The image of centrality, inferiority, deprivation, interdependence, salience and visibility, and the political and spiritual attitudes of the minority and majority are discussed and compared.—*G. Steele.*

9780. Thomas, Charles W. (U. Southern California, Watts Health Service) **Challenges of change.** *American Behavioral Scientist*(Mar), Vol. 12(4), 17-20.—Discusses the problems encountered by people of Afro-American descent. It is suggested that 3 choices are available to them in today's society: (a) “they can continue to function in a social structure that forces them to be essentially mentally ill”; (b) “they can engage in self-destructive activities such as suicide or homicide”; or

(c) "they can become psychologically healthy by actively participating in and supporting the black communion." It is concluded that the need for change in human relations has become intensified and requires greater effort by each individual to achieve effective resolution. —M. West.

Social Structure & Social Role

9781. Dickson, Stewart. A reply to Mr. McKinlay's comment. *British Journal of Sociology*, 1969(Mar), Vol. 20(1), 88-89.—In response to J. B. McKinlay's (see PA, Vol. 45:Issue 5) "Comment," some of the references that demonstrate the greater use of medical services by the middle class were listed. Time and financial limitations on sampling procedure were presented and the multiple criteria—income, education, occupation, dwelling, political views—employed to delimit "middle class" were identified. Regarding McKinlay's 3rd criticism, lack of direct evidence on dental usage, dental examinations had been conducted and were reported elsewhere. The criticism of "research regression" to gathering basic data seems unjustified, given the lack of such information. —K. G. Shaver.

9782. Durlak, Jerome T. (Michigan State U.) **Role circumscription, communication and the modernization process.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2492-2493.

9783. Gross, Edward. (U. Washington) **The definition of organizational goals.** *British Journal of Sociology*, 1969(Sep), Vol. 20(3), 277-294.—Defines organizational goals as embracing more than output aims. Support goals of adaptation, management, motivation, and position which contribute to the system's survival are considered as goals in the same sense as output goals. The assumption that activity not directed toward the overall goals of the organization does not make a contribution to those goals is denied. An analysis of a university is described. (22 ref.)—S. Knapp.

9784. Olmsted, Allan D. (U. Washington) **Social class, anomie, and anomia.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1889-1890.

9785. Runciman, W. G. (U. Sussex, Brighton, England) **What is structuralism?** *British Journal of Sociology*, 1969(Sep), Vol. 20(3), 253-265.—Reviews the literature and examines the status of structuralism as a distinctive doctrine in the analysis of societies. It is concluded that structuralism does not "stand for a more distinctive standpoint than a belief in the applicability of rigorous models to social behavior...." (35 ref.)—S. Knapp.

Religion

9786. Hillman, James. (C. G. Jung Inst., Zurich, Switzerland) **Insearch: Psychology and religion.** New York, N.Y.: Charles Scribner's Sons, 1970. 126 p. \$2.25(paper).

9787. Reilly, Edward W. (St. Louis U.) **Psychological aspects of Catholic family life.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2523.

Cross Cultural Comparison

9788. Barrett, Gerald V. & Franke, Richard H. (U. Rochester, Measurement Research Center) **"Psychogenic" death: A reappraisal.** *Science*, 1970(Jan), Vol.

167(3916), 304-306.—Hypothesized that social, economic, and medical variables account for the differences in death rates cross-nationally. Data on death rates available from United Nations publications for the countries studied by D. C. McClelland (see PA, Vol. 41:8871) allowed examination of 31-34 countries for 1950 and 1965. It is felt, however, that McClelland's psychological motives of achievement, affiliation, and power, determined for each country by content analysis of children's stories, did not correlate with "psychogenic" death rates. Results indicate that status integration correlated positively with homicide and negatively with deaths from suicide and ulcers. Low life expectancy, wealth, economic growth, wine consumption, and zinc (cadmium) consumption correlated with deaths from homicide, suicide, ulcers, cirrhosis, and hypertension, respectively. (23 ref.)—*Journal abstract.*

9789. Blane, Howard T. & Yamamoto, Kazuo. (U. Pittsburgh) **Sexual role identity among Japanese and Japanese-American high school students.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 345-354.—Japanese students were found to be more feminine than either Japanese or Caucasian-Americans in Hawaii as measured by the CPI Femininity scale and the Franck Drawing Completion Test. The results are related to different role models for masculinity in Japan and the Eastern part of the world than in the West with its proof-of-masculinity models. (18 ref.)—A. Krichew.

9790. Clement, David E., Sistrunk, Frank, & Guenther, Zenita C. (U. South Florida) **Pattern perception among Brazilians as a function of pattern uncertainty and age.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 305-313.—Ratings of pattern goodness and of pattern preferences were made by 96 Brazilian Ss of 4 age groups between 9-21. Results were similar to those found with American Ss of the same ages. Pattern goodness and preference were highly correlated with pattern uncertainty. (31 ref.)—A. Krichew.

9791. Colacicco, Mary G. (Purdue U.) **A comparison of item responses on the MMPI by selected American and foreign students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1572.

9792. de Lacey, P. R. (Wollongong University Coll., New South Wales, Australia) **A cross-cultural study of classificatory ability in Australia.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 293-304.—Classificatory tests based on those of Piaget and Inhelder were administered to 4 groups of 6-10 yr. old Ss: aborigines with and without extensive contact with European culture and low and high socioeconomic level European children living in Australia. Only a small subsample of high-contact aborigines performed on a par with the European children, leading to the interpretation that environmental differences were the major influence in the performance differences found. (32 ref.)—A. Krichew.

9793. Deregowski, Jan B. & Byth, William. (U. Aberdeen, Scotland) **Hudson's pictures in Pandora's Box.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 315-323.—11 sophisticated Europeans and 14 unsophisticated Zambian domestics responded to 2 Hudson's Pictorial Perception Test stimuli displayed in "Pandora's Box." The European sample perceived depth under most situations; in no case did the Zambian sample perceive depth. This pictorial perception difficulty may be due to both perception and interpretive difficulties. (16 ref.)—A. Krichew.

9794. Manaster, Guy J. & Ahumada, Rene. (U. Texas) **Adolescent occupational aspirations and expectations in Puerto Rico and Mexico.** *Revista Interamericana de Psicología*, 1970(Jun), Vol. 4(2), 81-94.—Compared the occupational status aspirations and expectations of 914 10- and 14-yr-old upper-middle and upper-lower class adolescents in Puerto Rico and Mexico. An Occupational Interest Inventory was used to elicit descriptions of the Ss' fathers' occupation, and the Ss' occupational aspirations and expectations. These descriptions were rated according to occupational prestige scales and objective ratings of fathers' occupation, aspiration and expectation derived. Subjective ratings were derived from the Ss' ratings on graphic scales for these 3 job descriptions. Analysis of the variance techniques utilized showed the comparability of the sample, adequate understanding and use of the instrument, and differences between samples by country, sex, age, and socioeconomic status. The major inter-country difference found the Mexican adolescents higher in their aspirations and expectations for their future occupations. This difference was analyzed in view of subgroup differences and sample comparability. (Spanish & Portuguese summaries)—*Journal abstract*.

9795. Meade, Robert D. (Western Washington State Coll., Center for Cross-Cultural Research) **Leadership studies of Chinese and Chinese-Americans.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 325-332.—Chinese and Chinese-American college students ranked 9 issues of importance, discussed them under conditions of authoritarian, democratic, or laissez-faire leadership atmospheres, arrived at a group ranking, and then ranked them individually again. With Chinese Ss, authoritarian leadership and male leadership produced greater group cohesiveness. With Chinese-Americans, both authoritarian and democratic produced group cohesiveness as did male leaders. Emergent leaders appeared only in laissez-faire groups of Chinese with female leaders. Differences may be due to the Chinese being familiar with the authoritarian form of leadership only.—A. Krichew.

9796. Pecjak, Vid. (U. Ljubljana, Yugoslavia) **Verbal synesthesiae of colors, emotions, and days of the week.** *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 623-626.—Attempted to establish cross-cultural distribution of some verbal synesthesiae and their dependency upon semantic factors of evaluation, potency, and activity. 39 North Americans, 42 Flemish, 34 German, 45 Italian, 33 Japanese, 133 Dutch, 53 Turkish, and 78 Yugoslavian college Ss compared verbal series of colors and emotions, colors and days in the wk., and emotions and days in the wk. Most correlations among these groups were significant, although not extremely high. The correlations were lower between the frequencies of responses and D values, achieved from semantic differential scores, which express the degree of similarity among the semantic profiles of words.—*Journal abstract*.

9797. Sanford, Aubrey C. (U. Southern Mississippi) **A cross cultural study of industrial motivation.** *Southern Quarterly*, 1970(Jan), Vol. 8(2), 145-161.—Hypothesizes that A. H. Maslow's motivation theory is not applicable to industrial motivation in Latin America. The validity of the specific hierarchy is questioned. It is concluded that "Latin American culture places relatively little emphasis on work as a means for satisfying human needs," and that a motivation theory effective in the

United States "would not be nearly as effective in motivating Latins."—G. Steele.

9798. Seward, Georgene H. & Williamson, Robert C. (Eds.) (U. Southern California) **Sex roles in changing society.** New York, N.Y.: Random House, 1970. xii, 419 p. \$9.95.

9799. Tiberi, Emilio. (U. Milan, Medical & Surgical Faculty, Italy) **L'Italia dei francesi: II. Indagine psicologica su modelli socio-culturali condotta mediante l'analisi fattoriale ed altre metodologie.** [A Frenchmen's view of Italy: II. Psychological research on socio-cultural patterns conducted through factorial analysis and other methods.] *Bollettino di Psicologia Applicata*, 1968(Aug), Suppl. No. 88-90, 3-137.—Compares Italy and the Italians in a study conducted by the French and a similar study conducted by the Italians. Variables included are industry, business, agriculture, tourism, national character; as well as the social, religious, and political life of the people, temperament, customs, cities, great citizens, and relationships between the French and the Italians. Over 80 tables and graphs are presented recording statistics according to sex, civil status, professional category, age, and geographic location. Progress in Italy, as viewed by the French and then by the Italians, is included in this 2nd part. The comparison between the 2 images of Italy shows that there is little sociocultural difference between Italy and France. The French image of Italy is well disposed, and can be interpreted as a favorable sign toward a better international future. (4 p. ref.)—A. M. Farfaglia.

Family

9800. Baran, Stephen. (Brandeis U., Florence Heller Graduate School for Advanced Studies in Social Welfare) **Psychological types of responsible family members: Family exchange and career beginnings in two medical home care programs.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1886.

9801. Harelson, Anna M. & Harelson, Robert J. (United States International U., San Diego, Calif.) **A study of actualizing marital relationships with an emphasis on a power-strength concept.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2494-2495.

9802. Kagan, Jerome & Whitten, Phillip. (Harvard U.) **Day care can be dangerous.** *Psychology Today*, 1970(Dec), Vol. 4(7), 36-39.—The widespread acceptance of the idea of day care centers may be signaling a new form of child-rearing—strangers being responsible for a child. It is pointed out that such arrangements may not be ideal since the parents may become less concerned about what the child is being taught and the child may be deprived of close attachment to an adult. However, carefully planned day care centers can enrich the social contacts and development of children.—E. J. Posavac.

9803. Mack, Delores E. (Stanford U.) **The husband-wife power relationship in black families and white families.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1889.

9804. Martelle, Dorothy L. (Eastern Michigan U.) **Interracial marriage attitudes among high school students.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 1007-1010.—Examined 182 white and Negro high school students with a forced-choice questionnaire to ascertain whether 1 group favored interracial marriage more than

the other. Chi-square was applied to a 2×2 factorial design. Negroes were significantly more favorable toward interracial marriage than whites ($p < .001$). Males tended to favor interracial marriage slightly more than females. Interaction between the groups was unrelated to social or economic position, but the factors involved in the process were not identified. Suggestions were made for further research to explain the differential sex attitudes and longitudinal studies to determine what other factors might be involved in determining Negro and white attitudes toward interracial marriage.—*Journal abstract.*

9805. McIntire, Roger W. (U. Maryland) **Spare the rod, use behavior mod.** *Psychology Today*, 1970(Dec), Vol. 4(7), 42-44, 67.—The major requirements for a successful program of behavior modification include offering an adequate reward for performance of the behavior desired and ignoring the undesirable behavior. Since the attention of an adult is a powerful reward for children, both wanted and unwanted behaviors can be reinforced. The job of the parent is to select the behaviors to be reinforced and those to be ignored and then to set limits on behavior which are gradually loosened as the child matures.—*E. J. Posavac.*

9806. Toman, Walter & Toman, Eleonore. (U. Erlangen-Nurnberg, W. Germany) **Sibling positions of a sample of distinguished persons.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 825-826.—Investigated the sibling positions and sex-distributions of siblings of 215 distinguished men and 36 distinguished women. Oldest and only children appeared more often than chance. For men, there were twice as many male siblings. Similar trends were found for the females studied, although the numbers were too small for tests of significance, and the sex distribution was not noted. Possible explanations for these results in terms of the sampling procedure and psychological consequences of sibling position are suggested.—*S. Knapp.*

Social Change & Social Programs

9807. Frazier, Arthur & Roberts, Virgil. (U. California, Los Angeles) **A discourse on black nationalism.** *American Behavioral Scientist*, 1969(Mar), Vol. 12(4), 50-56.—Recounts the highpoints of the civil rights movement and how it has evolved into black power, noting the evolution of tactics, demands, participation, and guiding philosophy. Black nationalism is designed to confront the racist society, change the psyche of the black man, gain control of black communities as a 1st step in building prosperous progressive areas, and expose the hypocrisy of the white community so that it can free itself from racism.—*M. West.*

9808. Nesbitt, John A., Brown, Paul D., & Murphy, James F. ((Eds.)) (San Jose State Coll.) **Recreation and leisure service for the disadvantaged: Guidelines to program development and related readings.** Philadelphia, Pa.: Lea & Febiger, 1970. xx, 593 p.

9809. Thomas, Charles W. (U. Southern California, Watts Health Service) **Boys no more: Some social psychological aspects of the new black ethic.** *American Behavioral Scientist*, 1969(Mar), Vol. 12(4), 38-42.—Explores some of the underlying social psychological factors of the new black ethic. The movement is seen "as a corrosive operation against those harsh, oppressive elements of the social structure that have either misinterpreted the humanness of black people or

compelled them to believe that psychosocially they had infantile or animal-like motivational systems."—*M. West.*

SEXUAL BEHAVIOR

9810. Gaffuri, Giulio. III **Convegno sul tema: "L'impotenza sessuale": Ascetismo e sessualità: Risultati di una ricerca anamnestico-clinica.** [3rd annual convention on the subject: "Sexual impotence": Asceticism and sexuality: Results of an anamnestic-clinical study.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 320-323.—Recorded the results of a study, begun in 1949, to correlate the intensity of the ascetic-mystical way of life and subjective sexual situations. Interest in such a study came about from having found among the ascetics such harmony and fulfillment that Eros was partially or totally forgotten and masculinity maintained. 1780 questionnaires concerning personal sexual activity were studied as well as 432 30-50 yr. olds who were observed through objective clinical examinations and through interviews. Ss were divided into 4 groups: (a) in Ss that lived an ascetic-mystical life exclusively, the correlation between interior situations and erotic-sexual situations was 100% and tightly interrelated; (b) in Ss who lived an intense ascetic-mystical life the correlation was 97%; (c) in Ss who lived a common ascetic-mystical life the correlation was 95%; and (d) in Ss who lived a superficial ascetic-mystical life, there was 89% correlation. It is concluded that ascetic-mystical life is good for those Ss who live it wholly and aspire for a fuller and more harmonious structuralization of the personality. Sexuality is situated in a religious dimension of ultimate consummation in the process of man's identification with the Being.—*A. M. Farfaglia.*

9811. Mosher, Donald L. & Cross, Herbert J. (U. Connecticut) **Sex guilt and premarital sexual experiences of college students.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 27-32.—Investigated the relationship of sex guilt as a personality disposition to reports of previous sexual experiences, feelings following participation, or reasons for non-participation, and pre- and postmarital sexual standards for 60 male and 76 female undergraduates. Sex guilt was negatively correlated with the level of intimacy of premarital sexual experiences, and guilty Ss had less permissive premarital standards. The more guilty females gave moral beliefs as their reason for not participating in intercourse or more intimate forms of petting; the more guilty males reported that moral beliefs, respect for the girl, and fear of pregnancy or disease were their reasons for nonparticipation in intercourse or oral-genital relations. (15 ref.)—*Journal abstract.*

9812. Nuebeck, Gerhard. (Ed.) (U. Minnesota) **Ex-tramarital relations.** Englewood Cliffs, N.J.: Prentice-Hall, 1969. xii, 205 p. \$5.95(cloth), \$2.45(paper).

9813. Raboch, Jan. **Two studies of male sex impotence.** *Journal of Sex Research*, 1970(Aug), Vol. 6(3), 181-187.—Exp. I found that of 600 males with potency difficulties approximately $\frac{2}{3}$ had difficulty in performing sexual intercourse after having already gone through a period of successful sexual relations. Exp. II examined 2087 males with functional sexual disturbances. Pathological symptoms were correlated with CA. Findings indicate that anxieties about sexual inadequacy occurred most frequently in the subgroups around 20 yr. of age; premature ejaculation, between 26-30 yr.; and

sexual frigidity, between 46-50 yr. The most frequently stated pathological symptom of functional sexual disorders was a disturbance of erectivity which increased with age.—*E. B. Jaffa*.

9814. Schupp, Cherie E. (United States International U., San Diego, Calif.) **An analysis of some social-psychological factors which operate in the functioning relationship of married couples who exchange mates for the purpose of sexual experience.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2524.

9815. Shannon, T. W. **Scientific knowledge of the laws of sex life and heredity or eugenics.** Garden City, N.Y.: Doubleday, 1970. 536 p. \$8.95.

9816. Spencer, Geraldine. **Pre-marital pregnancies and ex-nuptial births in Australia, 1911-66: A comment.** *Australian & New Zealand Journal of Sociology*, 1969(Oct), Vol. 5(2), 121-127.—Attempts to answer some questions posed by K. G. Basavarajappa (see PA, Vol. 43:12851) on pregnancy and forced marriages, the availability of contraceptives to the unwed, normal pregnancy, and illegitimacy. Compared with 50 yr. ago, there are fewer marriages in which the bride is many mo. pregnant, while confinements 5 and 6 mo. after marriage became more frequent. This may indicate a decrease in the proportion of forced marriages but a maintenance of date-setting pregnancies. The recent improvements in contraceptives are unlikely to have a major effect on extramarital fertility. Much of the variation in premarital fertility results from variations in marriage rates.—*S. R. Diamond*.

9817. Sutker, Patricia & Gilliard, Rickie S. (Tulane U., Medical School) **Personal sexual attitudes and behavior in blacks and whites.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 753-754.—Administered the Sexual Attitude Survey to 79 black and 118 white college students. Sexual attitudes and behavior among black males were found to be significantly more liberal than those of black females, white females, and white males.—*Journal abstract*.

9818. Walsh, Robert H. (U. Iowa) **A survey of parents and their own children's sexual attitudes.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1397-1398.

Birth Control & Abortion

ATTITUDES & OPINIONS

9819. Addis, Barnett. (U. Oklahoma) **Media credibility: An experimental comparison of the effects of film, audio tape and written communications on beliefs in the existence of unusual phenomena.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2491.

9820. Blatt, Stephen J. (Ohio U.) **The consistency between verbal and behavioral attitude responses as a function of high and low controversial social issues.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1557-1558.

9821. Bostrom, Robert N. (U. Kentucky) **Affective, cognitive, and behavioral dimensions of communicative attitudes.** *Journal of Communication*, 1970(Dec), Vol. 20(4), 359-369.—Tested the hypothesis that affective, cognitive, and behavioral dimensions are separate manifestations of a common mediating process.

Speech attitude tests that measure these separate types of attitude components were compared with behavior exhibited by 63 Ss in speech classes. The affective dimension (the Gilkinson Personal Report of Confidence as a Speaker test) had the strongest relationship to the observed behaviors. Results are best explained in terms of the affective dimension being a manifestation of greater strength of the attitude involved.—*Journal summary*.

9822. Brooks, William D. & Friedrich, Gustav W. (Purdue U.) **Police image: An exploratory study.** *Journal of Communication*, 1970(Dec), Vol. 20(4), 370-374.—Describes interviews used to discover the effect of 4 variables on police image: race, sex, age, and type of communication with policemen. Ss were 85 black and 146 white residents of 3 Indiana towns. White Ss, Ss who reported that their images of police were based on personal contact, and Ss who reported no arrest record had significantly more favorable images of police than their counterparts.—*Journal abstract*.

9823. Eiser, J. R. (U. Bristol, England) **Enhancement of contrast in the absolute judgment of attitude statements.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 1-10.—128 economics students judged 64 statements in terms of their permissiveness or restrictiveness toward the use of drugs. When the 32 most permissive statements were attributed to 1 fictitious newspaper, and the 32 most restrictive to another, judges gave more polarized ratings than when the statements were presented in the absence of newspaper names. It was found that the more permissive a judge's own position, the more polarized and restrictive tended to be his judgments. The ratings given by different groups of judges were highly linearly correlated with each other. An interpretation of the relationship between attitude and polarization of judgment is proposed, which assumes that judges categorize statements according to how much they agree or disagree with them. (19 ref.)—*Journal abstract*.

9824. Fielder, John F. (Michigan State U.) **The relationship between intensity of belief and level of cognitive-complexity.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2175.

9825. Harrelson, Lawrence E. (Michigan State U.) **A Guttman facet analysis of attitudes toward the mentally retarded in the Federal Republic of Germany: Content, structure and determinants.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2495.

9826. Hilton, David W. (Boston Coll.) **Response sets as they relate to item direction in an adjective rating instrument.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2182.

9827. Mikula, Gerold & Schuler, Günter. (U. Graz, Inst. of Psychology, Austria) **Polaritätensauswahl, verbale Begabung und Einstufung im Polaritätsprofil.** [Selection of polarities, verbal ability and classification within the polarity profile.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(3), 371-385.—Assessed the effects of subjectively perceived relevance of polarities and verbal ability of Ss for the semantic differential. 42 Ss judged first the suitability of 18 polarities for 8 given concepts, against a 5-step scale. 10 days later the same polarities and concepts were judged according to the 7-step semantic differential scales. 45% of the variance could be attributed to the judgment of relevance between polarities and concepts.

The stronger the relevance, the higher the frequency of extreme judgments, and the lower the frequency of indifferent judgments. Ss with greater verbal ability gave more extreme judgments; the less gifted gave more indifferent judgments. (English & French summaries) (22 ref.).—*W. J. Koppitz.*

9828. Miller, Grace G. (U. Tulsa) **Attitudes of educated women toward the use of oral contraception.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1578.

9829. Penner, Louis A. (Michigan State U.) **The functional relationship between values and interpersonal behavior.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1374.

9830. Sedlacek, William E. & Brooks, Glenwood C. (U. Maryland, Counseling Center) **Measuring racial attitudes in a situational context.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 971-980.—The Situational Attitude Scale (SAS) was developed to measure the attitudes of whites toward blacks. Each of 2 forms contained the same situations, bipolar scales, and instructions, except that the word "black" was inserted into each situation in Form B, and Form A made no reference to race. The SAS was administered to 405 white undergraduates. Forms were distributed randomly and Ss were unaware that 2 forms were administered. The validity of the SAS was determined by the mean response difference between Forms A and B, using *t* tests. 55 of the 100 items were significant beyond the .05 level. Thus, there was strong evidence that the insertion of the word "black" into each situation caused Ss to respond differently. (23 ref.).—*Journal abstract.*

9831. Vertinsky, Ilan. (Northwestern U., School of Management) **The use of aspiration-level behavior models in political science.** *American Behavioral Scientist*, 1969(May), Vol. 12(5), 9-12.—Suggests that aspiration-level models may prove useful in building a mathematical model of political behavior. 2 definitions of aspiration level are identified: (a) as a target outcome, and (b) as a function reconciling the motives to achieve and to avoid failure. Examples are provided to illustrate and analyze the formal characteristics of the model. (17 ref.).—*M. West.*

9832. Warner, Beverly A. (New York U.) **The relationship between reported self and body image satisfaction and attitudes toward aging of senior nursing students enrolled in hospital schools of nursing.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1365.

Formation & Change

9833. Allen, Ben P. (Western Illinois U.) **Demonstrations in attitude change and persuasive communication.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 703-706.—Obtained 17 statements representing 17 positions favored (positive) by 119 college students. To demonstrate that Ss with extreme positions are resistant to change, communications opposing the 2 most positive statements were presented to 40 Ss. To demonstrate that moderately held positions are likely to change in the same direction, communications supporting the 2 least positive statements were presented to 40 other Ss. The replication was performed by presenting Ss with a 2-sided communication concerning a statement which was a priori in between most and least positive. Although some exceptions were noted, the replication and demonstrations were successful.—*Journal abstract.*

9834. March, Brian A. (U. Maryland) **Credibility, sequence, volition, and discrepancy as determinants of attitude, change in a forced-compliance situation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2497-2498.

9835. Silverman, Irwin. (U. Florida) **On the resolution and tolerance of cognitive inconsistency in a natural-occurring event: Attitudes and beliefs following the Senator Edward M. Kennedy Incident.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 171-178.—Reports data obtained from a 12-item questionnaire relating beliefs about the event in which Senator Edward M. Kennedy delayed approximately 10 hr. in reporting an automobile accident involving a fatality and attitude change toward the Senator. For the major portion of the items, evidence of consistency was found between attitude change and beliefs; however, a sizable percentage of respondents who maintained high attitudes toward Kennedy held seemingly morally incriminating beliefs about his motives and behavior. 35 faculty members, 57 graduate students, 8 undergraduates, and 2 lab technicians served as Ss. Various speculations from the data are offered regarding the reasoning processes and value systems of Ss manifesting this apparent tolerance for inconsistency. (15 ref.).—*Journal abstract.*

Influence & Behavior

9836. Elser, J. R. (U. Bristol, England) **Comment on Ward's "Attitude and involvement in the absolute judgment of attitude statements."** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 81-83.—Criticizes C. D. Ward's finding (see PA, Vol. 41:521) that the effect of judges' attitudes on the judgment of attitude statements is unaffected by the scale positions of the items. This finding is interpreted as partly resulting from Ward's exclusion of Ss for apparent confusion of the ends of the scale, and inconsistent with previous research.—*Journal abstract.*

9837. Robinson, Robert W. (Temple U.) **Attitudinal and behavioral effects of initial, attitude, task orientation, and presentation of aversive stimuli.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3874.

GROUP & INTERPERSONAL PROCESSES

9838. Aberman, Hugh M. (Temple U.) **An investigation into the relationship between individual personality characteristics and perceived behavior in small groups.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1062-1063.

9839. Chisholm, Margery. (Boston U., School of Education) **A study to determine the influence of actual self-observation on selected aspects of the self awareness of participants in T-groups.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2171.

9840. Coleman, James S. (Johns Hopkins U.) **Games as vehicles for social theory.** *American Behavioral Scientist*, 1969(Jul), Vol. 12(6), 2-6.—Sees the age of social games and play in young children as a period comparable to that of exploration and experimentation of the physical environment. The principle element in games is the establishment of rules which elicit a given

form of social organization. Thus the sociologist can establish a social order through the rules of his game and observe how it functions. An illustration is included.—*M. West.*

9841. Deignan, Gerard M. (Colorado State U.) **Perceptual, interpersonal and situational factors in cooperation and competition.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1371.

9842. Fennell, Nancy W. & Kenton, Robert W. (United States International U., San Diego, Calif.) **Some effects on personality of a basic encounter group in a community college class.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2493.

9843. Fleming, John J. (Pennsylvania U.) **Motivation, value orientation and decision making involving risk.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1887.

9844. Gerson, Allan R. (U. Nevada) **Relationship satisfaction and need gratification as a function of experimenter communication and subject dependency.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3866-3867.

9845. Griffit, William & Veitch, Russell. (Kansas State U.) **Hot and crowded: Influence of population density and temperature on interpersonal affective behavior.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 92-98.—Examined human interpersonal affective behavior during exposure to conditions of high population density and high temperature with 121 male and female undergraduates. Repression-Sensitization scale, Mood Adjective Check List, and Interpersonal Judgment Scale measures of liking or disliking another person were found to be more negative than during exposure to comfortable temperatures and low population density. Additional affective variables were also negatively influenced by temperature and density manipulations. Results parallel those in the animal literature reflecting deterioration of social relations under conditions of overcrowding and high temperature. Findings are discussed in the context of current population trends and other environmental conditions. (24 ref.)—*Journal abstract.*

9846. Higbee, Kenneth L. (Purdue U.) **Hypothetical vs. actual group risk taking and the value of risk in a complex decision-making environment.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1888.

9847. Jones, Russell A. (Duke U.) **Choice, degree of dependence, and the possibility of future dependence as determinants of helping behavior.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3857.

9848. Mann, Philip A. & Iscoe, Ira. (U. Texas) **Mass behavior and community organization: Reflections on a peaceful demonstration.** *American Psychologist*, 1971(Jan), Vol. 26(1), 108-113.—Describes the demonstrations against the Cambodian invasion on the University of Texas campus and in the community of Austin during a week in May 1969. The interaction processes of authorities and partisans, during a week which began with a potential for violent confrontation and ended with a peaceful march and improved intergroup relations, are analyzed. Psychological principles of social influence at a community level are employed to suggest ways in which the probability of violence can be reduced in such events. Implications for the actions of authorities, changes in university-community relationship, and improved crisis management are discussed.—*Author abstract.*

9849. McEwen, William J. & Greenberg, Bradley S. (U. Connecticut) **The effects of message intensity on receiver evaluations of source, message and topic.** *Journal of Communication*, 1970(Dec), Vol. 20(4), 340-350.—Investigated the consequences of increased levels of expressed message intensity on receivers' subsequent evaluations of the source and topic of the message. A message was prepared in which a previously neutral source attacked a low-salience topic. The intensity of the attitudinal position was varied by the alternative insertion of verbs and modifiers of known intensive value. 111 undergraduates read 1 of the 2 experimental messages, a low intensity or high intensity, and responded via rating scales. High intensity messages were judged as clearer and their sources as more dynamic and trustworthy. (15 ref.)—*Journal abstract.*

9850. Meador, Betty D. (United States International U., San Diego, Calif.) **An analysis of process movement in a basic encounter group.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3872.

9851. Mezel, Louis L. (Michigan State U.) **Race, belief, and perceived social pressure as determinants of interpersonal behavioral intentions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2498.

9852. Miller, George E. (United States International U., San Diego, Calif.) **Transparency and locus of direction: The relationship of each to participation in a personal-growth program.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1373.

9853. Modigliani, Andre. (Harvard U.) **Embarrassment, facework, and eye contact: Testing a theory of embarrassment.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 15-24.—Derived 4 hypotheses from a theoretical framework which views embarrassment as a feeling of inadequacy precipitated by the belief that one's presented self appears deficient to others: (a) embarrassment can occur only in the presence of others; (b) it can be attenuated by a knowledge that one's demeanor is not as deficient as it appears to others; (c) it is associated with decreased eye contact; and (d) it is associated with efforts to improve one's presented self through facework. These hypotheses were tested via an experimental design that caused Ss either to succeed or to fail, in public or private, on their portion of a group task. 92 male undergraduates served as Ss. Results generally support Hypothesis 1, but indicate that a mild form of private embarrassment can occur in the anticipated presence of others. Hypothesis 2 could not be tested due to a partial failure of the experimental manipulations, although this failure, itself, has implications for the viability of the hypothesis. Hypothesis 3 received apparent support, but further analysis suggests that embarrassed Ss reduced their eye contact with another group member primarily because they resented his criticism of their poor performance. Hypothesis 4 is clearly supported. (19 ref.)—*Journal abstract.*

9854. Pinderhughes, Charles A. (Tufts U., Medical School, Boston, Mass.) **The universal resolution of ambivalence by paranoia with an example in black and white.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 597-610.—Employs "the concept of group-related paranoias in an attempt to explain the phenomena observed in racial and other social conflicts." Conflict and ambivalence decline as an individual accepts 1 group or 1 side of an issue and rejects others. Though these are nonpathological paranoid processes

which can act to stabilize relations among persons, the increase in conformity of thinking can be a source of considerable conflict, misunderstanding, and violence.—*W. Vernon.*

9855. Quinn, James B. (U. California, Los Angeles) **The influence of interpersonal perception on the process of change in two experimental modes of group process.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1580.

9856. Ratzlaff, Clifford N. (Arizona State U.) **Effects of relaxation on self-report measures of a basic-encounter group experience.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2116.

9857. Sheahan, Drexel B. (Stanford U.) **The effects of prior competition, cooperation and feedback on bargaining.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3896-3897.

9858. Sheahan, Marylyn L. (Stanford U.) **The effects of anticipated interactions on bargaining behavior.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3897.

9859. Shotola, Robert W. (U. Wisconsin) **Cooperation and interpersonal risk.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1375.

9860. Smith, Edward W. (U. Kentucky) **Non-verbal communication in interviewer-interviewee dyads as a function of the participants A-B status.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3877-3878.

9861. Smith, John E. (West Virginia U.) **The relationship of encounter group interaction, certain process variables, and cohesiveness.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1025.

9862. Sorenson, James R. (Cornell U.) **Group resources, decision making behavior, and performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1375-1376.

9863. Tebbutt, Arthur V. **Written interchanges: A proposal for interpersonal growth.** *Journal of Communication*, 1970(Dec), Vol. 20(4), 351-358.—Illustrates the lack of critical feedback among people. The interchange of written interpersonal messages is suggested to fulfill this need. The sender receives his motivation from the hope of honest feedback from others and courage from the assurance of anonymity. Examples are offered of how messages might be structured, field testing of the process is recounted, coordinator roles are explored, and benefit of the written interchanges are compared with probable costs.—*P. J. Federman.*

9864. Weick, Karl E. & Gilfillan, David P. (U. Minnesota, Coll. of Liberal Arts, Lab. for Research in Social Relations) **Fate of arbitrary traditions in a laboratory microculture.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 179-191.—Investigates the cultural transmission of warranted and unwarranted arbitrary traditions. Ss were 172 male undergraduates. 3-man groups played the common target game, using 2 different strategies imposed by the E. After they finished, 1 S was removed, and a new S not instructed in the strategy, added. This process was continued for 11 generations, each S participating 3 times before removal. The cultures that had an arbitrarily chosen easy strategy embedded in the 1st generation perpetuated this strategy for 11 generations. Groups given an arbitrary, equally functional but more difficult strategy abandoned it by the 4th generation and then adopted a variety of less difficult ones. Results demonstrate that arbitrary tra-

ditions do not disappear invariably, as previous research seems to indicate. When the arbitrary tradition is warranted arbitrary, it will be perpetuated; when arbitrariness is unwarranted, compliance with the tradition will decrease.—*Journal abstract.*

9865. Weiner, Roslyn G. (Yale U.) **The approval motive and self-study group behavior: Member and observer perceptions.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3881.

9866. Wexley, Kenneth N. (U. Tennessee) **Comparison of two feedback techniques for improving the human relations skills of group leaders.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3904-3905.

9867. Wispé, Lauren G. & Freshley, Harold B. (U. Oklahoma) **Race, sex, and sympathetic helping behavior: The broken bag caper.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 59-65.—To determine interaction of race, sex, and helping behavior, 176 Negro and white 20-60 yr. old males and females chose whether or not to help a young Negro or white female accomplice whose bag of groceries had just broken in front of a supermarket. Results show that: (a) significant sex differences occurred in helping behavior for the Negro but not the white sample. (b) Women tended to be less helpful toward women of the same race. (c) With the exception of b, there were no racial differences in helping behavior. (d) A significant number of shoppers who saw examples of negative modeling helped anyway; and in this the sex of the model was the most important characteristic.—*Journal abstract.*

9868. Zatkun, Gilbert E. (U. Maryland) **Effects of three compatibility sets and two reinforcers on verbal conditioning and liking for the experimenter.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1555.

Influence & Communication

9869. Breed, George R. (U. Florida) **Nonverbal communication and interpersonal attraction in dyads.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1369.

9870. Crowther, Betty & Pantleo, Paul. (U. Southern Illinois) **Measurement of group interaction rate.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 707-712.—Examined 7 indices in order to identify the similarities and differences among different measures of group interaction rate. Inspection of the indices illustrates that the findings differ as a function of the measure used, and conclusions drawn on the basis of only 1 may be completely reversed by the other. 2 variables, a psychological Gestalt and a measure of the actual amount of overt behavior displayed, were identified as dimensions in measures of interaction rate.—*Journal abstract.*

9871. Dabbs, James M. (Georgia State U.) **A view of Levonian's remarks on studies of self-esteem and persuasibility.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 854.—Discusses confusion in some of E. Levonian's criticism of research on self-esteem and persuasibility. He criticizes 1 study based on a difference between diagonal cells in a 2 x 2 design, a contrast which confounds differences in 2 factors and is therefore hardly meaningful. He also makes the unjustified suggestion that researchers in this area reject interpretations of the data which conflict with their own hypotheses.—*Author abstract.*

9872. Faley, Thomas & Tedeschi, James T. (United States Military Academy) **Status and reactions to threats.** *Journal of Personality & Social Psychology*, 1971(Feb), Vol. 17(2), 192-199.—Studied the status positions of both source and target in a conflict situation in which the source uses threats as a means of coercing the target's compliance. The Prisoner's Dilemma game was modified to permit sending an occasional threat from a simulated source to target Ss. 120 ROTC cadets of varying ranks (status) assumed the position of targets and allegedly played other cadets. 4 source-target conditions were used: low-high, high-low, low-low, and high-high. The source's threats were 10, 50, or 90% credible and carried either high or low punishment for noncompliance. The major findings of this study were: (a) target Ss, irrespective of own status, complied more often to the threats of a high-status source than to threats issued by a low-status source; (b) as credibility of threats increased, the degree of compliance obtained increased; (c) as punishment magnitude associated with threats increased, compliance increased; (d) high-status Ss exploited the low-status simulated player more often in the game than did Ss in the other 3 status conditions; and (e) the perceived potency of the threatener was directly related to the credibility of his threats. (17 ref.)—*Journal abstract.*

9873. Fisher, Ijourie S. (U. Miami) **The relationship between selected personality characteristics and the effects of training to develop small group productivity skills and interpersonal competence.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1617-1618.

9874. Freese, Harry L. (Stanford U.) **The generalization of specific performance expectations.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1904.

9875. Guerrero, José L. (U. Wisconsin) **The influence of pre-decisional and interpersonal communication variables on information exchange behavior.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1827.

9876. Hertzler, Joyce O. **Laughter: A socio-scientific analysis.** New York, N.Y.: Exposition Press, 1970. 231 p. \$6.50.

9877. Holt, Lewis E. (U. California, Berkeley) **Resistance to persuasion on explicit beliefs as a function of commitment to, and desirability of, logically related beliefs.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1622.

9878. Jaffee, Cabot L. & Whitacre, Robert. (U. Tennessee) **An unobtrusive measure of prejudice toward Negroes under differing durations of speech.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 823-828.

—Investigated the relationship between the voting behavior of naive white Ss toward a Negro or white individual in a small group discussion when the Negro or white individual talked more than anyone else in the group or did not speak. 64 white female undergraduates were divided into 32 groups engaging in 1 of 2 experimental conditions. 1 condition consisted of 2 Ss and 1 Negro confederate (unknown to Ss); the other contained groups of 2 Ss and 1 white confederate (also unknown to Ss). They solved 20 relatively unstructured concept-formation problems, discussed their solutions, and then voted for the person who they thought had the most insight into the problem. 32 other female undergraduates served in a control condition in which 16

groups, consisting of 2 Ss and a Negro confederate each, solved concept-formation problems; but no talking was permitted. Results show that, in the silent control condition, there was no significant difference in Ss' voting behavior where each S voted between the Negro confederate and the white S. In the high-talk experimental condition, however, the Negro confederates received significantly fewer votes than did the white confederates. It is concluded that the number of votes obtained by an individual depends, to a large extent, on that individual's race when engaged in high verbal interaction but not when engaged in a nonspeaking situation.—*Journal abstract.*

9879. Matthews, Gail M. (U. Kentucky) **Interpersonal attraction and stage of learning as determinants of social facilitation.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3892-3893.

9880. Pesaresi, Edward. (Syracuse U.) **The effect of observation by experimenters differing in authority on gross motor performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1374.

9881. Ragone, Gerardo. **La moda come "craze" nella teoria del comportamento collettivo di N. J. Smelser.** [Fashion as craze in the theory of collective behavior of N. J. Smelser.] *Rassegna Italiana di Sociologia*, 1970(Apr), Vol. 1(2), 231-259.—Reviews the most important aspects of Smelser's theory of collective behavior, especially "crazes" and the fashion cycle. There are 4 fundamental types of crazes: (a) the speculative boom regarding the economic sphere; (b) the political bandwagon; (c) fashion and hobbies in the expressive sphere; and (d) religious revivals. A condition favorable to the fashion cycle is a social system strongly differentiated by symbolization of status. Every fashion cycle is born from a structural tension. The tensions which lead to "crazes" come from ambiguities which concern the uncertainties of the actual uses of resources, of possible future destination with the existence of the means to confront such uncertain conditions. The differences between the innovators and the imitators in the fashion cycle are distinguished. "Imitators" applies to those who aspire to a more elevated level. The innovators are "inside"; the imitators, "outside." This presents the essence of hostility in the fashion cycle: the recurrent replacement of habits by the innovators. It is concluded that the fashion cycle comes from "the top" in advanced industrial societies, generically defined as "mass societies."—*A. M. Farfaglia.*

9882. Shaw, Milton. (U. Pennsylvania) **The ability to shape attitudes: An indicator of the effectiveness of leadership.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1572-1573.

9883. Tanzi, Lawrence A. (Indiana U.) **The effect of communication and persuasibility upon shift-to-risk.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1411.

9884. Vidmar, Neil. (U. Western Ontario, London, Canada) **Effects of representational roles and mediators on negotiation effectiveness.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 48-58.—Examined the effects of the presence or absence of negotiator representational role obligations, and mediators on negotiation effectiveness in an experimental simulation of the negotiation process. 210 male undergraduates served as Ss. Although the negotiators' initial attitudes were held constant across conditions, representational role obligations were generally det-

rimental to negotiation performance. Mediators tended to improve the performance of groups with role obligations, as compared to mediators' effects in groups without role obligations. The reported interpersonal reactions of the negotiators and the performance criteria support conclusions drawn in field studies of labor negotiations. (22 ref.)—*Journal abstract*.

9885. Zillmann, Dolf. (U. Pennsylvania) **Emotional arousal as a factor in communication-mediated aggressive behavior.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1376-1377.

Social Perception & Motivation

9886. Doise, Willem. **Niveau scolaire, tension d'examen et structuration de la perception sociale.** [Scholastic level, examination tension and the structure of social perception.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Oct), Vol. 17(4), 254-262.—Describes experiments conducted on 110 students of school and college age levels to determine social perception. General results indicate: (a) social perception increases with age, experience, and in accordance with an individual's intellect, and (b) a situation involving psychological tension leads to a more acute perception of the social environment. It is concluded that, contrary to established opinions, a tense state does not always lead to a firmer structure of social perception. (English summary) (17 ref.)—*J. Sirotnin*.

9887. Draughon, Margaret S. (New York U.) **The effects of training on perceived facial expressions.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3856.

9888. Fort, Donald J. (U. Utah) **Accuracy of interpersonal perception as a function of the level of relevance and the amount of stimulus information.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3865-3866.

9889. Foschi, Martha M. (Stanford U.) **Contradiction of specific performance expectations: An experimental study.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1887-1888.

9890. Hornstein, Harvey A., Masor, Hugo N., Sole, Kenneth, & Heilman, Madeline. (Teachers Coll., Columbia U.) **Effects of sentiment and completion of a helping act on observer helping: A case for socially mediated Zeigarnik effects.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 107-112.—Conducted a natural field experiment building on the earlier work of Lewin, Zeigarnik, Deutsch, and Horwitz to test the following predictions: Persons are more likely to complete the interrupted goal attainment of liked than disliked others. For liked others, the frequency of this kind of helping is greatest when the others are close to completing their goal; for disliked others, nearness to a goal is irrelevant. Ss were 175 New York pedestrians. Data confirm these predictions. —*Journal abstract*.

9891. Huguenard, Timothy; Sager, Eric B., & Ferguson, Leonard W. (Ohio U.) **Interview time, interview set, and interview outcome.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 831-836.—Demonstrates that the length of an interview (10, 20, or 30 min.) has little effect upon student interviewers' after-interview ratings of student interviewees. In contrast, interviewers given different initial sets about interviewees let those initial sets (to the effect that interviewees are cold or

warm) affect significantly their after-interview ratings. These conclusions are based upon records secured from 377 2-person simulated employment interviews.—*Journal abstract*.

9892. Lake, Dale G. (State U. New York, Albany) **Perceiving and behaving.** New York, N.Y.: Teachers Coll. Press, 1970. xiv, 102 p. \$8.50.

9893. Lecker, Sidney & Pigott, William. (Montreal Children's Hosp., Mental Assessment & Guidance Clinic, Quebec, Canada) **Coping with drug abuse: I. A community social action approach.** *Canada's Mental Health*, 1970, Suppl. No. 64, 1-7.—Found the establishment of a Social Action Committee in a suburban middle-class community to be a potent means for influencing community action and attitudes towards drug abuse, and the alienation of youth. Proposals for the initiation of action were carried directly to the community rather than through elected officials. All efforts undertaken by the committee and the community, were attempts at making the community a place for growth and development, and at reducing the alienation of all age groups. This goal was achieved through facilitating dialogue at several levels: between young people and their parents, between institutions and ordinary citizens, and among institutions themselves. It is felt that curative measures for drug abuse would have to be as numerous as the causes motivating an individual to the abuse of drugs. Ameliorating factors introduced were the new avenues for dialogue between individuals, and the means of effective community participation of young people and previously motivated but uninvolved adults.—*Journal summary*.

9894. McGinley, Hugh; McGinley, Pat, & Shames, Morris. (U. Wyoming) **Failure to find experimenter-expectancy effects in IQ estimations.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 831-834.—128 Ss were given the task of estimating the IQs of 10 women whose photographs they viewed. 4 Es were assigned to each of 4 conditions, 3 of which were of expectancy inducement and 1 of which was of no-expectancy inducement. No expectancy effects were observed. (15 ref.)—*Journal abstract*.

9895. Miller, Howard L. & Rivenbark, W. H. (U. Alabama) **Sexual differences in physical attractiveness as a determinant of heterosexual liking.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 701-702.—A questionnaire study of sexual differences in the importance of physical attractiveness to heterosexual liking disclosed that 177 men ranked physical attractiveness significantly (but only slightly $p < .001$) higher than 177 women. Different degrees of intimacy and permanency in the relationship also affected the importance of physical attractiveness in partners. There was no significant interaction between sex and type of relationship.—*Journal abstract*.

9896. Sisley, Emily L. (Long Island U., Brooklyn, N.Y.) **The breakdown of the American image: Comparison of stereotypes held by college students over four decades.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 779-786.—The same list of 84 adjectives used by college students to assign traits to Americans in 1932 by D. Katz and K. Braly, and in 1950 by G. M. Gilbert was used again in 1970. Striking differences in willingness to stereotype are noted, and the other-contradictory traits chosen by Ss generally changed in a "negative" direction from those of earlier studies. Findings on 100 white undergraduates support the

general notion that today's youth view their country and its people very differently from Ss tested a few decades ago. This suggests the need for new approaches to education, and has methodological implications for research design in studies of social attitudes.—*Journal abstract.*

9897. Walker, David N. & Mosher, Donald L. (U. Connecticut) **Altruism in college women.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 887-894.—Used sociometric ratings by sorority women to nominate women who were altruistic and nonaltruistic. Evidence for convergent validity was found through high correlations between sociometric altruism and sociometric friendliness and trust, while evidence for discriminant validity was inferred when sociometric altruism was unrelated to sociometric independence and physical attractiveness. The top and bottom 20% of the 207 Ss were individually interviewed. The Ss responded to 5 altruism situations and to questions in 12 relevant areas. Sociometric altruism was strongly correlated with interview altruism measures. However, the responses of the altruistic Ss in the interview did not correspond completely to the ideal-type definition of altruism used in the nominating procedure. Rather than being motivated to help another through intrinsic satisfaction experienced when aiding another, the altruistic Ss appeared to be motivated by conceptions of reciprocity and mutuality in friendly interpersonal relations. Less altruistic Ss were more concerned with a contractual reciprocity. (15 ref.)—*Journal abstract.*

9898. Whitney, Richard E. (U. California, Los Angeles) **Agreement and positivity in pleasantness ratings of balanced and unbalanced social situations: A cross-cultural study.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 11-14.—A 2 × 2 factorial experiment tested the relative importance of interpersonal agreement, positivity, and balance in determining a judge's pleasantness ratings of various social situations. Positivity refers to both positive interpersonal relations, as in "P and O are friends," and positive orientations toward objects and events, as in "P likes X." Chinese undergraduates read about and rated the pleasantness of 8 different social situations constructed from balance theory propositions. Results indicate that the main determinants of pleasantness are interpersonal agreement and positivity. The Agreement × Positivity interaction was not significant, indicating that balance did not affect the subject's pleasantness ratings.—*Journal abstract.*

COMMUNICATION

9899. Blankenburg, William B. (U. Wisconsin) **News accuracy: Some findings on the meaning of errors.** *Journal of Communication*, 1970(Dec), Vol. 20(4), 375-386.—Reviewed over 300 local news stories from 2 dailies for accuracy by persons who had been reported on. Results indicate that an ongoing close acquaintanceship between the newsmaker and someone on the news staff resulted in fewer errors. Close acquaintanceship also appeared to ameliorate the impact of errors, and caused them to be judged as less serious. Subjective and objective errors did not appear distinguishable by their seriousness. Respondents who perceived errors did not exhibit a significantly lower opinion of the newspaper than those who saw none.—*Journal abstract.*

9900. Collins, Thomas B. & Batzle, Paul. (Mankato

State Coll.) **Method of increasing graffiti responses.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 733-734.—Examined the effect of availability of writing materials on the output of graffiti in 2 men's washrooms of a college library. The frequency of graffiti did not change following posting of a sign prohibiting writing on the walls. After blackboards were installed, the numbers of graffiti increased significantly. It was hypothesized that the ease of making a graffiti response is a controlling variable and that the reported method will produce a large number of responses. Data do not support the idea that graffiti reflect important social issues. Results indicate that graffiti are amenable to experimental manipulation. The use of stimulus graffiti is suggested.—*Journal abstract.*

9901. Godfrey, R. Richard & Natalicio, Luiz F. (U. Texas) **Evaluation on semantic differential equals abstraction plus error.** *Psychological Reports*, 1970(Oct), Vol. 27(2), 467-473.—Tested for a possible relation between the concreteness of stimuli and their loadings on the Evaluation dimension in the semantic differential (SD). 20 undergraduates were given 26 adjective pairs having the highest and lowest loadings on Evaluation in the Osgood, Suci, and Tannenbaum studies, and rated a series of stimuli: 3 objects, 3 pictures, and 6 words. The ratios of the variance of the ratings of the adjective pairs with the highest loading on Evaluation to the variance of ratings of pairs with the lowest loading on Evaluation for each of the stimuli were compared with Ss' rankings of the same stimuli on an abstraction-concreteness continuum. The r was .645 ($p < .05$ for 10 degrees of freedom); a 2nd study yielded a comparable value. When variance due to individual differences in abstraction rankings was removed, the obtained r rose to .953 ($p < .001$ for 10 degrees of freedom). It is concluded that Paivio (see PA, Vol. 43:10753) and Osgood are probably measuring the same phenomenon and calling it by different names. Implications for methodology and SD-based semantic structure theory are drawn.—*Journal abstract.*

9902. Worsham, John W. (Texas Technological Coll.) **An investigation of effective visual speech reception: Its relationship to personality variables, sex, intelligence, and conditionability.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3858-3859.

Language

9903. Barik, Henri C. (U. North Carolina, Chapel Hill) **A study of simultaneous interpretation.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3883-3884.

9904. Bruce, Beverlee. (U. California, Los Angeles) **The social and psychological implications of language changing.** *American Behavioral Scientist*, 1969(Mar), Vol. 12(4), 34-37.—Discusses problems and challenges associated with conversion from Negro dialect to Standard English by Negroes living in low socioeconomic ghetto settings. Suggestions are provided for practical steps to facilitate such a change. It is concluded that Negro children can be motivated for such a change, which can "serve as a means of learning about one's self and later... as a tool for dealing with the larger community."—*M. West.*

9905. Daves, Walter F. (Georgia State U.) **Absence of a context effect in rated pleasantness of concrete and abstract words.** *Perceptual & Motor Skills*,

1970(Dec), Vol. 31(3), 688.—Investigated whether the judged pleasantness of neutral words would differ when they were embedded in a context of unpleasant, neutral, or pleasant words, and whether any obtained effect depended upon the abstractness or concreteness of the words. 15 Ss rated 20 words. Analysis of variance of the test words provided no evidence for a context effect. Analysis of the context words yielded a significant interaction between pleasantness and concreteness due to the concrete words being judged less extremely than the abstract words. Explanations for the differences in results between this study and previous research are discussed.—S. Knapp.

9906. Enard, Claude. *Analyse et aménagement d'un langage technique: "Chronique" d'un avion pour le contrôleur de la navigation aérienne.* [Analysis and management of a technical language: "Reports" of an aircraft for control of aerial navigation.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Jul), Vol. 17(3), 171-190.—A general analysis of a technical language based on the technical language of users. Describes a linguistic model for use in aircraft navigation and air traffic control. Methodology for assessment of user's needs, modifications of construction of a language, standardization of code, and reduction of syntactic combinations are discussed. (English summary)—B. A. Stanton.

9907. Martin, James G. (U. Maryland) *Rhythm-induced judgments of word stress in sentences.* *Journal of Verbal Learning & Verbal Behavior*, 1970(Dec), Vol. 9(6), 627-633.—Suggests that the successive sounds of speech have a hierarchical structure that is rhythmic, and that the hierarchical structure is revealed by the rhythmic patterning of the prosodic features in speech, e.g., stress. Some rules for characterizing relative duration and stress are discussed. 94 Ss heard 2 versions of sentences and judged relative stress on the last 2 words. Sentence versions were copies differing only in rhythmic structure determined by a tape-spliced interval. Judged words were thus acoustically identical in the 2 versions. Stress judgments varied as predicted by rhythmic structure. Discussion concerns music and speech rhythms, the potential relation between rhythmic structure and the transformational cycle, and the perceptual reality of stress.—*Journal abstract.*

9908. Zoh, Myeong-Han. (Seoul National U., Korea) *Repetitions of associations as a function of relative distance between successive associates.* *Psychological Reports*, 1970(Dec), Vol. 27(3), 683-686. Studies a hierarchical characteristic of associative strength with an associative factor of relative distance (RD) measured as distance from a primary associate to the secondary as referred to communality. Different stimulus lists varied RD by making the communality of primaries homogeneous and varying that of secondaries. The method of independent repetitions for successive trials of presentation of a stimulus was adopted, and the repetitive probability of associations and the latencies were measured in 35 Ss. The RD directly reflected repetitions of associations, while among the lists of corresponding RD there was no difference in latency.—*Journal abstract.*

Psycholinguistics

9909. Blumenthal, Arthur L. (Harvard U.) *Language*

and psychology: *Historical aspects of psycholinguistics.* New York, N.Y.: John Wiley, 1970. x, 248 p. \$7.95(cloth), \$4.95(paper).

9910. Kasschau, Richard A. & Cilluffo, Anthony F. (U. South Carolina) *Effects of concurrent activity on semantic satiation: An extension.* *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 69-73.—60 undergraduates repeated each of 6 words for 30 sec., accompanied by 1 of 3 actions (a no-action control or an action concordant or discordant to the repeated word's meaning), as the S looked or did not look at the accompanying action. Satiation (loss) of meaning resulted from discordant actions, generation from concordant actions, and no change with no action. The amount-of-meaning change varied as a function of which semantic differential scale was used, but not as a function of looking or not looking. It is concluded that peripheral activity can influence a word's meaning.—*Journal abstract.*

9911. Miller, George A. (Rockefeller U.) *Four philosophical problems of psycholinguists.* *Philosophy of Science*, 1970(Jun), Vol. 37(2), 183-199.—Discusses 4 philosophical problems—predication, speech acts, rules, and innate ideas—concerning their implications for psychological and linguistic research. The discussion of predication concerns both form and use. With respect to form, it is argued that lexical memory is organized according to a predicate-argument formula that underlies the subject-predicate form of sentences. With respect to use, it is argued that the illocutionary force of the sentence as a speech act must be considered. Both the formation and the use of such verbal constructions are normally characterized by systems of rules, but there is no clear account of what a rule is or how it might operate to control behavior, and this problem is especially difficult when, as in language, the person's knowledge of rules is implicit. The innate basis for human ability to acquire linguistic rules is considered, and the problem of innateness is redefined around the conjecture that there are innate, language-specific mechanisms unique to human beings. The problem of investigating such language-specific mechanisms psychologically, however, is quite difficult at the present time. (15 ref.)—*Journal abstract.*

9912. Simison, Diane L. (Indiana U.) *The relation between the grammatical and psychological complexity of some English sentences.* *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1632.

9913. Slama-Cazacu, Tatiana. (U. Bucharest, Romania) *Code levels, interdisciplinary approach, and the object of psycholinguistics.* *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(1), 87-96.—Discusses the object of psycholinguistics (PL) and the communication act such as it occurs in real life and about its components on the levels of the code. Steps in which a language can be coded and decoded for communicative purposes are described. It is noted that each individual is a linguistic system in himself, starting with childhood when he was a selective echo through adulthood when his linguistic capabilities expand to the fullest. It is postulated that a human being is something of an emitter in the fact that any message is inseparable from the person who produced it. The conclusion is made that linguistics have not yet reached total suppleness and fitness, but the PL aims especially at uncovering the relationship between the aspect of the messages and their psychical causes.—J. Sirotn.

AESTHETICS

9914. Bernard, Y. (Inst. of Esthetics & Art Sciences, Paris, France) **Construction d'un test de connaissance en peinture.** [The construction of a test to assess familiarity with paintings.] *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 125-131.—A test designed to assess familiarity with paintings, consisting of 12 items, was constructed by taking 2 variables into account: the degree of difficulty, and the possibility of isolating 2 different cultures—1 concerning French paintings, the other with foreign paintings. The task consisted of identifying the pictures and classing them in order of preference. The sample consisted of 480 Ss, customers of a gallery selling reproductions of paintings. The cultural level was high—58% held a BA or higher degree. A factor analysis made it possible to isolate the structure of each group with reference to its relationship with the other group of individuals and group of paintings. Results indicate that the effect of educational level is very slight except for the fact of the superiority of the Ss who were well-educated but who came from a poor cultural background. An almost linear relationship was found between level of knowledge and the originality of the pictures chosen. Furthermore, the results provide a basis for modification of the tests and analysis of sociological variables likely to influence the level of pictorial knowledge.—L. A. Ostlund.

9915. Lefcowitz, Barbara F. (7803 Custer Rd., Bethesda, Md.) **The hybris of neurosis: Malamud's "Pictures of Fidelman."** *Literature & Psychology*, 1970, Vol. 20(3), 115-120.—Discusses Bernard Malamud's use of a neurotic character (Fidelman) in *Pictures of Fidelman*. Fidelman is depicted as an obsessive-compulsive neurotic who lacks any genuine human involvement. The character is described as depicting sadomasochism, hysteria, obsession with fastidiousness, and as having delusions of intellectual and creative grandeur.—B. A. Stanton.

9916. Stoll, John E. (Ball State U.) **Psychological dissociation in the Victorian novel.** *Literature & Psychology*, 1970, Vol. 20(2), 63-73.—Defines psychological dissociation in a novel as the gap between the author's intention and that effect which the author achieves. It is suggested that "Inherited in great part from the 18th century separation of intellect and feeling, judgment and fancy, sense and sensibility, psychological duality is a distinctive characteristic of the 19th century as a whole, affects all forms of literature, and should not be confined, to the American or British novel alone." Literary description of the dissociative process is traced from its beginnings with Jane Austen (*Emma*) through D. H. Lawrence (*Sons and Lovers*).—B. A. Stanton.

SMOKING & DRUG & ALCOHOL USE

9917. ———. **The drug abuse problem cries for a focused, single agency.** *California's Health*, 1968(Feb), Vol. 25(8), 17-18, 21.—Suggests a coordinated health program based on (a) epidemiological studies, (b) health educational materials, (c) professional education, (d) treatment and rehabilitation programs, (e) broader research activities, and (f) a review of existing legislation and enforcement policies to supplement law enforcement in the problems of drug abuse.—J. Canady.

9918. Barber, Theodore X. (Medfield State Hosp., Harding, Mass.) **LSD, marihuana, yoga, and hyp-**

nosis. Chicago, Ill.: Aldine, 1970. xi, 337 p. \$8.95.

9919. Janis, Irving L. & Hoffman, David. (Yale U.) **Facilitating effects of daily contact between partners who make a decision to cut down on smoking.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 25-35.—Conducted a field experiment in a smoking clinic with 30 adults who volunteered to attend 5 weekly meetings with a consultant. Pairs of Ss were assigned to 1 of 3 equivalent experimental groups; high-contact partners, who phoned each other daily; low-contact partners, who spoke with each other only at clinic meetings; and controls, who had a different partner at each meeting. At the last clinic session, the high-contact Ss showed more positive effects than the other 2 groups on measures indicating that they developed (a) more unfavorable attitudes toward smoking ($p < .01$), (b) more favorable attitudes toward the clinic ($p < .05$) and toward the partner ($p < .05$), and (c) fewer withdrawal symptoms of anxiety after cutting down on smoking ($p < .05$). Follow-up interviews indicate that during the subsequent year the high-contact Ss continued to smoke fewer cigarettes ($p < .01$) than Ss in the other 2 groups, almost all of whom reverted to their former smoking habits. The high-contact Ss reported, however, that they had discontinued contacting each other by 4 wk. after the final clinic session. Alternative explanatory hypotheses were assessed by taking account of supplementary observations, including a content analysis of the Ss' conversations during meetings. The most plausible mediating factor appears to be the increase in interpersonal attraction produced by daily contact, which makes for increased valuation of the clinic group and internalization of the norms conveyed by the consultant leader.—*Journal abstract.*

9920. Leake, Chauncey D. (U. California, Medical Center, San Francisco) **Mood, behavior, and drugs: AAAS symposium 27-28 December 1970, Chicago.** *Science*, 1970(Oct), Vol. 170(3957), 559-560.—Provides a summary of psychological and pharmacological factors involved in the use and misuse of drugs which act on the CNS. Evidence suggests that activity of cell centers in the limbic system and hypothalamic areas of the brainstem determines, in part, the mood and behavior resulting from the taking of drugs. It is noted that the living material of the human body with which the drug interacts, plays a significant role in drug effects. There is also wide variation in drug effects from person to person and with repeated administrations compared to a single dose. The 3 major types of CNS drugs, those which stimulate, depress, and distort the activity of the brain, are briefly reviewed.—P. McMillan.

9921. Meloff, William A. (U. Colorado) **An exploratory study of adolescent glue sniffers.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1391-1392.

9922. Nesbitt, Paul D. (Columbia U.) **Smoking, physiological arousal, and emotional response.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1889.

9923. Robinson, Lisa. (U. Maryland) **Marihuana use in high school girls: A psycho-social case study.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2196.

9924. Smith, David E. & Meyers, Frederick M. (U. California, School of Medicine, San Francisco) **The new generation and the new drugs.** *California's Health*, 1968(Feb), Vol. 25(8), 7-11, 15.—Comments on the legal

or illegal use by youth of drugs which are grouped into medical and social categories. 3 major syndromes of drug abuse are discussed: (a) sedative, (b) narcotic, and (c) CNS stimulant. The most commonly abused drugs of each syndrome are ethyl alcohol, heroin, and methamphetamine. The place of marihuana in the drug spectrum is questioned, and it is suggested that the abuse potential of marihuana is like that of alcohol. It is concluded that unless "drug abuse in the younger generation is recognized and treated as a medical and sociological problem, we will continue to witness the specter of increasing drug-induced physical and mental illness in the next generation."—*J. Canady.*

9925. Wentworth-Rohr, Ivan. (Pace Coll.) **Marijuana flashback: A clinical note.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 236-237. —Describes 2 cases of marihuana flashback: in a 30-yr-old single male college graduate and in a male undergraduate. Unlike the Ss in the study by M. H. Keeler, C. B. Reifler, and M. B. Liptzen (see PA, Vol. 43:874) who suffered a persistence of disturbance, these Ss had been free of drug-related symptoms for 3-4 wk.—*S. Knapp.*

PERSONALITY

9926. Black, Kenneth. (Georgia State Coll.) **Security and individual identity.** *Journal of the American Society of Chartered Life Underwriters*, 1969(Jul), Vol. 23(3), 58-61. —Suggests that individual life and health insurance can play an essential role in meeting basic economic needs, and can free energies for development of higher needs as in A. H. Maslow's theory of motivation.—*M. West.*

9927. Carlson, Rae. (National Inst. of Mental Health, Chevy Chase, Md.) **Where is the person in personality research?** *Psychological Bulletin*, 1971(Mar), Vol. 75(3), 203-219. —Examined constraints upon inquiry in personality imposed by current research methods by (a) a survey of empirical work published in 2 major personality journals, and (b) a consideration of methodological and ethical issues raised in recent research criticism. Review of samples, research procedures, and social-psychological context in 226 empirical studies revealed that current methodological practices are incapable of approaching questions of real importance in personality and involve serious problems beyond those noted in recent research criticism. College students were used as Ss in 71% of the studies. Males and females were represented in a 2:1 ratio; 78% were experimental; 78% were limited to a single session; and 57% used deception to manipulate variables. A conceptual schema for ordering personality research strategies, a distinction between contractual and collaborative models of S-E relationships, and suggestions for increasing the relevance and responsibility of personality research are proposed. (65 ref.)—*Journal abstract.*

9928. Hall, Calvin S. & Lindzey, Gardner. (U. California, Santa Cruz) **Theories of personality.** (2nd ed.) New York, N.Y.: John Wiley, 1970. xiv, 622 p.

9929. Hine, Frederick R. **Introduction to psychodynamics: A conflict-adaptational approach.** Durham, N.C.: Duke U. Press, 1971. xi, 95 p.

9930. Lynd, Helen M. **On shame and the search for identity.** New York, N.Y.: Harcourt, Brace, & World, 1958. 318 p. \$2.65(paper).

PERSONALITY TRAITS & PROCESSES

9931. Adams, Joseph V. (U. Alabama) **Psychological efficiency: An empirical evaluation of Wishner's theory of efficiency.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3859.

9932. Bauer, Rudolph H. (Catholic U. of America) **An experimental approach to the concept of ego identity as related to the achievement motive and other variables.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1611-1612.

9933. Beck, Jerry L. (Syracuse U.) **The relationship between authoritarianism and acquiescence response set: Fact or myth.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3854.

9934. Blakey, James. (Rutgers State U.) **Relationship among measures of perceptual rigidity and aspects of religion.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1066-1067.

9935. Bone, Ronald N., Nelson, Arnold E., & McAllister, D. S. (West Virginia Wesleyan Coll.) **Dream recall and repression-sensitization.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 766. —Correlated dream recall estimates and scores from D. Byrne's (see PA, Vol. 37:3290) Repression-Sensitization scale to test the hypothesis that dream recall would be greater for sensitizers. The resulting correlation was nonsignificant ($r = -.012$) as were separate correlations for 244 males ($r = -.011$) and 253 females ($r = -.019$). Assuming acceptable validity of the Repression-Sensitization scale, dream recall does not seem to be related to repression-sensitization as measured.—*Author abstract.*

9936. Botwinick, Jack. (Washington U.) **Age differences in self-ratings of confidence.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 865-866. —Tested the hypothesis of decreased self-confidence in later life by comparing self-ratings of 18 elderly and 40 young adult Ss with 2 questionnaires. When specific information was involved, old and young were similar with respect to confidence in the correctness of response. When judgments about oneself were involved, the older Ss indicated more self-confidence than the young. The relation between age and confidence is considered to be a matter of context.—*Journal abstract.*

9937. Chance, June E. & Goldstein, Alvin G. (U. Missouri) **Internal-external control of reinforcement and embedded-figures performance.** *Perception & Psychophysics*, 1971(Jan), Vol. 9(1-A), 33-34. —Tested 29 male and 26 female undergraduates in an extended series of 68 embedded figures. Rate of decrease in discovery time was related to Ss' attitudes about locus of control of reinforcing outcomes. Results confirm those of an earlier study, showing that practice dissipated sex-related performance differences observable in early trials. (17 ref.)—*Journal abstract.*

9938. Cooper, Lowell. (Mt. Zion Hosp., Medical Center, San Francisco, Calif.) **Empathy: A developmental model.** *Journal of Nervous & Mental Disease*, 1970(Sep), Vol. 151(3), 169-178. —Attempts to integrate the theoretical literature in the area of empathy into a developmental model, i.e., seeing empathy as intricately related to other cognitive and affective functions evolved in the course of psychological development. Psychoanalytic notions are summarized and an attempt is made to make the developmental scheme of analytic theory more explicit. The analytic framework is used as the

basis for integration of the wide variety of theoretical positions. Major conceptions of empathy as seen by Gestaltists and social learning theorists are discussed as they describe the empathic process at different levels of psychological development. This model is applied to the empirical work in the area with the hope of promoting a clearer theoretical formulation. (35 ref.)—*Journal abstract.*

9939. Das Gupta, J. C. **Aggression.** *Samiksa*, 1968, Vol. 22(4), 119-159.—Administered Calcutta Inventories C (measuring self-aggression—S-A) and D (measuring object-aggression—O-A) to over 1500 Ss in Calcutta and Stanford, California. S-A scores were generally higher for adults than adolescents, lowest in the 30-39 age groups in Indians and in the 20-29 age group of American women. Unmarried Indian women 20-29 showed significantly higher S-A than 12-14 yr. old adolescent girls. Sex-wise, Indian female adults and adolescents showed greater S-A than males, but no such difference was noted in the American sample, with little difference between Indian and American adults. Indian orphans of both sexes had significantly higher S-A scores than adolescents from normal homes. In O-A a steady increase occurred from the 12-14 age groups to the 40s, though none of the mean differences between the different age ranges of females was statistically significant. Generally, American men showed more aggression than Indian men, and American women more than Indian women; Americans display significantly greater O-A than Indians. Little correlation of aggression with parental love received during childhood was noted. A significant positive correlation was seen between S-A and O-A in 79% of the men, and 71% of the women; a high positive correlation between S-A and O-A and parental aggression; a negative correlation between both S-A and O-A and happiness; a high positive correlation of S-A and O-A with neuroticism. A psychodynamic hypothesis is offered to explain the high positive correlation of S-A and O-A.—*T. N. Webster.*

9940. Duvall, Nancy S. (U. North Carolina, Chapel Hill) **Field articulation and the repression-sensitization in perception and memory.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3864.

9941. Gordon, David C. **Overcoming the fear of death.** New York, N.Y.: Macmillan, 1970. 115 p. \$3.95.

9942. Hogman, Flora. (New York U.) **Effects of hostility arousal and manifest hostility on the appreciation of aggressive humor.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3868-3869.

9943. Lahey, Henry C. (U. Connecticut) **Personality differentiation of elevated outdoor and literary Kuder Preference Record scales in an urban population.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1014.

9944. Langston, Robert D. (Baylor U., Medical School, Houston, Tex.) **The MMPI and perseverance in the convent.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 811-814.—Studied the MMPI profiles of 22 girls who stayed in the convent and 12 who left. Results indicate no significant differences between 2 groups. Significant differences were obtained on Scales L, Pd, Sc, Ma, and Si with the group who left scoring higher on Pd, So, and Ma and lower on L and Si. Results suggest that those who left were less mature and more rebellious and impulsive. Data are consistent with those obtained with male seminarians.—*Journal abstract.*

9945. Lanza, Ernest R. (Ball State U.) **An investi-**

gation of various antecedents of self esteem as related to race and sex. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1077.

9946. Leonhard, K. (U. Berlin, Neurology Clinic, E. Germany) **Zur Bestimmung der Begriffe extravertiert und introvertiert.** [On the definition of the terms extraverted and introverted.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Jul), Vol. 22(7), 241-243.—Reviews Jung's and Eysenck's reflections on introversion and extroversion. It is suggested that relating temperament traits to these common personality types is contraindicated.—*K. J. Hartman.*

9947. Levinson, Boris M. (Yeshiva U.) **The New York City skid row Negro: Some research findings.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 548-552.—A study of skid row Negroes disclosed effects of racial, social, and economic discrimination on intellectual and personality structure. These Southern, semiskilled, or unskilled male workers had a mean WAIS IQ of 85, with the verbal IQ higher than performance IQ. Data from a matched group of 24 Northern Negro homeless men show no significant differences. Implications are that these 3 deprivations, wherever experienced, have the same debilitating effects. (19 ref.)—*Journal abstract.*

9948. Lovinger, Robert J. (New York U.) **Attention and adaptation in leveling-sharpening.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3871.

9949. Masterson, Michael L. (U. Nevada, Psychological Service Center) **Family structure variables and need approval.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 12-13.—Administered the Marlowe-Crowne Social Desirability Scale to 155 undergraduates to determine the importance of family size, ordinal position, and sex to the need for approval (n App). Mean n App increased with an increase in family size, females were higher in n App, and ordinal position was not significantly ($p = .53$) related to n App. It is concluded that "while family size and sex themselves do not interact with one another, both interact with ordinal position in accounting for differences in n App motivation."—*S. Knapp.*

9950. Motta, E. (Provincial Psychiatric Hosp. "L. Mandalari", Messina, Italy) **Formazione nevrotica della personalità e potere di contenimento nelle neurosi in rapporto a particolari fattori della attualità sociale.** [Neurotic formation of the personality and the power of retention in neurosis in relationship to particular factors in present society.] *Acta Neurologica*, 1970(May), Vol. 25(3), 362-371.—The personality of normal Ss who have a psychosomatic inclination in an antineurotic sense can acquire neurotic forms because of different factors: (a) contact on the part of neurotic Ss, (b) neurotic imposition on the part of the family and environment, (c) neurotic conditioning, (d) circumstances which occur by chance, and (e) acquisition of a neurotic mentality by which the S learns to release certain expressions of his personality (somatic disturbances, frustrations, etc.) as would a neurotic. Neurotic impulses can be retained to the extent that the personality does not show any neurotic type of manifestation. In addition to individual factors of retention (physical health, education, social satisfaction), environmental factors can provide a near normal adapting situation. But a significant social aspect lies in the fact that the environment also possesses factors which modify the retention powers of the neurotic in a negative sense, e.g., decrease in family and scholastic severity, an

understanding attitude regarding neurotic Ss in all areas of society. It is concluded that an understanding, tolerant role, especially in institutions is decisive and necessary. —A. M. Farfaglia.

9951. Nash, John C. (Ohio State U.) **The relationship of ordinal status to sex-role identity, father-identification, and self-esteem among university males.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1916.

9952. Nelson, Barbara A. & Allen, Dorothy J. (Ohio State U., Physical Education Div. for Women) **Scale for the appraisal of movement satisfaction.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 795-800.—Investigated the possible significance of S's attitude toward his ability to move on his self-concept. To explore this variable, a scale was developed to assess S's satisfaction or dissatisfaction with his movement ability. By the use of a panel of 8 experts who judged the items, and through item analysis, the original 129 items were reduced to 50 in a final form. This form was administered to 877 14-21 yr. old men and women. Reliability was .95. Results indicate that males tended to express greater satisfaction with their ability to move than females, and older Ss tended to express less satisfaction than younger Ss.—*Journal abstract*.

9953. Potapow, Michel. A. **timidez.** [Timidity.] *O Hospital*, 1969(Apr), Vol. 75(4), 1493-1494.—Discusses factors which influence the development of timidity (i.e., femininity, masculinity, stuttering, self-love, asocial rearing, and poverty). Timidity generally manifests itself following crises related to the child's exposure to peers which give rise to feelings of self-annoyance. Timidity is particularly intensified following contacts with the opposite sex and situations favoring increased masturbation or moral conflicts. Delay in sexual development contributes toward timidity, revealing itself in agonized adult heterosexual relationships which affect personality and frequently result in social isolation.—B. A. Stanton.

9954. Stock, Mary J. (St. Louis U.) **Separation anxiety in college women.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3879.

9955. Vaught, Glen M. & Solomon, Warren. (State University Coll. New York, Oswego) **Field dependence and inner-other directedness.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 801-802.—Investigated the relationship of inner-other directedness and field dependency as perceptual cognitive style. 51 male and 49 female undergraduates were given Kassarian's Inner-Other-Directed (I-O) Scale following 8 trials with the Rod and Frame Test (RFT). No significant correlations were found. 2 separate factor analyses were performed on the scale matrices. Marked differences between the sexes were found. This finding suggests "that the factor structure of the scale items was different for males and females, in fact, 2 different sex-linked scales were obtained." It is concluded "that field dependence and inner-other directedness are not comparable personality dimensions."—S. Knapp.

9956. Yater, Allan C. (St. Louis U.) **Differentiation: A psychological construct.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3881.

correlates of dogmatism. *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 70-81.—Reports a study of the relationships between an abbreviated dogmatism scale, 2 dogmatism subscales, and perceptions of time. Using 436 Ss ages 17-22, it was found that, dogmatism relates to anxiety about time, a reduction in the present's and future's importance, and an emphasis on the past. While dogmatic Ss reveal tolerance of fantasy activity generally, high-dogmatic women reveal a special interest in regaining their personal pasts and foreknowing their futures, whereas high-dogmatic men fantasize the recovery and preknowledge of time before their birth and after their death. Discussion includes sex differences in the temporal correlates of dogmatism and speculations about the meaning of time generally in the clinical profiles of dogmatic persons. (35 ref.)—*Journal abstract*.

9958. Davidson, Park O. & Bobey, Marie J. (U. Calgary, Alberta, Canada) **Repressor-sensitizer differences on repeated exposures to pain.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 711-714.—Administered a Hardy-Wolf-Goodell heat test and a pressure algometer test of pain tolerance to 72 female nursing students divided into 2 groups on the basis of their Repression-Sensitization Scale scores. $\frac{1}{2}$ the Ss received the heat test 1st while $\frac{1}{2}$ received the pressure test 1st. 5 min. elapsed between the 2 trials. Analysis of data indicated that repressors had a higher tolerance for pain than sensitizers on the 1st trial. However, repressors showed a significant decrease in their tolerance scores from Trial 1 to 2, but not sensitizers. Results are opposite to those expected, indicating that personality factors may have a different effect on the way an individual copes with repeated exposures to psychological stresses and with repeated exposure to pain. (17 ref.)—*Journal abstract*.

9959. Dixon, Michael C. (U. Texas) **Opinion change in high, middle, and low self esteem subjects under two conditions of dissonance arousal.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1887.

9960. Houston, B. Kent. (U. Kansas) **Anxiety, defensiveness, and differential prediction of performance in stress and nonstress conditions.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 66-68.—Defensiveness may refer to verbal denial of anxiety or anxiety-reducing maneuvers. Whether a measure of defensiveness will improve prediction of behavior from an anxiety scale depends on which aspect of defensiveness the scale measures and the situation in which people are observed. Adjustment of MA Scale scores for Denial scale scores improved prediction of digits-backward performance in a nonstress condition, but decreased prediction of task performance in a stress condition, with 48 male undergraduates.—*Journal abstract*.

9961. Jacobs, Larry; Berscheid, Ellen, & Walster, Elaine. (Temple U.) **Self-esteem and attraction.** *Journal of Personality & Social Psychology*, 1971(Jan), Vol. 17(1), 84-91.—Presents contradictory research findings of learning theorists, clinicians, and dissonance theorists concerning the relationship of self-esteem to interpersonal attraction and receptivity to affection. An alternative explanation is proposed and tested, based on the assumption that low self-esteem individuals are unusually receptive to affection when they realize that it is being offered, but that it is most difficult for them to recognize affectionate overtures. A laboratory experi-

Behavior Correlates

9957. Cottle, Thomas J. (Massachusetts Inst. of Technology, Education Research Center) **Temporal**

ment with 151 male undergraduates provides support for this integration. (23 ref.)—*Journal abstract.*

9962. Johnson, Helen E. (North Texas State U.) **The relationship of the self-concepts of Negro and white college freshmen to the nature of their written work.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1623.

9963. Jones, Mary C. (U. California, Berkeley) **Personality antecedents and correlates of drinking patterns in women.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 61-69.—Classified members of a longitudinal study on the basis of their drinking behavior. Youthful and adult personality characteristics of the women were assessed by the California Q-Set and by behavior ratings. The core of traits which described the cohorts of each category of women drinkers were discernible to raters in the early adolescent period. Problem drinkers and abstainers (the extremes in the sample) have in common certain traits which suggest inadequate coping devices. Heavy drinkers have a history of social, manipulative competence; moderate drinkers have a history of likable, self-sufficient qualities. Light drinkers are more adaptive than abstainers and more socially skillful. Adult alcohol-related behavior is to some extent an expression of personality tendencies which are exhibited before drinking patterns have been established.—*Journal abstract.*

9964. Lester, David. (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Correlates of "animism" in adults.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 806.—Ss who responded animistically to a questionnaire inquiring whether different kinds of objects were living or nonliving were found to have a tendency to greater category width than Ss who did not respond animistically. Ss were 9 female and 20 male undergraduates.—*Author abstract.*

9965. Merrens, Matthew R. & Richards, William S. (Western Illinois U.) **Acceptance of generalized versus "bona fide" personality interpretation.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 691-694.—Explores student responses to generalized and "bona fide" personality interpretations in 2 experiments. The "fake" generalized interpretation was significantly preferred and more highly rated than interpretations based on 120 undergraduates' Personality Research Form scores. Explanations and consequences of these findings were discussed.—*Journal abstract.*

9966. Miller, John J. (West Virginia U.) **Internal-external locus of control, and sex differences in relation to susceptibility, situational anxiety, information seeking/confronting behavior, recall of items, and response to preference in high and low threat conditions.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2498.

9967. Phelan, Joseph G., Brooks, Richard, & Brashers, Gladys C. (California State Coll., Los Angeles) **Relationship of kinesthetic figural aftereffect to masculinity-femininity and expectation for internal versus external control of reinforcement.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 863-866.—Obtained kinesthetic figural aftereffect (KFAE) scores from 30 male and 30 female undergraduates in ascending and descending trials, using both dominant and nondominant hands. Scores from the Embedded Figures Test, Masculinity-Femininity scale of the Guilford-Zimmerman Temperament Survey, the Rotter Internal-External Control Scale, and the combined

self-actualization scale of Shostrom's Personal Orientation Inventory were correlated with the KFAE. Hand dominance but not sex affected KFAE. No stable relation appeared between the personality measures and spatial aftereffect from kinesthetic stimulation for men or women. A significant inverse correlation of Masculinity with the External Control Scale score tends to confirm the cognitive style hypothesis that Ss who think of themselves as masculine in identification tend to act as though the reinforcements in life are internal.—*Journal abstract.*

9968. Toman, Wlaler. (Brandeis U.) **Never mind your horoscope, birth order rules all.** *Psychology Today*, 1970(Dec), Vol. 4(7), 45-49, 68-69.—A typology based on sex and birth order was developed from the study of 16 adjusted and 16 divorced couples, 2000 German and Swiss families, and about 700 other individuals. It is concluded that sex and rank are crucial determinants of personality and that marriages are most successful when individuals duplicate their family positions by marrying a spouse of the appropriate rank. Some sources of added complexity are given and the personality types are described.—*E. J. Posavac.*

9969. Torreta, Delfina M. (Utah State U.) **Somesthetic perception of clothing fabrics in relation to body image and psychological security.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3731-3732.

9970. Weisberg, Paul. (U. Alabama) **Student acceptance of bogus personality interpretations differing in level of social desirability.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 743-746.—119 unsuspecting college students were given a personality drawing test and wk. later received 12 faked interpretive statements. The majority of the returned statements were written to imply social adjustment which, depending upon random assignment, was either favorable, unfavorable, or neutral. Ss in the favorable and neutral groups endorsed the credibility of the interpretations in general with greater intensity than those in the unfavorable group and were more convinced of the veracity of each individual statement, including 2 uncomplimentarily-worded statements which were contained in the profiles of all 3 groups.—*Journal abstract.*

INTELLIGENCE

9971. Burt, Cyril. (U. London, England) **Intelligence and heredity: Some common misconceptions.** *Irish Journal of Education*, 1969(Win), Vol. 3(2), 75-94.—The concept which has given rise to the so-called nature-nurture controversy was that of a genetic component entering into all intellectual activities, termed "intelligence." The widespread use of the term has resulted in a confusing variety of meanings. The factual evidence for a genetic component is summarized in some detail and the influence of environmental factors briefly discussed. Several important corollaries for practical education are drawn from the conclusions. (18 ref.)—*Journal abstract.*

9972. Meili, Richard. (U. Bern, Inst. of Psychology, Switzerland) **Faktorenstruktur und Intelligenzentwicklung.** [Factor structure and mental development.] *Schweizerische Zeitschrift für Psychologie und ihre Anwendungen*—Regarding the controversial evidence for H. E. Garrett's differentiation hypothesis a distinction is proposed between primary and secondary factors of intelligence. Secondary factors, since they depend upon specific experience, emerge, and are subject to change in

the course of mental development. However, preliminary data suggest the stability of the structure as well as of the relative strength within a given individual of the primary factors (complexity, plasticity, globalization, fluency). If this hypothesis proves to be correct, it follows that the increase in mental capacity is to be explained by additions to and structural changes in the mental organization. Intelligence factors, then, do not determine the intellectual level of an individual, but rather are the antecedents of his discrepant achievements in various types of problems, given his general achievement level. (French summary) (22 ref.)—*English summary*.

9973. Resnick, Robert J. & Entin, Alan D. (Medical Coll. of Virginia) **Is an abbreviated form of the WISC valid for Afro-American children?** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 97-99.—Rescored the protocols of 80 urban Afro-American children who had a complete WISC administered using the P. Satz and S. Mogel criteria for an abbreviated intelligence measure. Extremely high correlations among IQs were found which were consistent with other short-form research. However, when mean differences between the full administration and abbreviated form were examined, contradictory results were obtained. A considerable number of Ss showed upward changes in labeled intelligence level when the abbreviated form was used. Since these Ss were sampled from a population identified as having academic school problems, reliance on short forms for educational disposition seems to be of questionable validity.—*Journal abstract*.

9974. Rochester, D. E. & Bodwell, A. (Southern Illinois U.) **Beta-WAIS comparisons for illiterate and indigent male and female Negroes.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 164-168.—A representative sample of 50 male and 50 female adults from an evaluation and training center in a large metropolitan area was used to study the feasibility of using the Revised Beta Examination (Beta) to assess the intellectual functioning level of indigent Negro adults. Beta IQs were compared with scores on the WAIS Verbal and Performance and the Full Scale IQs. The WAIS-Beta comparisons revealed significant positive correlations ($p < .01$ for 5 of the r values); r 's ranged from .29 to .79. Findings suggest that the Beta holds promise for assessing intellectual functioning of illiterate and indigent Negroes.—S. M. Amatora.

CREATIVITY

9975. Antell, Maxine J. (New York U.) **The effect of priming and the subliminal presentation of sexual and aggressive stimuli on tests of creativity.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3859-3860.

9976. Hurley, John D. (Boston U., School of Education) **The relationship of dogmatism with two measures of originality.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2183.

9977. Price, Alan D. (Monmouth Coll.) **Effect of role-inducing instructions on performance on a new test of creative thinking.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 919-924.—Describes the Modified Bennett Test (MBT) and presents the results of a study in which it was used to test the effects of role-inducing instructions on creative thinking. 24 undergraduates were given an instructional set to assume the role of

either an unregulated or regulated character. Subsequent to the role-inducing instructions, Ss responded to $1/3$ of the items of the MBT. The role-inducing instructions and the items of the MBT were counterbalanced in a repeated measures design with each S serving as his own control. The hypothesis that the responses given in the unregulated condition would, in general, be more creative than those given in the regulated condition was confirmed.—*Journal abstract*.

9978. Roweton, William E. (U. Wisconsin) **Effects of verbal pretraining, idea checklists, and cognitive styles upon creativity.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1087.

9979. Schaefer, Charles E. (Fordham U., Creativity Center) **"Onomatopoeia and Images": Further evidence of validity.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 786.—Tested the validity of the Onomatopoeia and Images Test of originality in 25 male and female undergraduates. Results were correlated with the literary-art scoring key for the Biographical Inventory-Creative Adolescents which Ss also completed. The Spearman rank coefficient between the pairs of ranks was .64 ($p < .01$). It is concluded that the test may "be an effective addition to test batteries for predicting creative achievement of a literary-art nature."—S. Knapp.

9980. Schaefer, Charles E. & Bridges, Carolyn I. (Fordham U., Creativity Center) **Development of a Creativity Attitude Survey for children.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 861-862.—Presents a Creativity Attitude Survey which has been constructed for research use at the elementary school level. Normative data are available for over 20 samples of school children. Reliability and validity data collected to date indicate that the Creativity Attitude Survey is a promising instrument for further research. It appears to be a particularly effective measure of the immediate and long-term effects of creativity training programs.—*Journal abstract*.

9981. Stephenson, Robert W. & Stephenson, Matilde K. (American Inst. for Research, Washington, D.C.) **Un esquema de clasificación de las fuerzas que afectan el comportamiento original y creador.** [The classification scheme of forces which affect original behavior and creativity.] *Revista Interamericana de Psicología*, 1970(Jun), Vol. 4(2), 95-103.—Describes a possible reorganization of the research results on creative behavior. This conceptualization is based on the logical combinations that exist when the various forces that effect creative behavior and originality are analyzed in terms of (a) the model of access to the preconscious, (b) the model of numerical complexity, (c) the model of manipulation of the field, and (d) the model of cultural influence. (Portuguese summary) (24 ref.)—*English summary*.

PERSONALITY MEASUREMENT

9982. Abbott, Robert D. (California State Coll., Fullerton) **Stylistic response variance and trait inference from the Study of Values.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 911-914.—Administered the Allport-Vernon-Lindzey Study of Values and 4 scales accounting for possible trait confounding variance, Edwards' SD, Wiggins' SD, Marlowe-Crowne, Social Desirability scale, and Welsh's R, to 171 female and 116 male undergraduates. The resultant factor structure and coefficients of determination (all less than .07) between

the 2 sets of scales supported the discriminant validity of the Study of Values scales for the 4 stylistic sources measured and their continued use as trait indicants unconfounded by stylistic variance.—*Journal abstract.*

9983. Barna, James D. (St. Louis U.) **Development of a scale of causal constructs and its relationship to selected personality tests.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3861.

9984. Haley, G. A. (York U., Toronto, Ontario, Canada) **Item-analysis procedures for enhancing validity of existing personality scales.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 847-853.—Employed item-analysis procedures to reduce a 51-item hostility scale to a 20-item version with equivalent reliability and convergent validity, yet freer of desirability variance. Evidence presented in a multitrait-multimethod matrix (8 traits by self-ratings of trait adjectives and by item endorsements) indicate an enhancement of discriminant validity in the shorter form. The technique is presented as a means for improving the validity of scales developed by other earlier scale construction methods.—*Journal abstract.*

9985. Handal, Paul J. & Rychlak, Joseph F. (Georgetown U.) **Curvilinearity between dream content and death anxiety and the relationship of death anxiety to repression-sensitization.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 11-16.—Discusses the merits of a defense mechanism model in the research dealing with death anxiety. The prediction was made that both high and low scorers on the Death Anxiety Scale (DAS) would report more unpleasant and death dream themes than Ss who score in the middle ranges of DAS. The Repression-Sensitization (R-S) Scale was used as a companion predictive instrument to the DAS. Findings are reported for 43 and 36 undergraduates, with 1 yr. intervening between data collections. Curvilinearity between DAS and dream content was found in both Samples 1 and 2. The R-S scale failed to predict comparably to the DAS, and some possible reasons for this difference are discussed. (18 ref.)—*Journal abstract.*

9986. Hoffmann, Helmut. (Minnesota State Hosp., Willmar) **Note on the personality traits of student nurses.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 1004.—Administered the Personality Research Form to 80 freshman student nurses. Compared with the normative group from the test manual, the student nurses scored higher in harm avoidance, nurturance, order, and desirability, but lower in affiliation, aggression, autonomy, change, defence, dominance, impulsivity, and understanding.—*Author abstract.*

9987. Mirels, Herbert L. & Garrett, James B. (Ohio State U.) **The Protestant Ethic as a personality variable.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 40-44.—Administered a scale comprised of items selected on the basis of a series of factor analyses and a battery of personality measures to 117 undergraduates in an effort to explore the psychological meaning of the protestant ethic. Scores on the Protestant Ethic Scale were positively related to the Mosher scales for Sex Guilt and Morality Conscience Guilt but were unrelated to the Hostile Guilt Scale. Scores were also positively associated with authoritarianism and with expectancy for internal control. In a 2nd study with 54 male and 55 female undergraduates, Protestant Ethic Scale scores were positively correlated with SUIB scales for occupations demanding a concrete,

pragmatic approach to work, and negatively correlated with scales for occupations which typically require emotional sensitivity, theoretical interests, and humanistic values.—*Journal abstract.*

9988. Schill, Thomas & Schneider, Larry. (Southern Illinois U.) **Guilt and self-report of hostility.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 713-714.—Obtained correlations between Mosher's forced-choice measure of hostility guilt and the subscales of the Buss-Durkee Hostility Inventory. For 58 men, Mosher guilt was related to the assault (-.27) and verbal (-.35) subscales and with assault (-.44), negativism (-.43), and verbal (-.40) subscales for 72 women. As anticipated, no significant relationship was found between the Buss-Durkee Guilt scale (a measure of guilt as a feeling or state) and Mosher guilt (a disposition to inhibit aggression).—*Journal abstract.*

9989. Schill, Thomas & Schneider, Larry. (Southern Illinois U.) **Relationships between hostility guilt and several measures of hostility.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 967-970.—Related scores on Mosher's forced-choice Hostility Guilt Scale for females to a projective and an objective measure of hostility. The projective measure was the extent to which 70 female undergraduates used the hostile alternative in making up sentences to a list of homonyms with hostile and neutral meanings. The objective measure was the Buss-Durkee Hostility Inventory. Hostility guilt correlated negatively and significantly with the projective measure and with the following Buss-Durkee scales: Assault, Negativism, Resentment, Suspicion, Verbal, and Total Hostility, summing over all subscales except Guilt. The projective measure correlated positively and significantly with the Assault and Suspicion scales, as well as the Total Hostility score.—*Journal abstract.*

9990. Sciortino, Rio. (Stevens Inst. of Technology) **Allport-Vernon-Lindzey Study of Values: I. Factor structure for a combined sample of male and female college students.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 955-958.—Presents a principal components analysis on the self-ratings (for a combined sample) obtained from the Allport-Vernon-Lindzey Study of Values (N = 150 combined sample of 102 male and 48 female college students). The obtained principal components were then rotated according to the varimax procedure. The varimax factors obtained were esthetic, social, and religious.—*Journal abstract.*

9991. Sciortino, Rio. (Stevens Inst. of Technology) **Personality adjective list: I. Factor structure for a combined sample of male and female college students.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 815-817.—Performed a principal components analysis on the self-ratings obtained from the Personality Adjective List (PAL-I) for a sample of 202 male and female undergraduates. The components were then rotated according to the varimax procedure. The varimax factors obtained were congeniality, ingenuity, striving, vivacity, articulateness, curiosity, meditateness, individuality, and open-mindedness.—*Journal abstract.*

9992. Skolnick, Paul & Shaw, Jerry I. (San Fernando Valley State Coll.) **Brief note on the reliability of the Janis and Field "Feelings of Inadequacy" Scale.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 732-734.—Obtained an interitem correlation matrix and correlation of each item with the total test score on Janis and Field's "Feelings of Inadequacy" Scale. 2 items correlated poorly with other items and with the total test

score. It is suggested that these items might be eliminated.—*Journal abstract.*

9993. Wainwright, Bruce B. (U. California, Los Angeles) **Quantitative scales for scoring human figure drawings.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1637.

9994. Zapan, G. (U. Bucharest, Romania) **The method of the objective appreciation of personality.** *Revue Roumaine des Sciences Sociales-Série de Psychologie*, 1970, Vol. 14(1), 31-44.—Stresses the importance of keeping pupil's characterization records for school and life, and summarizes problems which should be translated into life through the method of objective personality appreciation. 10 such problems are enumerated. It is suggested that education systems introduce cybernetic analysis which would facilitate the appreciation of one's personality. The importance of knowledge of human beings at 1st impression is emphasized. And the content of characterization records and school and vocational orientation are discussed.—*I. Sirotin.*

9995. Zuckerman, Marvin. (U. Delaware) **Dimensions of sensation seeking.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 45-52.—Tested 63 new items for the Sensation Seeking Scale (SSS) in an attempt to develop new scales representative of hypothesized dimensions of sensation seeking. An experimental form was given to 332 and 92 undergraduates at 2 universities. Data from the 1st university was factor analyzed separately for males and females. Besides the general factor running through diverse items, 4 factors were extracted from the rotated factor loadings: thrill and adventure seeking, experience seeking, disinhibition, and boredom susceptibility. The 1st 3 factors showed good factor and internal scale reliability in both sexes and samples. Since boredom susceptibility was not well defined in females and was of minimal reliability, it was retained as a subscale for males only. (24 ref.)—*Journal abstract.*

Inventories

9996. Hedenberg, John W. (U. California, Los Angeles) **Personality types via an objective multi-variate search technique.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3868.

Projective Techniques

9997. Busey, Joseph S. (U. North Carolina, Chapel Hill) **The effects of variation in TAT-like stimuli and in instructions upon hostile-aggression measures of behaviorally rated groups.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3862.

9998. Gori, R. C. & Beauvois, J. L. **Notes sur les techniques projectives et la bipolarité du discours.** [Notes on projective techniques and the bipolarity of language.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17-19), 1066-1068.—Presents psycholinguistic differences between data obtained from the Rorschach and the TAT.—*R. E. Smith.*

9999. Haward, L. R. (Aeromedical International, Chichester, England) **The use of specially devised thematic apperception cards in aviation psychology.** *Flight Safety*, 1969(Sep), Vol. 3(2), 12-14.—Found that real-life TAT stimulus cards which have manifest relevance to the immediate personal problems of the S, are more acceptable to him and produce greater facility

in verbal expression than the standard cards, and so increase the raw data for analysis. Attempts to cover up are invariably revealed by concomitant GSR monitoring, and specificity of the stimulus enables the precise problem area of the S to be pinpointed and evaluated. Furthermore, because the stimulus cards depict real situations in which the S is actively involved, changes in response to these cards reflect real changes in attitude or reaction of the S to these real-life situations. The modified cards therefore offer a direct and incisive psychometric tool for both diagnosis and therapy.—*Journal summary.*

10000. Hersen, Michel. (Veterans Administration Center, Jackson, Miss.) **Sexual aspects of TAT administration: A failure at replication with an inpatient population.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 20-22.—Replicated the study of J. Masling and S. Harris (see PA, Vol. 43:9855) which found that male graduate Es tended to administer more sexual-romantic TAT cards to female clients than male clients, while female graduate Es did not make this differentiation. Records of the administration of the TAT from January 1956 to December 1968 at a state hospital by 15 male Es (mean age = 30) and 5 female Es (mean age = 27.2) were analyzed. The previous findings were not supported in that there was no evidence that male Es administered significantly more TAT cards or a higher proportion of sexual-romantic cards to females than males. Reasons for the difference in findings are suggested.—*S. Knapp.*

10001. Kelly, William L. (Georgetown U.) **The Group Kahn Test of Symbolic Arrangement.** *International Journal of Symbolology*, 1969(Dec), Vol. 1(2), 15-29.—The Group Kahn Test of Symbolic Arrangement (G-KTSA) has been constructed to extend the potential of the KTSA usually administered as a test for individuals. Test components, test administration procedures, and scoring categories are all described in standardized form. Levels and patterns of symbolization, symbols sorting, symbol affect, and background color preference are variables which may now be accurately measured on large populations in many areas of personality and cultural dynamics. Normative data has been collected on over 800 Ss and will be reported in a forthcoming article.—*Journal abstract.*

Rorschach Test

10002. Pethő, Bertalan. (Medical U., Psychiatric Clinic, Budapest, Hungary) **Zur wissenschaftlichen Grundlegung des Rorschach-Tests: II. Mitteilung: Projektion, Gestaltung, Diskursivität.** [On the Scientific foundation of the Rorschach-Test: II. Note: Projection, structuring, discursiveness.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(3), 423-453.—A hierarchy of performance levels can be distinguished: elementary performance characterized by a structure corresponding to a reflex arc, the level of independent preforms characterized by projections, and the level of discursive conceptual functioning, the highest level in a biological-conceptual continuity. A scientific approach to the Rorschach technique must pay particular attention to this level. (English & French summaries) (114 ref.)—*W. J. Koppitz.*

CLINICAL PSYCHOLOGY

10003. Abraham, Giorgio. III Convegno sul tema: "L'impotenza sessuale": Su qualche aspetto teorico e pratico dell'impotenza sessuale. [3rd annual convention on the subject: "Sexual impotence": On some theoretic and practical aspects of sexual impotence.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 297-300.—Sexual impotence, whether it be male or female, remains a pathogenic problem which in part is not resolved. If the psychoaffective origin of such a disturbance is proven, the mechanisms which cause the effective symptomatology are unclear. Psychoanalysis has contributed to the understanding of sexual disturbances. There is a tendency among psychoanalysts to review certain concepts previously thought of as indisputable, e.g., frigidity was always associated with neurosis, but many neurotic and even psychotic women are not frigid and vice versa. There is increased interest in impotency in men with depressive disorders. Disturbances of sexual potency lie between 2 extremes: (a) impotence within the limits of the norm (a time of intense emotional concern or lack of stimulus), and (b) impotence which comes with an alteration of the personality. Today it is realized that a normal partner can be a real accomplice in impotency. It is frequently necessary to cure the couple together, because impotence for many is misfortune, but for others it is an accepted part of life.—A. M. Farfaglia.

10004. Ballinger, Brian R. (Royal Dundee Liff Hosp., Scotland) **The prevalence of nail-biting in normal and abnormal populations.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 445-446.—Members of the normal population and patients in a mental deficiency hospital and a psychiatric hospital were examined for evidence of nail-biting. A high prevalence was found in all populations, particularly under the age of 40. It is suggested that nail-biting is not an important psychiatric symptom.—*Journal summary.*

10005. Cazzullo, C. L., Goldwurm, G. F., & Petrella, F. (U. Milan, Medical School, Italy) **Correlation between psychopathological data and higher nervous activity evaluated by four classical reflexological methods in neuropsychiatric patients.** *Conditional Reflex*, 1970(Oct), Vol. 5(4), 207-232.—Tested 21 normals, 51 neurotics, 23 schizophrenics, and 17 patients with Parkinson's disease for the level of unconditional reactions in 1st signaling and 2nd signaling systems. Somatic motor, vascular, and verbal reaction techniques were used. Results indicate that (a) neurotics did not differ greatly from normals; and (b) schizophrenics showed learning difficulties in somatic motor reactions and signs of dissociation and regression in 1st and 2nd signaling systems. Higher nervous activity of parkinsonian Ss showed characteristic inertia; learning showed little deficiency in verbomotor reactions and greater deficiency in defense motor reactions. Results do not support differentiation of the nosographic groups by means of these techniques. (40 ref.)—*Journal summary.*

10006. Coleman, Jules V. (Yale U.) **Adaptive integration of psychiatric symptoms in ego regulation.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 17-21.—Considers the problem of ego integration and regulation of symptoms in adaptive function. The extraordinary persistence of psychiatric symptoms is an intrinsic aspect of the individual's psychic functioning. Symptoms are subjected to the adaptive mechanisms by

which the ego maintains the integrative balance of the personality system. In themselves, symptoms are neither normal nor abnormal; they are significant only in relation to the individual's social-ecological system. Influences exerted by social institutions and groups are inherently supportive and tend to stabilize human behavior. A basic principle of ego functioning is that equilibrium must be restored at whatever level is feasible. Distress occurs when the person's inherent attitude of unquestioned confidence in social belonging and in the virtue and protectiveness of the group is undermined.—*Journal abstract.*

10007. Ellard, J. (3 Harrison St., Crenmore, New South Wales, Australia) **Psychological reactions to compensable injury.** *Medical Journal of Australia*, 1970(Aug), Vol. 2(8), 349-355.—Offers a "classification of the syndromes seen in psychological reactions to compensable injuries, and...[raises] a fundamental question which seems to arise from some of the syndromes to be discussed." It is suggested that most of the time the behavior of patients will conform to 1 of the following: attitudinal pathosis, schizophrenia, bizarre hypochondriasis, traumatic neurosis, depression, and compensation neurosis.—P. McMillan.

10008. Evans, J. W., Lovel, T. W., & Eaton, K. K. **Social workers and general practice.** *British Medical Journal*, 1969(Jan), Vol. 1(5635), 44-46.—Describes weekly case conferences under the leadership of the family doctor, designed to provide help in the management of problem families in a new town. These conferences proved to be the easiest and quickest means of exchanging important and often confidential information, and were also attended by health visitors, mental welfare and child care officers, and psychiatric social workers. The Seebohm Committee has recommended that a unified department of social service be created. The family doctor will be able to utilize his personal knowledge and experience in handling social misfits and delinquents, and individual team members will not only present their own problems but can also help "to operate a joint machinery for recovery."—J. Halev.

10009. Forssman, Hans. (U. Göteborg, Psychiatric Research Centre, Hisings Backa, Sweden) **The mental implications of sex chromosome aberrations.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 353-363.—The Blake Marsh Lecture for 1970, delivered before the Royal Medico-Psychological Association, summarizes the evidence that abnormal sex chromosome complement contributes to mental retardation, psychosis, epilepsy, and personality deviations, including antisocial conduct. A reasonable hypothesis is that the behavior problems stem from minimum brain damage, EEG and epilepsy data supporting that idea. The recent and distinct evidence suggests that countless other forms of minimum brain dysfunction exist, which indicates that reasons other than environment should be considered in determining causes of criminal conduct. (63 ref.)—R. L. Sulzer.

10010. Frighi, Luigi & Ligi, Antonio. III Convegno sul tema: "L'impotenza sessuale": Rilevi statistici sull'impotenza sessuale tratti dall'esame psichiatrico di una popolazione studentesca. [3rd annual convention on the subject: "Sexual impotence": Statistical observations on sexual impotence taken from a psychiatric exam among students.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 312-319.—Conducted a 1-yr statistical study on cases of impotence and frigidity

among 18-25 yr. old university students. Of 1490 Ss, 101 (6.7%) suffered from impotence and frigidity. Clinical records and interviews were used. Compared to a former study, sexual problems are discussed more openly at present. Results (a) show that 73.2% suffered from impotence, and 26.7% from frigidity; (b) divide Ss into 3 groups according to age; (c) show that there is a greater percentile in diagnostic categories of hyperemotive personalities and anxious-phobic neurosis; and (d) show a further breakdown in psychic disturbances according to their gradient severity as well as frigidity manifesting itself most often in hysterical forms. A classification is presented of impotence with total impotence encompassing 39% and precocious ejaculation, 20%. This study is regarded important because it is conducted among individuals at a time in their lives when they are searching for their psychosexual identities. (21 ref.)—A. M. Farfaglia.

10011. Gillibert, Jean. *Réflexions sur l'hallucination*. [Thoughts on hallucination.] *Interprétation*, 1968(Jan), Vol. 2(1), 65-79.—Explores in terms more metaphysical than psychoanalytic Freud's interpretation of hallucination, adding to rather than refuting Ey's interpretation which is also discussed. Also an attempt is made to clarify the question of knowing whether madness (the primary hallucinatory or delusional experience) has to do more with truth and the world, or rather with man and truth as he is capable of perceiving it.—T. N. Webster.

10012. Gladkova, T. D. *Ukloneniya v dermatoglyfike pri nekotorykh zabolevaniyakh*. [Dermatoglyphic deviations in some diseases.] *Voprosy Antropologii*, 1968, No. 29, 148-153.—Presents a survey primarily of the non-Soviet literature on dermatoglyphic deviations arising in certain diseases associated with sex-chromosomal aberrations and autosomic trisomia—conditions which have an adverse effect on mental development.—I. D. London.

10013. Haider, I., Matthew, H., & Oswald, I. (Royal Infirmary, Regional Poisoning Treatment Centre, Edinburgh, Scotland) *Electroencephalographic changes in acute drug poisoning*. *Electroencephalography & Clinical Neurophysiology*, 1971(Jan), Vol. 30(1), 23-31.—Employed continuous EEG monitoring in a study of 127 cases of acute drug poisoning. Barbiturates, mandrax (methaqualone 250 mg. with diphenhydramine 25 mg.), nitrazepam, tricyclic antidepressants, and miscellaneous drugs were involved. EEGs were classified into grades: Grade I, predominate alpha rhythm; Grade II, predominate theta rhythm; Grade III, predominate low/high voltage delta rhythm; Grade IV, delta waves with or without brief isoelectric intervals; Grade V, suppression burst activity alternating with electrical silence; Grade VI, near silence; and Grade VII, isoelectric, totally unresponsive to all stimuli. Grades I and II were associated with conscious or drowsy Ss, Grades III and IV with Ss who were unconscious but responded to painful stimuli, and Grades V-VII with Ss in a deep coma. Grades V-VII could not be distinguished clinically. A significant correlation was found between EEG grade of coma and the clinical assessment of depth of coma, body temperature, and serum levels of long acting barbiturates and mandrax. Routine clinical use of the EEG and other devices for continuous cerebral monitoring is discussed. (French summary) (19 ref.)—*Journal summary*.

10014. Hetherington, Ralph. *Twenty years of psy-*

chology at the Crichton Royal, Dumfries: A personal account. *Bulletin of the British Psychological Society*, 1969(Oct), Vol. 22(77), 303-306.—The Department of Psychological Research at the Crichton Royal, Dumfries, Scotland, was 1 of the important nurseries of clinical psychology. The history of this department over the period 1943-1964, herein recounted, is essentially the history of clinical psychology. The contributions of the various members of the department during the 20-yr period are summarized.—V. S. Sexton.

10015. Kleinsasser, Dennis & Morton, W. Duke. (Ft. Logan Mental Health Center, Denver, Colo.) *Treatment ethics: A fine and sometimes elusive line*. *Journal of the Fort Logan Mental Health Center*, 1968(Spring), Vol. 5(1), 1-20.—Examined the relationship between ethics and the treatment of the mentally disturbed after an incident in an adult psychiatric treatment unit at a state mental health center resulted in several clinical staff members being dismissed for mistreating a patient. 66 Ss from various levels of the staff rated the ethical acceptability of the incident and 3 videotaped portrayals of hypothetical Patient x Staff interactions. Each of the videotaped interactions was also rated following the introduction of 3 qualifying statements. Estimates of certainty were obtained following each rating. Results show that there is some variability in judging acceptability of Staff x Patient interactions, which increases with the addition of qualifications. There were no reliable differences between various administrative levels. Qualifying statements appear to be important components of the judgment process, but also are potential sources of conflict among the staff. Questions raised by the study about the level of variability in ethical standards which can be tolerated and proper reaction to a violation of an ethical standard are noted and discussed.—*Journal summary*.

10016. Lindenauer, Geoffrey G. (Inst. for Emotional Education, New York, N.Y.) *Setting and structure: The IFEE therapeutic community*. *Journal of Emotional Education*, 1969(Sum), Vol. 9(3), 88-95.—Describes the setting and structure of the Institute for Emotional Education Therapeutic Community, and relates the nature of the facilities and the integral part they play in the total program of emotional education.

10017. Lowe, C. Marshall. (U. California, Berkeley) *Value orientations in counseling and psychotherapy: The meanings of mental health*. San Francisco, Calif.: Chandler, 1969. xii, 306 p. \$6.95.

10018. Michaux, Léon. (14 Emile-Augier Blvd., Paris, France) *L'enfant et la mort*. [Child and death.] *Acta Paedopsychiatrica*, 1970(Apr), Vol. 37(4-5), 137-147.—5 aspects of children's deaths are considered: (a) the notion of death in children suffering from psychiatric disorders (melancholy, obsessions, epilepsy, schizophrenia), (b) the child without mental anomalies faced with real or fictitious danger to life, (c) the concept of death in psychically healthy children, (d) children's and adolescents' suicides, and (e) children and adolescents as murderers. Their relative and providential rareness is reassuring and surprising, the more so considering the multiplicity of factors leading the young to homicide.—G. Rubin-Rabson.

10019. Moreno, Mario. III *Convegno sul tema: L'impotenza sessuale femminile: La frigidity*. [3rd annual convention on the subject: "Sexual impotence": Sexual impotence in the female: Frigidity.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 289-297.—Studied fri-

gidity by considering the various states of female existence. Frigidity is a failure in a relationship between a man and a woman. It is a symptom of the pathology of the couple and not simply a female neurosis. The experience of pleasure in the woman is connected to the personal relationship, even if this relationship may appear superficial, occasional, and insignificant. The role of the male partner is fundamental, and one can even speak of "normal" frigidity when the male is immature. The differences between clitoric orgasm and vaginal orgasm were studied as well as the difference between sexual satisfaction and the paroxysm of orgasm. In absolute frigidity both initial delight and orgasm are absent; in relative frigidity orgasm is rare and not very intense; and passionate frigidity describes women who have initial delight but cannot reach an orgasm. Various cultural models of the female were listed in relation to frigidity: (a) the woman as a mother; (b) the woman as her mother's daughter; (c) the woman as her father's daughter; and (d) the man's woman, who disassociates herself from the other roles. (24 ref.)—A. M. Farfaglia.

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10033. Arnhoff, Franklyn. (National Inst. of Mental Health, Div. of Manpower & Training Programs, Bethesda, Md.) *The purpose of mental health services: Manpower and training for what?* *California Mental Health Research Digest*, 1969, Vol. 7(1), 3-17.—Discusses the current interest in new types of mental health workers. Although the manpower for professional and nonprofessional occupations is increasing, there is a concomitant increased need for mental health services. Training of mental health personnel—once limited to graduate degree candidates and professional persons—is now being offered to persons

with substantially less educational background, including housewives, high school graduates, and persons with only a bachelor's degree. It is concluded that the public must be protected from false promises of great increases in service, "when in reality they may be 'served' by someone with little knowledge or skill whose job was created primarily as a means of relieving unemployment." (29 ref.)—A. M. Berg.

10034. Evans, Anne S. & Goldberg, Margaret F. (Boston State Hosp., Mass.) **Catholic seminarians in a secular institution.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 559-564.—13 Maryknoll seminarians joined the Case Aide Program at Boston State Hospital. They worked with 4 women and 9 men, typical of patients found in the back wards of state hospitals. As a result of the seminarians' intervention, most of the Ss developed a warm, trusting relationship, and took on greater responsibilities both in and out of the hospital. It is concluded that the seminarians' preoccupation with self-knowledge was considerably greater than that of Harvard student groups previously tested, and was in keeping with the purpose of the novice year: to decide upon the priesthood as a career. The overall assessment score of the effectiveness of the volunteer as a therapeutic trainee was considerably higher for the seminarian group than for the Harvard student group.—*Journal abstract*.

10035. Glasscote, Raymond M. & Gudeman, Jon E. (American Psychiatric Assn., Joint Information Service, Washington, D.C.) **The staff of the mental health center: A field study.** Washington, D.C.: American Psychiatric Assn., 1969. xv, 207 p. \$6.

10036. Goldberg, Richard T. & Stein, Jane. (Massachusetts Rehabilitation Commission, Boston) **The role of the psychiatric consultant in the state rehabilitation agency.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 553-558.—A study of the use of psychiatric consultants shows that counselors in a state rehabilitation agency used consultants to evaluate clients' eligibility for services. Once the case was accepted, however, the counselor rarely turned to the consultant for services. It is suggested that this infrequent use may be a result of role conflicts and that roles should be redefined to make the consultant more of a tutor than arbiter of case determination.—*Journal abstract*.

10037. Goode, Dulcie G., Taylor, K. F., & Austin, J. K. **Predicting the performance of occupational therapy students.** *Australian Occupational Therapy Journal*, 1968(Oct), Vol. 15(4), 31-35.—Studied 89 students who had graduated from an occupational therapy school in Australia to identify those aspects which were available at the time of their admission to the school which were associated with later success. Analysis of data indicate that the best predictors of academic performance are the S's total marks in her best 3 subjects in the final matriculation examination and the director's evaluation of her school performance.—S. Knapp.

10038. Guerrin, Robert F. (New York U.) **Attitudinal components of selected occupational groups in tuberculosis hospitals.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1888.

10039. Halleck, Seymour L. (U. Wisconsin, Medical School) **The changing nature of student psychiatry in an era of political awareness.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 566-578.—The traditional role of campus psychiatrist is seen as increasingly political. The psychiatrist, being an insti-

tutional arm, is used to negate student militancy and shape conformity. Stresses that the psychiatrist should not become the advocate of specific causes, and should increase involvement in intergroup communication.—W. Vernon.

10040. Kim, Lester E. (Palos Verdes Peninsula Council of Churches, Calif.) **The clergyman's use of mental health resources.** *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 53-56.—Reports on an inservice training program for over 100 community clergy in cooperation with a regional community mental health center. Suggestions for the development of future programs are listed.—O. Strunk.

10041. Light, Donald W. (Brandeis U.) **The socialization and training of psychiatrists.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1906.

10042. Marler, Don C. & Bowen, William T. (Bayshore Mental Health & Mental Retardation Center, Baytown, Tex.) **Psychiatric teams: A self-evaluation.** *Journal of the Fort Logan Mental Health Center*, 1968(Fal), Vol. 5(2), 69-76.—Hypothesized that (a) "claimed membership in a psychiatric team is related to education, authority, or work assignment"; (b) team members are unaware of the structure of their teams; (c) leadership is determined by professional affiliation; (d) "there is uncertainty among team members as to whether they are supervised by their profession or by the team"; and (e) "the individual's freedom to participate in team functions is unrelated to his education, authority, and work assignment." Questionnaires completed by 148 staff members and trainees at a Veterans Administration Hospital, who considered themselves members of psychiatric teams, confirmed hypotheses c and e. Hypothesis a was partially confirmed except for the finding that nursing aides ranked near the bottom on education and near the top on profession of team membership. The importance of the exchange of information to all members is noted.—S. Knapp.

10043. Middleton, Agnes B. & Pothier, Patricia C. (City Hosp., School of Nursing, St. Louis, Mo.) **The nurse in child psychiatry: An overview.** *Nursing Outlook*, 1970(May), Vol. 18(5), 52-56.—Reviews the progress made in establishing the nurse's role in child psychiatric nursing from 1900 until the present. The present status of the psychiatric nurse is examined and suggested roles for the child psychiatric nurse specialist are listed. According to an American Nurses' Association statistical summary, nurses appear to be significantly less involved in outpatient services than other mental health professionals. In hospitals for the mentally ill, the ratio is reversed. Images of the child psychiatric nurse are reviewed. Suggested tools for creating future roles in child psychiatric nursing are research, and the assumption of an aggressive attitude regarding the issues involved. (24 ref.)—B. A. Burkard.

10044. Murphy, Frances. **The occupational therapist in community mental health programmes: An evaluation after six months of community consultation duties.** *Australian Occupational Therapy Journal*, 1969(Apr), Vol. 16(2), 12-15.—Describes the community activities of an occupational therapist in a regional mental health center. Consultative services, teaching roles, and direct services to a nursing home, senior citizens' clubs, general practitioners, and youth programs are briefly described.

10045. Preitz, Clarence H. (Wayne State U.) **Goals and basic units of instruction for treatment media**

courses for the preparation of occupational therapists. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1597.

10046. Rodríguez Reyes, J., Martínez-Sierra, G. Rodríguez, & Martínez, Eusebio. (Psychiatric Hosp., Oviedo, Spain) **El equipo psiquiátrico**. [The psychiatric team.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Oct), Vol. 28(4), 331-334.—Proposes that a psychiatric team should be organized on a multidimensional basis, regarding the predominant necessities of psychiatric assistance in a particular area as well as to the customs and traditions of the region. It is advised that the team should operate with practical aims instead of theoretical conceptions. Various team members and their roles are defined: psychiatrist, psychologist, social assistant, psychiatric nurse, social therapist, occupational therapist, and work therapist.—P. Hertzberg.

10047. Tenebaum, Samuel. (Long Island U., Brooklyn) **A discussion of the therapy that resides in a group**. *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 253-255.—Attempts to describe the therapeutic elements observed in the author's group dynamics courses over a number of years. The unique type of talk that develops in a successful group is considered to be the crucial therapeutic agent. Ordinary conversation is depicted as strongly tinged with rivalry and competitiveness, where one's victory means another's defeat, where there is a daily battle to maintain self-esteem, and all men are isolated behind their facades of strength. In the group situation each member strives to become more sensitively aware of his own feelings, to articulate them, and to have the courage to share them. As a corollary to developing these aspects of himself, each member learns how to listen deeply and without evaluation and judgment to others. "In good groups, communication centers around grief, hurt, guilt, and despair." Through sharing these emotions, the individuals gain strength and courage and learn how to develop deeper relationships.—S. Knapp.

10048. Whitlock, Glenn E. (Johnston Coll., U. Redlands) **Pastoral psychology and preventive psychiatry**. *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 9-13.—Pastors trained in the understanding of the psychodynamics of human behavior will be sensitive to the danger signals and the psychological "tilts" which may be observed in individuals and families in varying degrees of emotional stress. The pastor often has the first opportunity to work with persons in crisis and is therefore in an ideal position to practice preventive psychiatry and pastoral care.—O. Strunk.

10049. Whittaker, James K. (U. Washington) **Training child care staff: Pitfalls and promises**. *Mental Hygiene*, 1970(Oct), Vol. 54(4), 516-519.—Outlines procedures for the training of child care workers, including life space supervision in which the supervisor demonstrates techniques, 1-to-1 supervision in an office setting, and group supervision. Senior child care workers should serve as supervisors for the staff, and training should be given to all staff members, whether or not they have official contacts with the children, if the institutional milieu is to be thoroughly therapeutic.—A. M. Cawley.

PSYCHOTHERAPY & ANALYSIS

10050. Appelbaum, Stephen A., Coyne, Lolafaye, & Siegal, Richard S. (Menninger Memorial Hosp., Topeka, Kan.) **Routes to change in IQ during and after long**

term psychotherapy. *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 310-315.—Having previously demonstrated that IQs tend to go upward during and after long-term psychotherapy, personality changes which accompanied these are reported. Of 24 variables examined, 10 were highly correlated with change in IQ. Of 26 patients given a battery of tests before and after psychotherapy and 2 yr. after termination. These variables included a mixture of structural and motivational characteristics consistent with generally supportive-strengthening treatments. Alongside the group trends, individual categories of change accompanying raising and lowering of IQ are specified. These suggest that a wide variety of individual and idiosyncratic patterns may influence change in IQ.—*Journal abstract*.

10051. Bannister, D. (Bexley Hosp., Danford Heath, England) **Clinical psychology and psychotherapy**. *Bulletin of the British Psychological Society*, 1969(Oct), Vol. 22(77), 299-301.—In Britain, clinical psychologists have remained aloof from psychotherapy and have been reluctant to discuss the question. 2 issues are seen as having inhibited clinical psychologists in approaching the question of undertaking psychological treatment—"science" and "medical." The various aspects of these issues are discussed.—V. S. Sexton.

10052. Bonstedt, Theodor. (Rollman Psychiatric Inst., Cincinnati, O.) **Crisis intervention or early access brief therapy?** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 783-787.—Compares crisis intervention and early access brief therapy approaches, as they are conceptualized at present. While they have an area of overlap in terms of rapid application, focus on environment and current events, and needed sensitivity of the clinician, they also show important differences in terms of the underlying frameworks of reference. Crisis intervention is built upon crisis theory, emphasizing the environment, with its more optimistic view of the role of crises in individual lives, and opportunity to utilize these insights in anticipatory guidance through other professionals. Early access brief therapies are built upon the modifications of ego psychology, with some attention toward various aspects of social psychiatry.—*Journal summary*.

10053. Burgess, Ann & Lazare, Aaron. **Dual therapy by nurse and psychiatrist**. *American Journal of Nursing*, 1970(Jun), Vol. 70(6), 1292-1298.—Describes "the roles of a nurse therapist and psychiatrist-administrator in the treatment of a severely depressed 18-yr-old boy." The patient's behavior seemed aimed at disrupting the relationship between the nurse who was his therapist and the psychiatrist. In time, he showed signs of identifying with male authority. Minor crises which the patient created and testing continued until the administrator erred in his handling of the patient. The crises ceased. Only with a "father" who was approachable could he identify with and resolve his problem. "The combinations of male and female therapists served to defend against both homosexual and heterosexual panic, permitted recreation of family themes, and allowed for diffusion of overwhelming hostility."—B. A. Burkard.

10054. Dodd, Jack. (U.S. Naval Hosp., Great Lakes, Ill.) **A retrospective analysis of variables related to duration of treatment in a university psychiatric clinic**. *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 75-84.—Performed a statistical analysis to ascertain variables that would differentiate patients who

terminated before and after a median of 4 interviews. 169 consecutive new outpatients accepted for treatment during the 1st 3 mo. of 1967 at a university psychiatric clinic served as Ss. The variables which could be cross-validated in a sample consisting of 57 patients taken from the succeeding month were: (a) Negro patients, (b) patients seen by medical students, and (c) patients receiving no drug prescriptions who tended to terminate early without their therapist's consent. By using the treatment variables b and c, 81% of the cross-validation group was correctly classified. The literature concerning studies of the length of outpatient psychiatric treatment is reviewed and discussed in reference to the findings. (38 ref.)—*Journal abstract.*

10055. **Donofrio, Anthony F.** (Catholic Charities Mental Health Center, Bay Shore, N.Y.) **Child psychotherapy: Help or hindrance?** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 510-515.—Discusses the diagnostic pitfalls psychologists encounter in dealing with children. 3 categories of problems are suggested, arising from (a) deprivation of basic psychological need, (b) constitutional and developmental factors, and (c) minimal neurological damage or dysfunction. Alternatives to child psychotherapy which include working with parents and other significant adults in the child's life are proposed.—*Journal abstract.*

10056. **Erickson, Gerald D. & Gustafson, Gary J.** (Marshfield Clinic, Wis.) **Controlling auditory hallucinations.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 327-329.—Discusses the "pathological communication and breach of interpersonal relationships" that result from a patient's perception of voices. "The patient projects an inner experience to the external world, and then experiences it as if it were coming from without," thereby interacting with himself and reducing his contacts with others. 2 ways of bringing auditory hallucinations under control are given: (a) working with the healthy parts of the patient's personality, and leaving him in control, and (b) working with the hallucinations and persuading the patient to control them. 2 cases illustrating the use of the latter technique are described including that of a 43-yr-old woman who controlled her auditory hallucinations in 2 days after a simple demonstration of techniques.—*B. A. Burkard.*

10057. **Faragalla, F. F. & Flach, F. F.** (New York Hosp., Cornell Medical Center, N.Y.) **Studies of mineral metabolism in mental depression: I. The effects of imipramine and electric convulsive therapy on calcium balance and kinetics.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 120-129.—Studied calcium metabolism in 9 severely depressed patients before and after ECT or administration of a course of imipramine. Treatment with ECT in all Ss and with imipramine in most was associated with improved calcium retention manifested by a shift toward a positive balance. In most Ss this resulted from increase in net absorption from the gut and decreased urinary calcium excretion. Calcium kinetic studies indicate that the increased retention due to ECT was caused by decreased bone resorption. In 3 out of 4 Ss treated with imipramine, the increased calcium retention was associated with increased bone formation, which was marked in 2 Ss. The possible use of imipramine for treating osteopenia of unknown origin where bone formation is low is suggested. The decrease in serum calcium concentration after treatment suggests that this may lead to a decreased release of biogenic amines from

the brain, thus alleviating depression. (28 ref.)—*Journal abstract.*

10058. **Field, Peter B.** (Veterans Administration Hosp., Brooklyn, N.Y.) **Preventing crying through desensitization.** *American Journal of Clinical Hypnosis*, 1970(Oct), Vol. 13(2), 134-136.—Reports the systematic desensitization and hypnotherapy in an unusual problem, the prevention of crying during a wedding ceremony.—*M. V. Kline.*

10059. **Gavanski, M.** (750 W. Broadway, Vancouver, British Columbia, Canada) **Treatment of non-retentive secondary encopresis with imipramine and psychotherapy.** *Canadian Medical Association Journal*, 1971(Jan), Vol. 104(1), 46-48.

10060. **Gendlin, Eugene T. & Olsen, Linda.** (U. Chicago) **The use of imagery in experiential focusing.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 221-223.—Describes a procedure developed as an innovation in experiential focusing. The usual procedure of experiential focusing consists of 3 steps: (a) feeling the totality of the problem; (b) allowing a specific feeling to peak from this; and (c) holding the feeling until a release, an opening up, an experiential shift, occurs. Difficulties are sometimes encountered between a and b. The innovation entails letting an image form after a, sensing how it feels, and focusing on that feeling. Typically, the image and feeling remain stable and refuse to change until the S comes to know the feeling it gives, at which point the release occurs and a change of image. Opening up of the specific feeling usually occurs when words arise from it. This technique has been found useful in Ss who obtain images easily.—*S. Knapp.*

10061. **Gurney, Clair; Roth, Martin; Kerr, T. A., & Schapira, Kurt.** (U. Newcastle upon Tyne, Psychological Medicine Research Unit, England) **The bearing of treatment on the classification of the affective disorders.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 251-255.—Classified 154 patients as anxiety states or depressive illnesses independently of the clinicians in charge of the cases. Similarly, the therapeutic response of 126 Ss was assessed at discharge and 6 mo. later by an investigator unaware of the original diagnosis. Physical treatment involved ECT, sedatives or tranquilizers, MAO inhibitors, and tricyclic antidepressants. Data indicate that differences in (a) frequency of prescription of ECT, (b) variety of drug used, and (c) the response to shock and antidepressant drugs correlated with diagnosis. "These findings provide some validation for the broad subdivision of affective disorders into anxiety states and depressive illness."—*R. L. Sulzer.*

10062. **Harford, Thomas; Blane, Howard T., & Chafetz, Morris E.** (Massachusetts General Hosp., Boston) **Language predictability and psychiatric interviews.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 725-726.—Deleted words from 36 samples of patient speech obtained from initial and terminal psychiatric interviews and submitted the samples to 75 introductory psychology students for completion. Findings indicate that samples from the end of the interview are less predictable than those obtained from the beginning. The facts that change occurs within the context of a single interview, and correlates with ratings of potential for psychotherapy made by the interviewers, indicate that the cloze procedure is both sensitive and psychologically relevant to the psychotherapeutic process.—*Journal abstract.*

10063. **Kroth, Jerome A.** (Florida State U.) **The**

analytic couch and response to free association. *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 206-208.—Examined whether the supine position on a couch facilitates free associative response. 48 female undergraduates were divided into 2 treatment conditions, sitting or prone, in a room by themselves. E, in another room with a 1-way mirror and communications system, instructed Ss to relax and say whatever came into their minds. After 20 min. Ss estimated the amount of time they had been in the room. The main dependent variable was Bordin's Free Association Scale, an O-rated scale containing a 6-point general scale and 3 5-point scales: involvement, freedom, and spontaneity. The 2nd dependent measure was the estimate of time spent in free association, and the 3rd consisted of the total seconds of silence in the session. The general scale, freedom, and spontaneity reached significance, indicating that primary process characteristics are more dominant in the supine position, however, the lack of significant differences on the other measures indicates that a reconceptualization of emotionality in the theory of free association is needed.—S. Knapp.

10064. Luborsky, Lester, et al. (U. Pennsylvania) **Factors influencing the outcome of psychotherapy: A review of quantitative research.** *Psychological Bulletin*, 1971(Mar), Vol. 75(3), 145-185.—Reviewed 166 studies of predictions of outcome of individual psychotherapy with adult patients. Predictors are classed as patient, therapist, or treatment factors; the number of predictors which were significant vs. nonsignificant are tallied. By far, the largest number deals with patient factors—relatively few with therapist or treatment. Those patient factors which were most often significantly associated with improvement are (a) psychological health or adequacy of personality functioning, (b) absence of schizoid trends, (c) motivation, (d) intelligence, (e) anxiety, (f) educational and social assets, and (g) experiencing (rated from early sessions). Therapist factors are (a) experience, (b) attitude and interest patterns, (c) empathy, and (d) similarity of patient and therapist. Treatment factors revealed 1 main trend: the number of sessions. Methodologies are evaluated, and it is suggested that the main predictors be cross-validated. (7 p. ref.)—*Journal abstract*.

10065. Mintz, Jim; Luborsky, Lester, & Auerbach, Arthur H. (U. Pennsylvania) **Dimensions of psychotherapy: A factor-analytic study of ratings of psychotherapy sessions.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 106-120.—Rated tape recordings of 60 early sessions of psychoanalytically oriented therapy on 110 process variables. The ratings of 3 Os were clustered and factor analyzed. 4 factors were rotated and interpreted as (a) patient health vs. distress, (b) optimal empathic relationship, (c) active directive mode, and (d) interpretive mode with receptive patient. For 27 of the 30 patients, outcome ratings were obtained from the therapist (patient improvement and success + patient satisfaction). Patient improvement was not predicted by any process ratings. Success + patient satisfaction, on which women scored higher than men, was predicted by patient health vs. distress. Patients rated in early sessions as healthy and low in distress had better prognoses. Optimal empathic relationship qualities related positively to success in therapies low in directive mode, but for relatively directive therapies, this relationship was negative. (31 ref.)—*Journal abstract*.

10066. Pancheri, Lucia & Pancheri, Paolo. (U. Roma,

Italy) **Problemi in tema di validazione scientifica della psicoanalisi.** [The problem on the subject of the scientific validity of psychoanalysis.] *Rivista di Psichiatria*, 1969(Nov), Vol. 4(6), 421-462.—Studied the problem of the scientific validity of psychoanalysis by analyzing the problems of therapeutic results and by verifying experiments. It is concluded that today psychoanalysis has 2 possibilities: (a) To defend the right of autonomous discipline, by instituting its own method, its own system for verification, and its own parameter for therapeutic evaluation. "The process of analytical cure can be described... as an increasing effort to put psychic processes into verbal terms which in their initial essence are extraneous to words." And (b) to evaluate the method on the basis of traditional therapeutic concepts and confront the examination of their assumptions using the experimental method. (English summary) (16 p. ref.)—A. M. Farfaglia.

10067. Schofield, William. (U. Minnesota) **Psychotherapy: The unknown versus the untold.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 9-11.—Discusses the article by N. L. Mintz (see PA, Vol. 45: Issue 5) on the role of fees and fee-charging practices in psychotherapy. Texts by K. Menninger and L. R. Wolberg and the American Psychological Association survey on fee schedules are cited for commentary on fee attitudes of psychiatrists and psychologists. It is concluded that shame over the sale of friendship may indeed play a crucial part in the reticence of therapists to discuss fees. The role which growing comprehensive health insurance may play in removing this element of secrecy is noted.—S. Knapp.

10068. Schwartz, Carol C. (Yale U.) **Schools of thought in psychoanalysis: A study in the sociology of knowledge.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1390.

10069. Shapiro, David L. (Center for Forensic Psychiatry, Ann Arbor, Mich.) **The significance of the visual image in psychotherapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 209-212.—Discusses 2 schools of thought on the role of imagery: (a) imagery as a defense which moves away from or screens and still gratifies indirectly the underlying impulse; and (b) imagery as a direct representation of the unconscious, an expression of the impulse itself. It is concluded that "given certain structural conditions, the visual image tends to conceal, and, given others, it reveals, what the important issues in the patient's life are." (19 ref.)—S. Knapp.

10070. Tamburro, Giuseppe & Dello Russo, Giovanni. **III Convegno sul tema: "L'impotenza sessuale". Alcune considerazioni sul trattamento psicoterapeutico dell'impotenza sessuale.** [3rd annual convention on the subject: "Sexual impotence": Some considerations on psychotherapeutic treatment of sexual impotence.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 334-340.—Recorded subjective observations of the various types of psychotherapeutic intervention in sexual impotence in the male. Psychotherapeutic intervention refers to psychotherapy of analytical inspiration. This type of psychotherapy is beneficial because impotence is but a symptom of a much more global illness. 2 cases of 21-yr-old and 26-yr-old Ss were studied. Both cases differed greatly in dynamics and the type of impotence (sudden and early), but they had certain elements in common, e.g., good intellectual capacity and possibility of introspection along with other positive elements. It is

concluded that the most important thing in choosing the type of psychotherapeutic intervention, whether brief or prolonged, depends on the therapist's judgment of the ability of the patient's personality to compromise.—A. M. Farfaglia.

Therapeutic Process

10071. Eitzen, Lando. (Jacksonville State Hosp., Ill.) **Confrontation action psychotherapy with religious-moral values.** *Journal of Pastoral Care*, 1969(Mar), Vol. 23(1), 26-35.—Describes a pilot research project at a state hospital in which a clinical psychologist and a clergyman teamed up for group and individual psychotherapy. In this way, immediate therapeutic attention could be given to religious and moral concerns. This approach included having the patient relate his religious views and challenging him to reflect on the gap between what he claimed to believe and his actual behavior. Several illustrative examples are given.—M. West.

10072. Errera, Paul. (Yale U., Medical School) **Common-sense approaches to confidentiality.** *Hospital & Community Psychiatry*, 1968(Nov), Vol. 19(11), 347-349.—Discusses the question of confidentiality in the psychiatrist-patient relationship. "The refusal of a psychiatrist to divulge any information, especially in the face of a written release from the patient, may well be interpreted as a negative commentary about the patient rather than as an ethical act." The psychiatrist realizes that in certain situations authorized disclosures are appropriate. Guidelines for dealing with requests for information are included.—B. A. Burkard.

10073. Mendel, Werner M. (U. Southern California, Medical School) **Authority: its nature and use in the therapeutic relationship.** *Hospital & Community Psychiatry*, 1970(Nov), Vol. 21(11), 367-370.—This theoretical article discusses the development of maturity and independence and the role of authority in psychotherapeutic relationships. In view of current social upheavals, authority is seen as a therapeutic tool for the disorganized patient but as arousing some discomfort in the therapist who must assume authority. Practical ways for helping the patient to internalize authority are discussed. As a therapeutic agent, authority has both dangers and side effects.—R. B. Sivley.

10074. Mintz, Norbett L. (U.S. Public Health Service, Indian Hosp., Tuba City, Ariz.) **Patient fees and psychotherapeutic transactions.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 1-8.—Notes that little discussion about fees has appeared in the literature on therapeutic practice, technique, or training. 3 published questionnaire studies concerning basic therapeutic procedures reveal information about therapists' orientations toward fees. While therapists generally are alert to interpret patient remarks and concerns about fees, they often are defensive and doctrinaire about their own attitudes regarding finances. Economic aspects of human interaction and of psychotherapeutic transaction partly have replaced sexual ones as areas which badly need elucidation. Questions are raised about the rationale for various financial practices, and some historical, cultural, and personal factors bearing on the economic aspects of psychotherapy suggested. 3 case examples highlight some effects of these factors on the therapy situation. (20 ref.)—*Journal abstract*.

10075. Mitchell, Kevin M. & Berenson, Bernard G. (U. Arkansas, Rehabilitation Research & Training

Center) **Differential use of confrontation by high and low facilitative therapists.** *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 303-309.—Rated the 1st psychotherapy interviews of 56 psychotherapists on accurate empathy, positive regard or warmth, genuineness or openness, and concreteness. Therapists included psychiatrists, psychologists, social workers, and advanced level graduate students in clinical and counseling psychology who had 3-15 yr. experience. Based on research suggesting that certain minimal levels of these facilitative conditions must be offered before patient improvement is likely, 13 therapists were designated as high and 43 as low facilitative. A 2nd pair of independent raters noted the frequency and type of 5 different kinds of therapist-initiated confrontation. Analyses of data indicate that the high facilitative therapists offered significantly more confrontations based on attempts to understand and clarify the therapist-patient ongoing relationship. They were also significantly more likely to use confrontations based on patients' strengths or resources, while low facilitative therapists were significantly more likely to use confrontations based on patients' weaknesses or pathology. Finally, an attempt was made to pinpoint specific in-therapy behaviors of the high and low facilitative therapists which would seem to lead directly to patient improvement or deterioration.—*Journal abstract*.

10076. Perry, Cereta E. (Michigan State U.) **Client internalizing and/or client externalizing consistency or change: its effect on therapeutic process and outcome.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1020.

10077. Pope, Benjamin, et al. (Sheppard & Enoch Pratt Hosp., Towson, Md.) **Interviewer specificity in seminaturalistic interviews.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 152.—Attempted to replicate earlier findings by B. Pope and A. W. Siegman (see PA, Vol. 39:13386, and Vol. 40:509) that there is an inverse relationship between interviewer specificity and both interviewee productivity and uncertainty, through the use of more naturalistic interviewers. 24 18-40 yr. old psychiatric inpatients were interviewed 3 times in a low specificity, high specificity, and an uncontrolled interview. Previous findings were supported.—S. Knapp.

10078. Sandler, J., Dare, C., & Holder, A. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: VIII. Special forms of transference.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 561-568.—Reviews the literature that has grown up and around special forms of transference (erotic transference, erotized transference, transference psychosis, and delusional transference). The phenomena described are generally regarded as some form of repetition of the past but with qualities so grossly inappropriate as to warrant special designation. (50 ref.)—R. L. Sulzer.

10079. Sandler, J., Holder, A., & Dare, C. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: VII. The negative therapeutic reaction.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 431-435.—Concludes that the term "negative therapeutic reaction" is used (a) when "worsening follows an awareness by the patient or expression by the therapist of improvement," (b) when "guilt engendered by the atmosphere of encouragement, optimism, or approval," may promote the return of symptoms, (c) "to describe a character reaction of 'negativism' or contrariness that

becomes manifested in a clinical setting as opposition to, or failure to accept benefit from, treatment," and (d) "to include many other forms of resistance to the process of psychoanalytic treatment." (20 ref.)—*R. L. Sulzer.*

10080. **Scott, Robert W. & Kemp, David E.** (Veterans Administration Hosp., Coral Gables, Fla.) **The A-B scale and empathy, warmth, genuineness, and depth of self-exploration.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 49-51.—Studied initial interviews conducted by 25 senior medical students with 25 neurotic outpatients. There were no significant relationships between the therapists' A-B scale scores and their empathy, warmth, and genuineness. B-type therapists did elicit greater depth of exploration, a result consonant with existing research. Findings suggest that these 2 sets of variables—the A-B scale and empathy, warmth, and genuineness—are independent sources of variance in therapeutic outcome. The A-B scale offers the potential of leading to the discovery of a new set of determinants of psychotherapeutic success.—*Journal abstract.*

10081. **Sherman, Alan R.** (Yale U.) **Therapeutic factors in the behavioral treatment of anxiety.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3876-3877.

10082. **Stein, Conrad.** **Le jugement du psychanalyste.** [The judgment of the psychoanalyst.] *Interprétation*, 1968(Jan), Vol. 2(1), 15-31.—During resistance in psychoanalysis, granted that the patient views the analyst as a judge, the latter's spoken words are received by the patient as a judgment, with the result that the analyst's "benevolent neutrality" remains illusory. As judgment, the analyst's remarks establish the patient as the object of desire of the analyst; as preaching, they further establishment of the patient's role of subjection; by their metaphoric effect they are the agent of the patient's enjoyment. Thus triply significant, the analyst's remarks (a) imply the guilt of the patient as the sole reference possible to the analyst's desire; (b) subject the patient to the idea of his past offense; and (c) are received by the patient as a condemnation of the erotic satisfaction they confer (because of a link between the idea of his offense and his enjoyment of the remarks establishing his offense).—*T. N. Webster.*

10083. **Watson, J. P.** (Maudsley Hosp., London, England) **A measure of therapist-patient understanding.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 319-321.—Examined the degree of understanding existing between a psychiatrist and a patient over an 8-mo period by comparing repertory grids prepared by both simultaneously. The patient, a 31-yr-old bachelor, "completed an identical grid on 4 occasions, and on each occasion the doctor supplied a grid of guesses of the patient's ratings." The S proved not to be very changeable, and the high accuracy with which the psychiatrist predicted his behavior suggests that considerable understanding existed.—*R. L. Sulzer.*

Group Therapy

10084. **Ackerman, Nathan W. (Ed.)** (Family Inst., New York, N.Y.) **Family therapy in transition.** Boston, Mass.: Little, Brown, 1970. xii, 346 p. \$10.

10085. **Blakeney, P. M. & Creson, D. L.** (U. Texas, Medical Branch, Galveston) **Status and stability in an adolescent milieu patient group.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 756-762.—Reports

preliminary studies of group dynamics in an adolescent treatment unit. Sociometric questionnaires were administered to 23 13-19 yr. old Ss, and 4 mo. later, to 13 Ss of approximately the same age (5 of these Ss being included in both phases of the study). Sociograms were obtained and are illustrated. Factors determining group structure include (a) length of time Ss had been in the program, (b) quality of Ss' adaptive responses, and (c) similarity between attitudes and values held by Ss and by the staff. The importance of group interactions for improvement of individual adjustment is stressed.—*P. McMillan.*

10086. **Howells, J. G.** (Inst. of Family Psychiatry, Ipswich & Suffolk Hosp., England) **Fallacies in child care: III. That children are brought up by parents.** *Acta Paedopsychiatrica*, 1970(Apr), Vol. 37(4-5), 90-100.—Western culture tends to overlook the fact that children are brought up by the whole family, not by the mother alone. The family, nuclear or extended, has a universal distribution; its development in 1 variant or another depends on the needs of its social background, rather than on historical evolution. Family psychiatry, stressing the family unit, aims to understand and improve the group psyche of the family. 3 techniques are discussed: family psychotherapy; vector therapy, or repatterning the emotional forces of family interaction; the salutiferous community, or reshaping the emotional strata of society for emotional self-improvement. The individual is not nurtured in a vacuum, but in a group.—*G. Rubin-Rabson.*

10087. **Khan, A. U.** (Children's Memorial Hosp., Chicago, Ill.) **A therapeutic technique based on the interpersonal theory of psychiatry and the family dynamics.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 226-240.—Attempts to apply the interpersonal theory of psychiatry and the knowledge of the family dynamics in the treatment of children and their parents. Various behavior problems of the children are conceptualized as the result of abnormal reciprocal interaction between the child and the parents. The therapeutic technique is designed to bring about immediate interruption in the cycle of this abnormal interaction. Although some attempt is made to understand the intrapersonal problems of each of the parents and the child, the treatment is carried out mainly on the interpersonal level. Once the interpersonal problems are lessened, the parents as well as the children show more willingness and motivation to work on their individual problems. In a large number of cases, however, treatment on the intrapersonal problems does not appear necessary. It seems as if after this therapy the capacity to resolve the internal conflicts is greatly enhanced.—*Journal summary.*

10088. **Kilpatrick, Allie C.** (Ft. Logan Mental Health Center, Denver, Colo.) **Conjoint family therapy with geriatric patients.** *Journal of the Fort Logan Mental Health Center*, 1968(Spr), Vol. 5(1), 29-35.—Describes the use of conjoint family therapy as a treatment for geriatric patients in a mental health center. Treatment of the family unit was problem and relationship oriented, and techniques, e.g., role-playing and environmental manipulation, varied considerably in each family unit. 2 case examples are presented: a 72-yr-old woman subject to periodic psychotic breaks, and an 83-yr-old widow with withdrawn, passive aggressive behavior. It was found that conjoint therapy seemed to lessen the need for continuing relationship with the center after the initial crisis had been resolved.—*Journal summary.*

10089. Lauer, Roger & Goldfield, Michael. (National Inst. of Mental Health, Adelphi, Md.) **Creative writing in group therapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 248-252.—Describes the use of creative writing in group therapy in an inpatient psychiatric ward, a youth drug study unit, and a psychiatric outpatient clinic. Following exercises, e.g., completing a sentence, the group members picked a common topic about which to write. Each piece was read aloud and discussed. Intellectualization and value judgments were discouraged in the discussions. Excerpts from the writings of 3 patients and a staff member are presented. It is concluded that creative writing (a) facilitated self-understanding, providing an entryway to the unconscious; (b) facilitated group interaction and group discussion; (c) elevated self-esteem; and (d) seemed to enhance other forms of psychotherapy. Creative writing also provided useful training to staff members, concrete records, and clarified the dynamics of the groups, patients, and leaders. (16 ref.)—S. Knapp.

10090. Mayer, Loris & Isbister, Clair. (Margaret Reid Hosp., Asthma Section, St. Ives, New South Wales, Australia) **Report on group therapy for mothers of children with intractable asthma.** *Medical Journal of Australia*, 1970(May), Vol. 1(18), 887-889.—Briefly presents and evaluates the content of the group sessions. The sharing of problems and the support offered by members in the group situation seem to be of value. Group therapy is seen in this context as an alternative to individual therapy, as increasing numbers of patients will preclude the offering of individual therapy in every instance.—*Journal abstract*.

10091. Pavan, Luigi; Agius, Sergio, & Baggio, Marco. (U. Padova, Italy) **Su di alcuni aspetti istituzionali e dinamici di una psicoterapia di gruppo in un reparto a breve degenza.** [On some institutional and dynamic aspects of group therapy in short-term hospitalization.] *Rivista di Psichiatria*, 1969(Nov), Vol. 4(6), 403-420.—Described the authors' personal experiences over the course of 1 yr. in a short-term clinic where they attempted to change the traditional relationship of "doctor-mental patient"; it is considered unproductive and antitherapeutic. "The main interest of psychiatrists continues to center around human relationships." In this 29 bed clinic, the average term was 30-40 days. 1-hr meetings were held biweekly and were attended by Ss, 2 doctors, and 1 nurse. All could participate freely on any subject and could come and go at will. The doctors were recognized as persons, not curers. Examples are given of various Ss in group therapy sessions. It is concluded that because in mental diseases a block in communication (institutional neurosis) is often present, this type of group therapy fosters a real dialog. The S can come out of his isolation and apathy. Everyone, Ss and personnel, is conscious of an I-others relationship. (English summary) (29 ref.)—A. M. Farfaglia.

10092. Sturm, Israel E. (Veterans Administration Hosp., Northport, N.Y.) **A behavioral outline of psychodrama.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 245-247.—Describes 5 of the more important psychodramatic techniques in a loose learning theory framework: (a) warm-up, in which the director elicits from Ss a large number of cues for positive reinforcement and discourages cues for punishment; (b) problem presentation, which involves the director's rewarding the Ss' revelation of personal problems and the group's selection of a focal problem;

(c) self-presentation, wherein S describes the setting and enacts, directly or descriptively all roles involved, and the director analyzes covertly the cue-response-reinforcement systems represented; (d) role-playing, where the S learns important behaviors by assimilating all or parts of the roles of real or symbolic models; and (e) group participation, where all Ss share their experiences of the session and what they have learned. It is concluded that psychotherapists of any background may find occasional use of psychodrama useful in epitomizing crucial problems.—S. Knapp.

10093. Volterra, Vittorio & Molinari, Sergio. **Il caratteropatologico in un gruppo misto aperto di discussione.** [The patient with character disorder in a mixed group open to discussion.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 377-381.—Described 1-1½ hr. meetings held twice a wk. at a neuropsychiatric clinic and were attended by approximately 30-35 people including patients, doctors, and nurses. The patients may freely act-out and discuss anything they wish. Ss with character disorders accepted these meetings enthusiastically. They revealed their exaggerated egocentricity, trying to attract attention and sympathy from the others by protesting (bad food, dirty bathrooms, few permissions). They were aggressive toward the doctors and nurses. In the group, their attitude resulted in a wider range of expression than in other types of treatment. In the group, Ss were forced to be in contact with the sufferings and problems of other types of Ss. They had the freedom to criticize but had to accept criticism, too. From the reactions of the others, S could test the validity of his own actions and begin to develop a socially valid way of thinking.—A. M. Farfaglia.

10094. Watson, J. P. (Maudsley Hosp., London, England) **A repertory grid method of studying groups.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 309-318.—Describes a modified repertory grid method which provides information about interpersonal relationships in a group, psychological features of individual group members, and changes in persons having group therapy. In this technique the raters are also the elements. All the grids obtained on any test occasion in a group are prepared simultaneously, and all have the same form. Thus the raters in a group use 1 scoring system to rate the same people in terms of an unchanging set of constructs. Results of the use of the technique in 6 outpatient psychotherapeutic groups, each containing 2 therapists and 5-8 patients, are described.—R. L. Sulzer.

10095. Wolman, Carol. (3924 Delancey St., Philadelphia, Pa.) **Group therapy in two languages, English and Navajo.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 677-685.—Reviews those social factors which lead many Navajo reservation Indians to alcohol abuse. Group therapy sessions are described where the Navajo language was employed and translated to the therapist by an interpreter. Guidelines for future groups of this nature are suggested.—W. Vernon.

Behavior & Conditioning Therapy

10096. Abel, Gene G., Levis, Donald J., & Clancy, John. (State Psychopathic Hosp., Iowa City, Ia.) **Aversion therapy applied to taped sequences of deviant behavior in exhibitionism and other sexual deviations: A preliminary report.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 59-

66.—In 3 cases of exhibitionism, 2 of transvestism and 1 of masochism, tapes were made involving descriptions of each S's individual deviant behavior divided into 3 sequential segments. 5 of the 6 Ss were placed on a schedule on which, at 1st, the final segment of the tape was followed by shock, at later sessions the 2nd segment, and ultimately the 1st. At each session the shocked tape runs were followed by runs in which the S avoided shock by verbalizing normal sexual behavior in the place of the shocked segment. The 6th S was given shocks out of relation to taped material, as a control. Treatment was evaluated by measuring penile responses to sexually deviant and nondeviant tapes, and by clinical reports. In experimental Ss there was reduction of erectile responses to deviant tapes, but sustained responses to nondeviant tapes. These Ss reported weaker deviant responses, less frequent deviant behavior, and fewer symptoms of psychopathology in general.—*Journal abstract.*

10097. Bandura, Albert. (Stanford U.) **Principles of behavior modification.** New York, N.Y.: Holt, Rinehart, & Winston, 1969. ix, 677 p. \$9.95.

10098. Barrett, Curtis L. (U. Louisville, Medical School, Child Psychiatry Research Center) **"Runaway imagery" in systematic desensitization therapy and implosive therapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 233-235.—Reports and examines negative or unpleasant experiences with "runaway imagery" encountered in a study comparing systematic desensitization therapy and implosive therapy in Ss with a fear of harmless snakes. 2 instances were noted in 2 out of 12 Ss, both females, in the desensitization study where after visualizing a scene from the hierarchy, the scene became more vivid and/or changed, and switching off the image was very difficult. 2 serious instances with female undergraduates in the implosive therapy study are noted where vivid and compelling images occurred between sessions.—S. Knapp.

10099. Budzynski, Thomas; Stoyva, Johann, & Adler, Charles. (U. Colorado, Medical Center, Denver) **Feed-back-induced muscle relaxation: Application to tension headache.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 205-211.—Describes a technique for producing deep muscle relaxation by means of an information feedback technique: Ss hear a tone with a frequency proportional to the EMG level of the muscle being monitored. The treatment of 5 Ss with tension headache is described. With this "bio-feedback" training in relaxation, Ss learned to produce low frontalis EMG levels and showed subsequent reductions in headache activity over a 5-wk period.—*Journal abstract.*

10100. Coleman, Richard & Toth, Emil. (U. North Carolina) **The adaptation of commercially available radio control equipment to behavior therapy.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 221-222.—Describes a small, battery operated transmitter and counter suitable for public classrooms which can be used in conditioning procedures.

10101. De Moor, W. (U. Nijmegen, Psychological Lab., Netherlands) **Systematic desensitization versus prolonged high intensity stimulation (flooding).** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 45-52.—Divided 27 Ss with severe fears of harmless snakes into 3 matched groups of 9. 1 was a control group, and the 2 others received, respectively, 5 sessions of systematic desensitization and 5 of flooding. Experimental groups both showed signif-

icantly more change than the control. The most important difference between the 2 experimental groups was that whereas recovery was stable in those who had received systematic desensitization, 3 of those who had improved with flooding therapy were found to have relapsed at the follow-up test 6 mo. later. (29 ref.)—*Journal abstract.*

10102. Eysenck, H. J. (U. London, Inst. of Psychiatry, England) **Behavior therapy and its critics.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 5-15.—Groups criticisms of behavior therapy under 3 main headings: (a) Modern learning theory is not sufficiently advanced and specific to make application to the treatment of mental disorders possible. (b) Theories such as those of Wolpe, Skinner and others do not provide a way of applying learning theory to these problems. (c) The results of behavior therapy have not been shown to be superior to those achieved with more orthodox methods. It is concluded that these criticisms are either untrue, irrelevant, or based on misconceptions. (29 ref.)—*Journal abstract.*

10103. Fazio, Anthony F. (U. Wisconsin, Milwaukee) **Implosive therapy in the treatment of a phobic disorder.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 228-232.—Illustrates the techniques of implosive therapy (IT) in the treatment of a 20-yr-old female with an injection phobia. S's MMPI scores were high on 3 scales: Hs 82, Hy 73, and Ma 70. IT treatment consisted primarily of vivid descriptions of scenes related to the S's fears, exposure to actual items (e.g., darts), and homework assignments (e.g., imagining making an appointment for a shot, and swabbing her arm in alcohol, and imagining the shot). The spontaneous recall of experiences following the cue scenes led to the hypothesis "that forced exposure to such cues extinguishes conditioned anxiety thus allowing successive (i.e., older) memories to be recalled." Such memories revealed the S's extended history of hysterical escape-avoidance learning. By Session 23 the S was able to make an appointment and have a blood test without panic or fainting. MMPI scores had decreased: Hs 52, Hy 61, and Ma 63.—S. Knapp.

10104. Furst, J. B. & Cooper, A. (Albert Einstein Coll. of Medicine, Yeshiva U.) **Combined use of imaginal and interoceptive stimuli, in desensitizing fear of heart attacks.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 87-89.—Certain phobic responses are triggered by combinations of exteroceptive and interoceptive stimuli. The latter should be included in the deconditionary operations. A 44-yr-old female with cardiac neurosis was successfully desensitized by using imaginal stimuli and the graded induction of the feared physical sensations of breathlessness, heart pounding pains in the chest and left arm, etc. The physical procedures for duplicating these interoceptive cues are described.—*Journal abstract.*

10105. Gelder, Michael. (U. Oxford, England) **Behavior therapy for anxiety states.** *British Medical Journal*, 1969(Mar), Vol. 1(5645), 691-694.—Discusses the method of systematic desensitization for the treatment of anxiety states. Behavior therapy, based on learning theory, should not be seen as a substitute for but rather an adjunct to psychotherapy, based on psychodynamic theory. The standard technique of desensitization has 3 parts: (a) some procedure to lower anxiety, usually relaxation training; (b) the construction of graded series of anxiety evoking stimuli; and (c) the

presentation of these stimuli to the relaxed patient. Desensitization effects are specific to the phobia which is the target symptom, and this has been shown to change more rapidly and more completely during desensitization than it changes with either psychotherapy or suggestion. Symptom substitution, predicted by Freudian theory, occurs no more frequently with behavior therapy than with other treatments. It is suggested that patients for behavior therapy be carefully chosen. The effectiveness of behavior therapy in treating a variety of syndromes is discussed.—S. R. Diamond.

10106. Goldstein, Alan J., Serber, Michael, & Piaget, Gerald. (Temple U., Medical School) **Induced anger as a reciprocal inhibitor of fear.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 67-70. —Describes the successful treatment of fears using artificially induced anger as the counterconditioning agent. It has been found in a limited number of cases that once the artificial induction of anger has been taught it can become available for immediate use by the S at any time and may be of sufficient strength to counteract a high degree of fear. Illustrative cases of 2 young females and 1 male are presented and problems encountered noted.—*Journal abstract*.

10107. Goorney, A. B. (St. Andrew's Hosp., Northampton, England) **Treatment of aviation phobias by behaviour therapy.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 535-544. —6 experienced aviators, incapacitated by anxiety related to flying, were given controlled relaxation and systematic desensitization. 5 returned to full flying duties and remained symptom free for over 3 yr. The Flying Anxiety scales, MPI, and MMPI scores showed excess anxiety, lowered extroversion, and elevated neuroticism scores, and raised MMPI scales before treatment. After therapy scores reverted to normal. Brief case histories are included. (50 ref.)—R. L. Sulzer.

10108. Gray, James J. (Hahnemann Medical Coll., Philadelphia, Pa.) **Case conference: Behavior therapy in a patient with homosexual fantasies and heterosexual anxiety.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 225-232. —Presents the case history of a 22-yr-old male undergraduate with homosexual fantasies and heterosexual anxiety. Treatment with a variety of behavior therapy techniques applied in a flexible fashion is described. Marked improvement resulted. A seminar discussion by psychiatrists and psychologists of the case and techniques is reported.—*Journal abstract*.

10109. Gurman, Alan S. (Teachers Coll., Columbia U.) **A note on the use of "expanded" emotive imagery in desensitization.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 226-227. —Reports on the use of expanded emotive imagery in dealing with impasses in the process of desensitization. Expanded emotive imagery calls for the patient to describe aloud a pleasant scene until anxiety is decreased. At each further impasse, the patient is asked to add one or more details to the pleasant scene until relaxation is achieved. The addition of details increases the scene's positive stimulus value and promotes anxiety reduction along 3 dimensions: aural, visual, and cognitive-affective. S. Knapp.

10110. Hekmat, Hamid. (Wisconsin State U., Stevens Point) **Reinforcing values of interpretations and reflections in a quasi-therapeutic interview.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 25-

31.—Investigated the effects of interpretations, reflections, and schedules of reinforcement in the conditioning of affective self-references operantly during a quasitherapy interview. Fifty high school students were randomly assigned to 1 of the 5 treatment groups: Group 1 received reflections on a continuous schedule; Group 2 received reflections under a fixed ratio; Group 3 received interpretations under a continuous schedule; Group 4 received interpretations under a fixed ratio; and Group 5, the control group, received no reinforcement for the correct response class. Results indicate that groups reinforced with reflections demonstrate a significantly higher rate of conditioning and extinction than groups reinforced with interpretations ($p < .05$). Intermittent schedules demonstrate no significant effect on the rate of acquisition, but are shown to be significantly more resistant to extinction ($p < .05$). Conditioning rate was independent of degree of awareness ($p < .05$). (18 ref.)—*Journal abstract*.

10111. Jehu, Derek. (U. Leicester, School of Social Work, England) **The role of social workers in behavior therapy.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 17-28. —Asserts that social workers who use the behavioral model have the potentiality of giving substantial help in the treatment of learned behavioral abnormalities. Their role provides the advantages of observation of the patient's behavior in its natural environment. Upon identifying the stimuli that control unadaptive emotional behavior, learning principles may be used within the environment to bring about diminution of this behavior. Social workers can also utilize operant conditioning principles to modify undesirable behavior by manipulating reinforcing contingencies. A number of specific proposals are made for the use of behavior principles by social workers, and examples are given. (19 ref.)—*Journal abstract*.

10112. Kraft, T. (Claybury Hosp., Woodford Bridge, England) **Behaviour therapy or personality therapy? Psychotherapy & Psychosomatics, 1969, Vol. 17(3-4), 217-225. —Demonstrates through a case study that, as symptoms are removed during a course of behavior therapy, important personality changes also occur. It is argued that the efficacy of behavior therapy techniques may be attributed to the personality changes rather than the symptom-removal which is apparently its specific aim. The large personality changes found clinically were supported by similar changes in the various personality tests which were administered both before and after completing treatment. (15 ref.)—*Journal summary*.**

10113. Kraft, Tom & Wijesinghe, Brian. (Claybury Hosp., Woodford Bridge, England) **Systematic desensitization of social anxiety in the treatment of alcoholism: A psychometric evaluation of change.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 443-444. —9 19-32 yr. old alcoholics completed the Taylor MA Scale, the MPI, and the MMPI before and after behavior therapy. Test changes suggested that the treatment was effective in modifying symptoms and certain attitudes associated with them, but the central personality traits and attitudes were resistant to change.—R. L. Sulzer.

10114. Leitenberg, Harold, et al. (U. Vermont, Medical School) **Comparison of the effects of instructions and reinforcement in the treatment of a neurotic avoidance response: A single case experiment.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 53-58. —Discusses the

use of experimental analysis, employing a sequential design and quantifiable behavioral measures, to study the contribution of instructions and reinforcement to the modification of severe neurotic behavior in a 21-yr-old male. The overall effect of instructions was small or transient compared to that of reinforcement procedures which produced stable changes of clinical relevance.—*Journal abstract.*

10115. Litvak, Stuart B. (Veterans Administration Hosp., Psychology Service, Phoenix, Ariz.) **Hypnosis and the desensitization behavior therapies.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 787-794.—Distinguishes between desensitization techniques carried out in vivo and other modes of desensitization therapy (flooding, implosion, and systematic desensitization) which rely upon mental operations or processes. Research is reviewed and points are discussed which support a relationship between variables and phenomena found in the desensitization therapies and those found in hypnosis. This relationship appears to be greatest in those desensitization therapies basing treatment upon the utilization of mental operations. Some new lines of research are proposed. (43 ref.)—*Journal abstract.*

10116. Marmor, Judd. (U. California, Medical School, Los Angeles) **Dynamic psychotherapy and behavior therapy: Are they irreconcilable?** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 22-28.—Behavior therapists deserve much credit for having opened the armamentarium of therapeutic strategies. By so doing they have forced dynamic psychotherapists into a reassessment of therapeutic techniques and their effectiveness, which, in the long run, will be in the best interests of all psychiatrists and their patients. The improvement of theoretical and diagnostic approaches to psychopathology is urged to enable the application to each patient of the particular treatment technique and kind of therapist that together will achieve the desired therapeutic goal. 3 contrasting behavioral therapeutic approaches are discussed: (a) J. Wolpe's technique of reciprocal inhibition, (b) aversive conditioning treatment of homosexuality, and (c) the Masters and Johnson technique of treating sexual impotence and frigidity. Diverse variables involved in the effectiveness of these techniques are detailed. It is concluded that behavior therapies and dynamic psychotherapies are complementary psychotherapeutic approaches. (16 ref.)—*Journal abstract.*

10117. McCarthy, Barry W. & Messersmith, Craig E. (American U.) **Sensitivity, desensitization: Either-or?** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 243-244.—Reports on the cooperation of a behaviorally-oriented therapist and a humanistically-oriented therapist in the treatment of a 19-yr-old female undergraduate with a performance phobia and generalized interactional problems. S made great changes during the encounter group headed by the 2 therapists regarding her interactions with others, including authority figures, and greatly reduced her fears of doing and saying the wrong thing. Improvement did not generalize to her specific fear of music performance. Relaxation training, hierarchy construction, and desensitization were accomplished in 8 sessions. It is concluded that "therapists and researchers must begin to ask which techniques are most appropriate to specific problems and in what sequences they can optimally be utilized."—S. Knapp.

10118. McConaghy, N. (U. New South Wales, School

of Psychiatry, Sydney, Australia) **Subjective and penile plethysmograph responses to aversion therapy for homosexuality: A follow-up study.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 555-560.—Presents a 1-yr follow-up study (see PA, Vol. 44:3749) investigating penile volume changes of 40 male homosexuals in response to color associated photographs of nude males and females. Ss were exposed to 1 of 2 treatment conditions for 1 wk. In the 1st condition, apomorphine injections were administered, and the resultant nausea was experienced simultaneously while viewing pictures of nude males. In the 2nd condition, painful electric shocks accompanied the reading aloud of homosexual behavior descriptions. Heterosexual behavior descriptions read aloud were not paired with shock. The Mann-Whitney U test was employed to assess changes in sexual orientation prior to and following treatment. Positive conditioning—responses to color associations as well as photographs—occurred in 22 out of 27 Ss. However, assessment of film responses failed to show a general factor of conditionability. Comparison of apomorphine aversion and aversion-relief therapy results shows apomorphine has greater effect on sexual behavior, while aversion-relief therapy has stronger influence on sexual feelings. Penile volume decreases are discussed in relation to reduction of entire sexual drive vs. homosexually oriented drives.—P. Zell.

10119. McGlynn, F. Dudley; Wilson, Amos L., & Linder, Lowell H. (Mississippi State U.) **Systematic desensitization of snake-avoidance with individualized and non-individualized hierarchies.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 201-204.—Selected 27 female undergraduates with an intense fear of snakes and assigned them to Group A, individualized hierarchies; Group B, non-individualized hierarchies; and Group C, untreated control. Group A Ss constructed their own hierarchies for desensitization. Group B Ss were paired randomly with Group A Ss and desensitized with the latter's hierarchy. Groups A and B displayed significant behavioral improvement in contrast to Group C, but did not differ significantly from each other. Limitations of the study are noted.—*Journal abstract.*

10120. Parrino, John J. (Georgia Regional Hosp., Atlanta) **Effect of pretherapy information on learning in psychotherapy.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 17-24.—Studied the effects of 3 types of pretherapy information (descriptive, theoretical, and nonrelevant) on the acquisition of an operantly learned approach response by Ss who were afraid of snakes. 11 male and female inpatients and 29 outpatients were put into a therapy situation that was designed to bring them closer to the feared object and eventually into physical contact with the animal. The response goal was shaped by rewarding Ss for successful completion of steps that approximated the final step, handling of the harmless snake. Relevant pretherapy information was found to have a facilitating effect on the learning of approach responses. (25 ref.)—*Journal abstract.*

10121. Seager, C. P. (Whitely Wood Clinic, Sheffield, England) **Treatment of compulsive gamblers by electrical aversion.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 545-553.—Discusses the concept of compulsive gambling and describes the treatment of 16 21-57 yr. old compulsive gamblers. Particular emphasis was paid to the time of onset of gambling, factors which allowed it to increase, and evidence of

neurotic illness or personality disorder. The Eysenck Personality Inventory was administered to all Ss before electrical aversion treatment. Results indicate that only 8 Ss showed marked psychopathic traits, while the rest had a history of stable family life, disrupted only recently by gambling behavior. A remarkably consistent finding in this group was the lack of any violent propensities. 5 Ss remained free of gambling for a period of 1-3 yr. after treatment. (20 ref.)—*Journal summary*.

10122. **Serber, Michael.** (Temple U., Health Sciences Center) **Shame aversion therapy.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 213-215.—Describes shame aversion therapy, a new technique for the treatment of persons practicing deviant sexual acts, e.g., transvestism, voyeurism, pedophilia, exhibitionism, and frotteurism. Ss, who are embarrassed or self-conscious about the act they perform, perform the act on demand in front of a number of Os. The act is made to continue for 15-35 min. and its style kept as close to the in vivo situation as is possible. Ss are told to observe themselves and be aware of being observed. Of 8 Ss treated, 5 have remained free of their asocial behavior during a 6-mo followup period. 2 prerequisites for successful shame aversion therapy are (a) the patient must be ashamed of the act and desire not to be observed in its execution, and (b) he must be aware that he is performing the asocial act. Previous psychotherapy appears not to correlate with success or failure in shame aversion therapy.—*Journal abstract*.

10123. **Stern, Richard.** (Inst. of Psychiatry, London, England) **Treatment of a case of obsessional neurosis using thought-stopping technique.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 441-442.—Describes the case of a 27-yr-old male who had a long-standing and previously resistant condition which was treated successfully by behavior therapy. Treatment consisted of 15 45-min sessions in which the patient listed his fears in order, received relaxation training and medication, visualized a lesser fear situation, and said stop upon signal by the therapist. Though he remained an obsessional personality, the patient was able to transfer the technique to his life situation.—*R. L. Sulzer*.

10124. **Tomlinson, J. R.** (Board of Education, Psychological Services, Minneapolis, Minn.) **The treatment of bowel retention by operant procedures: A case study.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 83-85.—Describes a chronic problem of bowel retention in a 3-yr-old boy who was treated by an operant approach. A contingency was established in which the response of voluntary elimination was the only available instrumental response that would be followed by a bubble gum reinforcer. The sole task of the parents was to check the adequacy of S's response and to dispense the gum. The rate of voluntary defecation increased from a base rate of once/wk to 6/wk by the end of the 3rd wk. The rate was maintained at this level at the end of a 2-yr period, though a new reinforcer was introduced at the end of the 1st yr. During the 14th wk., when the contingency was removed, the rate fell to its original level.—*Journal abstract*.

10125. **Turner, Ruby.** **A method of working with disturbed children.** *American Journal of Nursing*, 1970(Oct), Vol. 70(10), 2146-2151.—Describes a research project team which was formed at the Wisconsin Children's Treatment Center with the purpose of modifying the behavior of psychotic children. The principles of operant conditioning were used. The

program differed from other programs employing operant conditioning in 4 ways: (a) the age of the patients, 3-7 yr. old; (b) their severe symptoms of psychosis; (c) the provision of intensive care 24 hr. a day; and (d) making the parents an integral part of the treatment team. There were 4 study patients, 2 of them are described in this article. A 4½-yr-old boy's tantrums were stopped by using short time-outs, lasting 1-5 min. His rate of speech was increased by rewarding a spontaneous word and by speech games at meals. He was discharged 2 yr. after admission. A 7-yr-old girl had destructive rages. At these times she would injure herself and anyone who attempted to stop her. After time-outs failed, electric shock was used successfully. Discharge is anticipated after 3 yr. of hospitalization.—*B. A. Burkard*.

10126. **Wagner, Bernard R. & Paul, Gordon L.** (Adolf Meyer Zone Center, Decatur, Ill.) **Reduction of incontinence in chronic mental patients: A pilot project.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 29-38.—Describes a pilot demonstration project employing operant and classical conditioning principles to reduce incontinence in chronically institutionalized patients. 35 men housed on an "incontinent ward" were checked regularly for day and night soiling. These checking procedures led to the elimination of 13 Ss who gained continence during base-line observation. 3 other Ss were eliminated from the sample because of neurological impairment. The frequency of soiling behavior stabilized after 8 wk. of base-line observation, and a systematic reinforcement program was instituted for the remaining 19 Ss. All Ss in the final sample of 19 showed a reduction in soiling and a correlated improvement in minimal social behavior. Implications of the project for introducing change into custodial institutions are discussed.—*Journal abstract*.

10127. **Wells, Wallace P.** (Metropolitan Center for Problems in Living, Detroit, Mich.) **Relaxational-rehearsal: A variant of systematic desensitization.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 224-225.—Describes a technique derived from the treatment of 2 patients in which the patient fantasizes a confrontation while in a state of deep relaxation. After being trained in relaxation, the patient is led through a description of the setting of the confrontation, the approach, the confrontation, the reaction, and the exit. If at any time during this process there is an increase in tension or anxiety, the process is stopped and the patient is instructed to relax, and the disturbing scene is repeated until it no longer produces anxiety. It is suggested that this technique may be useful in cases where a stressful situation is imminent.—*S. Knapp*.

10128. **Wisocki, Patricia A.** (Boston Coll.) **Treatment of obsessive-compulsive behavior by covert sensitization and covert reinforcement: A case report.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 233-239.—Presents the case history and treatment of a 27-yr-old female with a multiplicity of obsessive-compulsive behaviors. 8 2-hr sessions of covert sensitization and covert reinforcement were used to condition an aversive response to the performances of the obsessive-compulsive behaviors and to reinforce other responses in place of those behaviors. (34 ref.)—*Journal abstract*.

10129. **Wolpe, Joseph.** (Temple U., Health Sciences Center) **Behavior analysis of a case of hypochondriacal anxiety: Transcript of first interview.** *Journal of Behavior Therapy & Experimental Psychiatry*,

1970(Sep), Vol. 1(3), 217-224.—Presents an account of the 1st interview with a patient suffering from a very disabling anxiety in response to some somatic symptoms, especially a pain in the chest. Fear of such symptoms had been conditioned in a series of episodes over the previous 30 yr. The interview shows how the relevant stimuli were identified, and the outlines of a treatment program were developed from the information obtained.—*Journal abstract*.

10130. Wolpe, Joseph & Flood, Jack. (Temple U., Medical School) **The effect of relaxation on the galvanic skin response to repeated phobic stimuli in ascending order.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 195-200.—Constructed phobic hierarchies and selected from each hierarchy 5 evenly separated items that spanned the range from least to most disturbing. 10 Ss diagnosed as having anxiety disturbances of a phobic character were randomly divided into 2 groups, 1 which received relaxation training and 1 which did not. The 5 selected items from each S's hierarchy were presented 5 times each in ascending order, during each of 4 sessions. GSR was recorded for every stimulus. A consistent decreasing trend in magnitude of response was found for each of the 5 scenes across sessions for the relaxed group, and no trend in the nonrelaxed group. (22 ref.)—*Journal abstract*.

Special & Adjunctive Therapy

10131. Boenheim, Curt & Stone, Bernard. (Columbus State Hosp., O.) **Pictorial dialogues: Notes on a technique.** *Bulletin of Art Therapy*, 1969(Jan), Vol. 8(2), 67-69.—Presents a technique whereby the art therapist either paints a picture similar to the patient's or completes a single picture with the patient, who is then asked to write words on the paintings in answer to direct questions.

10132. Braund, Janice L. & Moore, Rosemary J. (Prince Henry Hosp., Sydney, New South Wales, Australia) **The use of behaviour therapy in occupational therapy with psychiatric patients.** *Australian Occupational Therapy Journal*, 1969(Jul), Vol. 16(3), 27-32.—Describes the basic principles of behavior therapy: extinction, aversion, and inhibition of reinforcement. The application of behavior therapy to occupational therapy is demonstrated in the case histories of (a) a 40-yr-old woman with a long history of chronic anxiety, associated with phobias, panic attacks, and nausea; and (b) a 30-yr-old man suffering from obsessive-compulsive behavior.—*S. Knapp*.

10133. Burkhead, David E. (Western Michigan U.) **The reduction of negative affect in human subjects: A laboratory investigation of rational-emotive psychotherapy.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2097-2098.

10134. Crouch, Paul W. (Auburn U.) **An investigation of the effectiveness of relaxation training with hospitalized psychiatric patients.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2173.

10135. Heyder, Dietrich W., DelGrosso, James, & DelGrosso, Patricia. (Mental Health Center of Norfolk & Chesapeake, Norfolk, Va.) **Case study: The use of volunteer art therapists with underprivileged children.** *Bulletin of Art Therapy*, 1969(Apr), Vol. 8(3), 97-104.—Offered art therapy to an 8-yr-old boy who had few consistent relationships and little opportunity to

identify with a male figure. Since he was in the habit of acting out his hostility in a way which led to rejection, therapy concentrated on building up a relationship and giving him a means of expression which did not lead to rejection. Pictures show his attempt to get close to the therapists, his increasing self-assurance and decisiveness, and the basic warmth and gentle feelings hidden by antagonistic behavior. As a result of a good relationship with 2 people who accepted him, and the development of a balance between dependency and independence, he was able to take a job and his social behavior improved.—*Journal summary*.

10136. Kline, Milton V. (Inst. for Research in Hypnosis, Morton Price Clinic, New York, N.Y.) **The role of desensitization and homeostasis in relation to the therapeutic gain derived from hypnotherapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 213-216.—Reports part of a 2-yr study in which hypnosis was used to treat 75 patients who had been unable to respond to other forms of therapy. Occular fixation techniques for induction, maintenance of relaxation, and reinforcement of hypnosis through self-hypnotic training were used. Frequency of recalled dreams, increased ease in imagery, and improved sleep patterns were noted. Of 20 Ss who had been taking daily medication at the beginning of the study, only 4 were at the end of treatment. 4 case histories showing marked improvement are described. It is concluded that "the use of hypnosis for prolonged stress reduction, the reinforcement of homeostasis through self-hypnosis, and the alteration of sensory and perceptual mechanisms can, in selected patients, yield therapeutic results that had not previously been possible for them." (15 ref.)—*S. Knapp*.

10137. Lipkin, Stanley. (1722 E. 55th, Chicago, Ill.) **The imaginary collage and its use in psychotherapy.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 238-242.—Proposes the use of an imaginary collage in therapy (a) to adapt M. McLuhan's notion of nonlinearity to the therapeutic process, (b) to provide additional stimulation to a patient who is bogged down or blocked, and (c) to approach the therapeutic process with a spirit of play. The patient assembles a collage on an imaginary canvas and describes the objects and locations on the canvas. When the collage is complete, the patient steps back and gives his overall reaction to his creation. 2 verbatim accounts, and 4 excerpts from collage creations are presented. It is noted that each patient perceived his collage as a highly personalized statement about his current self, and detected elements of discordance and awareness of a need to change. It is concluded that this technique may be useful in providing insight for the patient, and may in certain cases lead to a breakthrough.—*S. Knapp*.

10138. Milkie, George M. (10710 Kay Berrie, St. Louis, Mo.) **Hypno-ophthalmic therapy: Fact or fallacy.** *Journal of the American Optometric Association*, 1970(Jul), Vol. 41(7), 627-633.—Presents a realistic look at hypnosis and its relationship to optometry; an evaluation of articles and publications regarding optometric hypnosis as well as a review of legislation of hypnosis and its intent. (23 ref.)—*Journal abstract*.

10139. Pancheri, Paolo. (U. Roma, Italy) **La terapia elettroconvulsivante monolaterale ravvicinata negli stati depressivi.** [Monolateral electroconvulsive therapy at short intervals in depressive states.] *Rivista di Psichiatria*, 1969(Nov), Vol. 4(6), 510-516.—Studied shortened monolateral ECT to verify (a) its therapeutic

effect on the nondominant hemisphere; (b) if it can provoke a psychoorganic syndrome; and (c) if recovery is faster. 20 30-60 yr. olds of heterogeneous backgrounds were given ECT, and the results were evaluated according to Wechsler's Depression Rating Scale and Memory Scale. 15 Ss completely recovered; 3 partially recovered, and 2 were unsuccessful. It is concluded that: (a) the therapeutic effect of monolateral ECT on the nondominant hemisphere can be substituted for transtemporal ECT or to monolateral ECT with the usual time intervals; (b) the compromising of mnemonic functions is not clinically significant; and (c) the hospital stay is $\frac{2}{3}$ shorter than in transtemporal ECT or in unilateral ECT according to the usual method. (English summary) (22 ref.)—A. M. Farfaglia.

10140. Pedley, Dawn. **The psychodynamics involved in an occupational therapist's use of creative activities and discussion groups in physical and psychiatric rehabilitation.** *Australian Occupational Therapy Journal*, 1968(Jul), Vol. 15(3), 37-46.—Proposes that if the occupational therapist believes that "the face to face group working on a problem is the meeting ground of individual personality and society," then she must be able to handle groups effectively and must understand something of group dynamics. Creative activities and discussion groups are described as powerful tools which have relative values in both physical and psychiatric application. It is concluded that through expression and discussion within a group situation the patient can learn to function and experience healthy interpersonal relationships, the prerequisite of his functioning in the community.—*Journal summary.*

10141. Reitano, S. & Gazzola, G. (Provincial Psychiatric Hosp., Como, Italy) **Alcune considerazioni di ordine elettroencefalografico e clinico sull'elettroshock-terapia praticata in anestesia mediante diazepam.** [Some considerations about the electroencephalographic and clinical findings following electroshock therapy with anesthesia induced by diazepam.] *Rivista di Neurobiologia*, 1970(Apr), Vol. 16(2), 174-199.—Studies the advantages of using benzodiazepines instead of barbiturates as anesthesia of brief duration in ECT. The advantages are low toxicity and fewer side effects often caused by anesthesia. Previous studies indicated that valium, in addition to the above, eliminates the amnesic syndrome of ECT. 20 patients were treated with ECT using 20-30 mg. valium given iv as the anesthetic. It is concluded that with valium the memory disturbance is minimum. 6 Ss had memory gaps and 1 showed some mental confusion. None showed EEG modifications which are typical in ECT. 2 Ss showed EEG modifications typical of benzodiazepines; and 4 showed a moderate decrease in frequency of the alpha rhythm with some brief theta sequence. Valium is beneficial in ECT, since it eliminates the amnesic syndrome and the risk of discharge of latent epilepsy. (English summary) (39 ref.)—A. M. Farfaglia.

10142. Rosenthal, Saul H. & Wulfsohn, Norman L. (U. Texas, Medical School, San Antonio) **Electrosleep: A preliminary communication.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 146-151.—Describes a pilot study of electrosleep, the technique of inducing a relaxed state by the transcranial application of a low intensity electrical current. 6 outpatients and 3 inpatients with chronic anxiety and depressive symptoms and associated chronic insomnia were scored on the Zung Self-Rating Depression Scale and were also given

clinical ratings on anxiety, depression, and sleep disturbance on 1- to 7-point scales. 7-10 treatments were given to each S, the 1st treatment 10 min. of current, the 2nd 20 min., and subsequent treatments, 30 min. The machine settings were 12-20 V and .5-1 ma. 5 outpatients showed marked improvement in anxiety, depression, and insomnia. 1 outpatient and all inpatients showed some improvement anxiety and insomnia, but no improvement in the depressive symptoms. No side effects were reported. Future, more controlled, experiments are outlined.—S. Knapp.

10143. Stern, Roy & Honoré, Ethelmary. (Temple U., Health Sciences Center) **The problem of national organization: Make haste slowly.** *Bulletin of Art Therapy*, 1969(Apr), Vol. 8(3), 91-95.—Discusses whether art therapy as a profession exists and whether it is ready for national organization and certification. It is concluded that a pathology and therapy of art are yet to be developed through an understanding of the art process. Until such a therapy is developed, it will be impossible to set standards for licensing. Strengthening of groups and training centers on the local level is urged.—M. West.

10144. Wylie, C. E. (Fremantle Day Centre, Western Australia) **Particular features of occupational therapy at Fremantle Day Centre Western Australia.** *Australian Occupational Therapy Journal*, 1969(Jul), Vol. 16(3), 17-20.

Drug Therapy

10145. ———. **The methodology of international studies of the effectiveness of psychotropic drugs: A conference.** *Psychopharmacology Bulletin*, 1969(Jul), Vol. 5(3), 5-41.—Contains 4 papers of on-going national collaborative studies presented at a 1968 international conference in Yugoslavia on psychotropic drugs. The 1st paper describes a Canadian research project in 5 hospitals, testing the therapeutic activity of nicotinic acid in schizophrenics. The theoretical background, methodology, and statistical design for the examination of 4 hypotheses are detailed. The 2nd paper reviews difficulties encountered in a United Kingdom research project involving a multicentered collaborative trial of antidepressive drugs (imipramine and phenelzine) when compared with a placebo and ECT. The 3rd paper reviews studies in the United States on the use of chemotherapy in psychiatry. The highlights of 20 projects are discussed. The 4th paper discusses methodological problems encountered in drug research with special emphasis on tranquilizing drugs. Questions concerning dosage, duration, setting, and double-blind methodology are considered.—P. McMillan.

10146. Bernik, Vladimir. **Analgesia tranqüilizante com fiorinal: Estudio analítico de 28 casos de cefaléia tensional.** [An analgesic-tranquilizer, fiorinal: Analytic study of 28 cases of tension headache.] *O Hospital*, 1969(May), Vol. 75(5), 1827-1838.—Investigates the use of fiorinal (130-mg acetophenetidin, 200-mg acetylsalicylic acid, 50-mg butalbital, and 40-mg caffeine/tablet) for treatment of tension headaches in 28 13-68 yr. old male and female Ss. The therapeutic superiority of an analgesic-tranquilizer combination is stressed. A maintenance dosage of 1 tablet every 6 hr. resulted in the disappearance of the symptomatology in 75% of the cases and partial remission in 14.3%, with

improvements noted' within the 1st 15-30 min. (25 ref.).—H. Singer.

10147. Boulton, Alan A., Cookson, Brian, & Paulton, Richard. (University Hosp., Psychiatric Research Unit, Saskatoon, Saskatchewan, Canada) **Hypertensive crisis in a patient on MAOI antidepressants following a meal of beef liver.** *Canadian Medical Association Journal*, 1970(Jun), Vol. 102(13), 1394-1395.—Hypothesizes that ingestion of foods containing p-tyramine by "individuals ingesting the monoamine oxidase inhibitor (MAOI)" causes hypertensive crisis. The case history of a 30-yr-old male is presented. Data support the hypothesis and suggests that further research on "the amine contents of natural, prepared and spoiled foods" is needed.—G. Steele.

10148. Da Souza Mattos, Newton. (Children's Neuropsychiatric Hosp., Psychopedagogical Div., Guanabara, Brazil) **Emprêgo da valnoctamida (nirvanil) em oligofrênicos erêticos e epilêpticos.** [Use of valnoctamide (nirvanil) on erethitic and epileptic oligophrenics.] *O Hospital*, 1969(May), Vol. 75(5), 1701-1704.—Administered 200-mg doses of the psycholeptic valnoctamide 3 times daily for 40 days, regardless of previous medication, to 14 8-15 yr. old hospitalized Ss with very low IQs, poor socioeconomic backgrounds, and behavior marked by severe irritability, hyperexcitability, aggressive impulses, inability to concentrate, uncoordinated movements, and lack of sociability, etc. Of the 7 cases with associated epileptiform syndromes, convulsive crises occurred only once in 2 Ss. Greater freedom from restraint, acceptance of specific tasks, better performance, and other significant improvements in the group are attributed to valnoctamide's sedative action in reducing tension and anxiety, without depressive and somnolent manifestations, or interference in routine activity. Its effectiveness as a psychopedagogical therapeutic is stressed.—H. Singer.

10149. Dallos, Vera & Heathfield, Kenneth. (Whipps Cross Hosp., London, England) **Iatrogenic epilepsy due to antidepressant drugs.** *British Medical Journal*, 1969(Oct), Vol. 4(5675), 80-82.—Describes 9 cases of iatrogenic epilepsy due to taking tricyclic antidepressant drugs. The drugs given were amitriptyline; imipramine and protriptyline; 2 Ss were also taking chlorthalidone. It was established that each S had 1 or more of the following contributing factors: previous or family history of epilepsy; preexisting brain damage; retinal and generalized arteriosclerosis; alcoholism; barbiturate withdrawal; and previous ECT. EEG was done on all Ss: 6 cases were reported as normal; 2 cases were suggestive of subcortical epilepsy; and 1 case showed a slight abnormality. Before prescribing antidepressant drugs these factors should be sought in the history, and if any are present prophylactic anticonvulsant medication is indicated. Chlorthalidone is considered to be inadequate to counteract the convulsant effect of antidepressant drugs.—I. Halev.

10150. Demers, Robert G. & Heninger, George. (Yale U., Medical School) **Electrocardiographic changes during lithium treatment.** *Diseases of the Nervous System*, 1970(Oct), Vol. 31(10), 674-679.—Obtained 183 EKGs, under controlled conditions, from 9 manic depressive patients while they were on and off lithium. At some point during lithium treatment, the tracings of all Ss demonstrated T-wave depression, a phenomena which by analysis of longitudinal data, was statistically significant in 7 Ss. No other consistent EKG changes

were observed. During lithium treatment 1 S had a fall in serum potassium; in the other Ss serum electrolytes were normal. In 4 Ss where lithium was stopped, T waves appeared to return to control values. It is concluded that lithium treatment of manic depressive illness is associated with a high frequency of T-wave depression in the EKG, probably representing a benign reversible response of the myocardium to lithium.—*Journal summary.*

10151. Doll, Richard. (University Coll. Hosp. Medical School, London, England) **Recognition of unwanted drug effects.** *British Medical Journal*, 1969(Apr), Vol. 2(5649), 69-76.—Reviews the toxicity and efficacy of new drugs, e.g., MAO inhibitors. Hypertensive attacks were 1st noticed when iproniazid was introduced for the treatment of tuberculosis. Hypertensive crises were also prevalent in patients taking tranlycypamine for depression. Warnings issued concerning the use of aerosols containing sympathomimetics in the treatment of asthma were based on the increased number of deaths of people suffering from asthma, 84% of whom were using pressurized aerosols containing isoprenaline. A few reports have been issued on the side effects of oral contraceptives that involve deep vein thrombosis or pulmonary embolism. The use of enterically coated thiazide and potassium chloride tablets was found to be the cause of 11 cases of localized small bowel stenosis and 1 case of perforated ulcer. It is suggested that no single method of investigation can enable all unwanted effects of drugs to be recognized. The following sources of information should be pooled: pharmacological experiences, medical intelligence, controlled observations, and early warnings. (64 ref.).—I. Halev.

10152. Downing, Robert W., Rickels, Karl, & Horn, Neal L. (Philadelphia General Hosp., Pa.) **Hostility conflict in neurotic patients who prematurely terminate drug treatment.** *Journal of Nervous & Mental Disease*, 1970(Sep), Vol. 154(3), 211-218.—Hypothesized that conflict about the expression of hostility is less severe in neurotics completing a course of psychotropic drug treatment than in neurotics who drop out of treatment. In support of this hypothesis, it was found that there was a stronger association between measures of pretreatment hostility and pretreatment symptomatology in 46 lower socioeconomic Ss dropping out of a 4-wk course of drug treatment than among a group of 50 Ss completing treatment. Hostility measures were derived from physician ratings of hostility and irritability and from the Buss-Durkee Hostility Inventory filled out by Ss prior to the onset of treatment. Symptom measures included psychiatrist ratings of anxiety and overall level of psychopathology, as well as the number of symptoms and average symptom discomfort from a symptom check list which surveyed neurotic symptomatology primarily in the somatic area. Results seem to imply that patient anger, even in a drug treatment situation with lower socioeconomic class Ss, must be dealt with if treatment is to attain optimal effectiveness. There is evidence that the 2-wk dropouts experienced significantly less improvement than completers at a point midway through treatment. However, the lack of follow-up data on the dropout group leaves undetermined the extent to which hostility conflict is confined to those dropouts who fail to improve.—*Journal abstract.*

10153. Figueiredo, J. C. (São Paulo State Penitentiary Surgery Clinic, Brazil) **Observações clínicas com medazepam injetável: Nota prévia.** [Clinical studies with injectable medazepam: Preliminary note.] *O Hos-*

pital, 1970(Feb), Vol. 77(2), 621-625.—1 ampoule (10 mg.) of medazepam, a new benzodiazepine derivative, was injected daily (im or iv) for 10 consecutive days to 5 Ss with psychoneurovegetative disorders, 3 Ss with duodenal ulcers, and 3 paraplegics. Results demonstrate almost total remission of psychological symptoms (anxiety, emotional instability, depression, etc.) without harmful side effects. (31 ref.)—*H. Singer*.

10154. **Free, S. M. & Rudnick, A.** (Smith Kline & French Lab., Research & Development Div., Philadelphia, Pa.) **Feasibility of evaluating psychopharmaceutical agents in cooperative studies in private practice.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 763-766.—6 Es working separately in their private practices followed an identical study plan in a cooperative effort to assess the effect of drug vs. placebo treatment, under double-blind conditions, in psychoneurotic patients. At least 30 Ss were assigned to each E. Principal symptoms were anxiety, agitation, tension, and hyperactivity. Drug treatment consisted of 2 mg. trifluoperazine, twice daily for 4-6 wk. A uniform Global Rating Scale and a previously tested symptom checklist (the Physicians Rating List) were used to determine levels of anxiety and total morbidity before and at the end of treatment with coded medication. Results are presented for each study separately and for all 6 combined, and indicate that the drug relieved presenting symptoms better than the placebo did, and that this difference was statistically significant.—*Journal summary*.

10155. **Gainotti, G., Taramelli, M., & Meneghini, E.** (U. Perugia, Nervous & Mental Illness Clinic, Italy) **Studio clinico controllato di un nuovo ansiolitico: Il R05-4556.** [A controlled clinic study with R05-4556 in the treatment of anxiety/tension states.] *Rivista di Neurobiologia*, 1968(Oct), Vol. 14(4), 498-509.—Studied the effects of R05-4556, which has a strong tranquilizing effect as well as being anticonvulsive and low in toxicity. Rating scales and self-evaluation scales were used to obtain accurate results. 3 groups of Ss with serious cases of anxiety/tension or depressive states were treated: 53 with R05-4556, 20 with chlorthalidopexide, and 26 with placebo. It is concluded that R05-4556 has a greater therapeutic value. Improvement is quicker in anxiety/tension states, in symptoms of hypochondriac polarization, and in depressive states of an affective nature. (English summary)—*A. M. Farfaglia*.

10156. **George, H. R.** (Banstead Hosp., Sutton, England) **A case of the Kleine-Levin syndrome of long duration.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 521-523.—Reports a case of Kleine-Levin syndrome in a 34-yr-old unmarried male with symptoms of periodic lack of stamina, compulsive eating, and drowsiness. This illness had occurred every few months over an 18-yr period, with attacks lasting from 5-7 days, and lessening in intensity through the years. The patient responded reasonably well to oral amphetamines for nearly a yr., but his considerable personality difficulties remained. The obesity of his brother, with no psychiatric illness, suggests a familial factor.—*Journal summary*.

10157. **Grinbaum, Emilio; Lages, Ernani F., Ramalho, Alvaro M., & Grinbaum, Frida S.** **O emprego de psicotrópicos em clínica médica: I. Observação com a doxepina. II.** [The use of psychotropics in medical clinics: I. A study with doxepin. II.] *O Hospital*, 1970(Jan), Vol. 77(1), 77-82.—Administered 10-mg doxepin tablets to 19 female and 21 male unselected,

psychosomatic outpatients, ages 20-70. All were examined psychologically, with 30 tested via the Rorschach, TAT, and MMPI: 95% of the cases were marked by anxiety and depression. The initial dosage was 30 mg/day for the 1st wk. and the daily dosage was increased by 10 mg. for each of the next 3 wk. Ss were divided into 2 groups: (a) a double-blind study of 10 Ss receiving doxepin revealed 5 significant and 5 moderate improvements, and of the 10 Ss under placebo control, improvements were good in 4, slight in 4, and aggravated in 2; and (b) of the remaining 20 Ss, all of whom received doxepin, improvements were noted in 14 Ss, moderate in 4, slight in 1, and null in 1. Despite some favorable results with placebos, doxepin's effectiveness as an antidepressant and anxiolytic was confirmed. Side effects, drowsiness in particular, were absent. (English summary)—*H. Singer*.

10158. **Kellner, Robert.** (U. New Mexico, Medical School) **Drugs, diagnoses, and outcome of drug trials with neurotic patients: A survey.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 85-96.—Surveyed 107 published double-blind drug trials (1955-1966) with neurotic patients. Results are tabulated according to the drugs used and the diagnostic categories of the patients, and the findings are discussed. It is noted that results of many drug trials appear to be conflicting: however, drug trials published since 1960 do yield a larger proportion of significant results. (102 ref.)—*Journal abstract*.

10159. **Krakowski, Adam J.** (State University Coll. New York, Plattsburgh) **Comprehensive approach to psychopharmacology.** *New York State Journal of Medicine*, 1969(Nov), Vol. 69(22), 2886-2894.—Asserts that the "usefulness of chemotherapy for mental illness depends on understanding many basic factors pertaining to (a) the drug, (b) the patient and his illness, and (c) the nature of therapy and the therapist. These factors are reviewed and the following conclusions drawn. Psychopharmacology utilizes biochemical as well as psychologic mechanisms. Chemotherapy of mental illness is based not entirely on a medical model because of the nature of mental illness and the fact that the method utilizes very involved nuances of interpersonal relationships and depends on the personality of the patient, his basic attitudes towards others, and his relationship to the physician. The application of psychochemotherapy requires the physician to be knowledgeable and skillful, unbiased, and capable of a good therapeutic flexibility depending on the quality of the patient's needs, his assets, and his liabilities. Knowing the method (chemotherapy) and the tool (the drug) with all of its potentials, the drawbacks and dangers, makes this approach most useful. (38 ref.)—*Journal abstract*.

10160. **Leal, Raul.** **Modificações psico-dinâmicas e sócio-dinâmicas postas em evidência pelo metilperidol.** [Psychodynamic and sociodynamic changes caused by methylperidol.] *Actas Luso-Espanolas de Neurologia y Psiquiatria*, 1969(Oct), Vol. 28(4), 299-305.—Tested 32 Ss with (a) oligophrenia and personality disorders, (b) abnormal personality development and reactions, (c) endogenous psychoses, and (d) somatically based mental disturbances and psychoses. Ss were administered between 15-45 mg/day of methylperidol (luvatren, a neuroleptic). Results were good with passive and inhibited oligophrenics, with holodysphrenics, and with catatonics. Paranoid hallucinations were modified and sometimes dissociated to

the point of disjoining the schizophrenic nosological entity. Bad effects included agitation in cases of eretic oligophrenia. Benefits were seen in social rehabilitation and readaptation to society. (English summary)—*P. Hertzberg*.

10161. **Lima, Pedro R., de Miranda, A. Porto, & Vieira, Carlos L.** (Medical Penal Inst., Biopsychological Service, Guanabara, Brazil) **Resultado da observação clínica de um ansiolítico em casos de neuroses de angústia.** [Clinical observation results of an anxiolytic in cases of anxiety neurosis.] *O Hospital*, 1968(Dec), Vol. 74(6), 2091-2097.—Ss were all males: 28 cases of anxiety neurosis, 1 paranoiac, 1 hysteric, and 1 chronic insomniac. 1 tablet of adumbran (5 mg.) (oxazepam) was administered 3 times daily or 1-2 tablets at bedtime. Complete symptomatological remissions were noted in 26 cases, good improvements in 3, and none in 2. Adumbran is thus considered to be effective against anxiety neurosis symptoms and has no side effects. (English summary)—*H. Singer*.

10162. **Madalena, J. Caruso.** (Rio de Janeiro Psychiatric Assoc., Brazil) **Observações preliminares com I.H.B 215 nos estados depressivo-ansiosos.** [Preliminary observations with IHB 215 in anxiety depression states.] *O Hospital*, 1969(Jan), Vol. 75(1), 11-21.—Confirms the excellent antidepressive and anxiolytic properties of IHB 215 (25 mg. imipramine and 10 mg. chlorthalidone) when used alone or in combination in the treatment of 25 female and 5 male depressives with anxiety (ages 24-76): 15 remissions, 8 improvements, 1 discontinued, and 6 null. The average daily dosage was 3 tablets. EEG, EKG, and arterial tension controls varied from 2-60 days. (English summary)—*H. Singer*.

10163. **Masciocchi, A., Reitano, S., & Cazzola, G.** **Esperienze cliniche ed elettroencefalografiche su un nuovo farmaco anticefalalgico ad azione antiserotoninica: Il preparato FI 6337 (liserdol).** [Clinical and electroencephalographic observations on a new anticephalgic drug with antiserotonergic action: Preparation FI 6337 (liserdol).] *Rivista di Neurobiologia*, 1969(Apr), Vol. 15(2), 348-379.—Presents results of clinical trials on 23 patients using liserdol (FI 6337) a new antiserotonergic drug for use in the treatment of migraine headaches. FI 6337 was administered in daily doses of 4-6 mg. (in some cases sedatives were also administered). Control EEGs were obtained prior to administration of the drug and at regular intervals following initiation of treatment. Results were deemed unfavorable, as side effects (e.g., anorexia, extreme irritability, insomnia, and depressive reactions) outweighed therapeutic gains. In addition, unfavorable alterations in EEG alpha activity accompanied administration of the drug after a 4-day period. (English summary) (87 ref.)—*B. A. Stanton*.

10164. **Masciocchi, A., Reitano, S., & Masè, G.** **Modificazioni elettroencefalografiche indotte da psicofarmaci, correlazioni clinico-elettrofisiologiche per una "terapia pilotata."** [Electroencephalographical variations induced by psychotropic drugs: Clinical-electrophysiological correlations for a "guided therapy."] *Rivista di Neurobiologia*, 1970(Jan), Vol. 16(1), 3-61.—Reviewed EEG variations, previously studied, which were induced by psychotropic drugs. Contradictory findings on the same drug often are due to different dosages or to the individual's sensitivity. Experiments were conducted with the following drugs

which are widely used in psychology: (a) antidepressants—anti-MAO, a dibenzitic derivative, and imipramine; and (b) neuroleptic drugs—chlorpromazine, thioridazine (a propicazine derivative) and butyrophenone. The correlations between biorhythmic cerebral variations and the development of the illness is noted. It is concluded that EEG observation offers an objective criterion both for the choice and dosage of the drug as well as for the prognosis necessary for a rapid and stable recovery. (English summary) (8 p. ref.)—*A. M. Farfaglia*.

10165. **Pahnke, Walter N., et al.** (Johns Hopkins U., Medical School) **The experimental use of psychedelic (LSD) psychotherapy.** *JAMA: Journal of the American Medical Association*, 1970(Jun), Vol. 212(11), 1856-1863.—Summarizes some of the various psychedelic experiences and psychedelic psychotherapeutic methods emphasizing the psychedelic-peak psychotherapy and the various research projects concerning that method. A case study is presented of a 58-yr-old woman who had suffered from breast cancer for 12 yr. and from metastatic cancer of the spine. The patient was given 300 gm. of LSD on 4 separate occasions over a 2-yr period. This psychotherapeutic method was deemed helpful because the desired results (relief from the depressive state and anxiety feelings which accompanied the diseases) were obtained in a strikingly short period of time. It is suggested that research with "psychedelic drugs needs to be continued to learn more about their effective use." Despite the "potential uses for psychedelic drugs suggested by our work," the prognosis for such research is poor. (32 ref.)—*P. R. Shibelski*.

10166. **Park, Lee C. & Imboden, John B.** (John Hopkins U., Medical School) **Clinical and heuristic value of clinical drug research.** *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 323-340.—Presents findings from the analysis of psychopharmacological research, divided into categories of drug and nondrug factors. It was found that clinical drug research has not added much to what has been learned through clinical experience. The heuristic value of drug research, however, has been great in terms of opening new approaches to understanding and influencing mental functioning and psychopathology, and in the development of research methodology for the behavioral sciences. Perhaps the greatest clinical value of the age of drug research has been that it has catalyzed the study of directive approaches to psychotherapy. The terms "nondrug" and "nonspecific factors," frequently used by psychopharmacologists to cover critical psychotherapeutic factors in patient improvement are discussed. A narrow interpretation caused by these terms is believed to have prevented adequate study of simultaneous psychotherapy and pharmacotherapy and to be reflected in the lack of applicability of research findings for the practitioner. Psychotherapy variables relating to drug therapy are discussed. General guidelines for the clinical use of psychotropic drugs are included. (106 ref.)—*Journal abstract*.

10167. **Pimenta, Arlindo C.** **Ensaio clínico com um novo antidepressivo do grupo das iminodibenzilas: Clorimipramina (G 34586).** [Clinical tests with a new antidepressant from the iminodibenzyl group: Chlorimipramine (G 34586).] *O Hospital*, 1969(May), Vol. 75(5), 1673-1677.—Presents a 7-mo study in which 40 20-55 yr. old male and female in- and outpatients suffering primarily from depression (postmenopausal,

neurotic, schizophrenic, involutive) were administered G 34586 in daily oral doses of 25-150 mg. from 10-90 days, while 10 19-65 yr. old like-type hospitalized female depressives received 50-75 mg. doses iv daily from 3-15 days. Associated therapy or laboratory controls were not involved. Initial effects were noted in about 5 days in both groups. Results obtained in 60% of the Ss is considered evidence of strong antidepressant action and high tensiolytic effect (particularly when used iv) even among schizophrenics, though their improvement was slower. Minimal side effects are reported. (English summary)—*H. Singer.*

10168. Pougetoux, J. (Psychiatric Hosp., Bassens-en-Savoie, France) **De nepenthés aux chimiothérapies modernes.** [From nepenthes to modern chemotherapy.] *Aggressologie*, 1969, Vol. 10(2), 93-119.—Reviews the principal psychotropic drugs which personal experience has permitted to circumscribe (with constant patients and O) to their original correlative particularities within the limits of their therapeutic application. Various "strategies" based on "rational" references, or resulting mainly from analogies, or finally "empirical-criticistic," are suggested. In this respect, the clinical classifications most currently used in France are recalled, and concisely some drug associations are presented. The effect observed constitutes a new method of overall action, the empirical existence of which may be a source of mediation for the "fundamentalist." Impressions concerning hydroquinone, succinic acid semi-aldehyde, 4-OHB, Ag 246, and the amine of the di-n propylacetic group are described. Finally, a summarized outline suggests that a possibility has now arisen in the sense of the theory of sets due to the contributions offered by cybernetic analysis and the theory of information, to find a language adaptable to psychopharmacology in its psychopathological applications. (German & Spanish summaries) (2 p. ref.)—*English abstract.*

10169. Sonenreich, Carol; de Souza Corrêa, Reinaldo, & Martins, Clóvis. **O metronidazol no tratamento do alcoolismo.** [Metronidazol in the treatment of alcoholism.] *O Hospital*, 1968(Nov), Vol. 74(5), 1453-1470.—Reports the therapeutic effects of metronidazol on 86 male and 6 female alcoholics in diverse states (delirium, agitation, confusion): 15% continued to drink, 51% abstained between 10 and 60 days, and 34% remained sober more than 60 days. Of the various factors (time of administration of remedy, S's age, previous hospitalization, familial antecedents), the chronicity of the alcoholic intoxication and the severity of the symptomatology proved to be the most significant determinants. (48 ref.)—*H. Singer.*

10170. Vacastor, L., Lehmann, H. E., & Ban, T. A. (Douglas Hosp., Verdun, Quebec, Canada) **Side effects and teratogenicity of lithium carbonate treatment.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(Nov), Vol. 10(6), 387-389.—In the course of a clinical trial with lithium carbonate in patients suffering from periodic affective disorders, side effects occurred such as tremor and diarrhea. Generalized maculopapular rash and alopecia occurred in 1 patient each, and a toxic confusional state in 4. 1 patient delivered a malformed baby, and restriction of salt intake, administration of a diuretic, and an overdose of lithium induced a severe but reversible comatose state with generalized and focal convulsions.—*Journal summary.*

10171. Warlick, Lawrence H. (U. California, Medical

School, Los Angeles) **Lithium carbonate in the treatment and prophylaxis of recurrent affective disorders: Long term follow-up.** *Bulletin of the Los Angeles Neurological Societies*, 1970(Oct), Vol. 35(4), 169-180.

—Reports on the treatment of 40 patients in private practice in 2 groups, and 9 controls, followed for a 4-63 mo. period, median length varying from 1 yr. to 19 mo. "Patients were referred by private physicians and state hospitals for lithium treatment. All... had a well-documented history of recurrent affective disorder with at least 2 episodes prior to initiation of lithium therapy." 29 patients were treated for acute mania in a hospital setting and were followed up as outpatients. Of 11 others treated prophylactically, 6 had a cyclic disorder and 5 had a history of recurrent, endogenous, noncyclic depressive episodes. Controls were 9 patients "with recurrent affective disorders who were followed in psychotherapy with occasional use of medications and ECT." A composite of data sources was used to make excellent, moderate, and poor ratings. There were "uniformly good" results with the experimental group; prophylactic treatment also was indicated, lithium was not an antidepressant, and improvement was better with "thought disorder... in 'harmony' with... mood rather than in dissociated states of thoughts and feelings." The general trend of results is congruent with other clinical investigations.—*I. N. Mensh.*

10172. Weiss, Gabrielle, et al. (Montreal Children's Hosp., Quebec, Canada) **Comparison of the effects of chlorpromazine, dextroamphetamine and methylphenidate on the behaviour and intellectual functioning of hyperactive children.** *Canadian Medical Association Journal*, 1971(Jan), Vol. 104(1), 20-25.

—Tested the effects of drugs on 139 6-12 yr. old hyperactive children in an uncrossed double-blind study. Chlorpromazine (C), dextroamphetamine (D), and methylphenidate (M) were significantly superior to placebo in producing overall improvement in behavior. C was effective in reducing hyperactivity in most Ss, but had no demonstrable effect on distractibility, aggressivity, or excitability. D and M produced more goal-oriented behavior and reduced distractibility. M was the most effective of the drugs in producing exceptional improvement. All 3 active drugs had to be discontinued in a few Ss due to side effects, and not all Ss were benefited by the drugs. No background variables (with the exception of mother-child relationship) were found in this study to predict favorable response to the drugs. (French summary) (26 ref.)—*Journal abstract.*

10173. Wheatley, David. (General Practitioner Research Group, Twickenham, England) **Comparative trial of a new mono-amine oxidase inhibitor in depression.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 573-574.—Results of a trial involving 92 depressed patients indicate that both therapeutic effects and side effects were similar with M and B 9302 (N-3-(2,4-dichlorophenoxy) propyl-N-methylprop-2-ynylamine hydrochloride), a new MAO inhibitor reported to be a highly potent antidepressant, and the control drug, imipramine. Since the test drugs necessitate strict adherence to dietary restriction, neither is recommended for use in general practice.—*R. L. Sulzer.*

10174. Wilson, I. C., et al. (Dorothea Dix Hosp., Research Div., Raleigh, N.C.) **Thyroid-hormone enhancement of imipramine in nonretarded depressions.** *New England Journal of Medicine*, 1970(May), Vol. 282(19), 1063-1067.—Enhanced the speed and

efficacy of imipramine in the treatment of clinical depression by the addition of tri-iodothyronine to the treatment program. 20 male and female patients, less than 60 yr. old, with severe primary depression, were studied. Tri-iodothyronine, 25 μ gm. daily, added to imipramine, 150 mg/day, significantly improved performance on the Hamilton Rating Scale and the Self-Rating Depression Scale as compared to that in Ss receiving imipramine and a placebo. Morbidity and duration of hospitalization were diminished. Ss were euthyroid according to conventional clinical and laboratory criteria. The hormone quickened ankle reflex time and suppressed levels of protein-bound iodine. These physiologic changes, though definite, were slight and within the limits of euthyroidism as usually defined. (24 ref.)—*Journal abstract.*

HOSPITAL CARE & INSTITUTIONALIZATION

10175. Altman, Michael. (U. Colorado, Medical Center, Denver) **Mothers and children on psychiatric wards: II. The benefits of admitting infants with their mothers.** *Hospital & Community Psychiatry*, 1968(Nov), Vol. 19(11), 356-359.—Reviews the literature on the advisability of admitting infants with their mothers to a psychiatric ward and describes 2 illustrative cases. 1 patient was a 20-yr-old woman with an obsessive-compulsive character with marked dependency features, who cared for her baby on the ward for 1½ wk. with virtually no problems, although it was discovered later that she had sealed over many feelings. The 2nd patient was a 24-yr-old woman with an obsessive-compulsive character with hysterical features. She was diagnosed as having a postpartum schizophrenic break with paranoid and depressive features. She did not handle her baby well during an initial 11-day ward visit, feeling that the staff was more interested in the baby than in her. Another visit with the baby 2 wk. later, however, went well. A questionnaire concerning staff reaction is described. Data indicate that most staff members were in favor of having mother-child pairs on the ward.—*B. A. Burkard.*

10176. Callicutt, James W. (Brandeis U., Florence Heller Graduate School for Advanced Studies in Social Welfare) **Timetables in the career of the psychiatric patient.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1900.

10177. Clark, David H. & Myers, Kenneth. (Fulbourn Hosp., Cambridge, England) **Themes in a therapeutic community.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 389-395.—Describes a 60-bed therapeutic community in the male and female disturbed wards of an 800-bed general psychiatric hospital in England. From 1964-1969, there were 566 admissions of 267 persons. Characteristics and customs are analyzed. Frequent themes of community preoccupation were rejection, violence, sexuality, staff divisions, dependence-independence, and relations with outside bodies.—*Journal summary.*

10178. Cripe, Richard V. (Ft. Logan Mental Health Center, Denver, Colo.) **Individualized treatment: A problem in institutional care.** *Journal of the Fort Logan Mental Health Center*, 1968(Fal), Vol. 5(2), 61-67.—Examines the treatment needs of patients admitted to an adult psychiatric program in a state hospital. The therapeutic community treatment used was oriented towards patients who could benefit from, and respond to, a short-term, intensive, counter-dependent program,

followed by supportive outpatient care or community placement. This approach, however, was not appropriate for patients (a) for whom placement was the only realistic goal; (b) who failed the program; (c) who could return to the community, but might benefit from additional long-term therapy; and (d) with a character disorder. It is concluded that "a mental health facility should avoid ideological decisions that establish 1 treatment as superior to any other and that necessarily limit the available choices for treating any given patient."—*S. Knapp.*

10179. Dewdney, Selwyn. (Westminster Hosp., London, Ontario, Canada) **The role of art activities in Canadian mental hospitals.** *Bulletin of Art Therapy*, 1969(Jan), Vol. 8(2), 57-66.—Reports results of a survey of the uses made of art in 56 Canadian psychiatric institutions and hospital units. Data indicate that 19 hospitals assigned no psychiatric role to art activities; 1 used art solely for diagnosis; 19 made no diagnostic use of art; 17 used art diagnostically and therapeutically; 19 placed art activities under the exclusive direction of the occupational therapy department; and in 18, art activities were conducted by staff personnel. The relevance of findings to the future of art therapy in Canada and the United States is discussed.—*Journal abstract.*

10180. Driemen, Pearl M. & Minard, Carol C. (Metropolitan State Hosp., Norwalk, Calif.) **Preleave planning.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 87-90.—Observed 112 state hospital mental patients on 2 regionalized wards from 1967-1969 during hospitalization and while on leave of absence. The return rate dropped from the usual 40-70% to 9.8%. Ss were followed by the same professional team, received psychotropic drugs, were offered long-term psychotherapy, family therapy, and assistance with financial, living, and vocational plans. Better communication between the mental hospital and its community was felt to be a significant factor in the sharp reduction of readmission rates.—*Journal abstract.*

10181. Faux, Eugene J. & Crawford, Blaine. (Utah State Hosp., Provo) **Deaths in a youth program.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 569-571.—*A. M. Cawley.*

10182. Gerhardt, Sidney. (Hall-Brooke Hosp., Westport, Conn.) **The evolution of a patient government.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 329-330.—Describes weekly meetings, held to plan recreational activities for patients, which evolved into what became known as "town meetings." The focus changed from planning activities to evaluating hospital programs in terms of giving patients more responsibility. The presiding officer, a patient, followed a 5-point procedure which is described. Communication problems between staff and patients and between various age groups are discussed. Several patients demonstrated socially responsible attitudes by returning to help other patients after discharge.—*B. A. Burkard.*

10183. Hartlage, Lawrence C., Freeman, William, & Horine, Louise. (Associated Psychological Services, Louisville, Ky.) **An analysis of discharge procedures.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 307-310.—Discusses hospital discharge procedures and ways in which they can be made more efficient. Reasons for the conceptual confusion concerning discharge from a psychiatric hospital are detailed. In addition to deciding on the health of the patient before discharge, the hospital must also consider his ability to fit into the community. A suggested discharge procedure includes

interviews with physician and social worker, and visits to the hospital collections office, pharmacy, and medical records department.—*B. A. Burkard.*

10184. **Hecker, Arthur O. & Wright, Eleanore R.** (Embserville State Hosp., Pa.) **Reassessing hospital treatment practices.** *Hospital & Community Psychiatry*, 1968(Nov), Vol. 19(11), 362-363.—Describes patient reaction in a rural state hospital to crisis situations involving fewer than usual staff members being on duty. It was found that patients responded well to the additional responsibility for themselves and other patients, suggesting that traditional hospital policies should be reviewed. These reactions were similar to those noted during a former period of open-door wards. Results of the review indicate that (a) the average stay of mental patients could be shortened in many cases, (b) "the use of psychotropic drugs and activity assignments within 24 hr. of admission are the 2 most significant factors in the early release of patients," (c) "group psychotherapy is of little significance in shortening hospital stay," (d) weekend visits outside the hospital prolong hospitalization, (e) many long-term patients, although not entirely well, can function in simple community jobs, and (f) patient-aide ratios should depend on the amount of ward activity and responsibility given to patients.—*B. A. Burkard.*

10185. **Kornfeld, Donald S.** (Columbia-Presbyterian Medical Center, Psychiatric Consultation Service, New York, N.Y.) **Psychiatric view of the intensive care unit.** *British Medical Journal*, 1969(Jan), Vol. 1(5636), 108-110.—Describes the impact on patients and staff of the environment of intensive care units for the treatment of critically ill patients. Problems likely to be encountered include those produced by (a) the serious medical-surgical illness, itself; (b) the unique environment of the unit; (c) reactions that manifest themselves in the patient following discharge from the unit; and (d) the emotional reactions of the professional staff working on the unit. Suggestions for reducing these problems are presented, and include providing relief for floor nurses during the course of the day, regular meetings of both nursing and medical staff, and developing clear guide lines for areas of professional responsibility.—*I. Halev.*

10186. **Kritzer, Herbert & Pittman, Frank S.** (U. Colorado, Medical Center, Denver) **Overnight psychiatric care in a general-hospital emergency room.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 303-306.—Describes an emergency psychiatric service, located in a general hospital, with access to the emergency room's 9 beds for overnight care. 3rd-yr residents are assigned full time for 3 mo. Of 270 patients who came to the emergency room during a 2-mo period, 36 (13%) were considered primarily psychiatric patients. 13 were admitted because of suicide attempts, 4 for evaluation and treatment after threatening suicide, 7 for diagnostic evaluation, 6 because of destructive behavior, 4 because of overdose of drugs, and 2 because of alcoholic intoxication. Psychiatric hospitalization usually carries a stigma and proceeds slowly, disrupting job and family life. It was found that patients and their families did not consider the overnight service as psychiatric hospitalization. It is suggested that brief "hospitalizations usually correlate with short rehospitalizations and better interim functioning." The service is also helpful in training psychiatric residents.—*B. A. Burkard.*

10187. **Levai, Marian & Pinsky, Henry.** (New York Medical Coll., Metropolitan Hosp. Community Mental

Health Center, N.Y.) **Mothers and children on psychiatric wards: I. The value of permitting children to visit on wards.** *Hospital & Community Psychiatry*, 1968(Nov), Vol. 19(11), 354-356.—Describes a psychiatric ward of a municipal hospital which houses 25-35 women of all ages which has encouraged contact between hospitalized mothers and their children for the past 2 yr. Extra personnel were not needed and initial fears that the children would be an added responsibility or might be harmed were not realized. Patients whose illnesses involved their children seemed to benefit most. Other patients seem happy to have the children around and the children were bothered only by angry arguments between patients. Seeing mother and child together can provide valuable information concerning the mother's competency to care for her children. Emotional problems in some children were uncovered. No contraindications to the visits were discovered.—*B. A. Burkard.*

10188. **Lewis, Jerry M.** (Timberlawn Foundation, Research & Training, Dallas, Tex.) **The development of an inpatient adolescent service.** *Adolescence*, 1970(Fal), Vol. 5(19), 303-312.—Discusses factors which need to be considered in an adolescent hospital program. Emphasis is on the therapeutic value of peer group processes.—*A. B. Warren.*

10189. **Logan, Daniel L.** (U. Texas, Southwestern Medical School, Dallas) **A "paper money" token system as a recording aid in institutional settings.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 183-184.—Describes the use of paper money in the token economy system of a state hospital which remedies the problems of loss, theft, and trading. Color-coded denominations with a place for the patient's and attendant's names, the date, and the task reinforced are issued, the amount paid being based on the desirability of the patient's behavior. When the paper money is exchanged, it becomes part of the permanent records and can be used to provide rapid feedback on the classes and specific behaviors being reinforced and the number and kinds of behavior being reinforced by a given attendant.—*S. Knapp.*

10190. **Moos, Rudolf H.** (Stanford U., Medical School) **Differential effects of psychiatric ward settings on patient change.** *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 316-321.—12 psychiatric patients were observed in and were asked to describe their reactions to 6 psychiatric ward subsettings (e.g., individual therapy, community meeting, free time, intake meeting, group therapy, and lunch time) both during their 1st or 2nd wk. of hospitalization and during the wk. before they left the ward. Results show that persons and person by setting interactions accounted for substantial proportions, whereas consistent differences between settings accounted for very little of the variance in change scores. This indicates that there are only small general differential effects of ward subsettings, but that settings elicit differential amounts of therapeutic change in different patients. Implications include that different psychiatric ward subsettings may be differentially beneficial to different groups of patients, that conclusions about therapeutic change drawn about a patient from observations in one setting may not be generalized to other settings, and that the findings bear on the upper limit of intercorrelations of different change scores obtained on the same individuals. (16 ref.)—*Journal abstract.*

10191. **Robin, A. A.** (Runwell Hosp., Wickford, England) **Distribution and origins of manpower and work-load in the psychiatric services.** *British Medical Journal*, 1969(Sep), Vol. 3(5673), 774-776.—Describes the "developments in medical manpower in the hospital services for adult psychiatry in 1 metropolitan hospital region with a population of just under 3½ million." Listed statistical facts are based on a census of the medical staff of the regional and teaching hospitals and the academic departments engaged in adult psychiatry for 1948, 1958, and 1968. It was found that a progressive increase in psychiatrists took place during the period covered by the census. The rate of increase was higher in the teaching than in the regional hospitals. The rate of increase for psychiatry for discharges and deaths from the hospitals in England was twice as great as for general medicine. Total outpatient attendance increased 3-5 times more rapidly in psychiatry.—*I. Halev.*

10192. **Silverstein, Arthur B.** (Pacific State Hosp., Pomona, Calif.) **A classification of research projects at Pacific.** *California Mental Health Research Digest*, 1969, Vol. 7(1), 17-19.—Provides an overview of the research program at Pacific State Hospital, including projects concerning: (a) biological abnormalities of the retarded; (b) psychological abnormalities of the retarded; (c) training, treatment, and habilitation; (d) hospital epidemiology and program evaluation; and (e) community-based research.—*A. M. Berg.*

10193. **Spear, Paul S. & Dorna, Linda L.** (San Diego State Coll.) **Variables related to visiting rate of hospitalized mental patients.** *Journal of the Fort Logan Mental Health Center*, 1968(Fal), Vol. 5(2), 77-83.—Compared the frequency with which 155 patients were visited with several variables, e.g., type of admission, age, diagnosis, and sex. Medical charts and visiting records were used as measures. It was found that close proximity to the hospital, rural residency, voluntary admission, number of admissions, and the number of children were positively related to visiting frequency. Ss from over 500 miles from the hospital, from urban areas, with a severe diagnosis, or who were involuntary admissions received fewer visits. Socioeconomic status, education, sex, religion, and marital status were not significant. Ss with several hospitalizations received more visits than those who were long-term patients. It is concluded that if community contact facilitates recovery, patients could benefit from more frequent and extended leaves in spite of the risk of subsequent readmission.—*S. Knapp.*

10194. **Tenbrunsel, Thomas W.** (St. Louis U.) **A group coupon economy program in treating mental illness: An experiment in social innovation.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3880.

10195. **Walk, Alexander.** (18 Sun Lane, Harpenden, England) **Lincoln and non-restraint.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 481-495.—Describes the conflict in the Lincoln Asylum and the press following Gardiner Hill's public proclamation of non-restraint as a new system in 1838. The new goals of nonrestraint, nonseclusion, and "exhilarating engagement" were not easily achieved, but the devoted work of pioneers engendered a new spirit among those seeking to introduce psychological measures in the treatment of insanity.—*R. L. Sulzer.*

10196. **Weiss, Henry H. & Pizer, Evan F.** (Dept. of Health & Social Services, Madison, Wis.) **Hospitalizing the young: Is it for their own good?** *Mental Hygiene*,

1970(Oct), Vol. 54(4), 498-502.—State hospitalization of young children may have long term deleterious effects: on reputation, self-concept, opportunities for self-determination, and social competence. Decision for hospitalization has much potential for harm, and should not be made lightly.—*A. M. Cawley.*

10197. **White, Warren & Bloch, Sidney.** (Royal Melbourne Hosp., Victoria, Australia) **Psychiatric referrals in a general hospital.** *Medical Journal of Australia*, 1970(May), Vol. 1(19), 950-954.—Studied 331 psychiatric consultations occurring over a 12-mo period in the medical and surgical wards of a general teaching hospital regarding the reason for psychiatric referral of the patient, psychiatric diagnosis, and the consultant's management. Ss with a "neurological" condition comprised almost 1/3 of the total, followed by alimentary, cardiac, and respiratory involvement. Ss were referred mainly from the medical wards. Attendance at a psychiatric outpatient department was recommended for 28.7% of the referrals; 26.3% received advice on appropriate use of drugs and other treatment. Implications of some of the findings are discussed, as well as the role of a psychiatric consultation service in the setting of a general hospital.—*Journal abstract.*

PSYCHOANALYTIC INTERPRETATION

10198. **Black, Stephen A.** (Simon Fraser U., Burnaby, British Columbia, Canada) **Whitman and psychoanalytic criticism: A response to Arthur Golden.** *Literature & Psychology*, 1970, Vol. 20(2), 79-81.—Criticizes Arthur Golden's analysis of Whitman's poetry. Conclusions regarding Whitman's poetry are summarized. Whitman's poetry is regarded by Miller as being an autobiographical self-analysis, originating in unconscious infantile sources, which result in "regressive imagery, fantasy, and the reactivation of infantile longings." It is suggested that Whitman transcended Freudian narcissism by means of adopting Marcusean narcissism. "The striking paradox that narcissism, usually understood as egotistic withdrawal from reality, here is connected with oneness with the universe, reveals the new depth of the conception: beyond all immature autoeroticism, narcissism denotes a fundamental relatedness to reality which may generate a comprehensive existential order." It is suggested that narcissism may be the source of the beginning of a new reality principle associated with libidinal cathexis of the ego leading to libidinal cathexis of the objective world.—*B. A. Stanton.*

10199. **Gould, Gerald L.** (City Coll., City U. New York) **The gate scene at Sotherton in "Mansfield Park."** *Literature & Psychology*, 1970, Vol. 20(2), 75-78.—Describes Freudian symbolism inherent in the action of characters during the scene at the gate at Sotherton, the family estate of Rushworth, in Jane Austen's novel, *Mansfield Park*. The gate, itself, is a locked gate (symbolic of the "chastity and propriety that are to be violated by Maria's adultery") which separates a wooded garden from hunting grounds and a moat. The positions which are taken by the characters in the novel in response to the gate are analyzed as being representations of attitudes toward sex and morality.—*B. A. Stanton.*

10200. **Levin, Gerald.** (U. Akron) **Lovelace's dream.** *Literature & Psychology*, 1970, Vol. 20(3), 121-127.—Discusses the character of Lovelace as revealed through his dream content in Samuel Richardson's

Clarissa. The character of Clarissa is discussed as that of a masochistic female who compliments a sadistic sexual male. It is noted however, that Lovelace's pursuit of Clarissa results from a specific form of masochism which is masked by his professed sadism. This particular type of masochism was originally labeled as "moral masochism" by Freud.—*B. A. Stanton.*

10201. Moreno, Antonio. (Dominican House of Studies, Oakland, Calif.) **Jung, gods, and modern man.** Notre Dame, Ind.: U. Notre Dame Press, 1970. xiii, 274 p. \$7.95.

10202. Moss, Judith P. **The body as symbol in Saul Bellow's "Henderson the Rain King."** *Literature & Psychology*, 1970, Vol. 20(2), 51-61.—Presents an analysis of the character of Henderson in Saul Bellow's *Henderson the Rain King*. "... Henderson's process of coming to terms with himself is mirrored in his coming to terms with his own body, its demands and its limits." Henderson's psychological disorders resemble conversion hysteria with primarily oral psychosomatic manifestations (i.e., aching gums, sublingual gland pain, facial flushing) and anal psychosomatic manifestations (i.e., aggressiveness, hemorrhoids, and accident proneness). Disorders within Henderson's personality include: (a) extreme dependency needs and id-dominated ego, (b) inability to control aggressive impulses, and (c) inability to accept the mortality of man. Henderson's extreme acquisitiveness is discussed as a substitute for nourishment from a loving mother.—*B. A. Stanton.*

10203. Rifflet-Lemaire, Anika. Jacques Lacan. Brussels, Belgium: Charles Dessart, 1970. 419 p.

10204. Robertello, Richard C. (49 E. 78th St., New York, N.Y.) **Penis envy.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 204-205.—Attempts to clarify the concept of penis envy in psychoanalysis. Penis envy is described as a fairly common problem in neurotic women, but a psychopathological development rather than an inevitable occurrence in the life of a female child. Early and severe toilet training and preference for a male sibling by the parents, especially the mother, are seen as bearing direct causative relationships to penis envy. "Cultural factors can accentuate preference for male children, but personal psychological problems in the parents are often as important or more important." 2 clinical examples are presented.—*S. Knapp.*

10205. Robison, Paula. (Temple U.) **Svevo: Secrets of the confessional.** *Literature & Psychology*, 1970, Vol. 20(3), 101-114. Illustrates Italo Svevo's concern with Oedipal themes using passages from *Confessions of Zeno* and *Further Confessions of Zeno*. Phrases symbolizing fears of castration and patricide are discussed. An attempt is made to depict the contrast between the child's exterior and his suppressed aggressive desires.—*B. A. Stanton.*

10206. Sandler, J., Holder, A., & Dare, C. (Inst. of Psychiatry, London, England) **Basic psychoanalytic concepts: VI. Acting out.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 329-334.—Acting out has suffered a great extension and change of meaning since it was introduced by Freud in 1905. Starting as a legitimate form of resistance, it has come to cover delinquent behavior and all kinds of pathologic and impulsive actions. Perhaps the proper use of the concept should be linked to those situations in which an intense relationship, in therapy or otherwise, fosters a tendency to a revival of earlier, especially infantile, states and impulses.

Enactments of such states would be correctly referred to as acting out. (33 ref.)—*R. L. Sulzer.*

PSYCHODIAGNOSIS

10207. Adams-Webber, J. R. (Brock U., St. Catherine's, Ontario, Canada) **Elicited versus provided constructs in repertory grid technique: A review.** *British Journal of Medical Psychology*, 1970(Dec), Vol. 43(4), 349-354.—Several forms of repertory grid test in current use involve the procedure of supplying the same standard list of dimensions to all Ss in contrast to G. A. Kelly's original method of eliciting a set of personal constructs from each S. A review of studies in which supplied and elicited constructs were directly compared in various contexts led to the conclusion that, although normal Ss prefer to use their own elicited constructs to describe themselves and others, both kinds of dimensions seem to be functionally similar when grid technique is employed to assess structural features of their cognitive systems. However, there is some evidence that neurotics may apply their own elicited constructs more differentially than supplied dimensions in the grid task. (41 ref.)—*Journal summary.*

10208. Anthony, Nicholas. (Forbes Air Force Base, 313 Tac Hosp., Kan.) **Comparison of clients' standard, exaggerated, and matching MMPI profiles.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 100-103.—Investigated the manner in which clients exaggerate the MMPI: (a) whether malingering indices developed on normals could detect clients' exaggeration, (b) whether D. N. Wiener's subtle and obvious items could detect malingering, and (c) whether malingered profiles were distinguishable from valid matching profiles. 40 United States Air Force male clients took standard MMPIs and exaggerated retests. 32 exaggerated retests were matched with similar valid profiles. Findings were: (a) exaggerated retests differed ($p < .01$) from the standard tests on all measures; (b) malingering indices discriminated ($p < .001$) the standard from the exaggerated retests; (c) subtle and obvious items differentiated the standard from the exaggerated retests ($p < .001$), but not the exaggerated from the matching profiles; and (d) F raw score ($p < .02$), F-K ($p < .05$), and Ds ($p < .05$) indices discriminated the exaggerated from the matching profiles. (20 ref.)—*Journal abstract.*

10209. Baer, Eva; Davitz, Lois J., & Lieb, Renee. (Beekman Downtown Hosp., New York, N.Y.) **Inferences of physical pain and psychological distress: I. In relation to verbal and nonverbal patient communication.** *Nursing Research*, 1970(Sep), Vol. 19(5), 388-392.—Studied inferences by 25 nurses, 25 social workers, and 24 physicians concerning patients' physical pain and psychological distress, in relation to verbal and nonverbal communication, using an instrument consisting of 16 paired vignettes describing a variety of patients. Each patient appeared in 2 different situations, 1 in which pain or discomfort was verbalized, and 1 in which it was expressed in action. The various verbal and nonverbal items were randomly distributed throughout the questionnaire. Results indicate significant differences between groups. Nurses and physicians inferred least pain and social workers inferred the most. Findings are discussed in terms of their relevance in practice.—*Journal abstract.*

10210. Day, Merle E. (Veterans Administration Hosp., Downey, Ill.) **Don't teach till you see the direction of their eye movements.** *Journal of Special Education*, 1970(Spr), Vol. 4(2), 233-237.—Presents a clinical diagnosis of individual differences in the direction of eye movements. When people break eye contact, they make a lateral eye movement either to the left or right. The direction of the movement is characteristic of the individual. Clinical observations suggest a relationship between direction and personality traits. Right movers tend to be assertive and practical, whereas left movers stress subjectivity and the importance of feeling rather than action. Certain psychosomatic syndromes are more highly correlated with either right or left movers. No sexual differences are noted in the tendency to move the eyes in one direction or the other.—L. M. Glidden.

10211. Eysenck, H. J. (Inst. of Psychiatry, London, England) **The classification of depressive illnesses.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 241-250.—Argues that the difference between the Newcastle and London schools on the classification of depressive illnesses in terms of 1 or 2 dimensions is based on a misunderstanding of the issues involved and the logic of the statistical methods. "There are 2, not 1, problems involved, relating (a) to the unitary or binary nature of depression, and (b) to the categorical or dimensional nature of these illnesses. Factor analysis is relevant to (a), and conclusively favours the binary view; distribution of scores is relevant to (b), and cannot throw any light on the binary-unitary problem." The preferred solution to classification is to give each patient 2 scores, representing positions on 2 dimensions, the reactive and endogenous continua. (34 ref.)—R. L. Sulzer.

10212. Federici, F. & Quattrini, A. (U. Perugia, Nervous & Mental Illness Clinic, Italy) **Un test di sensopercezione per lo studio della traccia mnemonica in soggetti con gravi disturbi della memoria.** [A sensory-perception test for a correct evaluation of severe loss of memory.] *Rivista di Neurobiologia*, 1968(Oct), Vol. 14(4), 564-572.—Devised a sensory perception test which is of value in various kinds of memorization: short-term, long-term, experimental, and conceptual. The test has the following parts: (a) representations of intrinsic perception (e.g., sees various interpretations of the human face and must choose when the features are recognizable); (b) number and series identification (e.g., recognizing the absence of a number in the series 8, 24, 32; (c) time evaluation; (d) memory of meanings; and (e) memory of verbal symbols. The test differs from others in that it is discriminating on a localized level and it is applicable to all Ss with serious memory disorders. It evaluates the capacity of the memory in every possible form of memorization. When an S is repeatedly unable to see the features in the "human face" series, it is indicative of a hemispherical lesion. Thus the test may be used to determine the possible pathological contributions of amnesia.—A. M. Farfaglia.

10213. Goodwin, Donald W., Alderson, Philip, & Rosenthal, Randall. (Washington U., Medical School) **Clinical significance of hallucinations in psychiatric disorders.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 76-80.—Reports that of a consecutive series of 117 psychiatric inpatients with hallucinations, all had primary affective disorder, schizophrenia, alcoholism, organic brain syndromes, or hysteria. Hallucinations were found to be nonspecific. Most Ss who had hallucinations involving 1 sensory modality had ex-

perienced past hallucinations involving other sensory modalities. The hallucinations accompanying acute schizophrenia more closely resembled those seen in affective disorder than in chronic schizophrenia, but no type of hallucination was diagnostic in the sense of occurring significantly more often in 1 illness than in another. Auditory hallucinations occurred almost as often in affective disorder as in schizophrenia; visual hallucinations were common in all 5 disorders; and derogatory voices, widely believed to signify depression, occurred most often in schizophrenia. (21 ref.)—*Journal abstract*.

10214. Hamlin, Roy M. & Lorr, Maurice. (Veterans Administration Hosp., Danville, Ill.) **Differentiation of normals, neurotics, paranoids, and nonparanoids.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 90-96.—Compared objective tests and symptom ratings in differentiating psychopathology. A univariate and 2 discriminant function analyses were carried out with 30 measures on 61 normals, 45 neurotics, 31 paranoids, and 71 nonparanoid schizophrenics. Considered separately, objective tests of psychomotor speed, cognition, and social perception all differentiate the 4 comparison groups. When symptom ratings are included in the discriminant function analysis, however, only the cognitive tests make a unique contribution not covered by the ratings. Results suggest a basic cognitive deficit, not accounted for entirely by bizarre associations, social isolation, or apathetic motivation.—*Journal abstract*.

10215. Kostrowski, Janusz. **Problem rzetelności i trafności skali Psyche Cattell.** [Reliability and validity of the Psyche Cattell Infant Intelligence Scale.] *Roczniki Filozoficzne: Annales de Philosophie*, 1969, Vol. 17(4), 145-164.—Presents a study based upon Polish standardization of the scale. The sample for the standardization was drawn from 10 districts and included 1530 children from 2-30 mo. old. The authors own investigation comprises a sample of 52 youngsters 8 mo. to 7 yr. old diagnosed as mentally retarded due to Downs syndrome. It is concluded that Cattell's Infant Intelligence Scale is a stable instrument for testing mentally retarded children. (English summary) (22 ref.)—J. Holowinsky.

10216. Lorr, Maurice & Hamlin, Roy M. (Catholic U. of America) **Estimation of the major psychotic disorders by objective test scores.** *Journal of Nervous & Mental Disease*, 1970(Sep), Vol. 151(3), 219-224.—Recent research has established behavioral definitions of 5 major psychotic disorders: schizophrenic disorganization, paranoid process, hostile paranoia, psychotic depression, and disorganized hyperactivity. The present study attempted to determine how well each of the disorders could be estimated from objective measures of psychomotor and cognitive performance, test situation behavior, and free verbalization. A broad sample of 125 psychotics were administered 15 objective tests and rated on the Inpatient Multidimensional Psychiatric Scale, a standardized interview schedule. The regression analysis was applied in 2 stages to estimate the 5 disorders. Objective test scores and behavioral indicators were applied as predictors. Findings indicate that all disorders except hostile paranoia could be estimated rather well from just a few objective test scores. When the 4-min verbalization measures were added, the multiple correlations were substantially enhanced for all criteria except paranoid process. Results suggest that a brief objective test battery, supplemented by the recorded verbalization

test, could be used to measure the major psychotic behavioral dimensions.—*Journal abstract.*

10217. Love, Henry G. (Porirua Hosp., New Zealand) **Validation of the Hooper Visual Organization Test on a New Zealand psychiatric hospital population.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 915-917.—Reports a validation study of the Hooper Visual Organization Test on 115 Ss. Results indicate that the test should not be used with Ss having IQs less than 75 and that excluding these, there is a 14.5% false positive result for nonorganic Ss and a 25% false negative result for organic Ss.—*Journal abstract.*

10218. Mann, Edward T. (New Jersey Coll. of Medicine & Dentistry, Jersey City) **Use of the KTSA as a technique for assessing intelligence and psychodynamics in drug addicts.** *International Journal of Symbolology*, 1969(Dec), Vol. 1(2), 57-66.—Investigated the relationship between the Kahn Test of Symbol Arrangement (KTSA) and WAIS and sensitivity of the KTSA in assessing character and behavior disorders in a group of 40 male drug addicts. The usefulness of the supplemental KTSA questionnaire and Object Sorting task was also evaluated. Of the 42 correlations calculated between the KTSA and WAIS, only 6 were significant; easily possible through chance. The clinical features as well as the dynamic material resulting from the supplemental instruments seemed to conform to the performance expected of those diagnosed as "character and behavior disorders with neurosis" established by previous research. In the case of several Ss, the question of underlying schizophrenia was raised. It is concluded that quantitative examination of selected objective KTSA variables revealed strong trends consistent with clinical observations regarding the personality features seen in the drug addicted.—*Journal abstract.*

10219. Miller, Jerome G. (Commonwealth of Massachusetts, Dept. of Youth Services, Boston) **The latent social functions of psychiatric diagnoses.** *International Journal of Offender Therapy*, 1970, Vol. 14(3), 148-156.—Notes that since the clinician is concerned with norms, he is inevitably involved with social control, e.g., the court psychiatry. The latent functions of a diagnosis often differ from its stated purpose, and by side-tracking criticism aid social control. The diagnosis may offer society the scientific sanction to disregard its own inconsistencies. It is concluded that the professional should mediate between the persons in need of help and society, furthering the adjustment of the former and helping in the evolution of the latter. (French, German, & Spanish summaries)—*Journal summary.*

10220. Pound, Frederick E. (U. Oklahoma) **Differentiating psychotic, delinquent, and cerebral palsied adolescents on the basis of letters from mothers.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3874.

10221. Richter-Heinrich, Elisabeth & Läuter, J. (German Academy of Sciences, Inst. of Cortico-Visceral Pathology & Therapy, Berlin, E. Germany) **A psychophysiological test as diagnostic tool with essential hypertensives.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 153-168.—Administered a battery of tests to groups of essential hypertensives in Stages I (N = 40) and II (N = 30) of degree of severity and 30 normal controls. Hypertensives, compared to normotensives, showed a heightened sympathetic activity as a response to stress and weak acoustic stimuli, low acoustic thresholds, diminished acoustic adaptation and

mental concentration. The recordings of systolic and diastolic blood pressure, heart rate, and GSR in rest and during mental arithmetic and sentence completion tasks in 100 Ss were assessed using a discriminant analysis and employed as a screening device for the 3 diagnostic groups. 2 discriminant functions were calculated in order to place every individual into 1 of the groups. Special statistical procedures made it possible to reduce the computing load, thus allowing clinical application of the test. (30 ref.)—*Journal summary.*

10222. Rubin, Leonard S. (Eastern Pennsylvania Psychiatric Inst., Philadelphia) **Pupillary reflexes as objective indices of autonomic dysfunction in the differential diagnosis of schizophrenic and neurotic behavior.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Sep), Vol. 1(3), 185-194.—Reports the results of several experiments which suggest the utility of measurements of pupillary reactivity in the differential diagnosis of psychotic and neurotic behavior. Several parameters of the pupillographic responses to light and darkness significantly differentiated schizophrenics who were either actively psychotic or in clinical remission from normal Ss. Even those few actively psychotic patients (7%) and patients in clinical remission (25%) who showed normal pupillary light and dark reflexes at rest were all demonstrably aberrant either during the stress engendered by cold or following its termination. Neurotic Ss were indistinguishable from normal Ss at rest and in responses to stress, but following the termination of stress, continued to show the effects of stress. (15 ref.)—*Journal abstract.*

10223. Rützel, E. (U. Hamburg, Inst. of Psychology, W. Germany) **Die Brauchbarkeit des MMQ im deutschen Sprachraum: Auswertungs- und Interpretationshilfen.** [The usefulness of the MMQ in German-speaking areas: Aids to scoring and interpretation.] *Psychologie und Praxis*, 1970(Apr), Vol. 14(2), 64-78.—Tables are presented giving means on the Maudsley Medical Questionnaire (MMQ) based on samples with German and British Ss. On the Neuroticism scale, German means were higher than British ones. The MMQ did not as clearly differentiate normal from neurotic Ss for the German version. Mean correlation between the Neuroticism and Lie scales was estimated at .40 (N = 1725). A regression transformation shows that corrections are needed for the points on the Neuroticism scale depending on the Lie scale values. A table is given for this correction.—*R. F. Wagner.*

10224. Schmideberg, Melitta. (Assn. for Psychiatric Treatment of Offenders, London, England) **Socio-legal consequences of psychiatric diagnoses in U. S. A. and Britain.** *International Journal of Offender Therapy*, 1970, Vol. 14(3), 157-172.—Describes the dangers of institutionalization and improper diagnoses in an evaluation of the status of modern psychiatry. 19 case examples are presented to illustrate the need for legal protection of patients in mental hospitals, the dangers of the improved image of mental hospitals, the difficulties of sanity hearings, and the dangers of the multiple reports containing personal data. Arbitrary, vague, and perfunctory diagnoses and their suggestive effects are emphasized. The need for a realistic concept of normality and the effect of the increasing power of experts on the working of democracy are discussed. (French, German, & Spanish summaries)—*S. Knapp.*

10225. Schwartz, Melvin L. & Cahill, Robert. (Wayne State U.) **Personality assessment in myasthenia**

gravis with the MMPI. *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 766.—Administered the MMPI to 7 males and 10 females with myasthenia gravis (MG). Mean T-score values showed a 321-8 code profile. The schizophrenia scale for all Ss and the hypochondriasis scale for males showed higher than normal scores. Results are discussed in terms of the physical aspects and emotional reactions to the illness.—S. Knapp.

10226. Watson, Charles G. (Veterans Administration Hosp., St. Cloud, Minn.) **An MMPI scale to separate brain-damaged from schizophrenic men.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 121-125.—Developed 3 MMPI scales: (a) an unweighted scale consisting of 80 items differentially endorsed by 61 organics and 65 schizophrenics at a Veterans Administration psychiatric hospital, (b) the same items weighted as a function of their differentiating power, and (c) a short form consisting of the 30 most powerful items weighted in accordance with their differentiating strength. Scales were cross-validated in a state hospital population and a general medical and surgical Veterans Administration hospital. Results indicate that the scales differentiate male organics from schizophrenics but are of dubious value among female populations. (16 ref.)—*Journal abstract*.

10227. Willis, Jerry. (Jefferson County Health Dept., Birmingham, Ala.) **Group versus individual intelligence tests in one sample of emotionally disturbed children.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 819-822.—Compared IQs obtained on a group intelligence test (Lorge-Thorndike Intelligence Test) with those obtained on an individual intelligence test (WISC) for 20 disturbed children. While the correlation between the scores was .81, the mean IQs were significantly different (93 vs. 108), group test tending to give much lower IQs.—*Journal abstract*.

BEHAVIOR DISORDER

10228. Cormier, Bruno. (McGill U., Montreal, Quebec, Canada) **Passage aux actes délictueux et états dépressifs.** [Acting-outs and depressive states.] *Acta Psychiatrica Belgica*, 1970(Jan), Vol. 70(1), 103-153.—Explains the genesis, the evolution, and the end of psychopathological behavior by stressing the depressive components. Attributes acting-out and psychopathic behavior to social, individual, and constitutional factors and divides criminal delinquency into 3 psychopathic syndromes: (a) Primary delinquency, which is correlated to a very weak ego and an unstable defense mechanism, this delinquency manifests itself in an individual's latency period and leads to a permanent psychopathic state. (b) Secondary delinquency which is associated with a stronger defense mechanism and occurs in individuals who have reached puberty. (c) The late delinquency which deals with personality disorder and a stronger, but collapsible, defense mechanism.—I. Sirotnin.

10229. Lindsay, Mary K. (Dept. of Correction, House of Detention for Women, New York, N.Y.) **Prostitution: Delinquency's time bomb.** *Crime & Delinquency*, 1970(Apr), Vol. 16(2), 151-157.—To solve the problem of prostitution, it is proposed that the sentences be sufficiently long with a heavy concentration on treatment and the use of halfway houses.—M. P. Edwards.

10230. Raffalli, Henri C. **The battered child: An overview of a medical, legal, and social problem.** *Crime & Delinquency*, 1970(Apr), Vol. 16(2), 139-

150.—In order to protect the battered child without infringing upon the rights of parents, it is suggested that severe parent-child conflicts be identified before they result in the child's injury or death.—M. P. Edwards.

Drug Addiction

10231. ———. **Energetic treatment of addicts.** *British Medical Journal*, 1969(May), Vol. 2(5653), 331.—The Advisory Committee on Drug Dependence issued a report where treatment of drug addicts is opposed to their "maintenance." The high mortality and morbidity of heroin indicate that both the medical profession and social agencies have an inescapable responsibility to provide treatment. It is suggested that 2 initial hostels, one for each sex, should be constructed in the metropolitan area, where homeless addicts would live while undergoing rehabilitation. It is suggested that later a hostel for rehabilitation of addicts who have completed treatment be established. Sufficient resources, together with substantial numbers of trained staff, must be provided, otherwise drug addiction may continue to increase. It is queried whether the provision of facilities for energetic treatment is enough, or if some degree of coercion must be introduced.—I. Halev.

10232. Caroff, Phyllis; Lieberman, Florence, & Gottesfeld, Mary L. (Hunter Coll., School of Social Work, City U. New York) **The drug problem: Treating preaddictive adolescents.** *Social Casework*, 1970(Nov), Vol. 51(9), 527-532.—Suggestions for treatment involve choosing therapists who are convinced drugs are destructive. Parents must be involved in treatment, and their authority strengthened so that proper care and vigilance can be maintained. The therapist must also discourage the repeated discussion of drugs since this only helps the child to relive the drug experience.—M. W. Linn.

10233. Chynoweth, R. (U. Queensland, Brisbane, Australia) **The problem of drug dependency.** *Australian Occupational Therapy Journal*, 1969(Oct), Vol. 16(4), 9-13.—Describes the problem of drug dependency in 3 sections: alcoholism, which occurs predominately in males; barbiturate dependency, which occurs predominately in females in early middle life; and narcotics dependency, which occurs predominately in teenagers of both sexes. The incidence of dependency, symptoms, and treatment are described. It is concluded that until other causative factors are discovered, drug dependency must be regarded as a socially acquired illness, and the reasons for this behavior and its prevention are the responsibility of the society.—S. Knapp.

10234. DeMeritt, Mary W. (Arizona State U.) **Differences in the self-concept of drug abusers, non-users, and former users of narcotics and/or non-narcotic drugs.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1008.

10235. Kromberg, Carol J. & Proctor, Judith B. (Connecticut Mental Health Center, New Haven) **Methadone maintenance in heroin addiction: Evolution of a day program.** *American Journal of Nursing*, 1970(Dec), Vol. 70(12), 2575-2577.—Describes a methadone treatment unit which began as an inpatient program on a psychiatric research unit. Faced with a pressing demand for an expansion of the program, a shortage of staff, and a conflict between an individual vs. a group approach to rehabilitation, the staff critically evaluated the design of the program and decided to

change it. The emphasis was turned from inpatient to outpatient treatment, from individual therapy to group therapy, and from staff control to patient peer control.—*Journal abstract.*

10236. Pearson, Barbara A. (New York U.) **Methadone maintenance in heroin addiction: The program at Beth Israel Medical Center.** *American Journal of Nursing*, 1969(Dec), Vol. 70(12), 2571-2574.—Discusses the methadone maintenance program at the Morris Bernstein Institute of Beth Israel Medical Center in New York City which is 1 of the earliest methadone programs and has been used as a model in the development of many other programs. Social rehabilitation of an addict is informally integrated into all 3 phases of the program. After a patient has been gradually built up to his stabilization level of methadone in Phase I, he receives intensive counseling in social and vocational rehabilitation in Phases II and III. The nurse in this program counsels in health problems, observes for attitude and behavior changes in patients, provides emotional support, and serves as a reference for patients' interactions with nonaddicts, as well as dispensing the methadone.—*Journal abstract.*

10237. Smart, Reginald G., Schmidt, Wolfgang, & Bateman, Karen. (Addiction Research Foundation, Toronto, Ontario, Canada) **Psychoactive drugs and traffic accidents.** *Journal of Safety Research*, 1969(Jun), Vol. 1(2), 67-73.—Examined the accident rates of 30 psychoactive drug abusers seen at a psychiatric hospital in Toronto, Canada. 15 mixed addicts (alcohol and psychoactive drugs), 3 amphetamine addicts, 6 barbiturate addicts, 2 tranquilizer addicts, and 4 Ss dependent on a variety of barbiturates, tranquilizers, and amphetamines were interviewed as to their driving experiences: miles driven/yr, number of accidents, type of accident, and drug use prior to accidents. Data were cross-checked with public records. Expected accident rates were computed for age and sex and compared to the observed rates. Ss had an overall accident rate 1.9 times the expected. The highest accident rates occurred for those who abused alcohol and tranquilizers and amphetamines alone or in combination. Lower than expected rates were observed in those who abused alcohol and barbiturates; alcohol, tranquilizers, and barbiturates; barbiturates; and barbiturates and tranquilizers. The heaviest drug use prior to accidents was in the amphetamine group. Results are discussed in terms of the effects of the drugs. (24 ref.)—*S. Knapp.*

10238. Smith, David E. & Wesson, Donald R. (San Francisco Medical Center, Calif.) **Phenobarbital technique for treatment of barbiturate dependence.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 56-60.—Describes a technique for withdrawal of patients physically dependent upon barbiturates and other sedative-hypnotics, including heroin. The technique involves substituting phenobarbital, a long-acting barbiturate, for the addicting agent and subsequent withdrawal of the phenobarbital. The longer action of phenobarbital provides a more constant barbiturate blood level than the shorter-acting barbiturates which are the classical withdrawal agents. The more constant blood level allows the safe utilization of smaller daily doses of barbiturates during withdrawal. 5 case studies are reported.—*Journal abstract.*

Alcoholism

10239. ———. **Alcoholism neglected.** *British*

Medical Journal, 1970(Aug), Vol. 3(5718), 298.—Describes a medical council on alcoholism established in England to educate the public about alcoholism as a chronic disease and to create a coordinated action of physicians and general public on alcoholism. Obstacles are noted, e.g., lack of funds and unwillingness of the public to regard alcoholism as a disease. The use of money coming from liquor sales towards prevention of alcoholism is suggested.—*I. Halev.*

10240. ———. **Summer school on alcoholism.** *British Medical Journal*, 1969(Oct), Vol. 4(5675), 60-61.—Describes an experiment in which doctors, nurses, members of the prison and probation services, and a lawyer (Total N=150) met for a 1-wk residential course on alcoholism. Ss read papers on selected topics, attended a few formal lectures, and were taught in small tutorial groups. Psychological and social problems bearing on the courses of abnormal drinking were analyzed, and treatment services and their utilization considered.—*I. Halev.*

10241. Chalfant, Hugh P. (U. Notre Dame) **Illegitimate illness and the sick role: Social workers and alcoholism.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1399-1400.

10242. Holmes, Robert M. (Rocky Mountain Coll.) **Alcoholics Anonymous as group logotherapy.** *Pastoral Psychology*, 1970(Mar), Vol. 21(202), 30-36.—Compares AA with Viktor Frankl's philosophy in terms of dimensional ontology, existential frustration, freedom, and responsibility.—*O. Strunk.*

10243. Jones, Ben & Parsons, Oscar A. (U. Oklahoma, Medical Center, Oklahoma City) **Impaired abstracting ability in chronic alcoholics.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 71-75.—Compared performance on an abstracting task by matched groups of 40 hospitalized alcoholics, 40 brain-damaged patients, and 40 control patients. Alcoholics manifested a deficit on the Halstead Category test similar to that of the brain-damaged Ss. The performance deficit of the alcoholics was related positively to the number of years of drinking, independent of age. The pattern of performance differences in the present investigation and results from other investigations suggest that chronic alcoholics may have mild brain damage to the prefrontal area or related subcortical structures or both. (15 ref.)—*Journal abstract.*

10244. Keehn, J. D. (York U., Toronto, Ontario, Canada) **Neuroticism and extraversion: Chronic alcoholics' reports on effects of drinking.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 767-770.—48 chronic alcoholics in an inpatient facility completed both forms of the Eysenck Personality Inventory. All were sober at the time of testing but they were instructed to complete the inventory, 1st, as they felt while sober, and 2nd, as they felt while drinking. Neuroticism scores did not change, but extroversion scores averaged significantly higher under the drinking instruction.—*Journal abstract.*

10245. Kimmel, Mary E. **Antabuse program for alcoholics: Racine County.** *Journal of Psychiatric Nursing & Mental Health Services*, 1969(Jan), Vol. 7(1), 38-41.—Describes an antabuse program for hard core alcoholics in which 1 person, under a doctor's supervision, handles all 3 areas of interviewing, drug administration, and follow-up. Implementation begins when the patient is committed or volunteers for treatment. After recovery from the acute alcoholic episode, he is apprised of the conditions and possible reactions of the

program. The patient is then given an aversion test to determine his personal reaction to alcohol plus antabuse and to avoid unsupervised experimentation. Following recovery from the aversion test, he is released from the hospital but must report to a clinic twice weekly for his liquid dose of antabuse. Patients are strongly urged to seek counseling from AA or mental health services.—*M. West.*

10246. Kish, George B. (Roanoke Coll.) **Correlates of active-passive food preferences: Failure to confirm a relationship with alcoholism.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 839-847.—Examined a variety of correlates of the Food Preference Inventory (FPI) in 54 male alcoholics and 96 male controls to gather evidence regarding the inventory's validity as a measure of oral passivity-activity and to determine whether it is related to alcoholism. No relationship with alcoholism was found. High (more passive) FPI scores were to some degree (a) sex-related, with males scoring more passively; (b) negatively related to educational level; (c) positively related to authoritarianism; and (d) negatively related to the Social Presence scale of the CPI and positively related to the Socialization, Self-Control, Good Impression, and Achievement via Conformance scales of the CPI. Findings support the construct validity of the FPI but do not support previous findings of a relationship with alcoholism.—*Journal abstract.*

10247. Pancheri, Paolo & Lalli, Nicola. (U. Rome, Inst. of Psychiatry, Italy) **Contributo allo studio della persona personalita' dell'alcoolista cronico attraverso il MMPI.** [Contribution to the personality study of the chronic alcoholic using the MMPI Test.] *Rivista di Psichiatria*, 1969(Jan), Vol. 4(1), 1-13.—Studied a group of 30 alcoholics all of whom (a) were male sex, (b) were 30-50 yr. old, (c) had a clinical diagnosis of chronic alcoholism, (d) had no evidence of psychosis or of organic deterioration, (e) had no more than a 5th grade education, and (f) had a low social and cultural level. The method chosen was the MMPI because of its easy administration, and only a small margin of error possible in interpreting it. It is concluded that the personality of the chronic alcoholic is of a neurotic rather than a psychopathic nature. The predominant characteristics of the chronic alcoholic are hypochondria, depression, and hysterical behavior. (English summary) (18 ref.).—*A. M. Farfaglia.*

10248. Resnick, Harvey & Adamson, John D. (U. Manitoba, Winnipeg, Canada) **Star-tracing test during alcohol withdrawal: Preliminary report of a method.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 819-823.—Describes the use of the simple laboratory star-tracing test in assessing the course of the alcohol withdrawal syndrome in an experiment with 20 26-62 yr. old alcoholic patients. Test scores (number of line irregularities) correlated best with clinical estimates of tremulousness (Spearman $\rho = .61$) and also correlated with the overall course of the syndrome as measured by total scores computed from a nurses' clinical rating form. Apart from the basic physiological disturbance, it appears that the other main influence on test scores is variation in emotional disturbance. It is concluded that such a performance measure should be a useful objective adjunct in evaluation of treatment of the alcohol withdrawal syndrome.—*Journal abstract.*

10249. Rule, Brendan G. & Besier, Dorothy P. (U. Alberta, Edmonton, Canada) **Level of risk advocated by alcoholics.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 829-830.—12 male alcoholism counselors and 12

male chronic alcoholics responded to a 5-item questionnaire consisting of 3 items chosen from the Wallach and Kogan Choice Dilemmas questionnaire and 2 items constructed to represent dilemmas concerning alcohol. Ss indicate the lowest probability of success they would accept to take the risky alternative, which was clearly the more desirable choice. Results of a 2×5 analysis of variance indicate that alcoholics were more conservative in the probabilities they would accept to take the risky alternative than were the counselors. The items also differed significantly from each other.—*Journal abstract.*

10250. Schuckit, M., Rimmer, J., Reich, T., & Winokur, G. (U. Edinburgh, Scotland) **Alcoholism: Antisocial traits in male alcoholics.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 575-576.—Histories of 125 alcoholics show more antisocial behavior in early onset cases. These early alcoholics cannot be considered sociopaths since they had limited spheres of antisocial behavior. The assumption that early alcoholism means an antisocial personality would lead to assigning a poor prognosis to some cases where it is not warranted.—*R. L. Sulzer.*

10251. Tarter, Ralph E. & Parsons, Oscar A. (U. Oklahoma, Medical Center, Oklahoma City) **Conceptual shifting in chronic alcoholics.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 71-75.—Examined the inferior performance of chronic alcoholics on abstracting tasks. After administering the Wisconsin Card Sorting Test to 24 alcoholics, it was found that alcoholics took more trials to reach criterion and made more errors than either a group of 24 hospital controls or 24 students. Error pattern analysis indicates that these differences could not be attributed to perseveration. The deficit appeared to be in sustaining a pattern of search and persistence in problem solution. Duration of drinking history was related to impairment of task persistence. Results are consistent with the hypothesis of subcortical organic involvement with a concomitant deficit in conceptual shifting tasks.—*Journal abstract.*

10252. Wanberg, Kenneth W. (Ft. Logan Mental Health Center, Denver, Colo.) **A pilot follow-up study of alcoholism patients.** *Journal of the Fort Logan Mental Health Center*, 1968(Fal), Vol. 5(2), 101-106.—Describes a follow-up study of a sample of 1000 patients of an alcoholic treatment program. Every 10th patient of the 1000 was selected. 41 could not be located, 5 had died, 27 did not consent, and 27 did consent to be interviewed. 33% of this study sample, compared to 5-20% in other studies, maintained sobriety for 1 yr. or more. There appeared to be a positive relationship between improvement following treatment and the extent to which help had been sought prior to treatment, being employed, living alone or with spouse only (vs. spouse and children), and participation in AA. A positive relationship also was indicated between length of sobriety and improvement of interpersonal associations. Basic socioeconomic structures did not seem to change. The apparent mobility of the 41% who could not be traced suggests that alcoholics may be markedly alienated persons.—*Journal summary.*

10253. Wiseman, Jacqueline P. (San Francisco State Coll.) **Stations of the lost: The treatment of skid row alcoholics.** Englewood Cliffs, N.J.: Prentice-Hall, 1970. xxi, 346 p. \$8.95(cloth), \$4.95(paper).

Suicide

10254. ———. **Medical contributions to suicide.**

British Medical Journal, 1969(Sep), Vol. 3(5671), 610.
— Reports that the suicide rate among patients in mental hospitals in Great Britain has been found to be 4-5 times as high as among the general population. Psychiatric patients as a group are known to be suicide prone. It has been queried whether doctors make an iatrogenic contribution to the suicide record. A study was made on 35 psychiatric patients admitted to an inpatient unit after a suicide attempt. It was found that the doctor (a) often discriminates against patients whose behavior does not fit with the image of a model patient; and (b) the doctor antagonized by the patient feels rejected himself, which may be partly responsible for the excessive rate of suicides among psychiatrists. It is suggested that "many doctors tend to underrate and deny the risk of suicide in their patients." Often attempts at suicide are dismissed as gestures desiring to draw attention to themselves.—*J. Hales*

10255. —. **Suicide prevention.** *British Medical Journal*, 1969(Nov), Vol. 4(5682), 513-514.—Discusses the growth of interdisciplinary suicide prevention organizations, many of them community based, as a world wide movement. The International Association for Suicide Prevention, established in 1965, serves as a forum for the interchange and advancement of knowledge of suicidal behavior. Data from a recent conference indicate that Britain is the only large country where 1 type of organization, the Samaritans, are firmly established. In the United States, training fellowships in suicidology are available to medical and behavioral science graduates at various medical schools. The movement is gaining momentum almost everywhere, and "illustrates a healthy trend of the community in mobilizing its potential therapeutic resources."—*J. Hales*

10256. **Bertiner, Beverly S.** (San Bernardino Valley Coll.) **Nursing a patient in crisis.** *American Journal of Nursing*, 1970(Oct), Vol. 70(10), 2154-2157.—Presents an example of how 1 patient in a crisis situation was helped through delivery and postpartum. The patient was slightly to moderately suicidal and was undergoing both a situational crisis superimposed upon a maturational crisis. "The aim of crisis therapy is to intervene before the anxiety level reaches panic."—*B. A. Burkard*

10257. **Guze, Samuel B. & Robins, Eli.** (Washington U. Medical School) **Suicide and primary affective disorders.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(529), 437-438.—Data from 17 studies of suicide are tabulated and document the greatly increased risk of suicide in patients with primary affective disorders. The ultimate risk appears to be in the range of 15%.—*R. L. Silver*

10258. **Hedley-White, John & Blanchard, John B.** **Barbiturate intoxication with progressive respiratory insufficiency.** *New England Journal of Medicine*, 1970(May), Vol. 282(19), 1087-1096.—States that non-barbiturate hypnotics are currently the favored method of performing the suicidal act, while hostility appears to be the chief motivating factor. The case of a 22-yr-old female admitted to a hospital in a comatose state is reviewed. Modes and methods involved in making the diagnosis of barbiturate intoxication and initiating the appropriate treatment are discussed. Complications in this patient included aspiration pneumonia (secondary to self-induced coma caused by long-acting barbiturates), oxygen toxicity, and terminal staphylococcal septicemia. (31 ref.)—*B. A. Stanton*

10259. **Kangas, Pamela & Mahrer, Alvin R.** (Miami U., O.) **Suicide attempts and threats as goal-directed communications in psychotic males.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 795-801.—Compared 15 suicide attempters and 33 threateners with each other and with 276 control male psychiatric patients on a Psychological Problem Inventory. Results indicate that suicide attempters were characterized by patterns of self-rejection and aggressive tendencies. Threateners were characterized by suicidal sexual anxiety, self-directed aggression, and a trend toward inadequacy. Implications were relative to the motivational goals of attempters and threateners. (20 ref.)—*Journal abstract.*

10260. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Completed suicide and latitudo.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 818.—Reviews a 1967 correlational study over the continental United States. Results show that the suicide rate was significantly higher in the northern than in the southern states.—*Author abstract.*

10261. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Relation between attempted suicide and completed suicide.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 719-722.—Discusses the view that attempted and completed suicides are 2 different, but overlapping populations. It is concluded that suicidal behaviors fall on a continuum of seriousness and that extrapolations can be made on the basis of this continuum.—*Journal abstract.*

10262. **Lester, David.** (Suicide Prevention & Crisis Service, Buffalo, N.Y.) **Suicidal behavior and external constraints.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 777-778.—Discusses the hypothesis that suicide is common where external frustrations and restraints are minimal. The hypothesis was used to account for several phenomena, e.g., the high suicide rate on the West Coast, the high rate in spring, and the low rate during war, and to predict other cases where suicidal behavior might be more common, e.g., after restoration of sight to those blind from birth.—*Journal abstract.*

10263. **Motto, Jerome A.** (U. California, Medical School, San Francisco) **Toward suicide prevention in medical practice.** *JAMA. Journal of the American Medical Association*, 1969(Nov), Vol. 210(7), 1229-1232.—Current developments in health care place the nonpsychiatric physician in a pivotal position regarding the identification and management of depressed and suicidal persons. It is essential that the physician resolve his own anxiety about suicide in order to function most efficiently in this role. Only when this is achieved will principles of management and treatment have value. An active case-finding approach, comparable to the routine chest x-ray film, serology, etc. is needed to effectively modify these suicidal states before they develop to crisis proportions. To further this goal, it is suggested that inquiry about depressive and suicidal states be made an essential part of every routine medical examination.—*Journal abstract.*

10264. **Pretzel, Paul W.** (Suicide Prevention Center, Clinical Services, Los Angeles, Calif.) **The role of the clergyman in suicide prevention.** *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 47-52.—The suicidal person frequently attempts to communicate his tensions in a variety of ways. The clergyman who can interpret these communications can often be of important help in averting a tragedy. The clergyman can also offer continuing care once the immediate crisis is past, and he

is in an ideal position to minister to those left behind.

—O. Strunk.

10265. Ross, Mathew. (Massachusetts General Hosp., Boston) **Death at an early age.** *Canada's Mental Health*, 1970(Nov), Vol. 18(6), 7-10.—Discusses suicide among the adolescent age group and reviews findings based on 7431 suicides and attempted suicides in 10 countries. Data indicate that, in general, (a) suicide rates tend to increase directly with age and development; (b) the child's concept of death develops from early ideas that death is reversible to a later more idealistic concept; (c) suicides usually come from backgrounds of social isolation—most often a disorganized or broken home; and (d) running through the lives of suicide-prone children is the loss of love or the feeling of being unloved or unlovable. Because adolescents may react impulsively, any expression of suicidal intention must be taken seriously. Usually, within 3 mo. preceding a suicidal act, there are behavioral changes, especially depressive ones. Children attempt suicide from anger, attempts to manipulate, a cry for help, inner disintegration, or a desire to join a loved one. Psychiatric treatment must be individualized, and it is stressed that the 3-mo period following the beginning of improvement from psychotherapy is the time when most subsequent suicidal acts occur.—M. West.

10266. Rudestam, Kjell E. (Miami U.) **Stockholm and Los Angeles: A cross-cultural study of the communication of suicidal intent.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 82-90.—Studied the communication of suicidal intent in 50 consecutive cases of confirmed suicide selected from coroner's records in both Stockholm, Sweden, and Los Angeles, California. Using the "psychological autopsy" method, intensive interviews were conducted with a close friend or relative of the decedent approximately 2 mo. after the suicide. Results indicate that at least 60% of the victims in both cities had made direct verbal threats prior to taking their lives, while more than 80% had voiced direct or indirect threats. Responses to the suicidal communications were generally maladaptive. Cross-cultural differences in the data, and the need for better understanding of suicide dynamics among laymen are discussed. (20 ref.)—*Journal abstract.*

10267. Rudestam, Kjell E. (U. Oregon) **Stockholm and Los Angeles: A cross-cultural study of the communication of suicidal intent.** *Dissertation Abstracts International*, 1971(Feb), Vol. 30(8-B), 3875.

10268. Tauber, Ronald K. (U. California, Berkeley) **Suicide notes: A comparison, hoax-actual-simulated.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1914.

Crime

10269. Albert, Lawrence H. (Boston U., School of Education) **An exploratory study of sex-role identification and developmental level as they relate to particular crimes.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1003-1004.

10270. Cressey, Donald R. (U. California, Santa Barbara) **Organized crime and inner-city youth.** *Crime & Delinquency*, 1970(Apr), Vol. 16(2), 129-138.—Criminal influences abounding in the ghettos can be offset by discovering and expanding those anticriminal behavior

patterns that keep some of the youth in organized crime areas out of trouble.—M. P. Edwards.

10271. Koller, K. M. & Castanos, J. N. (St. George Hosp., Sydney, New South Wales, Australia) **Family background in prison groups: A comparative study of parental deprivation.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 371-380.—Parental loss and subsequent institutional rearing were found to be common with a sample of long-term prisoners. Among normal controls parental loss was largely a passive process with later rearing by the remaining parent. Birth order and ordinal position showed no differences, but the "family size of the offender group was large, and an excess of male children in the families was noted." (24 ref.)—R. L. Sulzer.

10272. Lipsett, Paul D. (Harvard Medical School, Lab. of Community Psychiatry, Boston, Mass.) **The dilemma of competency for trial and mental illness.** *New England Journal of Medicine*, 1970(Apr), Vol. 282(14), 797-798.—A recent decision of the Supreme Judicial Court of Massachusetts in the case of Commonwealth vs. Drunken could lead to radical changes in the pretrial commitment procedures to mental hospitals of persons accused of crimes. The high court held that a person who has been committed to a mental institution for trial must receive the same safeguards against his loss of freedom that he would receive if he were involuntarily hospitalized as a mentally ill person. Much confusion has been created by the intermingling of the issues of competency, mental illness, and insanity. Although the only legal rationale for a criminal commitment before trial is on the basis of competency to stand trial, cases are frequently disposed of through indefinite commitment on the bases of mental illness. The legal safeguards are therefore important but should not cloud the issue that the immediate purpose of hospitalization is to attain a level of mental competency to allow the accused to stand trial.—S. R. Diamond.

10273. Mask, Warren S. (Florida State U.) **The effects of short-term tasks and financial incentive on the educational achievement of young prison inmates.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 999-1000.

10274. Nielsen, Johannes. (Århus State Hosp., Cytogenetic Lab., Risskov, Denmark) **Criminality among patients with Klinefelter's syndrome and the XYY syndrome.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 365-369.—The majority of 61 patients with Klinefelter's syndrome and nearly all 12 with XYY sex-chromosome constitution showed a record of criminality. "There was a comparatively high frequency of sexual criminality and arson in both patient groups." The pathogenesis is so far unknown.—R. L. Sulzer.

10275. Reinhardt, James M. (U. Nebraska) **Prison education as an aid to therapy.** *International Journal of Offender Therapy*, 1968, Vol. 12(3), 113-118.—Considers a prisoner to be an unnatural man living in an unnatural place, committed against the social order which is committed against him. It is asserted that illiteracy and poor vocational capacity are handicaps in life, but training alone does not make men law-abiding. A sense of individual worth is a prime requisite for a successful education. Prisoners who have lost their self-esteem can be reformed only by a profoundly moving reconditioning which must be kept separate from the concept of "paying their debt to society."—*Journal abstract.*

10276. Sandhu, Harjit S. (U. Guelph, Ontario,

Canada) **Therapy with violent psychopaths in an Indian prison community.** *International Journal of Offender Therapy*, 1970, Vol. 14(3), 138-144.—Describes a therapeutic milieu treatment of small groups of violent offenders who had caused serious trouble in their prisons. Ss were transferred for 6-12 mo. to a small experimental institution run by some permanent staff and the trainees of a prison staff college and inhabited by well-behaved prisoners. Techniques are described which succeeded in resocializing 13 out of 18 psychopaths. (French, German, & Spanish summaries)—*Journal summary*.

10277. Sparrow, Gerald. **Women who murder.** New York, N.Y.: Abelard-Schuman, 1970. 162 p. \$4.95.

10278. Toland, John I. (U. Maryland) **Inmate behavior: Interaction, sentiment, and activity in a therapeutic community for abnormal offenders.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1392-1393.

10279. Washbrook, R. A. (H. M. Prison, Birmingham, England) **The homeless offender: An English study of 200 cases.** *International Journal of Offender Therapy*, 1970, Vol. 14(3), 176-184.—Examined the criminal histories, clinical assessments, and social inquiry reports of 200 male homeless prisoners. Analysis of data revealed the presence of 2 subgroups: Group 1, 16-30 yr. of age with an average IQ of 101; and Group 2, 34-70+ yr. of age with an average IQ of 68. In Group 1 generalizations were found for Ss from different geographical areas. Ss from the English Midlands had a long history of delinquency, poor personal and employment records, and were diagnosed as having severe character disorders. Ss from Ireland were 1st offenders, felt culturally isolated, and were not mentally ill. Ss from England and Wales, Scotland, the West Indies, and Central Europe were similarly classified. In Group 2 geographical generalizations could only be found for the 5 Ss from Central Europe and the 4 Ss from Jamaica where paranoid features and petty criminal activity were noted. Group 2 was generally classified as composed of trivial offenders with a prevalence of mental illness. It is concluded that the lack of a home and family may be a severe pathogenic factor. It is suggested that rehabilitation procedures be directed to prevent recidivism in this group. (French, German, & Spanish summaries)—*S. Knapp*.

10280. Weiant, Elizabeth A. (Boston U., School of Education) **An experiment in voluntary group-centered counseling: Dedham House of Correction.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2120-2121.

10281. Wille, Warren S. **Citizens who commit homicides.** *Revista Interamericana de Psicología*, 1970(Jun), Vol. 4(2), 131-144.—Presents a psychiatric study of 100 persons who have committed the crime of homicide. Ss included in this study were examined during the time they were serving sentences in prison. Every offender was evaluated for 18 different factors with an effort being made to examine particularly the state of mind of the offender at the time of the act; what immediate determinants contributed to the act; an evaluation of the superego of the assailant; what relationship existed with the victim; a determination of whether alcohol contributed to the act; and whether violent child rearing was a factor in the early life environment of the eventual offender. The usual demographic data were included as to the S's age, educational background, occupational background, etc. Data indi-

cate that over 50% of homicides are committed by persons without any previous police or penal record, often on relatives or friends, and most often in the home. (Spanish & Portuguese summaries)—*Journal abstract*.

Juvenile Delinquency

10282. ———. **When a child is wrongly treated.** *International Journal of Offender Therapy*, 1970, Vol. 14(3), 185-202.—Presents 3 papers on mistreated youth.

(a) A 16-yr-old delinquent boy describes his life in various institutions after the death of his foster mother when he was 6. The therapist discusses his treatment and the results of therapy. (b) A teacher reports that schools are divided by a wall between the successes and the failures. Early failures are seen as creating a self-image which perpetuates a career of failure. It is concluded that teaching should precede discipline, that teachers should encourage children and set them tasks in which they may experience success. (c) A school principal describes efforts made over a period of years to socialize an aggressive boy who was the youngest of 3 antisocial brothers, the scapegoat of the neighborhood, and the product of a poor and inadequate family. (French, German, & Spanish summaries)—*S. Knapp*.

10283. Bailey, Jon S., Wolf, Montrose M., & Phillips, Elery L. (Florida State U.) **Home-based reinforcement and the modification of pre-delinquents' classroom behavior.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 223-233.—Developed and evaluated a system for the remote reinforcement of classroom behavior using reinforcers delivered at home. In Exp. I, 5 11-15 yr. old boys from a home for pre-delinquents attended a special summer school math class where study behavior and rule violations were measured daily for each S. Ss were required to take a report card for the teacher to mark. The teacher marked yes or no to whether an S had studied the whole period and obeyed the class rules. All yeses earned privileges in the home that day but a no lost all the privileges. Using a reversal design, it was shown that privileges dispensed remotely could significantly improve classroom performance. In Exp. II and III, home-based reinforcement was also shown to be effective in improving the study behavior of 2 Ss in public school classrooms. Data from Exp. III suggest that the daily feedback and reinforcement may be faded without much loss in study behavior. Home-based reinforcement is demonstrated to be a very effective and practical classroom behavior modification technique. (16 ref.)—*Journal abstract*.

10284. Barden, Donna M. (U. Minnesota) **A comparison of the histories of delinquent boys and girls.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3860-3861.

10285. Bhagat, M. & Fraser, W. I. (Victoria Hosp., Kirkcaldy, Scotland) **Young offenders' images of self and surroundings: A semantic enquiry.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 381-387.—20 young Glasgow offenders from slums were compared to matched offenders from a new housing area. Attitudes revealed by the semantic differential showed both groups to have identical perceptions of the concepts relevant to delinquency. 20 matched nonoffenders were less negative generally, particularly to concepts of self, love-affection, and environs.—*R. L. Sulzer*.

10286. David, Henry P. (American Inst. for Research, International Research Inst., Silver Spring, Md.) **Mental, health and social action programs for children and**

youth in international perspective. *Mental Hygiene*, 1970(Oct), Vol. 54(4), 503-509.—A 1968 survey of 40 countries shows differences in (a) definition and incidence of delinquency, (b) attitudes toward substitutes for parental care, (c) ideological bases for remedial efforts, and (d) proportions of national budget allocated to child welfare. Conclusions suggest (a) better applications and adaptations of available knowledge, (b) recognition that basic barriers to improvement of child care are socio-economic, and (c) recognition that no 1 country, profession, or ideology has a monopoly on innovative programs.—A. M. Cawley.

10287. Deming, Romine R. (Iowa State U.) **A study of the association between the attraction to the probation officer-client relationship and various psycho-social attitudes of juvenile probationers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1912.

10288. Garner, Gwen F. (U. Oklahoma) **Patterns of communication in a training school for adolescent girls.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3866.

10289. Holliman, Clifford L. (U. South Carolina) **A differential analysis of the comparative effectiveness of group counseling and individual counseling processes in producing behavior changes of juvenile delinquents using direct behavioral referents as measures of change.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1511.

10290. Horton, Lois E. (5 Boron Lane, Burlington, Mass.) **Generalization of aggressive behavior in adolescent delinquent boys.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 205-211.—Investigates the generalization of conditioned aggressive and non-aggressive responses in a group of 3 aggressive and 3 nonaggressive adolescent delinquent boys. Responses were reinforced in card games where a token reinforcement system with money as a back-up reinforcer was used. Conditioning of responses was rapid. Generalization, measured in terms of frequency of physical contact, was tested in a group game for which no reinforcement was given. Generalization occurred during aggressive contingencies. During nonaggressive contingencies, responses did not return completely to the base-line level.—*Journal abstract*.

10291. Kissling, Eugene J. (St. Louis U.) **A comparison of delinquent typologies and their relationship to age and race.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3870.

10292. Schlichter, K. Jeffrey & Ratliff, Richard G. (Pennsylvania State U.) **Discrimination learning in juvenile delinquents.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 46-48.—Tested 45 delinquent and 45 nondelinquent males in a 2-choice discrimination task with either reward for correct responses, punishment for incorrect responses, or reward and punishment for correct and incorrect responses, respectively. A modified Wisconsin General Test Apparatus was used. Results indicate a significant Group \times Reward interaction in which nondelinquent Ss learned best for punishment and delinquent Ss learned best for reward. Results are interpreted as reflecting possible group differences in reward expectancies.—*Journal abstract*.

orders. *British Medical Journal*, 1969(Nov), Vol. 4(5678), 250-251.—Describes the use of hypothalamotomy, "the stereotaxic ablation of the ventromedial hypothalamic nucleus or 'sex-behaviour centre,'" with 3 male patients who had committed repeated homosexual offenses with pubertal boys. A distinct reduction of sexual drive was noted after surgery, "with the complete abolition of homosexual tendencies in 2 of the patients and sufficient reduction in the 3rd to enable them to be controlled." Follow-up studies at 3 and 6 mo., and 7 yr. indicate improvement in social and emotional adjustment, and an absence of further sexual offenses. Although hypothalamotomy is a drastic procedure, it is felt to be of importance considering other existing alternatives.—*J. Halev*.

10294. Burian, R. (U. Berlin, Neurology Clinic, E. Germany) **Über eine durch sexuelle Prägung entstandene Form der Pädophilie.** [A form of pedophilia resulting from sexual trait.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Jul), Vol. 22(7), 249-253.—A form of pedophilia which can be interpreted as a genuine sexual perversion is presented through 3 illustrative case histories. The partner relationships reported are fetishistic and bisexual. (24 ref.)—K. J. Hartman.

10295. Dello Russo, Giovanni & Tamburro, Giuseppe. **III Convegno sul tema: "L'impotenza sessuale": Omosessualità e impotenza.** [3rd annual convention on the subject: "Sexual impotence": Homosexuality and impotence.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 307-312.—Pointed out that there is a more optimistic view concerning homosexuality. It is difficult to bring a homosexual to therapy. Ss are usually forced to seek therapy by relatives, in which case the proper motivation is lacking. The homosexual wants to overcome his deviation of the social norm by heterosexual relationships. Freud, in 1935, spoke pessimistically of this possibility; he thought that all depended on the age of the S and on awakening latent heterosexual capability. This is no longer true. Every case of homosexuality is the expression of a resistance against the execution of the act. Impotence results from an active inhibition which must be removed. From a therapeutic viewpoint, the obscure process, which interrupts a behavioral sequence during its harmonious development, must be overcome. 2 cases illustrate the complex nature of psychoanalysis with the homosexual: (a) a 28-yr-old S, who justifies his homosexuality because of his impotence with females, is willing to be psychoanalyzed; he is, in reality, unwilling to be cured and uses the therapy as a defense mechanism; and (b) a 32-yr-old S with psychogenic impotence is willing to be helped, but the nature and power of his inhibitions, which are the basis of the problem do not allow it.—A. M. Farfaglia.

10296. Major, René. **Le logographe obsessionnel.** [The obsessional logograph.] *Interprétation*, 1968(Jan), Vol. 2(1), 5-13.—Interprets a word puzzle unconsciously designed by a sexually inhibited male scopophilic whose repeated interjection during analysis of "Ah! l'inceste!" together with his statement that his compulsive peeping at women's legs produced an intoxication comparable with that of "marijuana," aroused the analyst's curiosity as to hidden meaning. Decoding revealed that "Ah! l'inceste!" signified "Alain, cesse!" (Alain, stop!), which referred to maternal forbiddance during an Oedipal situation in early childhood. In the patient's complex defensive system "marijuana" signified "marie-jeanne" (husband-Jeanne), his childhood name for his penis,

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10293. ———. **Brain surgery for sexual dis-**

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which referred to a disguised sexual desire for an aunt (mother substitute). His sexual inhibition (inability to possess) reflected the possessive article in the phrase "être le mari de Jeanne" (to be Jeanne's husband), with "Jeanne" referring both to his father's sister-in-law (mother substitute and object of desire) and, incidentally, to the similarly named wife of the analyst.—*T. N. Webster.*

10297. Schiffer, Danella. (City Coll., City U. New York) **Relation of inhibition of curiosity to homosexuality.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 771-776.—To ascertain whether inhibition of curiosity is related to overt homosexuality, a 13-item questionnaire designed to measure level of general curiosity was given to 10 male and 10 female homosexuals, and 10 male and 10 female heterosexuals. The female homosexuals demonstrated a significantly lower measured curiosity score than any of the other 3 groups, but the male homosexuals did not differ from the heterosexuals.—*Journal abstract.*

10298. Stewart, Sidney. **Quelques aspects théoriques du fétichisme.** [Some theoretical aspects of fetishism.] *Interprétation*, 1968(Apr), Vol. 2(2), 83-103.—Discusses contradictory theories in the literature, noting that fetishism has practically never been studied from the structural angle. Analysis of a personal case (a male patient whose fetish was an enema bag filled with very hot water, who sought treatment not for the purpose of ridding himself of his fetish, but because of associated sado-masochistic fantasies which he feared transforming into action) illustrates 4 points. (a) Fetishism has the same sado-masochistic structure as that described by Freud in "A child is being beaten." (b) Fetishism represents only part of the splitting process—each element of the fantasy and ritual is devised in such a way that each has 2 totally opposed meanings, simultaneously representing and denying the representation. (c) In the fantasy, the object is also divided in an attempt to preserve the erotic attachment. (d) In regressing to the sadic-anal phase, the fetishist accomplishes in a particular manner a "splitting" of the identification process, thus endeavoring to avoid castration anxiety while retaining his mother as sexual object, and, at the same time, negating this attachment by making his father a homosexual object. To appease the superego, the homosexual object is disguised as female, but the fetishist denies that this is a representation of his mother. (50 ref.)—*T. N. Webster.*

10299. Weitzman, Elliott L., Shamoian, Charles A., & Golosow, Nikolas. (Payne Whitney Psychiatric Clinic, New York, N.Y.) **Identity diffusion and the transsexual resolution.** *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 295-302.—Presents data from a 4-mo hospitalization and 18-mo follow-up of an adult male transsexual. The S was an effeminized boy, perpetuating early forms of identification with his mother and unable to effect normal identification with his father. The tenuous and fragile development of the S's gender identity through homosexual, transvestic, and heterosexual phases is outlined. His increasing feminine sense of self with its ultimate fragmentation to primitive forms of both "as if" role playing and "fusions of self and object," which led to the transsexual resolution and operation is discussed. The role of aggression in the transsexual resolution is considered and serious post-operative complications are noted.—*Journal abstract.*

10300. ———. **Insanity and diminished responsibility.** *Australian Occupational Therapy Journal*, 1968(Oct), Vol. 15(4), 36.—States the definitions of insanity and diminished responsibility incorporated in the laws of Queensland, Australia.

10301. Alkire, Armand A., Goldstein, Michael J., Rodnick, Eliot H., & Judd, Lewis L. (Veterans Administration Hosp., Sepulveda, Calif.) **Social influence and counterinfluence within families of four types of disturbed adolescents.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 32-41.—Investigated factors in the intrafamilial environment which may explain variations in the forms of adolescent psychopathology. Social influence messages were elicited from 24 disturbed boys and 8 disturbed girls, median age 16 yr., and their parents. These messages were used subsequently in a simulated interaction task. Application of a social influence coding system to the influence statements, expectations of others' responses, and actual responses and shifts in responses following awareness of expectations differentiated families of 4 types of disturbed adolescents. 2 parameters of parental behavior were significant in differentiating among the adolescent problem groups: (a) the overtness or assertiveness used in exerting parental social influence, and (b) the focus of power in 1 or the other parent. The interaction of these variables is discussed in relation to the types of disturbance shown in the adolescents.—*Journal abstract.*

10302. Birchnell, John. (Graylingwell Hosp., Chichester, England) **Sibship size and mental illness.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 303-308.—Sibling order has been studied to the neglect of sibship size. Data from interviews with 6795 psychiatric patients, over 20 yr. old, and postal questionnaires from 3425 citizens showed no relationship between mental illness and family size. Neither did diagnostic distribution within each family size differ from the expected. However, in both psychiatric and control samples, a significant relationship was found between year of birth and family size, and "in the psychiatric sample an equally marked and significant relationship was demonstrated between social class of parent and family size." (16 ref.)—*R. L. Sulzer.*

10303. Borgna, Eugenio & Smirne, Salvatore. (U. Milano, Italy) **La depressione endogena cronica.** [Chronic endogenous depression.] *Rivista di Psichiatria*, 1969(Nov), Vol. 4(6), 463-478.—Studied endogenous depressive types which do not progress in stages but are chronic. 10 Ss under 55 yr. old with unipolar, monophasic depressions were studied. Some depressions were vital as discussed by K. Schneider, and others were primary depressions as discussed by H. Weitbricht. Abnormal progression is not enough to disregard the endogenous nature. Psychiatric diagnosis is based on the description of the condition and not on its progress. It is concluded that the clinical phenomenology of chronic depression is not very different from depressions which manifest phases. Situations at the beginning of the endogenous depression are of great importance. (English summary) (45 ref.)—*A. M. Farfaglia.*

10304. Braley, Loy S. & Freed, Norman H. (San Jose State Coll.) **Modes of temporal orientation and psychopathology.** *Journal of Consulting & Clinical*

Psychology, 1971(Feb), Vol. 36(1), 33-39.—Investigated modes of temporal orientation in 18 psychiatric outpatients and a nonpsychiatric comparison population. A Q-sort technique was employed to assess actual temporal orientation and ideal temporal orientation. Ss' ability to project themselves into the future was obtained from story completions and a future-events test. Ss' ratings of their self-satisfaction were related to psychiatric status and temporal orientation. Outpatients expressed greater dissatisfaction with their actual temporal orientation, desiring it to be more future oriented. The measured ideal temporal orientations were the same for both groups. Temporal extension was also significantly more abbreviated for outpatients. Results indicate that comparison Ss endorse statements reflecting a significantly greater future actual temporal orientation than do outpatients. Greatest satisfaction with self seems to be associated with a moderate future temporal orientation. (24 ref.)—*Journal abstract*.

10305. Brauer, Rima; Harrow, Martin, & Tucker, Gary J. (Yale U., Medical School) **Depersonalization phenomena in psychiatric patients.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 509-515.—Reviews the various theories and clinical findings concerning the phenomena of depersonalization, also referred to as derealization, and déjà vu. Regarding these phenomena an attempt was made to determine the: (a) differences in frequency and severity in various diagnostic groups; (b) symptomatology; (c) implications for prognosis, hospital course, and management; (d) effects of various medications; and (e) "relation between depersonalization and other similar phenomena, e.g., derealization and déjà vu." 2 samples of 212 psychiatric patients served as Ss. A self-administered 49-item questionnaire was devised to determine the frequency the S had a given experience. Other personality inventories, attitude scales, and symptom questionnaires were administered, including the MPI, MA scale, etc. Data concerning age, sex, marital status, and previous use of LSD were also gathered. Questions from the depersonalization questionnaire were categorized into perceptual experiences and psychomotor functions and statistically analyzed. Depersonalization was found most frequently with younger Ss who were often anxious, preoccupied with internal processes, and had a tendency toward cyclothymia and depression. Ss who had used hallucinogens described the depersonalization experience as different from the effects of drugs. Data also indicate a high percentage of schizophrenics who experienced depersonalization. It is concluded that these phenomena are probably present throughout most of life but are seen in intensified form during periods of emotional stress. (33 ref.)—*J. Canady*.

10306. Caplan, Joseph. (North York Branson Hosp., Willowdale, Ontario, Canada) **Four generations of mental illness.** *Canadian Medical Association Journal*, 1969(Oct), Vol. 101(7), 418-420.—Presents the history of a family with an exceptionally large number of cases of manic-depressive illness among its members.

10307. Castellani, Antonio. (U. Sassari, Criminal Anthropology Div., Italy) **In tema di ereditarietà delle malattie mentali.** [The subject of heredity in mental illnesses.] *Rivista di Psichiatria*, 1969(Jan), Vol. 4(1), 39-52.—Studied heredity in mental illnesses from the writings of the mid-19th century (Marc, Morel, Magnan, etc.) to present day psychiatrists. Detailed facts are given under each division of mental illness: (a) psychosis due

to idiopathic encephalitis (infantile insanity, amaurotic idiocy), (b) epilepsy, (c) neurosis and abnormal personality, and (d) endogenous psychosis. In each group statistical results are given as well as the most probable mechanism in the genetic transmission. A comparative and critical analysis on the problem is conducted putting more emphasis on exogenous factors and not presenting the problem in a purely deterministic way; e.g., even in the case of epilepsy, it cannot be considered a hereditary illness in the strict sense: "One does not inherit epilepsy, but only a generic tendency to convulse in front of the proper exogenous and endogenous stimuli." (English summary) (30 ref.)—*A. M. Farfaglia*.

10308. Dixon, Barbara K. (U. Washington, School of Nursing, Tacoma) **Intervening when the patient is delusional.** *Journal of Psychiatric Nursing & Mental Health Services*, 1969(Jan), Vol. 7(1), 25-34.—Describes an intervention method in use in 2 state hospitals which has been successful with both delusional and hallucinating patients. "Nursing intervention should be based on the dynamics of human behavior," and the patient's symptoms treated as symbolic language, whether they are "a delusion, a compulsive ritual, or aggressive acting out behavior." The art of psychiatric nursing depends on "the nurse's ability to identify the patients symbolically expressed needs and then to meet those needs as creatively and constructively as possible."—*M. West*.

10309. Dos Santos, Oswaldo. **Pintura de doentes mentais.** [Painting by mental patients.] *O Hospital*, 1969(May), Vol. 75(5), 1847-1857.—Proposes that the term "psychopathological art" is not acceptable, since it is believed that the creative act is not essentially modified by mental illness. All productions, verbal or nonverbal, constitute a complex phenomenology which reveal in the patient the healthy components which are fighting the illness. The therapeutic importance of communicating unconscious thought content through plastic expression is emphasized.—*H. Singer*.

10310. Duyckaerts, F. (U. Liège, Belgium) **De quelques mécanismes psychiques de la fugue chez Jean-Jacques Rousseau.** [Psychodynamics of fugues according to Jean-Jacques Rousseau.] *Acta Psychiatrica Belgica*, 1970(Jan), Vol. 70(1), 78-102.—Using Rousseau as a good example of fugues, it is established that traveling can be considered as a specific type of fugue. Rousseau used this method to escape from people whom he considered too obsessed with their preoccupations. In young adolescents fugues are attributed to basic biological mechanisms related to drive and ambition. People deprived from contact with their mothers shortly after their births are most likely to succumb to the traveling fugue in search of pleasure. Fugues reach abnormal stages only when an individual is unable to overcome life's deprivations or fails to fit into the social standards.—*I. Sirotn*.

10311. Farina, Amerigo, et al. (U. Connecticut) **Mental illness and the impact of believing others know about it.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 1-5.—Reports 2 studies measuring the impact upon 30 male inpatients and 29 male outpatients of believing others have become aware of their psychiatric history. Ss thought the interest was in determining if another person would behave the same toward mental patients and controls. 1/2 the Ss were told the other person knew they were patients and the remainder that he believed them to be nonpatients.

Believing others were aware of their status caused Ss to feel less appreciated, to find a task more difficult, and to perform more poorly, and they were perceived as more tense, anxious, and poorly adjusted by an O. (20 ref.)—*Journal abstract*.

10312. Ferguson, R. S. & Carney, M. W. (U. Salford, England) **Interpersonal considerations and judgments in a day hospital.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 397-403.—115 1-yr follow-ups of clients of a treatment regime that emphasized awareness of social relationships and group learning experiences showed 83 to be enthusiastic or favorable and a significant relation between enthusiasm and clinical outcome. General practitioners, in contrast, rated the service below average. Patients rated relationships with the nurses of greatest and relationships with social workers of least therapeutic benefit. Evaluation of the doctor was intermediate. Clinical recovery did not differ for these relationship ratings.—R. L. Sulzer.

10313. Fitzgerald, Jack D. (U. Iowa) **Consensus in the definition of the psychiatric patient throughout the patient career.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1371-1372.

10314. Flumara, Santi R. & Frighi, Luigi. (Università degli Studi di Roma, Italy) **Sulla diffusione delle malattie mentali in Italia: Studio statistico ed ecologico.** [On the spread of mental illnesses in Italy: A statistical and ecological study.] *Rivista di Psichiatria*, 1969(Mar), Vol. 4(2), 110-140.—Conducted an epidemiological study in Italy to compare the number of mental illnesses in 1959 and 1964. 10,391,009 cases were studied in 1959 and 14,202,611, in 1964. The total incidence of mental diseases with specific reference to Section V of the nosological classification adopted by the National Health Insurance Institute (INAM) which includes mental disturbances, neurosis, and personality disorders was 22.917% in 1959 and 29.650% in 1964. This refers only to outpatients. With the addition of hospitalized cases, the percentages are increased to 23.98% in 1959 and 31.502% in 1964. The increase in mental illnesses is true only of psychoneurotic disorders; psychotic disorders have remained constant. Further research is needed regarding the correlation between the incidence of psychic disturbances and the specific outpatient INAM service in Rome and its environs. (54 ref.)—A. M. Farfaglia.

10315. Gaburri, Eugenio; De Simone, Gilda G., & Brazzelli, Carlo. **Le caratteropatologie nella psicoterapia istituzionale.** [Character disorders in institutional psychotherapy.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 355-361. Patients with character disorders differ from others in the following ways: (a) they result in the greatest therapeutic disillusion; (b) they give rise to trouble by pathological behavior (alcoholic abuse); (c) they have "good conduct" over long periods; and (d) they are considered "not the real sick" by the hospital staff. Institutional psychotherapy is the utilization of plenary meeting including patients so that the entire department can gather as much information as possible on the patient. These patients either oppose or assume the position of leader. The opposition attitude appears at the beginning of institutional psychotherapy. When the patient assumes the role of leader of the community, it is to him a sort of psychodramatic game. In most instances the success is seen in that the S, finding himself in a position between the superego and the ideal ego, is able to perform through "reality testing."—A. M. Farfaglia.

10316. Hilbun, William B. (Medical Coll. of Georgia, Augusta) **Dermatoglyphic findings on a group of psychotic children.** *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 352-358.—Describes a pilot study with a report of the dermatoglyphic findings in a group of 20 psychotic children, most of whom could be classified as having childhood schizophrenia. Excluded were children with a diagnosis of organic brain syndrome and mental retardation with secondary psychosis. Results show an increased incidence in the occurrence of certain dermatoglyphic findings, including several rare patterns, when compared with those expected in a randomly selected normal population. The significance of this difference is not clear and can only be speculated upon. (19 ref.)—*Journal summary*.

10317. Hinchliffe, Mary; Lancashire, Meredith, & Roberts, F. J. (U. Bristol, England) **Eye-contact and depression: A preliminary report.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 571-572.—Studied the frequency and duration of eye-contact in 14 depressed psychiatric patients and 14 nondepressed controls, matched for age, sex, and social class. Depression was assessed by using the Zung Self-Rating Scale. Results show that the duration and frequency of eye-contact were significantly different between the 2 groups.—*Journal summary*.

10318. Kendell, R. E. & Gourlay, Jane. (Maudsley Hosp., Inst. of Psychiatry, London, England) **The clinical distinction between psychotic and neurotic depressions.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 257-260.—A discriminant function analysis including comparison between 63 neurotic depressives and 115 psychotics, who were consecutive admissions to New York and London public mental hospitals, produced a distribution of weighted scores that was unimodal and did not differ significantly from a normal distribution. This "reinforces the case for replacing the existing categorical classification of depressions by a dimensional classification."—R. L. Sulzer.

10319. Kendell, R. E. & Gourlay, Jane. (Maudsley Hosp., Inst. of Psychiatry, London, England) **The clinical distinction between the affective psychoses and schizophrenia.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 261-266.—A discriminant function analysis performed on 146 schizophrenics and 146 patients with affective psychoses produced equivocal results. The distribution of scores was trimodal with the boundary between schizophrenic and affective Ss at the peak of the distribution. Results of a further analysis with different data did not support the view that schizophrenic and affective psychoses are distinct entities.—R. L. Sulzer.

10320. Kolle, K. **Psychopathen für sich und unter sich: Ein quasi-philosophischer Exkurs über den Sonderling.** [Psychopaths: A quasi-philosophical digression on the eccentric.] *Psychiatria Clinica*, 1969, Vol. 2(5), 257-267.—Discusses the classical concept of the psychopathic personality and the personality of the eccentric using illustrative material from the writings of Nietzsche, Heine, Rilke, Hoffmannsthal, and Burkhardt. It is concluded that the eccentric should not be labeled as a psychopath. (English summary)—B. A. Stanton.

10321. Kroeker, L. L., Cole, C. W., & Oetting, E. R. (U. Rochester) **Indices of pathology in acquisition responses by mental patients on a fixed-ratio schedule.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 691-699.—Examined the acquisition of response

rates and response patterning characteristics of a relatively heterogeneous group. 10 hospitalized psychiatric patients and 5 institution employees were run for 40 min. on a fixed ratio (FR) 75 schedule in which nickels were used as reinforcers for button-pressing responses. All Ss were able to learn the response; moreover, there was clear evidence that mental patients' behavior is highly shapable under these conditions and that they will develop a high and consistent rate of responding to immediate reinforcement on FR schedules. Individual differences related to patient status indicate that operant procedures are potentially useful in the assessment of behavior pathology and, perhaps, in the prediction of response to treatment.—*Journal abstract.*

10322. Lin, Tsung-yl. **The epidemiological study of mental disorders.** *Journal of Psychiatric Nursing & Mental Health Services*, 1969(Jan), Vol. 7(1), 42-47.—Discusses epidemiological studies and indicates that they can facilitate the realistic assessment of the extent of a mental health problem in a given community and yield data for assessment of preventive or curative services.

10323. Maier, Louis. (Catholic U. of America) **A resocialization program on state mental hospital wards serving long-term patients.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2503-2504.

10324. Massa, Silvano. **Considerazioni sulle resistenze del caratteriali in psicoterapia: Osservazioni su un caso clinico.** [Some considerations on character resistances of character disorders in psychotherapy: Observations of one clinical case.] *Rivista di Psichiatria*, 1968(Jul), Vol. 3(4), 384-388.—Presents a case of a 25-yr-old male showing the character itself as the principal pathogenic structure or the principal symptom upon which neurotic conflicts have developed. The S was treated with psychotherapy of an analytical nature. After a brilliant scholastic record, S began to show a notable decline in his studies and a growing difficulty in social relationships. His father was tyrannical, aggressive, and violent, while the mother lacked femininity. Leaving his grandmother's protective climate to go to his parent's punitive and prohibitive climate resulted in a sadistic attitude toward the feminine world, and incapacity to love, passive homosexuality, and hence, malformation of the ego.—A. M. Farfaglia.

10325. Resner, Gerald & Hartog, Joseph. (U. California, San Francisco) **Concepts and terminology of mental disorder among Malays.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 369-382.—Describes the concepts of mental disorder as they emerged spontaneously during 2 yr. of psychiatric experience in West Malaysia. A number of concepts were translated into Western frameworks and described. Certain universal bases and clues to labeling and treatment of mental disorders are suggested. A skeletal community mental health program was revealed in existence.—A. Krichev.

10326. Roy, Chunilal; Choudhuri, Adjit, & Irvine, Donald. (Mental Health Clinic, Swift Current, Saskatchewan, Canada) **The prevalence of mental disorders among Saskatchewan Indians.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 383-392.—A statistical analysis of hospital 1st admissions from a Saskatchewan area containing 18 rural and 10 Indian communities showed a significantly higher incidence of mental disorder in the Indian communities. Indian samples also showed higher incidence of schizophrenics and retardates. An explanation is made of the

rapid social changes found in those communities. Findings are related to future cross-cultural psychiatric research and problems. (26 ref.)—A. Krichev.

10327. Saks, Michael J., Edelstein, Jane; Draguns, Juris G., & de Fundia, Toba. (Ohio State U.) **Social class and social mobility in relation to psychiatric symptomatology in Argentina.** *Revista Interamericana de Psicología*, 1970(Jun), Vol. 4(2), 105-121.—Investigated symptoms, symptom dominance patterns, and precipitating circumstances in groups of male and female Argentine psychiatric patients (N = 117) divided on the basis of father's socioeconomic level, own socioeconomic level, and social mobility. Upon comparison of the results obtained with those of a closely related North American study, the conclusion was reached that virtually no findings were identical in the 2 investigations. There were, however, similarities in theme and character of the relationships between symptom and social class variables in the 2 countries. Overt, impulsive, and bizarre symptomatology predominated among lower-class patients, intermediate levels of socioeconomic status tended toward self-blame and guilt, and the highest groups included in this study expressed anxiety, tension, and alienation. The intercultural consistency and the specifically Argentine components of these findings are discussed in relation to the available reports on the ways of life of normal Argentines at several levels of the socioeconomic hierarchy. (Spanish & Portuguese summaries) (42 ref.)—*Journal abstract.*

10328. Scoppa, A. (U. Palermo, Italy) **Il sistema nervoso vegetativo nelle distimie.** [The nervous vegetative system in dysthymia.] *Acta Neurologica*, 1970(Mar), Vol. 25(2), 261-274.—Studied from 1959-1967 113 male and 103 female 19-84 yr. olds with dysthymic disturbances. Ss were divided according to the following groups: endogenous, reactive, and neurotic depression. The method used was that of Schneider and Genevard. In all Ss a disturbance of the vegetative nervous system was found. As in the studies of P. Larson and L. Morgan, where nuclear alterations were found in the hypothalamic grey matter of manic-depressives, one can better understand the explicit role of the constitutional factors. According to A. Rubino, these factors can be summarized essentially in the particular reactive disposition of the diencephalic centers in as far as it concerns the vital dynamism and affective tone. (English summary) (27 ref.)—A. M. Farfaglia.

10329. Torre, Mottram P. (De Paul Community Mental Health Center, New Orleans, La.) **Psychopathology and political leadership.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 611-626.—Under-scores the vulnerability of the nation to the actions of disordered personalities in top political offices. Calls for safeguards in political systems to protect against irrational leaders.—W. Vernon.

10330. van Praag, H. M. (Psychiatric University Clinic, Groningen, Netherlands) **The complementary aspect in the relation between biological and psychodynamic psychiatry.** *Psychiatria Clinica*, 1969, Vol. 2(5), 307-318.—Views concerning the pathogenesis of psychopathological phenomena have been governed by a polarity of 2 approaches: the somatic approach with its natural science tradition, and a more spiritualistic approach. Biological and psychodynamic psychiatry are the respective representatives of these trends. It is argued that the biological and psychodynamic approaches are complementary rather than opposite. This contention is

elucidated on the basis of 3 depression models: a biochemical, physiological, and psychodynamic model. (24 ref.)—*Journal summary*.

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10331. ———. **Causes of enuresis.** *British Medical Journal*, 1969(Apr), Vol. 2(5649), 63-64.—The maturation of the nervous system is an important factor in primary enuresis. There is a family history of enuresis in 70% of the cases of the primary type. Additional psychological and social factors (i.e., emotional deprivation, deficient physical care, marital instability, and parental crime) were strongly related to the incidence of enuresis. An organic disease is only occasionally the cause. Constant dribbling, e.g., may suggest urethral obstruction. Other causes include infection, sacral lipoma, or the absence of abdominal muscle tone. Secondary enuresis is almost entirely psychosocial. Occasionally, a child relapses because of the development of polyuria or suffering a degenerative disease of the nervous system. The child should not be forced to sit on the toilet against his will. The most important cause of difficulty was seen to be resistance to training which was produced by forceful parental coercion.—*I. Halev*.

10332. Arioni, Bianca M., Soccorsi, Silvia; Fischer, Grazia M., & Cannoni, Gianmaria. (U. Roma, Italy) **Il problema del caratteropatologico dimesso alla luce di un'indagine catamnestic.** [The problem of the released patient with a character disorder in the light of a catamnestic study.] *Rivista di Psichiatria*, 1969(Nov), Vol. 4(6), 479-509.—Studied released adolescent Ss with character disorder syndromes from a therapeutic, rather than diagnostic, viewpoint. With this type of S, new environmental solutions were necessary but impossible. After 2-3 yr. the Ss (or relatives and educators) were interviewed to see if the Ss in fact needed socio-psychological therapy at the beginning or before their release. The problem of character disorder is studied according to 3 groups: neurotic, psychotic, and sociopathic behavior. The reeducative system and reformative laws in Italy are outlined and held as insufficient and badly organized. A minor with a character disorder is often treated like a delinquent. 6 neurotic, 1 psychotic, and 4 sociopathic 13-19 yr. old females who served as Ss, were studied in detail according to the following outline: (a) case history upon hospitalization, (b) clinical stay, (c) catamnestic interview, and (d) conclusions drawn. It is concluded that sociopsychological therapy was necessary, and there is a deficiency of therapeutic facilities. (17 ref.)—*A. M. Farfaglia*.

10333. Bugental, Daphne E., Love, Leonore R., Kaswan, Jacques W., & April, Carol. (U. California, Los Angeles) **Verbal-nonverbal conflict in parental messages to normal and disturbed children.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 6-10.—Analyzed videotaped parent-child communication within 20 families containing a disturbed child (referred by schools for chronic behavior or emotional problems) and 10 normal control families. Parental messages were judged for evaluative content in verbal (typescript of message), vocal (tone of voice), and visual (facial expressions, gestures, etc.) channels. Significantly more ($p=.05$) disturbed mothers (59%) produced messages containing evaluative conflict between channels than did

normal mothers (10%); no difference was found between normal and disturbed fathers. The sons of mothers producing conflicting messages were found to be higher on school aggressiveness than the sons of nonconflicting mothers ($p=.05$). (15 ref.)—*Journal abstract*.

10334. Conforto, Carmelo; Delmonte, Pietro; Gilberti, Franco, & Montanari, Giovanni. **III Convegno sul tema: "L'impotenza sessuale": Impotenza sessuale e depressione: Considerazioni cliniche.** [3rd annual convention on the subject: "Sexual impotence": Sexual impotence and depression: Clinical considerations.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 301-307.—Studied the relationship between sexual impotence and depressive states. Interest lies in the scarcity of literature on the subject and the variations of interpretation. 4 34-41 yr. old male Ss were studied without routine examinations. 2 were cured with amitriptyline as well as psychotherapeutic sessions; 2 were cured with psychotherapy alone. The 1st case concerned an endogenous depressive where impotence was secondary. The 2nd case showed endogenous constitutional factors in phobias of the loss of hair and of syphilis. The 3rd case of prolonged psychogenic impotence, the depressive state was secondary. The 4th case, which was the most complicated, impotence was an antidepressive defense because of deep feelings of guilt concerning his sex. The contributions of A. J. Cooper and J. Johnson on impotence are considered too simplified. Constitutional factors must be studied in detail along with biological and psychopathological factors. Impotence can be a type of defensive behavior.—*A. M. Farfaglia*.

10335. Darcourt, G. & Beclé, J. (Nice Hosp., France) **Les fugues dans les névroses et les déséquilibres psychiques chez le grand adolescent et l'adulte.** [Fugues as symptoms of neurosis and emotional disturbances in late adolescence and adulthood.] *Acta Psychiatrica Belgica*, 1970(Jan), Vol. 70(1), 33-77.—With the diversity of existing fugues, it is maintained that classification of such is impossible. It is suggested that fugues should be considered as a basic fact. The symptom can, however, be categorized on the basis of frequency, length, and type of behavior during a particular fugue. It is concluded that each fugue must be analyzed as a specific case with special consideration of various aspects inherent in the situation. (3 p. ref.)—*I. Sirotnin*.

10336. Flipppo, Joseph R. & Lewinsohn, Peter M. (New Mexico Highlands U.) **Effects of failure on the self-esteem of depressed and nondepressed subjects.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 151.—Hypothesized that depressed Ss would show greater negative change in self-esteem in response to failure than nondepressed Ss, and investigated the relationship between lability and stability in mood and susceptibility of self-esteem to failure. 24 depressed and 24 nondepressed Ss completed daily mood ratings for 1 wk. and were categorized into stabile and labile groups. Each S was given a puzzle-solving task on which a 25, 50, or 75% failure condition was possible. Before and after the task, each S completed a self-esteem measure. Differences between depressed and nondepressed, stabile and labile groups did not reach statistical significance.—*S. Knapp*.

10337. Ierodiakonou, C. S. (U. Thessaloniki, AHEPA Hosp., Greece) **The effect of a threat of war on neurotic patients in psychotherapy.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 643-651.—Dis-

cusses the cases of 14 Greek neurotics during time of possible imminent war over the 1967 Cyprus problem. It is concluded that while normals react to war threat with emotional "flight" reaction, neurotic males adopt a "fight" attitude, seeing war as a possible solution to their inner problems, allowing impulse expression and possible hero status.—*W. Vernon.*

10338. Marks, Isaac M. (Maudsley Hosp., Inst. of Psychiatry, London, England) **The origins of phobic states.** *American Journal of Psychotherapy*, 1970(Oct), Vol. 24(4), 652-676.—Develops a multiple-factor approach to the etiology of chronic phobias. Literature on age at development, genetic endowment, learning theory, modeling, and psychoanalytic theory is considered. (73 ref.)—*W. Vernon.*

10339. Nichols, Keith A. & Berg, Ian. (U. Exeter, England) **School phobia and self-evaluation.** *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 1970(Nov), Vol. 11(2), 133-141.—Tested by means of a semantic differential the hypothesis that school phobic children hold higher levels of self-evaluation than similar nonschool phobic children. The level of self-evaluation in a group of 25 school phobics was compared with that of 23 controls attending a psychiatric clinic with various difficulties other than phobic reactions. No overall difference was found between the groups on scores taken from individual semantic differential scales loading on a factor of evaluation. There was a general tendency for chronic school phobics to show the lowest level of self-evaluation. (21 ref.)—*Journal summary.*

10340. Palazzoli, Mara S. (U. Basel, Inst. for Psychohygiene & Psychotherapie, Switzerland) **Die Bildung des körperbewusstseins: II. Beitrag einer neuen Auswertungsmethode des Rorschach-Tests zur Untersuchung von Störungen der körperlichkeit.** [Psychopathology of bodily experience: II. Contribution of a new Rorschach scoring.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 241-256.—Anorexic patients of the stable type, who had never had crises of severe bulimia, revealed at the Rorschach test a high degree of focusing of attention, a stable and well-organized capacity for perception, experience, and communication. In some cases their thinking and communication could be classified as restricted paranoid type of thinking. On the contrary, the patients who oscillated dramatically between crises of under- and over-eating showed, in the Rorschach transactions, perceptual uncertainty or later denial of interpretation, and not infrequently, vague, and indefinite percepts. Findings reveal in these cases a deeper perceptual and cognitive disorder (fragmented type of thinking, experiencing, and communicating). In such cases there is body-image disturbance, and a body-cognition disturbance, the result of a learning-process during which the child has not learned, in the transactional relationship with the caretaker, how to accurately perceive and conceptualize his bodily needs, and how to satisfy them adequately (and independently from the caretaker) out of a direct and consistent contact with his own basic source of experience—his own body. The most serious disturbance of the body-cognition (anorexia-bulimia) could therefore be the result of a learning-process arising from confusion and wrong conditioning, on the part of the impervious mother, of the recognition and validation of the original percepts of the child.—*English summary.*

10341. Platman, S. R. & Plutchik, R. (Columbia U.) **Eysenck Personality Inventory as a mood test with**

manic-depressive patients. *Psychological Reports*, 1970(Dec), Vol. 27(3), 947-952.—Used the Eysenck Personality Inventory (EPI) as a mood indicator instead of as a trait test with a group of manic-depressives. 73 Ss completed the EPI while in a normal state, 64 while in a depressed or manic state, and 60 in 2 or more clinically defined states. Results show that depression was associated with a significant decrease in extroversion and a significant increase in neuroticism. The manic state, however, was not clearly differentiated from the normal one. It appears that the inventory may be a useful indicator of depressive mood.—*Journal abstract.*

10342. Raynolds, E. H., Preece, J. M., Bailey, J., & Coppen, Alec. (National Hosp. for Nervous Diseases, London, England) **Folate deficiency in depressive illness.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 287-292.—Measured serum folate and vitamin B₁₂ levels in 101 depressed patients. Subnormal folate levels were found in 1/4 of Ss, who had significantly lower validity scores and higher depressive scores on the Marke-Nyman Temperament Scale. Whether causal of depression through interference with tyrosine or tryptophan hydroxylation, or merely a consequence of dietary deficiency is not certain, but these interpretations are not mutually exclusive and could interact in a vicious cycle. A smaller portion of Ss showed lowered vitamin B₁₂ levels, and 5 Ss with both folate and B₁₂ levels depressed, were the most abnormal in behavior. (20 ref.)—*R. L. Sulzer.*

10343. Renschmidt, H. & Dauner, I. (U. Marburg, Children's Psychiatric Clinic, W. Germany) **Lerntheoretische Aspekte zur Genese von Zwangssphänomenen.** [Aspects of learning in the genesis of compulsion phenomena.] *Acta Paedopsychiatrica*, 1970, Vol. 37(6), 154-160.—3 genetic forms of mental symptoms exist: trauma, impact, and learning. For therapy, compulsion phenomena are classified according to their contents and their relation to anxiety. Clinical experience and animal experimentation indicate that compulsion phenomena are learned. Stress is laid on the poor quality of the patient's contacts and the hereditary transmission of anacastic traits in their parents. Therapeutic principles inhere in aversion therapy, negative training, thought inhibition, and systematic desensitization.—*G. Rubin-Rabson.*

10344. Rosenberg, Blanca N. & Short, Jacqueline S. **Differential treatment of the pseudoneurotic client.** *Social Casework*, 1970(Nov), Vol. 51(9), 556-565.—Assessment of a person's ego function and adaptive capacities help to differentiate between a neurotic and pseudoneurotic client. Goals suitable for open-ended and planned-timed treatment center around: (a) developing healthier coping patterns; (b) building the ego; (c) developing reality orientation through work, marriage, and parenthood; (d) promoting object relationships, increasing frustration tolerance; and (e) reinforcing cognitive development.—*M. W. Linn.*

10345. Schachter, M. (Committee on Retarded Children, Dept. of Neuropsychiatry, Marseille, France) **A propos d'une destruction compulsive, partielle, des vêtements (allotriorhexis) chez une adolescente.** [A case of compulsive partial destruction of clothes (allotriorhexia) in an adolescent girl.] *Acta Paedopsychiatrica*, 1970, Vol. 37(6), 160-166.—Allotriorhexia and allotriophagy compulsive, not necessarily unconscious, behavior is rare. The swallowing of clothing fibers by a 15-yr-old girl, not yet arrived at menarche, represents 3

problems: psychosexual, inferiority feelings or autosomatic insufficiency, and a child-parent difficulty.

—G. Rubin-Rabson.

10346. Thetford, William N. & Schucman, Helen. (Columbia U., Coll. of Physicians & Surgeons) **Conversion reactions and personality traits.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 1005-1006.—Tested 2 previously supported hypotheses with 30 Ss showing conversion reactions. Relations between their symptoms and personality traits as identified by the Personality Assessment System (PAS) were studied. Results support the hypotheses and provide further evidence of the usefulness of the PAS in studying patient groups. —*Journal abstract.*

10347. Tietz, Walter. (U. Southern California, Medical Center, Los Angeles) **School phobia and the fear of death.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 565-568.—A. M. Cawley.

10348. Wolpe, Joseph. (Temple U., Medical Center) **Transcript of initial interview in a case of depression.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 71-78.—Presents an interview with a 41-yr-old depressed woman which provides a typical example of behavioristic history-taking, defining areas of disturbance and determining their stimulus antecedents. It became apparent that while the S's unsatisfactory life situation accounted to some extent for her depressed feeling, it was more fundamentally related to guilt feelings in connection with normal sexual impulses. During her marriage, depression had been related to restriction of social activity due to a phobia for people in groups, and sometimes to sexual frustration. 2 alternative programs for achieving a satisfactory life situation were suggested and apparently accepted. —*Journal abstract.*

10349. Wyatt, Richard J., et al. (National Inst. of Mental Health, Bethesda, Md.) **Resting plasma catecholamine concentrations in patients with depression and anxiety.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 65-70.—Reports that the total resting plasma catecholamine concentration from 13 20-61 yr. old drug-free, depressed patients was significantly elevated over concentrations from 47 normal controls. Differential determinations of epinephrine and norepinephrine revealed that both catecholamine components were elevated in the Ss. The literature on norepinephrine concentrations in brain, spinal fluid, and urinary excretion is reviewed and indicates that rather than being decreased, norepinephrine has been found to be either unchanged or increased in depressed patients. (37 ref.)—*Journal abstract.*

Psychosis

10350. Åkesson, H. O. (U. Gothenburg, St. Jörgen Hosp., Sweden) **A population study of senile and arteriosclerotic psychoses.** *Human Heredity*, 1969, Vol. 19(5), 546-566.—Studied the population of an area on the west coast of Sweden for the frequency and other demographic features of senile and arteriosclerotic psychosis, making both a transverse and period study, and reckoning only with cases having reached the stage of unremitting disorientation as to time and place. The underlying population for the study consisted of 2071 men and 2127 women aged 60 and over. The prevalence and incidence of the 2 forms of psychosis were calculated. The cases found were studied for mortality,

duration of disease, length of stays in hospitals for physical disease, and place of residence. Finally a genetic analysis was made of the 2 diseases. It was found that most Ss died much sooner than others their age. Parents and sibs of affected Ss were much more apt to be similarly affected than the standard population. —*Journal abstract.*

10351. Cattach, Narelle. **Management and treatment of the depressive psychoses.** *Australian Occupational Therapy Journal*, 1968(Jul), Vol. 15(3), 32-37.—Describes briefly the symptoms of depressive psychosis, chemotherapy, somatic and operative treatment, and psychoanalytic treatment. The aim of the occupational therapist is to develop in the patient a feeling of security which will extend to his family, occupation, and social life. Means to implement treatment plans are noted and discussed, e.g., strengthening the patients feeling of security, involvement of the patient in selected activities, and guiding the patient into social contacts. —S. Knapp.

10352. Cowen, Murray A. (State U. New York, Upstate Medical Center, Syracuse) **Electrophysiological studies on the brain: Effects of nucleotide and tryptophan metabolites as modified by polyamines in normal and psychotic subjects.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 772-780.—Describes the application of the transepithelial direct current (TCDC) potentials to a variety of studies of normal and psychotic Ss. Functional correlates of TCDC potentials to anxiety mechanisms, normal behavior, and psychotic processes are summarized. A tentative formulation of the pathophysiology of schizophrenia is offered. Tables relating PCDC potentials to nucleoprotein metabolism, methylation of biogenic amines, and cerebrovascular permeability are included. (31 ref.)—P. McMillan.

10353. Gall, H. (Ernst Moritz Arndt U., Neurological Clinic, Greifswald, E. Germany) **Der Einfluss interkurrenter Hautallergien auf den Verlauf depressiver Psychosen.** [The influence of concurrent skin allergies on the progress of depressive psychosis.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Jul), Vol. 22(7), 259-262.—Considerable improvement was observed in 11 cases of severe depressive psychosis when in each case there was a simultaneous appearance of a skin rash which was a side effect of the medications. The mechanism of a close periodicity between the CNS and allergy is supported. Alternations of allergies with psychoses have been previously reported for migraine and asthma. (25 ref.)—K. J. Hartman.

10354. Hiatt, Rosemary. **The depressive psychoses.** *Australian Occupational Therapy Journal*, 1968(Jul), Vol. 15(3), 21-31.—Discusses the etiology and symptoms of depressive psychoses, the depressive phase of manic-depressive psychosis, involutional melancholia, endogenous or psychotic depression, postpartum psychosis, and schizoaffective psychosis. Psychogenic, somatic, genetic, constitutional, age, and precipitating factors are briefly noted. The management of depressive illness is seen as primarily the function of supportive psychotherapy and drug therapy with antidepressants and MAO inhibitors, although ECT and prefrontal leucotomy may be indicated in certain cases. It is concluded that the risk of suicide with depressive patients must always be considered. —S. Knapp.

10355. Hullin, R. P. & Court, G. (U. Leeds, England) **Fasting blood lipid concentrations in manic-de-**

pressive psychosis. *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 275-285.—Serial investigations of mental patients and normal Ss demonstrated that "the fasting serum lipid pattern was characteristic of the individual and was not greatly affected by considerable changes in the dietary intake." A study is reported in which significant changes in the serum lipid concentrations were found with a manic-depressive patient to correlate with mood cycle. Another patient without affective changes but receiving the same diet showed no such lipid pattern changes. ECT appeared to produce changes in the fasting serum lipid pattern of depressed patients, and changes were most marked when associated with improvement in the mental state.—*R. L. Sulzer.*

10356. **Ivanitskiĭ, A. M.** (Central Research Inst. of Forensic Psychiatry, Moscow, USSR) **Vyzvannye otvety i analiz razdrazhenii v kore golovnogo mozga cheloveka.** [Evoked responses and the analysis of stimulation in the human cerebral cortex.] *Zhurnal Vyssei Nervnoi Deyatel'nosti*, 1969(Nov), Vol. 19(6), 1020-1026.—20 normal Ss and 51 reactive psychotics with hysterical background (age distribution for all: 20-50 yr.) participated in a study of the "physiological processes, underlying the evaluation of stimuli in the cerebral cortex with respect to 2 main characteristics: physical parameters and their significance for 1 or another activity of the organism." Recordings were made of the evoked responses of the occipital cortex to photic stimulation, presented in flashes at 2-5 sec. intervals. An analysis was then undertaken of the different informational characteristics of their early and late components. The amplitude of the 1st 2 waves of the response in psychotics was considerably diminished as compared to that in normals. Late waves, on the contrary, exhibited a tendency toward increase. These data point to blockade of the specific conducting system in reactive psychotics along with retention of conduction in the nonspecific system. It appears that a change in the relationship between the 2 systems, recordable by the evoked potentials method, leads to a change in "afferential synthesis and perception"—a change which lies at the basis of several clinical manifestations of "reactive hysterical psychosis."—*I. D. London.*

10357. **Lefebvre, Pierre.** **Approches nouvelles du problème de la psychose.** [New approaches to the problem of psychosis.] *Interprétation*, 1969(Oct), Vol. 3(4), 67-80.—Summarizes a series of seminars and lectures dealing with Lacan's studies on psychosis, "retracing the path which led Lacan to formulate an altogether new theory of psychosis," based on the perception of reality (resulting from converging organization of the spheres of the "Imaginary and Symbolic"). Psychic reality can be attained only if the S has achieved "a sort of balanced rapprochement of both spheres In psychosis there is present a structural defect resulting from the absence of convergence of Imaginary and Symbolic The terrain of psychosis is prepared by a denial, in the S, of the significance of the paternal metaphor." This denial Lacan called "forclusion," the inability of the S to symbolize an essential fantasy.—*T. N. Webster.*

10358. **Lorr, Maurice & Hamlin, Roy M.** (Catholic U. of America) **A multimethod factor analysis of behavioral and objective measures of psychopathology.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 136-141.—Evaluated the extent to which certain objective tests, ward behavior ratings, recorded

verbalization scores, and interview behavior ratings possessed convergent and discriminant validity for 10 psychotic syndromes in a varied group of 125 psychotics drawn from 5 hospitals. A multimethod factor analysis was made of the 10 interview behavior and 12 ward behavior syndrome scores, and a similar analysis made of the entire set of 48 variables. The 1st analysis yielded 10 multimethod factors that corresponded closely to the original 10 interview syndromes. In the 2nd analysis, 12 interpretable factors were obtained, all of which exhibited convergent validity for 2 or 3 method sources. 1 or more objective test variables were meaningfully associated with each of the factors except 1. It is concluded that the convergent and discriminant validity of the syndromes is strongly supported.—*Journal abstract.*

10359. **Wharton, B. K.** (Runwell Hosp., Wickford, England) **Nasal decongestants and paranoid psychosis.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 439-440.—Describes the case of a 37-yr-old Royal Air Force officer who became paranoid after taking 30 anahist (a decongestant) tablets. This cold medicine contains a drug similar to amphetamine.—*R. L. Sulzer.*

10360. **Winokur, George.** (Washington U., Medical School) **Genetic findings and methodological considerations in manic depressive disease.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 267-274.—Family data on 89 manic Ss indicate that an X-linked dominant factor is involved in the transmission of manic depressive disease. Support for this position is seen in previous studies, involving the color blindness locus and the Xg blood system locus. Since the illness is not clinically homogeneous within families, and relatives are likely to have only depression instead of the bipolar picture, a 2nd genetic factor may be sought. Present data provide some support. A method for more definite determination of whether the 2nd genetic factor may be linked with a known genetic factor is proposed.—*R. L. Sulzer.*

Schizophrenia

10361. **Auger, Eugene R.** (U. California, Los Angeles) **Nonverbal communication of normal individuals and schizophrenic patients in the psychological interview.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3860.

10362. **Bauman, Edward.** (Lakehead U., Port Arthur, Ontario, Canada) **Schizophrenic short-term memory: The role of organization at input.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 14-19.—Investigated schizophrenics' ability to utilize input organization and auditory cues for recall. 32 7-letter lists, varying in degree of organization, were presented to 24 schizophrenic and 24 normal Ss for forced-order recall. 1/2 of the lists were vocalized aloud, the remainder articulated silently. Normals gave significantly better recall than schizophrenics, and voicing facilitated recall in both groups. Schizophrenics had greater difficulty in recalling items in the last serial positions than did normals. Schizophrenics' omissions increased monotonically with serial position, while the omissions of normals followed the serial position curve. Findings suggest that schizophrenics do utilize the cues of input organization and vocalization for recall, but the process

of responding seems to engender excessive output interference which makes retrieval of late input items difficult. (35 ref.)—*Journal abstract*.

10363. Bosch, Gerhard. (U. Düsseldorf, West Germany) **Infantile autism: A clinical and phenomenological-anthropological investigation taking language as the guide.** Trans. D. Jordan & I. Jordan. New York, N.Y.: Springer-Verlag, 1970. xvi, 158 p. \$10.50.

10364. Brooksbank, B. W., et al. (Carshalton & West Park Hosp., Epsom, England) **Androgen excretion and physique in schizophrenia.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 413-420.—24 male schizophrenics and 10 controls did not differ in urinary excretion or androgyny score, but calf muscle diameter was correlated with testosterone excretion in the psychotic group. Testosterone and androsthenol urinary levels were positively correlated in both groups. These findings support Bleuler's conclusion that endocrine and schizophrenic processes are related only in individuals or small subgroups, not in the total group of schizophrenics. (33 ref.)—R. L. Sulzer.

10365. Calhoun, James F. (U. Illinois) **Comment on differentiating paranoid from nonparanoid schizophrenics.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 104-105.—Compared 3 methods of differentiating paranoid from nonparanoid schizophrenics: (a) official hospital diagnosis; (b) behavior ratings based on specific characteristics; and (c) self-report using scales, e.g., the MMPI. It was found that a and b were significantly correlated, while c correlated with neither of the 2 techniques in 97 males from a Veterans Administration hospital with the general diagnosis of schizophrenia. (15 ref.)—S. Knapp.

10366. Callaway, Enoch; Jones, Reese T., & Donchin, Emanuel. (Langley Porter Neuropsychiatric Inst., San Francisco, Calif.) **Auditory evoked potential variability in schizophrenia.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 421-428.—Investigated the observed correlation between averaged evoked potential (AEP) and schizophrenic thought disorder. 10 normal and 10 schizophrenic Ss were tested with same tone and different tone sequences. Variability of the individual brain wave potentials comprising an AEP was greater for schizophrenic than for normal Ss. In schizophrenics this increased AEP variability resulted in fewer similarities and lowered correlations between 2 AEPs evoked by tones of the same pitch. The increased difference between AEPs to tones of 2 different pitches found in schizophrenia seemed to be a function of increased AEP variability. Increase of AEP variability in schizophrenic patients reflects response variability and is not principally the result of increased background EEG variability. AEP standard deviation is highly correlated with AEP amplitude, and methods of correcting for this are discussed. (French summary)—*Journal summary*.

10367. Curcio, Ronald P. (Rutgers State U.) **A comparison of the cognitive development of normal and schizophrenic adolescents using the Object Sorting Task.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1070.

10368. Daniels, Eugene B. (U. North Carolina, Chapel Hill) **Encounter in mid-flight: A study of schizophrenia through relationship.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3863.

10369. Dehn, Janet K. (Washington U.) **An investigation of the development and maintenance of the negative behavior of autistic children.** *Dissertation*

Abstracts International, 1970(Oct), Vol. 31(4-A), 1902-1903.

10370. Donchin, Emanuel; Callaway, Enoch, & Jones, Reese T. (U. Illinois) **Auditory evoked potential variability in schizophrenia: II. The application of discriminant analysis.** *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 429-440.—Analyzed the data recorded by E. Callaway, R. Jones, and E. Donchin (see PA. Vol. 45:Issue 6) in a study of degree of dissimilarity of 2-tone average evoked potentials (AEPs) in normal and schizophrenic Ss by the Step-Wise Discriminant Analysis (SWDA) technique. Analysis was undertaken to determine if (a) groups of single-trial records obtained with 2 dissimilar tones show a greater dispersion than groups of single-trial records obtained with identical tones, and (b) the degree to which the dissimilarity of 2-tone AEPs, if found, is consistent between Ss. Analysis of the 2-tone AEPs demonstrated that (a) although there is an increased dissimilarity between the AEPs to dissimilar tones, there is no appreciable difference between schizophrenic and normal Ss; and (b) there is little consistency in the AEP components that differentiate the 2 AEPs from 1 S to the next. Results suggest that the previously reported differences between normal and schizophrenic Ss are largely the result of the increased variability in the AEP of schizophrenics rather than of a consistent tendency of the Ss to concentrate on trivial differences between the tones. (French summary) (19 ref.)—*Journal summary*.

10371. Farkas, Erwin. (U. Minnesota) **Verbal conditioning in schizophrenics as a function of rated social behavior and awareness-facilitating instructions.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3865.

10372. Gubbay, S. S., Lobascher, M., & Kingler, P. **A neurological appraisal of autistic children: Results of a Western Australian survey.** *Developmental Medicine & Child Neurology*, 1970(Aug), Vol. 12(4), 422-429.—Studied 25 autistic children from Western Australia, diagnosed according to Creak's "9 points," neurologically. 56% had unequivocal evidence of brain disorder. 84% showed evidence suggestive of encephalopathy. All were mentally retarded. (18 ref.)—P. W. Pruyser.

10373. Heston, Leonard L. (U. Iowa, Medical School) **The genetics of schizophrenic and schizoid disease.** *Science*, 1970(Jan), Vol. 167(3916), 249-256.—Reports recent research refocusing attention on genetic factors in schizophrenia. The conceptual and research problems presented by schizoid disorders, a term applied to disorders resembling schizophrenia found in relatives of schizophrenics, are considered. It is noted that schizoids and schizophrenics occur with approximately the same frequency among monozygotic twins of schizophrenic parents, 45% of the parents, children, or siblings of a schizophrenic are schizoid or schizophrenic, as are about 66% of the children where both parents are schizophrenics. It is estimated that at least 4% of the general population will show schizoid-schizophrenic disease. The application of these findings to "theoretical expectations based on the hypothesis of a defect in a single autosomal dominant gene" is presented. (48 ref.)—P. McMillan.

10374. Hinshelwood, R. D. (Marlborough Day Hosp., London, England) **The evidence for a birth order factor in schizophrenia.** *British Journal of Psychiatry*, 1970(Sep), Vol. 117(538), 293-301.—Review of previous positive evidence of a birth order effect has revealed a

paradox, i.e., that similar birth order distribution distortions occur in nonschizophrenic patients to a greater extent than in schizophrenic patients. On the assumption that the reported distortions are a feature of the general population, it was hypothesized "that they are diminished in the schizophrenic sample by a secondary overrepresentation of another intermediate birth position." The "last-but-one" position appears specifically overrepresented in schizophrenic samples. (16 ref.)—R. L. Sulzer.

10375. Kane, Eleanor M., Nutter, R. W., & Weckowicz, T. E. (U. Alberta, Edmonton, Canada) **Response to cutaneous pain in mental hospital patients.** *Journal of Abnormal Psychology*, 1971(Feb), Vol. 77(1), 52-60.—Conducted an experiment to determine how warmth detection thresholds (WDTs), pain thresholds (PTs), and pain tolerance thresholds (PTOs) to radiant heat differed between groups of process schizophrenics (G_1), reactive schizophrenics (G_2), non-schizophrenic (G_3), and normal (G_4) S groups. 15 males from each of these categories served as Ss. The manipulated independent variable was skin temperature. The dependent variables were verbal reports of WDT, PT, PTO, and pupillary response. G_1 and G_2 Ss had significantly lower mean PTs and PTOs than G_3 Ss. Significantly fewer G_2 and G_3 Ss than G_1 and G_4 Ss reported PT and PTO. The mean pupillary responses of G_2 Ss were significantly smaller than those of G_1 and G_3 Ss at WDT, PT, and PTO. It is concluded that (a) chronic institutionalized psychiatric patients display weaker reactions to potentially harmful stimuli, and (b) a dissociation between autonomic and verbal responses may occur in process schizophrenics at higher than moderate levels of noxious stimulation. (43 ref.)—*Journal abstract*.

10376. Kaufman, Gershen. (U. Rochester) **Capacity to handle unassimilable material: The coping strategies available among schizophrenics and normals.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3869-3870.

10377. Lalli, Nicola & Pancheri, Paolo. (U. Rome, Inst. of Psychiatry) **Manifestazioni isteriche nella schizofrenia: Osservazioni relative ad un caso clinico.** [Hysterical manifestations in schizophrenia: Observations in a clinical case.] *Rivista di Psichiatria*, 1969(Jan), Vol. 4(1), 21-28.—Studied a clinical case in order to find if a clinical and psychopathological relationship exists between hysterical behavior and schizophrenia. A 23-yr-old female from an average sociocultural environment with a strict and jealous father and meek mother served as the S. While a student nurse she began to manifest hysterical behavior which progresses to schizophrenia. Schizophrenia and hysteria are of different psychopathological structure. Hysteria is a behavior pattern joined to mechanisms common to all men and which may be used in various situations. In predisposed personalities these mechanisms may be used in a permanent condition (hysterical neurosis) or only in emergencies. Organic factors, e.g., epilepsy, can use these mechanisms as well. Thus, it is probable that initially in the schizophrenic process these hysterical mechanisms can be used, and more so as the individual (a psychosomatic unity) becomes more vulnerable and less efficient. (English summary) (35 ref.)—A. M. Farfaglia.

10378. Liggio, F. (U. Palermo, Clinic for Nervous System Illness, Italy) **L'apprendimento intermodale negli schizofrenici paranoidi.** [Cross-modal learning in

paranoid schizophrenics.] *Acta Neurologica*, 1970(May), Vol. 25(3), 382-391.—Studied in 18 paranoid schizophrenics the capacity of transfer in the sensorial tactile sphere of learning acquired directly through sensorial forms and vice versa. A method similar to the 1 used by H. Gaydos on normal Ss was used. For the tactile-visual and visual-tactile tests 5 3-dimensional forms were used, which did not resemble any real object. They had monosyllabic names ("Ra," "Fi") which the Ss could change, e.g., 1 S named 3 "Father," "Son," and "Holy Ghost." 11 Ss capable of visual-tactile learning, had chosen their own names for the forms. But all the Ss were capable of tactile-visual learning whether they had given names to the forms or not. It is concluded that: (a) subjective names used arbitrarily by the Ss are of great value in intersensorial communication; (b) the tactile-visual capacity is greater than the visual-tactile in these Ss; and (c) a fundamental aspect of the schizophrenic syndrome is the conduction block which creates a distortion of informative patterns, especially in septal relays. (English summary) (16 ref.)—A. M. Farfaglia.

10379. Lobascher, M. E., Kinglee, P. E., & Gubbay, S. S. (Hosp. for Sick Children, London, England) **Childhood autism: An investigation of aetiological factors in twenty-five cases.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 525-529.—Compared to matched controls, 25 autistic children: (a) scored low in IQ; (b) had more evidence of neurosis in parents, particularly fathers; (c) had families with more alcoholism, psychiatric problems, and mental retardation; (d) had come from longer gestation periods and more complicated labors; and (e) showed frequent signs of organic cerebral nervous system disease.—R. L. Sulzer.

10380. Murray, Lois M. (U. Arizona) **The relationship between conceptual, perceptual, and electroencephalographic factors in process and reactive schizophrenics.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3872-3873.

10381. Olson, R. Paul. (2701 Brunswick Ave. N., Minneapolis, Minn.) **Effects of modeling and reinforcement on adult chronic schizophrenics.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 126-132.—Modified the expressed preferences of 32 male schizophrenics for 8 pairs of popular magazines by 1 of 3 treatments lasting 4 days. Adult male models demonstrated the desired responses in 2 of these treatments. 2 hypotheses generated from studies with children only were tested: (a) model contributes to new learning; and (b) neither the model nor the reinforcement of the model add significantly to motivation, beyond the effect that can be attributed to reinforcement of the S himself. Ss were reinforced socially and monetarily in all treatments: (a) no model, (b) model reinforced, and (c) model not reinforced. A no-treatment control condition was included. Results support the hypotheses. Application of these techniques to the more central informational and motivational deficits of schizophrenics are discussed.—*Journal abstract*.

10382. Petrilowitsch, N. **Die Schizophrenen in strukturpsychiatrischer Sicht: I. Mitteilung.** [Structural aspects of schizophrenia: I.] *Psychiatria Clinica*, 1969, Vol. 2(5), 289-306.—Differential stages having prognostic relevance can be discerned in endogenous psychoses. The developmental process proceeds from fluctuating, affectively turbulent to the increasingly formed and affectless types. The polymorph (cyloid and schizophrenic affect-laden psychoses) and the amor-

phous (hebephrenic) processes are described as opposites. In the latter, the formative process ends abruptly. The monomorph psychoses (e.g., paranoid schizophrenia) appear to assume a middle position. (20 ref.)—*English summary.*

10383. Pokorny, Alex D. & Faibish, G. M. (Veterans Administration Hosp., Houston, Tex.) **Criteria of outcome in schizophrenia. Hospital & Community Psychiatry**, 1968(Nov), Vol. 19(11), 341-346.—Reports findings of a 10-yr follow-up study of 40 male war-veteran schizophrenics designed to evaluate background data in terms of outcome, and (b) to develop a picture of each S's course since he was 1st studied. 3 Ss had died. A revised 18-item version of the Overall-Gorham Brief Psychiatric Rating Scale was used, with a 4-point scale applied to each symptom. There were also 5 independent global ratings made of each S's adjustment during the 10-yr period. It is suggested that the best indications of outcome are withdrawal, work record (or work status), and number of inpatient days excluding leave time. The 37 living Ss had spent an average of 915 days as inpatients, and readmissions averaged 5.7/S. The composite clinical rating was the most comprehensive global measure used in the study. Although there was considerable variability of outcome among Ss, the group as a whole did poorly.—*B. A. Burkard.*

10384. Rosenman, Martin F. (Morehouse Coll.) **Impression formation in schizophrenics and normals. Perceptual & Motor Skills**, 1970(Dec), Vol. 31(3), 867-877.—Investigated person perception in 8 groups of 12 schizophrenic and normal Ss dichotomized by sex and by scores on Rotter's Internal-External Control Scale (I-E). Ss rated the average American man, an unfavorably described individual, and a person who was favorably described, on 15 trait-pair scales at the "apparent" and "real" levels of personality. Ss, irrespective of pathology, were more certain of their ratings for the favorably described individual. Normal Ss were higher than schizophrenic Ss on the apparent personality rating of the average American man and on the real personality rating of the unfavorably described individual. The influence of motivational variables is discussed. (21 ref.)—*Journal abstract.*

10385. Schreiner, Jane. (Mental Hygiene Research Inst., Copenhagen, Denmark) **Nogle nyere teorier om samspil i familier til skizofrene.** [Some current theories dealing with interaction in families of schizophrenics.] *Nordisk Psykologi*, 1969, Vol. 21(4), 252-276.—Discusses the research work done by the Bateson Group, and notes that children, through the illogical and changing behavior of their parents and their inconsequential and unfair methods of meting out punishment, are forced into "hiding" and schizophrenic behavior, leading to meta-communications within the functional unit of the family. In this connection, the "double-bind" theory is discussed, analyzed, and criticized. It is suggested that causal factors in the development of schizophrenia can be found in the characteristics of the family interaction patterns, which are detrimental to the children. Therapeutic treatment should start at the parental level. (English summary) (3 p. ref.)—*P. von Toal.*

10386. Shanfield, Stephen; Tucker, Gary J., Harrow, Martin, & Detre, Thomas. (Yale U., Medical School) **The schizophrenic patient and depressive symptomatology.** *Journal of Nervous & Mental Disease*, 1970(Sep), Vol. 151(3), 203-210.—Evaluates the hypothesis that during the postpsychotic period a depressive reaction

frequently appears among schizophrenics. Data are presented on 80 consecutive psychiatric admissions (44 with acute schizophrenic reactions and 36 depressed Ss who were studied for comparative purposes). Results on depressive feelings were gathered from 3 sources: (a) standardized weekly rating scales by psychiatrists, (b) standardized daily nurses' ratings, and (c) subjective ratings. Findings indicate that the schizophrenic Ss did not show a depressive reaction in the recovery period or in the postpsychotic period. It is suggested that the clinical data responsible for this impression are related to the schizophrenic's defect in affect and, in some settings, to the recognition of depressive features which have always been present and are actually decreasing. In the past these depressive symptoms have sometimes been overshadowed by the more florid psychotic symptoms. Theoretical implications of this are discussed. (24 ref.)—*Journal abstract.*

10387. Siva Sankar, D. V. (Creedmoor State Hosp., Queens Village, N.Y.) **Biogenic amine uptake by blood platelets and RBC in childhood schizophrenia. Acta Paedopsychiatrica**, 1970, Vol. 37(6), 174-182.—The uptake of serotonin and norepinephrine by thrombocytes and erythrocytes among 200 children admitted to a child psychiatric unit shows a difference between schizophrenic and nonschizophrenic children. The lowest levels of uptake were found in autistic children.—*G. Rubin-Rabson.*

10388. Tanimukai, H., et al. (Osaka U., Medical School, Japan) **Detection of psychotomimetic N,N-dimethylated indoleamines in the urine of four schizophrenic patients.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 421-430.—In addition to tryptamine and serotonin, increases in urinary bufotenin were observed in 4 older (40-58 yr. old) male schizophrenics. Symptom worsening seemed to go along with the increased excretion when they were receiving tranlycypromine, suggesting the possibility that an acute flare-up was precipitated by drug treatment. (24 ref.)—*R. L. Sulzer.*

10389. Tedeschi, Gianfranco. **La famiglia dello schizofrenico.** [The schizophrenic's family.] *Rivista di Psichiatria*, 1969(Mar), Vol. 4(2), 100-109.—Attempts to interpret certain behavior abnormalities which characterize schizophrenic families. Did it occur prior to the patient's illness or as a result of the illness? If abnormal family behavior was in primary existence, are there somatic factors which were genetically transmitted. As yet there are no statistical conclusions, but there exists an opinion among psychiatrists that there are certain characteristics, particularly in the mother. Regarding the influence of the family on the patient, one tends to admit "that the pathological vehicle would function by means of an intense symbiotic relationship between mother and child, by means of a true and real osmosis of anxiety ... whereby the child would become the bearer of maternal problems from which he would not be able to function autonomously because of strong guilt feelings" (English summary) (27 ref.)—*A. M. Farfaglia.*

10390. Thayer, Jane H. (George Washington U.) **The relationship between levels of arousal and responsiveness in selected schizophrenics and normal subjects.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3880-3881.

10391. Walker, Harry A. & Birch, Herbert G. (Kings Park State Hosp., Child Psychiatry Research Unit, New York) **Lateral preference and right-left awareness in**

schizophrenic children. *Journal of Nervous & Mental Disease*, 1970(Nov), Vol. 151(5), 341-351.—Evaluated later dominance and right-left awareness in 80 8-11 yr. old male psychiatric inpatients. Ss had a diagnosis of childhood schizophrenia in which localizing signs of CNS damage and mental subnormality were both absent. Analyses of hand and eye usage, of hand-eye coordination, and of awareness of lateral spatial organization resulted in findings of poorly developed lateral preference and awareness. In contrast to normal children who display age-specific progressions of hand preference and lateral awareness, Ss showed no clear evidence of improvement in these abilities with increasing age. The level of organization of lateral function was only weakly related to IQ, and normal IQ in these Ss was not reflected in normal patterns of competence for lateral preference and awareness. Such disturbances in development may be considered to indicate the presence in schizophrenic children of primary CNS dysfunction and may be a factor contributing to clinical manifestations. (20 ref.)—*Journal abstract*.

10392. Walker, Harry A. & Birch, Herbert G. (New York State Department of Mental Hygiene, New York) **Neurointegrative deficiency in schizophrenic children.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 104-113.—Compared neurointegrative ability in 100 male schizophrenic children, 20 in each yr. for ages 7-11 with that of 220 5-12 yr. old normal children. The measure of neurointegration was auditory-visual equivalence—a task which required equation of visual dot patterns with temporal patterns of auditory stimulation. The schizophrenics at each MA were significantly inferior to the normals in their neurointegrative competence. Increase in integrative competence with age was weakly manifested in the schizophrenics as contrasted with a strong linear developmental trend in normals. Data are discussed in relation to the role of primary neurointegrative disorder in the etiology of schizophrenia in childhood. (39 ref.)—*Journal abstract*.

10393. Wilkie, Charlotte H. (Catholic U. of America) **A study of familial expectations regarding work for the Negro schizophrenic male patient on convalescent leave.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1897.

Schizophrenia Treatment

10394. Caffey, Eugene M., Galbrecht, Charles R., & Klett, C. James. (Veterans Administration Hosp., Perry Point, Md.) **Brief hospitalization and aftercare in the treatment of schizophrenia.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 81-86.—Randomly assigned 201 schizophrenic men to 1 of 3 groups: (a) standard hospital care with discharge at physician's discretion and normal Veterans Administration care; (b) accelerated hospital care for 21 days and treatment by the same staff on an outpatient basis for 1 yr.; and (c) standard hospital treatment followed by the aftercare program given Group b. The brief-treatment group showed as much sustained improvement as those who stayed longer. The longer-stay groups tended to be more symptomatic than the brief-treatment group after 3 wk. but less symptomatic at their discharge. Both intensified aftercare groups manifested less pathological disturbance at 12 mo. The short-stay group did not demonstrate a greater incidence of readmission or a shorter mean time out of the hospital prior to 1st readmission. There was little evidence of the superiority of 1 group over another

with respect to community adjustment. (21 ref.)—*Journal abstract*.

10395. Clancy, Helen & Rendle-Short, John. (U. Queensland, Brisbane, Australia) **Infantile autism: A problem of communication.** *Australian Occupational Therapy Journal*, 1968(Jul), Vol. 15(3), 7-20.—Describes the rationale, aims, and methods of an experimental treatment of infantile autism based on the 7-yr treatment of 11 children. Infantile autism is regarded as a primary disease involving communicative isolation, which causes a secondary level of symptoms. Treatment was aimed at the aspect of isolation. Simple conditioning techniques were used in feeding, toilet training, and social peer and adult interaction programs. Case studies are presented of 3 boys, 4 yr., 5 yr., and 16 mo. old. It is concluded that although this treatment is purely symptomatic, early treatment in the 1st 3 yr. of life forestalls the secondary level of symptoms and greatly modifies the disabilities of autism.—*Journal summary*.

10396. El-Islam, M. Fakhr; Ahmed, Samia A., & Erfan, M. E. (Kasr-El-Aini Hosp., Cairo, Egypt) **The effect of unilateral E.C.T. on schizophrenic delusions and hallucinations.** *British Journal of Psychiatry*, 1970(Oct), Vol. 117(539), 447-448.—Groups of 20 and 21 schizophrenics were treated with unilateral or bilateral electric shock. Differences on memory retest were small and unrelated to outcome of therapy.—R. L. Sulzer.

10397. Ellis, Jean. **The Mildred Creek Centre for the treatment of autistic children.** *Australian Occupational Therapy Journal*, 1969(Oct), Vol. 16(4), 19-25.—Describes a special center for autistic children in Western Australia. The history of the center, building and grounds, and staff composition are outlined. 6 boys and 3 girls, 4.5-10 yr. old, attend the center as outpatients. Admission to the center is based on a 9-point criteria, including impairment of emotional relationships, preoccupation with objects, and abnormalities of mood and behavior. Treatment aims to help the child behave in a socially acceptable manner and to relate to adults and other children. The method of treatment is operant conditioning. Training programs, drugs, records, schedules, and assessment procedures are noted. It is concluded that although critics of operant conditioning therapy maintain that it only produces unimaginative obedience and docility, learning generalization is observed in the center.—S. Knapp.

10398. García del Moral, Juan A. **Psicosis esquizofrénicas agudas tratadas con imagotán.** [Severe schizophrenic psychoses treated with imagotan.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Oct), Vol. 28(4), 335-338.—Reports the treatment of 62 Ss with imagotan in doses of 100-200 mg/day for 3 mo. General findings were that (a) imagotan is a neuroleptic sedative acting on agitation, autism, thought content, and affectivity; (b) therapeutic action is very rapid, particularly when it is used parenterally; (c) physical improvement occurred with regard to normalization of vital rhythms, sleep, appetite, interests, etc. in the 1st mo. of treatment; (d) the most effective results were noted in severe psychotics; (e) the most notable results for severe schizophrenics were for those manifesting confusion, pseudoneurosis with psychomotor agitation, and hebephrenic catatonia; and (f) dosage in ambulatory treatment was able to be reduced to 50 mg/day with continued improvement.—P. Hertzberg.

10399. Hauck, Louise P. & Martin, Patrick L. (Patton

State Hosp., Calif.) **Music as a reinforcer in patient-controlled duration of time-out.** *Journal of Music Therapy*, 1970(Sum), Vol. 7(2), 43-53.—"Music therapy is the manipulation of music-related activities to induce changes in a client's behavior...." Another of its functions is a reinforcing one—"the ability of music to increase the frequency of behavior upon which the availability of the music is dependent." Therapeutic situations can be arranged so that wanted behavior produces a reinforcing stimulus. This is referred to as positive reinforcement and plays a major role in the application of behavior modification techniques in therapy. Environments can also be programed so that wanted behavior produces a reinforcer while unwanted behavior makes any positive reinforcement unavailable. The latter procedure is termed time-out from positive reinforcement. Time-out is considered a case of punishment because it results in suppression of response. Results from a study of a 59-yr-old female hospitalized schizophrenic treated with music therapy indicate that patient-controlled duration of time-out was of therapeutic benefit. (16 ref.)—*F. O. Triggs*.

10400. May, Philip R. & Tuma, A. Hussain. (U. California, Los Angeles) **Methodological problems in psychotherapy research: Observations on the Karon-VandenBos study of psychotherapy and drugs in schizophrenia.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 569-570.—Argues that the B. P. Karon and G. R. VandenBos (see PA, Vol. 45:1067) experimental design and procedures are not adequate to sustain their contrary conclusion. The general trend of other studies is that psychotherapy for hospitalized schizophrenics is relatively ineffective, while drug therapy enhances results regardless of the therapist's experience.—*R. L. Sulzer*.

10401. Ono, Shigeharu, et al. (Fukushima Medical Coll., Japan) **A terapêutica da esquizofrenia pelo Gabob.** [Treatment of schizophrenia with Gabob.] *O Hospital*, 1968(Nov), Vol. 74(5), 1499-1504.—Treated 23 14-44 yr. old male and female schizophrenics with Gabob, γ -amino- β -hydroxybutyric acid (recommended dosage: 1 mg.) in association with other psychotropes or antidepressants. Results were rapid (4-5 days average): 1 complete and 7 partial remissions (depressive, demential, or other symptoms), 9 discreet improvements, and null or aggravated in 6 cases. While the effectiveness of Gabob is not decisively attributed to the action of Gabob, primarily due to the small number of cases, it is considered to be a useful adjuvant in the treatment of schizophrenia in general.—*H. Singer*.

10402. Prien, Robert F., Levine, Jerome, & Cole, Johnathan O. (Veterans Administration Hosp., Central Neuropsychiatric Lab., Perry Point, Md.) **Indications for high dose chlorpromazine therapy in chronic schizophrenia.** *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 739-745.—Describes a multi-hospital collaborative study involving over 800 chronic schizophrenics in which a high dose regimen of chlorpromazine (2000 mg/day) was compared with a low dose regimen (300 mg/day), a placebo, and physician's choice of treatment. Treatment followed a double-blind procedure for 24 wk. Results obtained were: (a) High dose response was related to age, length of current hospitalization, and the type of phenothiazine medication S was receiving just before the study. High dose was significantly more effective than the other treatments with Ss under 40 who had been hospitalized under 15 yr.

and were receiving a nonpiperazine phenothiazine at pretreatment. High dose offered no great advantage over low dose and physician's choice among the other subgroups. (b) High dose was a particularly poor treatment for Ss over 40. These older Ss suffered a high incidence of severe side effects on the 2000-mg dose. (c) Among long-stay Ss, treatment failure on low dose and placebo was related to the dose of phenothiazine medication S was receiving just before the study. The higher the dose of prestudy medication, the greater the incidence of failure. (22 ref.)—*Journal summary*.

10403. Rowitz, Louis. (U. Illinois, Urbana-Champaign) **The effects of institutionalization upon the self identifications of schizophrenic patients.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2518.

10404. Weidner, Fritz. (Temple U.) **In vivo desensitization of a paranoid schizophrenic.** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 79-81.—Applied systematic desensitization and operant conditioning to a 36-yr-old male paranoid schizophrenic inpatient who for 6 yr. believed the Central Intelligence Agency would kill him outside the hospital. After desensitization the patient spent increasing amounts of time outside the hospital where appropriate social behaviors were reinforced.—*Journal abstract*.

PSYCHOSOMATIC DISORDER

10405. Palmer, K. N. & Diamant, M. L. (U. Aberdeen, Scotland) **Effect of salbutamol on spirometry and blood-gas tensions in bronchial asthma.** *British Medical Journal*, 1969(Jan), Vol. 1(5635), 31-32.—Describes a study of 37 patients, admitted to a hospital for an asthma attack with a long history of attacks of acute airway obstruction. Aerosol inhalation of a new bronchodilator drug, salbutamol, was used, and pressures of oxygen and carbon dioxide were measured in duplicate by means of electrodes. Results of spirometric and blood-gas tension measurements were recorded. "Forced expiratory spirometry were obtained before and 5 min. after a control aerosol inhalation of an aerosol containing only the propellant gas, and again 5 min. after the aerosol inhalation of 200 mg. of salbutamol." An improvement in airway obstruction resulted, but no significant intensification of the hypoxemia occurred. It is suggested that because the stimulant effect of salbutamol on the cardiovascular system is minimal, lowering of the oxygen pressure, even though the airway obstruction is greatly reduced, does not occur. Salbutamol is a useful bronchodilator drug and appears to have little or no effect on the cardiovascular system.—*J. Halev*.

10406. Schneemann, N. (8 Volkhartstr., Augsburg, W. Germany) **Ein psychoreaktives Zustandsbild in daseinsanalytischer Interpretation.** [A psychoreactive motor disturbance in the view of existential analytic interpretation.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 257-280.—The existential analytic method, together with the results of a classic neuropsychiatric examination and psychoanalytic exploration—though of a fundamentally different type—provided further insight into the meaning and background of a psychoreactive motor disturbance. The motor anomaly was interpreted both as a way of life and as an embodiment in its genesis. After phenomenological elucidation of the anxiety

structure of the S, it is proved that the extraordinary and strange manner of movement resulted from false ways of communication with the world of others. The latter were experienced no longer as existential beings but as categories, and therefore were manipulated, their existence as fellow beings partly denied and regarded as mere material elements.—*English summary.*

10407. van Loggen, M. (59 Nieuwe Keizersgracht, Amsterdam, Netherlands) **Introspective excursion of a hypertensive patient.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 201-206.—Describes the introspective observations of a patient who is a psychoanalytically trained psychologist. Several symptoms are described and an attempt is made to ascertain whether these symptoms might be considered a symbolic representation of inner tensions: the outcome of a struggle between primary assertiveness and the exigencies of society. The assertiveness cannot be integrated into harmless activities, and causes a disregulation of psychic activities, the outcome of which may be a state of psychical tension, finding expression in essential hypertension. This can be described as the symbolic expression of the tensions in a community in which aggressive competition has become the basis of social behavior. A special clinical treatment, involving several forms of therapy, physical, psychological, and social, which might prevent the fixation of the symptoms and could help the patient to overcome his conditioned behavior in favor of healthier outlets for his tensions is suggested.—*Journal summary.*

CASE HISTORY

10408. Hsu, Lillian Y., Strauss, Lotte, & Hirschhorn, Kurt. (City U. New York, Mt. Sinai Medical School) **Chromosome abnormality in offspring of LSD user: D trisomy with D/D translocation.** *JAMA: Journal of the American Medical Association*, 1970(Feb), Vol. 211(6), 987-990.—Congenital abnormalities compatible with D₁-trisomy occurred in a newborn girl whose parents had used LSD prior to conception, but not during the pregnancy. Chromosomal analysis of the infant revealed trisomy 13 with a D/D translocation. LSD may have damaged maternal germ cells prior to fertilization, inducing chromosomal rearrangement. Fertilization of a gamete with unbalanced chromosome complement may be the direct cause of the chromosomal aberration in the offspring. (17 ref.)—*Journal abstract.*

10409. Levy, Raymond & Behrman, Joan. (Middlesex Hosp., Medical School, London, England) **Cortical evoked responses in hysterical hemianaesthesia.** *Electroencephalography & Clinical Neurophysiology*, 1970(Oct), Vol. 29(4), 400-402.—Recorded somatosensory cortical evoked potentials (AERs) from a 43-yr-old woman with hysterical anesthesia of the right arm. Stimuli of different intensities were applied at the wrist to the ulnar nerve and skin. The right and left sides were both stimulated in this way and the AER was recorded contralateral to the stimulus. When stimuli were applied to the nerve on the affected side, the AER was reduced at low intensities, but at higher intensities the AERs from the 2 sides were equal. On stimulating skin the AERs from the affected side were smaller in amplitude regardless of the level of stimulation. Possible physiological mechanisms underlying hysterical anesthesia are suggested. (French summary)—*Journal summary.*

10410. Prabhakaran, N., Murthy, G. K., & Mallya, U.

L. (Jawaharlal Inst. of Postgraduate Medical Education & Research, Pondicherry, India) **A case of Kleine-Levin syndrome in India.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 517-519.—Reviews the development of the Kleine-Levin syndrome as a new nosological entity. The clinical picture and course of the illness are discussed and the 1st case from India is reported. A case study of a 26-yr-old male patient is discussed in relation to other patients already reported and it is suggested that his symptoms indicate that the syndrome is a manifestation of hypothalamic dysfunction.—*Journal summary.*

10411. Rickles, Nathan K. (Cedars-Sinai Medical Center, Los Angeles, Calif.) **The angry woman syndrome.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 91-94.—Specific common denominators in the angry woman syndrome set it apart from any established present-day classification. These symptoms are periodic outbursts of unprovoked anger, marital maladjustment, serious suicide attempts, proneness to abuse of alcohol and drugs, a morbidly oriented critical attitude to people, and a contrary obsessive need to excel in all endeavors, with an intense need for neatness and punctuality. This constant striving for perfection is their undoing. 3 cases are presented along with the corollary syndrome of their suffering male counterparts who react to the anger by an intensification of their weak masculine drives. Treatment is at best palliative and is usually resisted.—*Journal abstract.*

MENTAL HEALTH & REHABILITATION

10412. Beier, Ernst G., Robinson, Peter, & Micheletti, Gino. (U. Utah) **Susanville: A community helps itself in mobilization of community resources for self-help in mental health.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 142-150.—Trained 18 adults to work with 7 families selected for having problem children in schools or being under stress, and 14 high school students to work with 4 boys with academic or behavioral problems in school. The trainees were selected for being good listeners, for not being opinionated, and for showing empathy. Training consisted of 70 hr. of role play and supervised practicum work (7 wk.) and was based on a communication model, under the assumption that all members of a family contribute toward the problems. Trainees learned to interrupt the reinforcement pattern which maintained a family's problems. Evaluation of project and community-wide measures applicable for future efforts are discussed.—*Journal abstract.*

10413. Bellak, Leopold & Barten, Harvey H. (Eds.) (New York U.) **Progress in community mental health: I.** New York, N.Y.: Grune & Stratton, 1969. viii, 272 p. \$11.75.

10414. Berger, Bernard. (Jewish Vocational Service, Toronto, Ontario, Canada) **Needed: University training for rehabilitation counsellors.** *Canada's Mental Health*, 1970(Sep), Vol. 18(5), 26-27.—Examines the discrepancy between the lack of Canadian training programs and the need for counselors in rehabilitation and reviews training programs available in the United States. The skills and knowledge required by a rehabilitation counselor are discussed. A pilot course requiring selective admittance, career information, psychosocial emphasis, and supervised field practice is proposed.—G. Steele.

10415. Burden, Charles A. (Georgia State U.) **A study of employers who knowingly have hired emotionally rehabilitated persons.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1892.

10416. Carstairs, G. M. (U. Edinburgh, Scotland) **Activities of the World Federation for Mental Health.** *Canada's Mental Health*, 1970(Nov), Vol. 18(6), 14-16.—Reviews recent activities of the World Federation for Mental Health (WFMH). Practical ends served by the WFMH include (a) enabling "active members of well-established mental health associations to meet regularly, and to compare notes"; (b) sponsoring a series of study groups and conferences on topics of trans-cultural interest; and (c) providing support to newly formed associations, especially in the developing countries.—M. West.

10417. Clayton, William H. (U. Utah) **Correlates of client-counselor interaction and rehabilitation outcome.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1572.

10418. Cook, P. S. (Royal Alexandra Hosp. for Children, Camperdown, New South Wales, Australia) **Antenatal education for parenthood, as an aspect of preventive psychiatry: Some suggestions for programme content and objectives.** *Medical Journal of Australia*, 1970(Mar), Vol. 1(13), 676-681.—Disturbances of the parent-child relationship may develop at any stage from birth onwards. The emotional conflicts arising out of these disturbed relationships lead to much emotional ill health, which manifests itself in many ways. Some form of educational preparation for parenthood during the antenatal (and perhaps postnatal) period is a logical opportunity for primary prevention, and this can be combined with orthodox courses of preparation for delivery. A suitable program is suggested to help many parents to establish more mutually satisfactory family relationships, with a lower incidence of emotional disturbance in their children. To expect any measure of success, however, a program would need to cover those areas in which clinical experience has shown that difficulties are likely to arise, and these may vary from 1 culture to another. A consensus of the child psychiatric opinion about an outline of the understandings which would be desirable for average young partners to possess as they embark on parenthood is given.—*Journal abstract*.

10419. Galvin, Donald E. (U. Michigan) **An exploratory study of disabled disadvantaged clients utilizing systems analysis as a vocational rehabilitation planning model.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2103-2104.

10420. Kunce, Joseph T. (U. Missouri, Regional Rehabilitation Research Inst.) **Is work therapy really therapeutic?** *Rehabilitation Literature*, 1970(Oct), Vol. 31(10), 297-299, 320.—A review of the literature suggests that the limitations as well as the benefits of work therapy for psychiatric patients should be taken into account. The greatest benefits appear to occur among the more seriously mentally ill. Among those with less chronic or serious disabilities, work therapy may actually "get in the way" by fostering institutional dependency.—S. L. Warren.

10421. Lamb, H. Richard & Goertzel, Victor. (San Mateo County Psychiatric Rehabilitation Service, Calif.) **Discharged mental patients: Are they really in the community?** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 29-34.—Measured the effect of high- and

low-expectation environments on discharged long-term mental patients randomly assigned to 1 of 2 community settings. The high-expectation setting included a halfway house, a day-treatment center, and a rehabilitation workshop, which demanded mobility, planning, and accepting responsibility. Low-expectation patients went to boarding homes where docility was valued and little initiative expected. The boarding-home group was like a small ward moved to a community setting. The high-expectation group had a higher rehospitalization rate, but a longer time out of the hospital with a higher level of instrumental performance. The high-expectation group was less segregated, less likely to be labeled as deviate, and less stigmatized.—*Journal abstract*.

10422. Lewis, Wilbert W. (National Inst. of Mental Health, Chevy Chase, Md.) **Child advocacy and ecological planning.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 475-483.—Discusses the nationwide child advocacy system recommended by the Joint Commission on Mental Health of Children. Since this program can not be immediately implemented, it is suggested that small demonstration programs be started to develop the conceptual framework, role models, and administrative structures necessary to guarantee whatever services are needed to allow all children in a neighborhood to experience normal, healthy development. An outline of the way a program of child advocacy might be developed in a public elementary school is included. The specific plan proposed utilizes 3 sequential stages: (a) crisis intervention, (b) outreach into the community, and (c) full child advocacy.—*Journal abstract*.

10423. Mueller, Alice W. (Ft. Logan Mental Health Center, Denver, Colo.) **Family care and post-discharge community adjustment.** *Journal of the Fort Logan Mental Health Center*, 1968(Fal), Vol. 5(2), 85-99.—Studied the influence of family care upon the patient's adjustment in the community after discharge. Data from hospital records, personal interviews, and questionnaires for relatives when patients were not available, were compiled for 141 patients who had been placed in family care and discharged. 41 Ss had been rehospitalized and were not interviewed. Questionnaires were completed for 21 of 24 Ss not interviewed and not rehospitalized. Of the 38 Ss considered employable, 24 were unemployed, including those with more than high school education, those who were unskilled, and those who had been diagnosed as schizophrenic. A majority of Ss reported satisfactory family relations, few community activities, and positive feelings toward their family care experiences. Only 17 of the 33 interviewed Ss reported improvement and only 11 of the 21 not interviewed were reported to be adjusting satisfactorily. Changes in the program, especially in the areas of job training, preparation for family care, and the goals for family care, are suggested.—S. Knapp.

10424. Neugeboren, Bernard G. (Brandeis U., Florence Heller Graduate School for Advanced Studies in Social Welfare) **Psychiatric clinics: A typology of service patterns.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1894-1895.

10425. New, Peter K., Ruscio, Anthony T., & George, Linda A. (Tufts U., Medical School) **Toward an understanding of the rehabilitation system.** *Rehabilitation Literature*, 1969(May), Vol. 30(5), 130-139.—Presents an analytical model of hope and reality in an attempt to understand the variables involved in the rehabilitation system. An examination of the adjustment

problems of 48 heart and stroke patients and their significant others provided a basis for the model. It is concluded that the model is useful although the variables are reduced to their simplest representations. (15 ref.)—G. Steele.

10426. Pokorny, Alex D. (Baylor Coll. of Medicine, Houston, Tex.) **Correlating the Fifteen Indices with hospital achievement awards.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 575-576.—A. M. Cawley.

10427. Poser, Ernest G. (McGill U., Montreal, Quebec, Canada) **Toward a theory of "behavioral prophylaxis."** *Journal of Behavior Therapy & Experimental Psychiatry*, 1970(Mar), Vol. 1(1), 39-43.—Suggests that, on the basis of studies investigating the effect of preexposure and past experience on subsequent stress tolerance, current techniques of behavior modification may be applicable to primary prevention in mental health. Animal, human laboratory, and clinical studies are cited in support of this contention. Specific examples are given illustrating the application of learning techniques to the prevention of disorders, e.g., separation anxiety, stage fright, and addictive and obsessive behavior. (24 ref.)—*Journal abstract*.

10428. Richek, Herbert G., Mayo, Clyde D., & Puryear, Herbert B. (U. Oklahoma, School of Social Work) **Dogmatism, religiosity and mental health in college students.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 572-574.—A. M. Cawley.

10429. Rusaleem, Herbert & Acciavatti, Richard E. (Hunter Coll., City U. New York) **Attitudes of rehabilitation facility administrators toward religious programming.** *Journal of Pastoral Care*, 1969(Mar), Vol. 23(1), 40-46.—Describes results of a questionnaire relating to the role of religion in rehabilitation facilities. 280 of the 401 facilities contacted responded. Data suggest that the facilities: (a) accepted the importance of religion in rehabilitation programs since it is a part of normal community living; (b) avoided segregation by sect and imposition of religious activity; (c) did not make employment of staff members dependent on religious affiliation; (d) resisted external religious pressures concerning treatment practices; and (e) were neither for nor against various religious practices, including saying grace, employing religious consultants, and encouraging Bible reading. To date, "the religious element in rehabilitation has received little attention from the researcher," and, therefore, few guidelines exist.—M. West.

10430. Shelton, John L. (U. Utah) **The relationship of various levels of accurate empathy to rehabilitation outcome as measured by the Interaction scale.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3876.

10431. Spackman, Clare S. (U. Pennsylvania, School of Allied Medical Professions) **The World Federation of Occupational Therapists: 1952-1967.** *Australian Occupational Therapy Journal*, 1969(Oct), Vol. 16(4), 35-47.

10432. Tooley, Kay. (U. Michigan, Children's Psychiatric Hosp.) **Ethical considerations in the "Involuntary commitment" of children and in psychological testing as a part of legal procedures.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 484-489.—Questions "the precepts that guide mental health professionals in working with children." It is suggested that in legal procedures, the child should have a "friend" at court, who is not a member of the team recommending his removal from family and friends. Professionals working

in this setting should examine their own biases, and the biases of the tests they use, that these do not unduly influence legal decisions.—A. M. Cawley.

COUNSELING & GUIDANCE

10433. Burck, James L. (Kentucky Reception Center, Louisville) **A corrective use of reality group therapy within the institutional ministry.** *Journal of Pastoral Care*, 1969(Mar), Vol. 23(1), 15-25.—Describes an adaptation of William Glasser's reality therapy approach for use in group therapy by pastoral counselors. This form of therapy focuses on behavior change rather than insight into causative factors. 3 basic tenets are presented: (a) acceptance of personal responsibility for behavior, (b) establishment of right vs. wrong moral standards, and (c) recognition of reality. A segment of a reality group session with 14-16 yr. old delinquent boys is included.—M. West.

10434. Ficek, Daniel E. (U. New Mexico) **The effects of marathon group counseling on two indices of phenomenological assessment.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1010.

10435. Jacobson, Gerald F. (Los Angeles Psychiatric Service, Calif.) **Crisis intervention from the viewpoint of the mental health professional.** *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 21-28.—Describes the concepts and techniques of crisis intervention developed at the Benjamin Rush Centers for Problems of Living in West Los Angeles and in the Venice section of Los Angeles.—O. Strunk.

10436. Lytton, Hugh. (U. Exeter, Inst. of Education, England) **Counselling and psychology in Britain.** *Bulletin of the British Psychological Society*, 1969(Oct), Vol. 22(77), 273-279.—Counseling, seen as a relative newcomer in Britain, will probably spread and increase in importance. While many counselors are not psychologists, psychologists are urged to take cognizance of the counseling field. The different kinds of counselors are discussed as well as the relation of counseling to psychology.—V. S. Sexton.

10437. McHolland, James D. (Garrett Theological Seminary, Evanston, Ill.) **Establishing the contract in pastoral counseling.** *Journal of Pastoral Care*, 1969(Mar), Vol. 23(1), 36-39.—Establishing a verbal contract in the pastoral counseling relationship enables the counselor to know "why he is present, what he intends to do and not do and what he expects of the counselee." The counselee also learns what the minister can offer through counseling, and both can agree on the nature of the relationship, which either is free to discontinue. This also frees the counselor from any obligation to comply with services not in the contract. The question of remuneration must be considered as to whether the counselor needs payment and whether the counselee feels a need to pay. The contract is formulated during a trial time period, and it is concluded that changing the contract once it has been established may destroy it.—M. West.

10438. Morley, Wilbur E. (Los Angeles Psychiatric Service, Calif.) **Theory of crisis intervention.** *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 14-20.—Crisis intervention treatment modalities offer approaches which are readily taught and are maximally effective in bringing about change in individuals in crisis. 3 levels of crisis intervention are environmental manipulation, general support, and generic approach—all deserving the

close attention of the counseling pastor.—*O. Strunk.*
 10439. Peterson, James A. (U. Vermont) **Counseling and values: A philosophical examination.** Scranton, Pa: International Textbook, 1970. xiv, 272 p. \$4.95(paper).

10440. Pierce, Richard M., Schauble, Paul G., & Farkas, Andrea. (Michigan State U.) **Teaching internalization behavior to clients.** *Psychotherapy: Theory, Research & Practice*, 1970(Win), Vol. 7(4), 217-220.
 —Examined (a) the possibility of teaching internalizing behavior to clients to accelerate progress in therapy, and (b) a means of predicting internalizing behavior. The Rotter Internalization-Externalization (I-E) Scale, the Learning Strategies Questionnaire (LSQ), assessment of in therapy I-E behavior by 3 raters, and therapist rating of I-E behavior were used. 7 female and 8 male undergraduates who sought help at the university counseling center agreed to participate and completed the I-E scale and the LSQ. In sessions with the S, the 1st 20 min. were run in the traditional manner, in the 2nd 20 min. the therapist made the S aware when he was internalizing or externalizing, reinforcing the former, and the final 20 min. were again traditional. Excerpts from the 1st and last 20 min. were presented to the raters for evaluation. It was found that those Ss who had a lower level of internalizing improved the most, but were still below those who were at initially higher levels. Results indicate that the direct teaching of internalizing may be useful in certain cases to promote progress. The LSQ was found to be correlated significantly with the I-E scale ($p < .02$).—*S. Knapp.*

10441. Schauble, Paul G. (Michigan State U.) **The acceleration of client progress in counseling and psychotherapy through interpersonal process recall (IPR).** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2117-2118.

10442. Scoresby, Alvin L. (U. Minnesota) **An experimental comparison of confirmed and disconfirmed anticipations for verbal reinforcement in group counseling.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1023.

10443. Swenson, Charles D. (Arizona State U.) **The relationship between certain personality traits of advanced counselor trainees and their ability to express congruence, empathy and positive regard.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1027-1028.

10444. Switzer, David K. (Southern Methodist U., Perkins School of Theology) **Crisis intervention techniques for the minister.** *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 29-36. —Few, if any, professionals hold at their disposal the total resources of the minister in initiating for a significant number of people those procedures and activities which will prepare them emotionally and help them develop coping behavior for future crises. Crisis intervention methods are considered quite compatible with the role of the pastor.—*O. Strunk.*

10445. Whitlock, Glenn E. (Johnston Coll., U. Redlands) **The pastor's use of crisis intervention.** *Pastoral Psychology*, 1970(Apr), Vol. 21(203), 37-46. —The opportunity of the pastor as counselor is that of intervention at a time when the possibility of change within the counsellee is greatest. 3 cases illustrating the generic approach are discussed.—*O. Strunk.*

10446. Woodruff, C. Roy. (Bryce Hosp., Pastoral Care & Education, Tuscaloosa, Ala.) **Pastoral care of the discharged psychiatric patient.** *Pastoral Psychology*,

1970(Mar), Vol. 21(202), 21-29.—Discharge from hospitalization and movement into the community is a crisis period for the psychiatric patient. A competent and cooperative pastoral care ministry may be of vital importance in assisting the patient to cope with threats and potentially destructive forces in the community.—*O. Strunk.*

Marriage & Family

10447. Hickman, Margaret E. (Arizona State U.) **Facilitation techniques in counseling married couples toward more effective communication.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2107.

10448. Lindenauer, Geoffrey G. (Inst. for Emotional Education, New York, N.Y.) **Re-education in family living.** *Journal of Emotional Education*, 1969(Win), Vol. 9(1), 25-27.—Describes a training program method for emotional reeducation of adults and emotional education for their children. The objectives and operational principles of the nonresidential community are based upon the assumption that human beings become dissatisfied with life because they have not learned to identify and integrate the emotional, spiritual, and intellectual aspects of their nature. "As a consequence, they are unable to mobilize their inner resources to identify and discipline their emotions in a way that would enable them to satisfy their needs as intelligent biological organisms and social human beings."—*B. A. Stanton.*

Social Casework

10449. Bourke, William A. (U. Pennsylvania) **Developing an appropriate focus in casework with families in which children are neglected.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1891.

10450. Kisel, George John G. (Washington U.) **Command consultation: A practice modality used by Army Mental Hygiene Consultation Service Staff.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2502-2503.

10451. Marcus, Lotte. (Columbia U.) **The effect of extralinguistic phenomena on the judgment of anxiety.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1894.

10452. Milligan, H. C. (Health & Welfare Dept., Hartlepool, England) **Organizational change in relation to speech therapy services.** *British Journal of Disorders of Communication*, 1969(Oct), Vol. 4(2), 203-207.—Describes social work in England as a divided profession in great need of unification under a separate social work department, and aimed at fostering social and individual responsibility through the use of a highly professionalized service which is family oriented. Such a change would call for an increased number of administrative posts and would establish closer links between the hospital speech therapy services and other services, particularly education and social work.—*S. Knapp.*

PHYSICAL HANDICAP

10453. Bolton, Denyse. (Princess Alexandra Hosp., Brisbane, Queensland, Australia) **Hemiplegia with perceptual difficulties.** *Australian Occupational Therapy Journal*, 1969(Jul), Vol. 16(3), 12-15.—Presents a case history of a male 75-yr-old left hemiplegia patient with

perceptual difficulties, and outlines the perceptual testing and occupational therapy.

10454. Coven, Arnold B. (U. Arizona) **The effects of counseling and verbal reinforcement on the internal-external control of the disabled.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1006.

10455. Craft, Michael. **The multiply handicapped child.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 182-188.—Discusses the care of multiply-handicapped children regarding prevention, early identification, comprehensive assessment and accurate diagnosis, organization of treatment, support for the family, education, employment, and after school care. It is stressed that when planning educational and medical resources for any handicap, clinical considerations must include children with MA above 5 on attainment tests, children able to reach but below an MA of 5, those not able to reach an MA of 5, and severely subnormal children. An experimental educational-hospital school designed to treat educationally subnormal children with additional handicaps causing defective speech is described, and results of treatment are discussed. Various problems and criticisms of this facility are summarized. (23 ref.)—*M. Maney*.

10456. Gómez-Ferrer Górriz, C. **Baremos de un "test" de psicomotricidad infantil obtenidos en población española.** [Indicators of a "test" of psychomotricity in children obtained in a Spanish population.] *Revista Española de Oto-Neuro Oftalmología y Neurocirugía*, 1969-1970(Jan), Vol. 28(161), 47-53.—Tested 221 4-7 yr. old normal children and 55 5-7 yr. old deaf mutes with an imitation of gesture test modeled after the Bergès and Lézine test. Ss imitated (a) simple arm movements, (b) simple hand movements, and (c) complex hand movements. Means for the normal responses were calculated according to CA, as were superior and inferior performances. The test was considered valuable as a diagnostic procedure in the global development of a child.—*P. Hertzberg*.

10457. Guest, Janet. **A communication device for the severely handicapped.** *Australian Occupational Therapy Journal*, 1969(Apr), Vol. 16(2), 8-11.—Describes a simple, inexpensive apparatus which enables the severely handicapped to communicate without outside aid or interpretation.

10458. Sondheimer, Ruth. (City Coll., City U. New York) **Field dependency and rehabilitation therapy in physically disabled patients.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3878-3879.

10459. Walls, Richard T. & Miller, John J. (West Virginia U.) **Perception of disability by welfare and rehabilitation clients.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 793-794.—Examined the differences between 11 welfare and 14 rehabilitation clients in their perception of the debilitating effects of various disabilities. Ss were individually administered Rotter's Internal-External Locus of Control Scale and the Perception of Disability Scale. It was found that salient commonalities exist between the 2 groups that may have implications for intervention strategies used by agencies working with either or both types of clients.—*Journal abstract*.

10460. Willems, Edwin P. & Vineberg, Shalom E. (U. Houston) **Direct observation of patients: The interface of environment and behavior.** *Psychological Aspects of Disability*, 1969(Nov), Vol. 16(3), 74-88.—Presents 1 phase of an ongoing program of research on

the ecology of human behavior. The primary S group consists of 12 adults with severe, chronic physical disabilities being treated in a comprehensive treatment facility. Focus is on the actual interface between the treatment environment and the behavior and experience of patients. Direct observation was made of Ss and a continuous descriptive protocol was generated. 3 Os were assigned for 1 full day of continuous observation for each S. Protocols may be analyzed for behavioral repertoires, interaction with hospital staff, varying stimulation in the experiences of Ss, differences in behavior between early and predischARGE Ss, and types of behavior characteristics of differing areas of the hospital.—*Journal abstract*.

Blindness & Visual Disorder

10461. Carter, John H. (Pennsylvania Coll. Optometry, Philadelphia) **On the evaluation of central retinal function.** *Journal of the American Optometric Association*, 1970(Jul), Vol. 41(7), 618-623.—Describes a number of rather simple subjective tests which can be employed to test for specific forms of central retinal anomaly. These tests are based largely upon patient observation of certain entoptic phenomena.—*Journal abstract*.

10462. Graham, Milton D. & Clark, Leslie L. **Trends of the research and development process on the sensorily impaired: I. New Outlook for the Blind**, 1968(Nov), Vol. 62(9), 265-269.

10463. Kempier, Richard R. (Teachers Coll., Columbia U.) **Recreation concepts for the adult blind.** *New Outlook for the Blind*, 1968(Nov), Vol. 62(9), 282-285.—Concerned with "how therapeutic recreation concepts help the blind person grow and develop his maximum potential for self-direction, self-determination, and personal independence in recreational pursuits and experiences . . . specifically . . . the attitudes of both workers and blind people and how these attitudes directly affect the goals of recreation programming and determine the extent to which the blind person can participate successfully in socio-recreational experiences."—*J. Canady*.

10464. Reing, Alvin B. (New York U.) **The effects of oculomotor conditioning and perceptual training on impulsivity, mode of imagery, vocational aspiration, and educational achievement.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1086.

10465. Rieger, H., Lesèvre, N., Rémond, A., & Lairy, G. C. (EEG & Applied Neurophysiology Lab., Paris, France) **Réponses évoquées visuelles chez les enfants voyants et mal-voyants.** [Visual evoked responses in children with normal and with poor vision.] *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 437-448.—Tested 31 7-12 yr. old children with intermittent photic stimulation at 768 msec. and 83 msec. between flashes, with eyes opened and closed. 22 Ss had normal vision, and 9 showed considerable bilateral visual defect of peripheral origin, with vision in the better eye less than 3/10. Responses to 200 or 100 flashes were recorded from a posterior median longitudinal and a right-left transverse montage, each consisting of 9 equidistant electrodes. Ss with poor vision are characterized by (a) a much weaker energy either of overall response, or of the afterdischarge separated by mathematical filtering; (b) a much smaller amplitude of the positive wave; (c) a more anterior topography (parietal instead of occipital) of this positive

wave; (d) increased latency of the negative wave; and (e) very small differences in amplitude as a result of opening and closing eyes. In Ss with poor vision the amplitude of the response is least when the visual acuity remaining is the smallest. Interpretation of the peculiarities of responses evoked in Ss with poor vision is discussed in relation to a specific visual mechanism, underlying background activity, and synchronizing mechanisms. (23 ref.)—*English summary*.

10466. Warren, David H. & Pick, Herbert L. (U. California, Riverside) **Intermodality relations in localization in blind and sighted people.** *Perception & Psychophysics*, 1970(Dec), Vol. 8(6), 430-432.—Gathered developmental data on the relative importance of vision, audition, and proprioception in determining spatial direction in a conflict situation. 72 Ss were divided into equal groups at each of 3 age levels, 2nd and 6th grade, and undergraduates. Age trends did not support the hypothesis that information from different modalities becomes better differentiated with age. In a follow-up study, 116 blind children, divided into 3 age groups roughly equivalent to those of the sighted Ss, were tested under auditory-proprioceptive conflict conditions. No age changes were found. A 3rd study with Ss either blind or visually handicapped from birth is also described. The possibility of a visual involvement in auditory and proprioceptive localization is discussed.—*Journal abstract*.

10467. Zotov, A. I. **Nauchnye issledovaniya kafedry tiflopedagogiki Leningradskogo gosudarstvennogo instituta imeni A. I. Gertsena.** [Research of the Typhlopedagogical Department of the Gertsen State Pedagogical Institute in Leningrad.] *Defektologiya*, 1970(Feb), Vol. 2(2), 34-40.—Presents a survey of research and representative findings concerning the visual characteristics of visually handicapped children as applied to the pedagogical setting in the special school for the blind and the visually handicapped.—*I. D. London*.

Deafness & Hearing Disorder

10468. Darbyshire, J. O. & Reeves, Vivien R. (U. Manchester, England) **The use of adaptations of some of Piaget's tests with groups of children with normal and impaired hearing.** *British Journal of Disorders of Communication*, 1969(Oct), Vol. 4(2), 197-202.—Tested the hypotheses that (a) in Piaget-type tests, modified to eliminate or simplify verbal communication, the performance of hearing impaired children would not be significantly inferior to that of normals; (b) there would be positive test-intertest correlations; and (c) degree of hearing loss would not correlate significantly with the scores on the tests. 120 hearing impaired and 120 normal hearing children were given 6 Piaget-type tests and a number of measures of ability and attainment. Results support the hypotheses. A marked correlation between favorable socioeconomic background and good performance on the tests is noted. (20 ref.)—*S. Knapp*.

10469. DiFrancesca, Katherine B. (St. Louis U.) **Recall of visual materials presented sequentially and simultaneously by deaf and hearing children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3855-3856.

10470. Erber, Norman P. (Washington U.) **Auditory and audio-visual reception of words in noise by observers with normal and impaired hearing.** *Dis-*

sertation Abstracts International, 1970(Oct), Vol. 31(4-A), 1648-1649.

10471. Marshall, William A. (U. Washington) **Contextual constraint on deaf and hearing children: Investigating the effect at fourth grade level using the Cloze Procedure.** *American Annals of the Deaf*, 1970(Nov), Vol. 115(7), 682-689.—Used the Cloze Procedure as the linguistic measuring instrument to study the effect of context on the deaf child's ability in making correct predictions to selectively mutilated written materials. 3 distinct levels of contextual constraint were generated from a single 3rd grade reading passage. Ss were 9 male and 15 female prelingually deaf children with 4th grade reading ability, and an equal number of sex-matched 4th graders. Results indicate that as the amount of context became more constrictive, the mean proportions of correct insertions became greater for all Ss. The relative redundancy of the linguistic cues, therefore, substantially affected those areas of grammatical competence as assessed by Cloze scores. (17 ref.)—*Journal summary*.

10472. Stewart, Larry G. (U. Arizona) **Perceptions of selected variables of the counseling relationship in group counseling with deaf college students.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1026.

SPEECH DISORDER

10473. Bickel, J. (U. Pisa, Inst. of Clinical Psychiatry, Italy) **Terapia delle logopatie dell'età evolutiva.** [Speech therapy for children.] *Rivista di Neurobiologia*, 1970(Apr), Vol. 16(2), 139-152.—Defines speech disorder as language which is pathologically altered when it deviates from the norm by attracting attention and by interfering with the possibility to communicate or to adapt socially. Speech therapy must help these to express themselves, to communicate, and to adapt in society. The object of speech therapy is "not the speech disorders but the Ss who bear the disorders." 3 types of speech disorders are studied along with the possible causes and the type of speech therapy most beneficial. Delayed language could be caused by (a) a hearing defect, where electroacoustical stimulation could be helpful; (b) mental retardation, where it is necessary to activate the instrumental function of language, e.g., self-talk, parallel-talk; (c) emotional disturbances, where psychotherapy is beneficial; and (d) cerebral lesion, where stimulations which tend to distract and disorient the child must be eliminated. Articulation disorders and stuttering are studied in the same manner. The importance of an individual approach and diagnostic therapy is emphasized, because there is no 1 answer to any speech disorder. (English summary) (21 ref.)—*A. M. Farfaglia*.

10474. Byers-Brown, Betty & Ives, Lawrence. (U. Manchester, England) **The re-education of a dysphasic adult: An experiment in co-operation between a speech therapist and an educational psychologist.** *British Journal of Disorders of Communication*, 1969(Oct), Vol. 4(2), 176-196.—Describes an on-going joint program between a speech therapist and an educational psychologist in diagnosing and re-educating an adult male with severe receptive dysphasia. The speech therapist worked on the area of verbal language considered essential for social rehabilitation. The educational psychologist attempted to illustrate the clinical diagnostic employment of a range of general

psychometric and attainment tests, and developmental verbal reasoning items. Information gained was related to the formulation of a reading program. (36 ref.)—*Journal summary.*

10475. Gane, Grace M. & Makgill, Barbara. **Speech therapy in New Zealand.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 196-200.

10476. Ierodiakonou, C. S. (U. Thessaloniki, Child Guidance Clinic, Greece) **Psychological problems and precipitating factors in the stuttering of children.** *Acta Paedopsychiatrica*, 1970, Vol. 37(6), 166-174.—65 3-15 yr. old stuttering Ss were studied with respect to age of onset, psychological development, severity of stuttering, and accompanying psychosomatic and behavior disorders. Eating problems were a prominent symptom. Familial incidence, left-handedness, and the precipitating influence of terror inducing psychological trauma were causative factors. Parental attitudes correlate with severity and aggravation, and, because of anxiety, contribute to its permanence. The prestuttering personality was found to be insecure and sensitive to criticism. (16 ref.)—*G. Rubin-Rabson.*

10477. Ringel, Robert L., Burk, Kenneth W., & Scott, Cheryl M. (Purdue U.) **Tactile perception: Form discrimination in the mouth.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 150-155.—20 undergraduates with no speech defects, 12 with mild articulation deficits, and 15 with moderate deficits, each evaluated orally 65 stimulus form pairs drawn from the pool of plastic geometric forms developed at the National Institute of Dental Research. Findings indicate that normal Ss made significantly fewer errors than defective Ss, and the 2 subgroups of defective Ss differed significantly in their average performance with the mildly defective Ss making more mistakes. Application of a t test for correlated data shows that the difference in the average number of between- and within-class stimulus pair errors was statistically significant for both normal and defective Ss and that defective Ss' errors were distributed in a manner significantly different from that of normals. It is concluded that results support the often hypothesized relation between oral sensory system functioning and articulation skill.—*M. Maney.*

10478. Schuell, Hildred & Nagae, Kazuhisa. (U. Minnesota, Medical School) **Aphasia studies.** *Geriatrics*, 1969(Oct), Vol. 24(10), 141-152.—Examined aphasic and aphasoid syndromes as part of a study of cerebrovascular disease in Japan and the United States. During the acute period of illness following an occlusive cerebral lesion and again 8 mo. later, 146 Minnesota and 121 Japanese patients were examined with the Minnesota Test for Differential Diagnosis of Aphasia. Both groups of aphasic Ss showed definite similarities of errors on the test, however, Japanese Ss suffered milder impairment, lower mortality rate, and showed more improvement from test to retest than the Minnesota Ss. It is suggested that this may be due to a tendency for the Japanese Ss to present more anterior than posterior lesions.—*S. Knapp.*

10479. Stewart, A. (Manchester U., England) **Disorders of articulation in children.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 121-129.—Defines disorders of articulation in children, and estimates their incidence among the total speech defective population. Research into the etiology of these problems is reviewed, and possible reasons for the inconclusive findings suggested. It is concluded that the whole group must include several kinds of problems. The

importance of distinguishing between subgroups in research is qualified by reference to investigations carried out in the last few yr., where experimental design has been more thorough. Several such investigations have suggested the involvement of wider problems of linguistic functioning in some of these children. The importance of these developments and the need for more research into this aspect of these problems is emphasized. (23 ref.)—*Journal summary.*

NEUROLOGICAL DISORDER

10480. ———. **L-dopa: I.** *British Medical Journal*, 1970(Nov), Vol. 4(5733), 478-479.—Summarizes "the pharmacological background and present therapeutic status of L-dopa in Parkinsonism." In Parkinson's disease the normal balance between acetylcholine and dopamine is upset as a result of deficiency of dopamine. Deficiency is corrected by administering L-dopa. It is estimated that 30% of an average population of parkinsonian patients revealed partial improvement. Clinical features that improve most are hypokinesia and rigidity. The maximum effective dose of 8-10 gm/day must be achieved gradually under the supervision of a physician.—*I. Halev.*

10481. ———. **Parkinsonism.** *Medical Journal of Australia*, 1970(Apr), Vol. 1(15), 742-743.—Briefly discusses the use of anticholinergic or dopaminergic drugs for the successful control of Parkinson's disease. It is suggested that the combined use of drug therapy and stereotactic surgery should be capable of relieving the principle features of tremor, rigidity, and akinesia.—*M. West.*

10482. ———. **Psychiatric aspects of multiple sclerosis.** *British Medical Journal*, 1969(Oct), Vol. 4(5675), 62-63.—Describes a study conducted on 108 patients in the department of neurology at Oxford to determine the degree of organic psychological dilapidation as a limiting factor in rehabilitation. The control group consisted of 39 patients suffering from muscular dystrophy which does not affect the CNS. Tests included the WAIS, the Babcock sentences, etc. Results strongly confirm the Continental view of intellectual deterioration. $\frac{2}{3}$ of the Ss showed the chronic amnesic syndrome. None of the controls showed evidence of dementia. $\frac{1}{4}$ of the Ss showed depressive features which were due to their disability as seen by the S. Established cases of multiple sclerosis thus frequently show evidence of organic dementia.—*I. Halev.*

10483. Bekhtereva, N. P., Kambarova, D. K., & Matveev, Yu. K. (Inst. of Experimental Medicine, Leningrad, USSR) **Funktsional'naya kharakteristika zven'ev mozgovykh sistem kontrolya psikhicheskikh i dvigatel'nykh funktsii u cheloveka.** [Functional characteristics of the links in the cerebral systems for regulation of mental and motor functions in man.] *Fiziologicheskii Zhurnal SSSR*, 1970(Aug), Vol. 56(8), 1081-1097.—6 patients suffering from parkinsonism and therapeutically equipped with implanted electrodes were Ss in a 4-6 mo. study of the dynamics of the impulse activity of neuronal populations in various deep structures of the brain during motor (active movement of limbs) and psychological (Binet) tests, presented under ordinary conditions and after administration of neurotropic agents: 200-600 mg. of L-dopa (a precursor of dopamine), and .5-1.5 mg. of dezeril (1-methyl-D-

butanolamide of lysergic acid)—the strongest and most specific of known serotonin antagonists. In different nuclear structures, zones were disclosed in which characteristic reproducible dynamics of impulse activity emerged during the performance of psychological and/or motor tests. Characteristic reproducible transformations of impulse activity could arise in motor tests in different nuclei and in different zones of 1 nucleus in response to movement of only the contralateral limb or to movements of the limbs on both sides of the body. The administration of L-dopa and dezeril produced a change in the spontaneous frequency of impulsation, and the character of its dynamics during motor and psychological tests (presence of impulse activity which was absent before administration and vice versa). (English summary)—*J. D. London.*

10484. **Boll, Thomas J. & Reitan, Ralph M.** (U. Washington) **Psychological test results of subjects with known cerebral lesions and Parkinson's disease as compared to controls.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 824.—Investigated the role of factors other than motor disability and emotional lethargy in patients with Parkinson's disease. The ranking effectiveness of 29 tests of proven value in discriminating brain-damaged from normal Ss was compared with the ranking of these tests' ability to discriminate parkinsonian from normal Ss. The Spearman rank-difference correlation coefficient was .547 ($p < .01$) which suggests the same tests discriminate brain-damaged and parkinsonian Ss from controls. —*Author abstract.*

10485. **Gomez, Manuel R.** (Mayo Clinic, Section of Pediatric Neurology, Rochester, Minn.) **Neurologic approach to specific language disability.** *Bulletin of the Orion Society*, 1970, Vol. 20, 17-29.—Discusses the elements of (a) spoken language, (b) written language, and (c) "cerebral dominance" in relation to language disability. The neurological functioning of acquisition of spoken language is outlined. Lesions in the anterior section of the left cerebral hemisphere have appeared to lead to a breakdown or failure in proper development of speech and language. Acquisition of written language is outlined as cerebral discrimination of symbols. Disabilities, e.g., alexia (word-blindness), aphasia (inability to write), and dyslexia are discussed. Directionality, numerality, and ordinality are enumerated as clues in visual decoding. A review of the relationship between language disorders and hand dominance was included. It is concluded that written and/or spoken language disorders stem from cerebral failure of the "decoding or encoding" process.—*C. O'Donnell.*

10486. **Herron, Carole J.** **Some effects of instrumental music training on cerebral palsied children.** *Journal of Music Therapy*, 1970(Sum), Vol. 7(2), 55-58.—"Cerebral palsied children have a need to extend the muscles and to use the extremities that need improved muscular coordination. Coordination can be improved by the increase of voluntary control and the inducement of relaxation." An attempt was made "to examine the possibility of improving the muscular coordination of cerebral palsied children by teaching them to play the Hohner melodica, a wind instrument having a piano-like keyboard. Of specific concern were the effects of this activity on physical coordination, particularly (a) of the hands and fingers, (b) breath support in sustaining a musical tone, and (c) coordination of blowing into the mouthpiece while fin-

gering the keys. The other area of concern was musical performance and achievement as measured by the Belwin Singing Achievement Test (Pilot Edition), also known as the 'Play or Sing' test. . . . Ss were 3 males and 1 female, 9-11 yr. of age. Improvement in muscular coordination was attained by all Ss; the continual use of the hands and fingers when performing on the melodica appeared to benefit them in this area. Ss were required to provide a continuous air stream for tone production; this appears to have improved their breath support. Poor musical performance achievement by 3 Ss was probably due to the severe muscular dysfunction of 1, the mental retardation of another, and the combination of both of these factors in the 3rd. The 4th S achieved a final performance test which was about 22% higher than the 1st test score.—*F. O. Triggs.*

10487. **Klas, Leroy D.** (U. Utah) **A study of the relationship between depression and factors in the rehabilitation process of the hospitalized spinal-cord injured patient.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2184-2185.

10488. **Lencione, Ruth M.** (Syracuse U.) **A rationale for speech and language evaluation in cerebral palsy.** *British Journal of Disorders of Communication*, 1968(Oct), Vol. 3(2), 161-170.—Argues that the major objective of evaluation is to obtain as accurate a picture as possible of a child's abilities and disabilities, regardless of the type of handicap, in order to design a program of therapy which will meet each child's special needs. In the case of the child with cerebral palsy, who may fall heir to a multiplicity of problems, in varying degrees of severity, evaluation and diagnosis of achievement levels, as well as failure points, is a complex task requiring broad objectives. It is concluded that clinically, an understanding of the child's developmental growth and the stages of linguistic development that he has achieved, as well as those stages that have been omitted, provides, at this juncture in our knowledge of the impact of cerebral palsy on speech and language, 1 way of efficiently assessing the problem. (24 ref.)—*Journal summary.*

10489. **Moiseeva, N. I., Kambarova, D. K., Orlov, V. A., & Savchenko, Yu. N.** (Inst. of Experimental Medicine, Leningrad, USSR) **Ob otsenke fonovoi bioelektricheskoi aktivnosti i reaktsii golovnogo mozga cheloveka.** [On estimating spontaneous bioelectrical activity and reactions in the human brain.] *Fiziologicheskii Zhurnal SSSR*, 1970(Aug), Vol. 56(8), 1098-1103.—70 normals, 74 epileptics, and 30 paroxysmal nonepileptics were used to study the possibility of an objective evaluation of spontaneous activity and reactions in the EEG through the parameters associated with 2 indices: general activity rate and pattern of interrelationships between rhythms—the so-called "specialist plus computer" approach to the semiautomatic processing of biopotential data. 7 forms of oscillations for the description of the EEG were elaborated prior and subsequent to the administration of the following therapeutic neurotropic agents: dezeril, aminazine (chlorpromazine), and iprazid. Utilization of the general activity rate made possible the disclosure of a connection between the character of EEG changes (in particular, a marked increase in α -activity) and the positive clinical effect observed as a result of pharmacological treatment. Dezeril, which acts only upon the serotonergic structures, did not alter the usual interrelationships obtaining between rhythms. Administration of the adrenalytic, aminazine (acting, as it does, upon the

adrenergic system), brought about the disappearance of several "positive connections" between rhythms, while the administration of iprazid, an activator of central adrenergic systems, caused the disappearance of several "negative connections." (English summary)—*I. D. London.*

10490. Nelson, K. B. & Deutschberger, J. (Children's Hosp., Washington, D.C.) **Head size at one year as a predictor of four-year IQ.** *Developmental Medicine & Child Neurology*, 1970(Aug), Vol. 12(4), 487-495.—From a study of 9379 children in the Collaborative Project on Cerebral Palsy, it was found that head circumference and body length at 1 yr. varied directly with IQ at 4 yr. Several caveats are added. (18 ref.)—*P. W. Pruyser.*

10491. O'Brien, Charles P., DiGiacomo, Joseph N., Fahn, Stanley, & Schwarz, Gabriel A. (U. Pennsylvania, Medical School) **Mental effects of high-dosage levodopa.** *Archives of General Psychiatry*, 1971(Jan), Vol. 24(1), 61-64.—Of 200 patients receiving levodopa (L-DOPA) therapy, the 1st 20 Ss received 4-6.5 gm. of L-DOPA/day. 7 of 12 parkinsonian Ss who were also depressed showed a remission of depression during L-DOPA treatment. However, this change generally correlated with the degree of motor improvement. In 2 Ss the mood elevation was clearly out of proportion to the motor improvement, and 1 of these developed a hypomanic-like state. A 3rd S developed agitated behavior after 1 yr. of L-DOPA therapy. 6 of 9 males reported spontaneous penile erections and 1 resumed successful intercourse after 3 years of impotency. Of 4 Ss with organic dementia, 3 showed no detectable improvement but 1 raised his Wechsler Memory Quotient from 59-86.—*Journgl abstract.*

10492. Pilleri, G. **Über angeborene Verhaltensmuster und deren phylogenetische Wurzeln bei Cortex-atrophien.** [Congenital behavior patterns and their phylogenetical roots in cortical atrophies.] *Psychiatria Clinica*, 1969, Vol. 2(5), 268-278.—A few phenomena due to disinhibition (staring, pursing of lips, finger sucking, and hoarding tendencies) which appear with progressive cerebral lesions are discussed from a clinical, neuropathological, and ethological viewpoint. The phenomena represent hereditary complexes, which correspond formally to the physiological movement repertory of the newborn or the infant, and which can be seen as homologous to movement patterns in mammals.—*English summary.*

10493. Raeva, S. N. (Inst. of Biophysics, Pushchino-Oka, USSR) **Issledovanie neironnoi aktivnosti golovnogo mozga cheloveka.** [Study of neuronal activity in the human brain.] *Fiziologicheskii Zhurnal SSSR*, 1970(Aug), Vol. 56(8), 1104-1110.—Reports results of microelectrode studies conducted in the course of 10 stereotaxic operations on patients in the III-IV stage of parkinsonism, primarily of the tremor-rigid form, with extracellular recordings made of 303 active neurons in various subcortical structures. The microelectrode technique makes possible (a) the definition of the boundaries of the conductive and nuclear structures with allowance for individual variability, and (b) the differentiation of the different zones within the thalamus and other subcortical formations. In several zones of the thalamus, cells were found with rhythmic spike activity correlating with the rhythm of the parkinsonian tremor. Several of these cells revealed a close connection with the voluntary motor act. In other thalamic cells no correlation with the parkinsonian

tremor was found. Several of these cells responded with a reaction of inhibitory character to voluntary hand movement and voluntary opening and closing of the eyes. (English summary)—*I. D. London.*

10494. Rossi, Romolo & Conforto, Carmelo. III **Convegno sul tema: "L'impotenza sessuale": Problemi psicoterapeutici nell'impotenza sessuale organica.** [3rd annual convention on the subject: "Sexual impotence": Psychotherapeutic problems in organic sexual impotence.] *Rivista di Psichiatria*, 1969(Jul), Vol. 4(4), 326-329.—Studied psychological problems in paraplegics of medullary trauma where sexual impotence is almost always present. Psychological problems in paraplegics are minimized next to the serious organic lesions even when the psychic aspect is what causes the S to suffer the most. There are 2 problems which confront the paraplegic: 1 is individual and psychological concerning the balance between emotional needs and the somatic reality; the other is socioenvironmental, involving his relationship with his partner. The following mechanisms are used by the S to defend himself from severe emotional confusion: (a) a passive-dependent attitude; (b) a victim-type attitude with masochistic disfigurement; (c) a neurotic-type hope; and (d) a psychic attitude that sexual life is secondary to motor impairment. Positive attitudes are easier in unmarried Ss; the presence of the partner in married Ss makes the mechanism of isolation, d, more difficult. When the S experiences sexual disturbances before paralysis, there is often an improvement psychologically, for the S can now justify his problem.—*A. M. Farfaglia.*

Brain Damage

10495. Butters, Nelson; Barton, Melvin, & Brody, Betty A. (Veterans Administration Hosp., Boston, Mass.) **Role of the right parietal lobe in the mediation of cross-modal associations and reversible operations in space.** *Cortex*, 1970(Jun), Vol. 6(2), 174-190.—"16 patients with high hemisphere cerebral damage, 12 with severe and 4 with mild parietal signs, were administered 2 intra- and 3 cross-modal associative tasks as well as 3 tests requiring spatial reversible operations. The 12 patients with severe parietal signs were impaired on tactile-tactile and auditory-visual matching and on all 3 spatial tasks, while the 4 patients with mild parietal signs did not reveal deficits on any test. Further testing indicated that the right parietals' impairments on the auditory-visual task were associated with an inability to decode the auditory patterned stimulus rather than to a failure in cross-modal associations. When the performance of the right hemisphere patients was compared with the data from left hemisphere patients, it appeared that the left parietal region may be dominant for cross-modal associations, but that both the left and right are important for spatial reversible operations."—*R. Gunter.*

10496. Calabro, Vincenza C. (Adelaide Children's Hosp., South Australia) **Communication with the child following traumatic head injury.** *Australian Occupational Therapy Journal*, 1969(Jan), Vol. 16(1), 23-26.—Discusses methods of communication derived from the treatment of 10 children with head injuries from automobile accidents. It is hypothesized that "by opening every possible channel of communication and by making communication attractive, desirable, and attainable by the patient, the occupational therapist is

able to encourage and assist physical, intellectual and emotional recovery." A wide range of stimuli are presented for short periods to the child in the earliest stages of treatment. Responsiveness indicated by facial expressions or eye-pointing, allows for proceeding to simple communication—imitation of monosyllabic noises. Further treatment involving the acquisition of motor skills and recovery of speech is outlined, along with the problems of variability of performance and personality and behavior problems.—S. Knapp.

10497. Czudner, Gad & Rourke, Byron P. (U. Windsor, Ontario, Canada) **Simple reaction time in "brain-damaged" and normal children under regular and irregular preparatory interval conditions.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 767-773.—Employed 2 different RT conditions to explore differences in mental set between 15-14 yr. old boys with anamnestic and/or EEG evidence of cerebral dysfunction (the brain-damaged group) and a control group of 15 normal boys, matched for age and IQ. The procedure consisted of regular and irregular preparatory interval conditions. Results demonstrate that latency was directly related to length of preparatory interval for the normals but not for brain-damaged Ss. No clear separation between normal and brain-damaged Ss was obtained when the set-index formula was employed. However, when ages 8-10 were analyzed separately, a good separation could be obtained. (18 ref.)—*Journal abstract*.

10498. Deutsch, Cynthia P. & Schumer, Florence. (New York U., School of Education, Inst. for Developmental Studies) **Brain-damaged children: A modality-oriented exploration of performance.** New York, N.Y.: Brunner/Mazel, 1970. viii, 162 p. \$7.95.

10499. Grundvig, John L., Needham, Walter E., Ajax, Ernest T., & Beck, Edward C. (Veterans Administration Hosp., Knoxville, Ia.) **The use of the Sensory-Perceptual Examination in diagnosis of degree of impairment of higher cerebral functions.** *Journal of Nervous & Mental Disease*, 1970(Aug), Vol. 151(2), 114-119.—Describes the battery of tests which make up the Sensory-Perceptual Examination (SPE). The effectiveness of the SPE was investigated using 120 hospital patients with suspected brain damage or patients whose degree of impairment was in question. Ss were separately rated on a 4-point scale by a neurologist. Analysis of SPE performances shows that the battery substantially reflects the neurological criteria for degree of impairment. 2 additional tests are described which are being studied for inclusion in the SPE.—S. Knapp.

10500. Kraemer, R. **Der Hirnverletzte nach der Erstversorgung.** [Brain injury after initial care.] *Psychiatria Clinica*, 1969, Vol. 2(5), 279-288.—Discusses particular problems encountered with the rehabilitation and training of the brain-injured patient. The roles of the social environment and of the attitudes of persons toward the brain-injured patient are discussed as factors which profoundly effect the patients' prognosis. (English summary)—B. A. Stanton.

10501. Lüthi, F. (U. Basel, Children's Psychiatric Service, Switzerland) **Normwerte für den Reyschen Kople- und Reproduktionstest zur Erfassung von organischen Hirnschäden bei Kindern.** [Normative values of the Rey Test used to establish organic brain damage in children.] *Acta Paedopsychiatrica*, 1970(Apr), Vol. 37(4-5), 118-136.—120 6-11 yr. old physically and mentally healthy children with normal intelligence took

an intelligence and a figure-copying test. The significance of constellations in the copying test were analyzed for relationships with the intelligence test. Some aspects of the Gestalt phenomena of the drawings are considered.—G. Rubin-Rabson.

10502. Richards, Susan. **The occupational therapy programme for the brain injured patient.** *Australian Occupational Therapy Journal*, 1969(Jan), Vol. 16(1), 12-22.—Describes 5 stages in the rehabilitation of the brain damaged patient. Stages 1-3 center on bringing the patient from a semiconscious condition to a level of responding, learning, and concentrating, while Stages 4 and 5 involve retraining of behavior, vocational training, and counseling. The patient's condition and the aims and techniques of treatment are described for each stage. It is concluded that the occupational therapist more than any other single person has the "responsibility to stimulate an awareness, guide, reeducate, develop potential abilities and skills, and modify the behaviour of the patient."—S. Knapp.

10503. Williamson, P. D., Goff, W. R., & Allison, T. (Walter Reed Army Inst. of Research, Washington, D.C.) **Somato-sensory evoked responses in patients with unilateral cerebral lesions.** *Electroencephalography & Clinical Neurophysiology*, 1970(Jun), Vol. 28(6), 566-575.—Tested the hypothesis that early and late somatic evoked response (SER) components are mediated, respectively, by activity of the short latency lemniscal pathway and by the extralemniscal, bilaterally projecting reticular and nonspecific thalamocortical pathways. The scalp-recorded SER was examined in 17 Ss, 14 of whom had unilateral cerebral lesions that involved parietal cortex and resulted in somatic sensory deficit. In those Ss with severe sensory loss, all SER components were markedly reduced or abolished over both hemispheres when the affected side was stimulated. Ss with mild to moderate sensory impairment exhibited either a normal response or a generalized attenuation of all components when the affected side was stimulated. Stimulation of the normal side evoked relatively normal responses over both hemispheres in all Ss. These results and others discussed are consistent with the conclusion that the entire contralateral SER is the result of activity in primary somatic cortex mediated solely by the medial lemniscal system. (French summary) (34 ref.)—*Journal summary*.

Epilepsy

10504. Dewhurst, Kenneth & Beard, A. W. (Littlemore Hosp., Oxford, England) **Sudden religious conversions in temporal lobe epilepsy.** *British Journal of Psychiatry*, 1970(Nov), Vol. 117(540), 497-507.—Describes 6 cases of religious conversion experiences occurring in patients with temporal lobe epilepsy. The conversion experiences of various mystics and saints, who were probably epileptic, are reviewed. Some theological and psychiatric aspects of conversion are discussed. (58 ref.)—*Journal summary*.

10505. Friemert, K. (U. Berlin, Neurology Clinic, E. Germany) **Über gemeinsames Auftreten epileptischer und hysterischer Anfälle.** [On the joint occurrence of epileptic and hysteric seizures.] *Psychiatrie, Neurologie und medizinische Psychologie*, 1970(Jul), Vol. 22(7), 253-255.—From a total of 263 epileptic patients, 20 showed simultaneous symptoms of epileptic and hysteric

seizures. About 75% of the experimental group had premorbid hysterical symptoms and the same percentage were women patients. It is concluded that epileptics with simultaneous hysterical seizures are evidently people of hysterical temperament.—K. J. Hartman.

10506. Gibberd, F. B. (Westminster Hosp., London, England) **Epilepsy.** *British Medical Journal*, 1969(Nov), Vol. 4(5678), 281-284.—Discusses epilepsy from the viewpoint of the drug treatment and social management of special categories of epileptic patients. Various forms of epilepsy are described, including nocturnal epilepsy, epilepsy during drowsiness, photogenic epilepsy, focal epilepsy, status epilepticus, and epilepsy during pregnancy. The primary anticonvulsant drugs are identified, with recommended dosages and a listing of chief side effects. Specific problems of epileptic children are discussed including those which concern the school experience. Problems in employment and personal life for the epileptic adult are also noted. Resources for dealing with the social service aspects of patient care are included. (21 ref.)—I. Halev.

10507. Haerer, A. F., Buchanan, R. A., & Wiygul, F. M. (U. Mississippi, Medical Center, Jackson) **Ethosuximide blood levels in epileptics.** *Journal of Clinical Pharmacology & the Journal of New Drugs*, 1970(Nov), Vol. 10(6), 370-374.—Describes ethosuximide blood levels in a clinical setting. 21 children and adults with petit mal or mixed seizure disorders received ethosuximide in varying doses. Ethosuximide levels were determined periodically and compared with the dose and various other clinical parameters. An average blood level of 40 ± 14.9 mg/ml was obtained from an average daily dose of ethosuximide of 20.7 ± 5.8 mg/kg.—*Journal summary.*

10508. Ledesma Jimeno, A. & Paniagua, J. L. **Circumvolución del cíngulo y agresividad.** [Circumvolution of the cinguli and aggression.] *Actas Luso-Españolas de Neurología y Psiquiatría*, 1969(Oct), Vol. 28(4), 289-298.—Presents case histories of 2 epileptics (a 13-yr-old mentally retarded male and a 25-yr-old male of normal intelligence) who manifested aggressive symptoms and who had not responded to previous therapy. Stereotaxic anterior cingulectomies resulted in the disappearance of aggression in 1 S and the normalization of aggressive tendencies in the other S. Cases are cited in which the same operation proved effective in improving severe depression. It is concluded that circumvolution of the cinguli is a useful treatment for various mental disorders where the principal symptom is aggression and all other therapeutic devices have failed.—P. Hertzberg.

10509. Lücking, Carl H., Creutzfeldt, Otto D., & Heinemann, Uwe. (Technical Inst., Neurological Clinic, Munich, W. Germany) **Visual evoked potentials of patients with epilepsy and of a control group.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 557-566.—Recorded averaged visual evoked potentials (VEPs) to 100 flashes with reference to the chin from the occipital, temporal, and central areas of 42 patients with epilepsy and 30 healthy controls. The interindividual variability of the VEPs was larger in the patient than in the control group. Different types of epilepsy could not be discriminated by their VEPs, although the VEPs of Ss with pathological paroxysmal wave forms in the EEG were more abnormal and variable than those of other patients, and 2 Ss with photogenic epilepsy had abnormally large VEPs, espe-

cially in the occipital area. The maximal peak-to-peak amplitudes of VEPs of epileptics were on the average slightly diminished in all areas, significantly at the .01 level in the temporal and central areas. The mean potential was much more diminished in the epileptics than the maximal peak-to-peak amplitudes due to the larger variability of the whole VEP pattern. The mean VEP of Ss with paroxysmal EEG alterations was almost a flat line. Diagnostic uses of the VEP technique are discussed. (German summary) (19 ref.)—*Journal summary.*

10510. Paolozzi, C., Colucci d'Amato, C., & Bravaccio, F. (U. Naples, Clinic for Nervous & Mental Diseases, Italy) **Inconusueti aspetti elettro-clinici in un caso di nistagmo epilettico.** [Unusual electro-clinical aspects in a case of epileptic nystagmus.] *Acta Neurologica*, 1970(Jul), Vol. 25(4), 450-456.—Studied a 30-mo-old child with epileptic nystagmus. The following distinguished this case from others: (a) nystagmus was the only manifestation of a focal epilepsy for the child's 1st 19 mo.; (b) nystagmus, even with convulsions, was absent of established clinical signs of determined cortical centers, e.g., absence of tonic eye and head deflections; (c) nystagmus attacks were of uncommonly brief duration; and (d) by simultaneous EEG and nystagmographic recordings, there was a precise temporal correlation between seizures and nystagmus. The presence in the right temporal site of focal irritative abnormalities did not always correspond to the nystagmus jerks which were clinically and graphically visible. (English & French summaries)—A. M. Farfaglia.

10511. Pisani, D., Ardizzone, E. C., & Nigro, A. (U. Messina, Italy) **"Passatizzazione" dell'epilettico per azione riflessa.** ["Pasting" of the epileptic's electroencephalograph by reflex action.] *Rivista di Neurobiologia*, 1969(Aug), Vol. 15(3), 400-407.—Describes the "pasting" of the EEG as the reduction of the percentual alpha by change of the body's position. The application of silicon on the palm of the hand produces EEG changes characteristic of "pasting" in epileptic Ss. The value and the mechanism of this variation in reflex action are discussed.—*English summary.*

10512. White, James C. (San Jose Medical Clinic, Calif.) **A case of reading epilepsy with observations on the effect of sleep deprivation and fasting on EEG correlates.** *Electroencephalography & Clinical Neurophysiology*, 1970(May), Vol. 28(5), 510-513.—Describes EEG studies of a 19-yr-old male with reading epilepsy in which abnormalities occurred only after sleep deprivation or fasting. It is suggested that studies utilizing these activation techniques on other patients with reading epilepsy may alter views on the classification and pathophysiology of this condition. (French summary)—*Journal summary.*

10513. Woo-Sam, James. (Rancho Los Amigos Hosp., Downey, Calif.) **Note on Wechsler Comprehension and Picture Arrangement scores of head-injured epileptics.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 818.—Analyzed the scores of 23 head-injured veterans matched for age, IQ, and education, 9 of whom were epileptic. Previously reported findings were not supported. The scores of epileptic and nonepileptic Ss on the Wechsler-Bellevue Picture Arrangement and Comprehension subtests were not statistically significant, although epileptics scored slightly higher on the Picture Arrangement test and slightly lower on the Comprehension test.—S. Knapp.

distinction between phenotype and genotype in intelligence in reply to G. W. Albee's (see PA, Vol. 45:Issue 6) article on changing research priorities in retardation. Albee states that since 2 1/4% of the population will always be retarded as a result of polygenic inheritance that an emphasis on educational and habilitative rather than biomedical research is needed. Doris indicates that the interaction of heredity and environment decides which 2 1/4% will fall on the lower end of the Gaussian distribution and, therefore, to consider only polygenic inheritance in intelligence is misleading. It is agreed that educational programs are necessary, but warns against large-scale crash program attacks on problems on the basis of the shifting and partial insights of scientists. The premature application of "scientific knowledge" can create more problems than it solves.—L. M. Glidden.

10522. Freeman, Roger D. (U. British Columbia, Vancouver, Canada) **The myth of perfectibility.** *Journal of Special Education*, 1970(Spr), Vol. 4(2), 171-176.—Replies to G. W. Albee's (see PA, Vol. 45:Issue 6) article on changing research priorities in retardation, and agrees with the attack on the myth of perfectibility as it applies to retardation. Albee is criticized, however, for an argumentative style which could cause dissension when cooperation is needed. It is pointed out that the interaction of polygenic factors with prenatal, perinatal, and postnatal factors is extremely complex, and that there is doubt that intelligence is distributed normally. It is suggested that loose-thinking conclusions, based on tenuous hypotheses and misleading statements, be eliminated by those working in the area. (20 ref.)—L. M. Glidden.

10523. Gardner, William I. & Brickin, Alan S. (U. Wisconsin) **Use of punishment procedures in management of behavioral difficulties of the severely retarded.** *Journal of Psychiatric Nursing & Mental Health Services*, 1969(Jan), Vol. 7(1), 5-16. Questions the attitudes which many nursing personnel hold concerning punishment and suggests that punishment procedures can become an accepted element in a comprehensive behavior modification program for this group. Such procedures used wisely are not inhumane. Dramatic results have been reported which far offset the momentary pain involved in the treatment procedure. It would appear that the inhumane position would be that of permitting severely damaging behavior to remain in the retardates' repertoire in view of data which support the possible effectiveness of remediation procedures involving punishment operations. (25 ref.) *Journal summary*.

10524. Johnson, H. R., et al. (Raimer School, Buckley, Wash.) **Effects of testosterone on body image and behavior in Klinefelter's syndrome: A pilot study.** *Developmental Medicine & Child Neurology*, 1970(Aug), Vol. 12(4), 454-460.—5 9-24 yr. old mentally retarded patients with Klinefelter's syndrome responded to the testosterone enanthate treatment over 6-7 mo. with the development of a more masculine body contour, secondary sex characteristics, increased assertiveness, heightened sexual drive, and greater masculinity in the Draw-a-Person Test.—P. W. Pruyser.

10525. Maloney, Michael P. & Ward, Michael P. (Pacific State Hosp., Pomona, Calif.) **Bender-Gestalt Test performance of "organic" and "functional" mentally retarded subjects.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 860.—Investigated the validity of the Bender Gestalt Test in differentiating etiologic

classifications of retardation. 50 were 18 organic and 16 functional retarded institutionalized adolescent males. The modified scoring system of L. M. Koppitz with 2 additional modifications was used. Results indicate that the functional group performed significantly better than the organic group ($p = .05$). It is concluded that "The Bender Gestalt may be a useful auxiliary tool in the differentiation of organic etiology in mental retardation"—S. Anapp.

10526. McFey, Mary L. (U. Florida) **Social roles of self-sufficient adults who were labeled retarded.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(A), 934-935.

10527. Melina, James J. (Ohio State U.) **Old Order Amish awareness and understanding of mental retardation: A religious subcultural approach to the phenomenon.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(A), 1081.

10528. Moskau, G. & Bertini, R. **Contributo allo studio del quadro elettroencefalografico nel mongolismo** [Contribution to the study of electroencephalographic findings in mongolism]. *Rivista di Neurofisiologia*, 1969(Aug), Vol. 12(4), 409-421. Reviews the literature concerning EEG investigations on children with Down's syndrome. A review of a 4-yr. personal investigation of EEG activity in 32 10-17 yr. old mongoloids is presented. 50 were investigated under various types of stimulation. Results are presented in the form of characteristic EEG tracings. The most common finding is described as immaturity of electrogenesis—a deficit in the amount of reactivity to various forms of applied stimulation. (English summary) (13 ref.)—R. A. Steinman.

10529. Martin, Kenneth N. (Michigan State U.) **Attitudes of Texas Mexican Americans toward mental retardation: A Guttman facet analysis.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(A), 1082.

10530. Nelson, Thomas L. (U. California, Irvine) **The case for multidisciplinary research efforts in mental retardation.** *Journal of Research & Development in Disabilities*, 1970, Vol. 4(2), 177-179. Asserts that both research and clinical determine every person's educational functioning, and the amelioration of mental retardation can require the scientific expertise of many disciplines. Scientists from various fields working together will cross traditional boundaries between disciplines. Such a multidisciplinary approach offers greater hope for meaningful breakthroughs in knowledge than only a single discipline. No one can predict which research approach will offer the greatest reward for funds expended, and therefore, as priorities between disciplines should not be assigned, all disciplines should recognize each other's essential contribution and strive for increasing multidisciplinary research. *Journal summary*.

10531. Perry, Thomas L., et al. (U. British Columbia, Vancouver, Canada) **Glutamine depletion in phenylketonuria: A possible cause of the mental defect.** *New England Journal of Medicine*, 1970(Sep), Vol. 282(14), 761-762.—2 adult brothers with untreated phenylketonuria, 1 with a severe mental defect and the other with superior intelligence, were compared biochemically. No significant differences were found in their degree of hyperphenylalaninemia nor in their urinary excretion of phenylalanine metabolites. A striking difference between the 2 brothers was a significant reduction in concentration of glutamate in the

plasma of the defective brother, but not in the intelligent brother. A 2nd adult with untreated phenylketonuria and normal intelligence, as well as a group of phenylketonuric children who were receiving a low-phenylalanine diet, also had plasma glutamine concentrations within the normal range. 12 mentally defective untreated patients with phenylketonuria all showed a significant reduction in plasma glutamine. Findings cast doubt on some proposed mechanisms for the mental defect in phenylketonuria, and suggest that chronic insufficiency of glutamine may play a part in damaging the growing human brain. (29 ref.)—*Journal summary*.

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10549. Niziol, Ursula M. (New Mexico State U.) **A Prevocational Adjustment Scale for educable mentally retarded adolescents.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1629.

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10554. Cabanac, M. & Duclaux, R. (U. Lyon, Medical

School, France) **Obesity: Absence of satiety aversion to sucrose.** *Science*, 1970(Apr), Vol. 168(3930), 496-497.—In an experiment with 15 obese patients, it was found that ingestion of glucose did not cause the transformation of the gustative sucrose sensation from pleasant to unpleasant as in 10 normal Ss. This result is consistent with the theory of a decreased sensitivity to internal signals in the control of food intake of obese people.—*Journal abstract.*

10555. Clarke, Paul S. (270 Sandy Bay Rd., Hobart, Tasmania, Australia) **Effects of emotion and cough on airways obstruction in asthma.** *Medical Journal of Australia*, 1970(Mar), Vol. 1(11), 535-537.—Studied under hypnosis the effects of suggesting fear, anger, cough, and an asthmatic attack, alone or in combination, in 3 asthmatic patients, using a spirometric method of assessment of airways obstruction. A significant decrease in forced expiratory volume at 1 sec. was observed with the suggestion of asthma alone, and more particularly on the combined suggestions of asthma, fear, anger, and cough. No statistically significant decrease in ventilatory capacity occurred on coughing by itself, or the suggestion of fear or anger. On the average, these effects were reversed by suggestions of relaxation, but the scatter of postexperimental measurements was wide. The experiments were not designed to study the relationship between chronic emotional tension and the initial onset of asthma, neither were they an assessment of the value of hypnosis in the treatment of asthma.—*Journal abstract.*

10556. Clezy, T. M. (Hawkins Medical Clinic, Mt. Gambier, South Australia) **Oral contraceptives and hypertension: The effect of guanethidine.** *Medical Journal of Australia*, 1970(Mar), Vol. 1(13), 638-640.—Describes 11 cases of hypertension associated with oral contraceptives. Treatment of 5 patients with guanethidine did not result in a satisfactory hypotensive response. Possible reasons for this phenomenon are discussed.—*Journal abstract.*

10557. Cole, E. S. (33 Queens Rd., Melbourne, Victoria, Australia) **Psychiatric aspects of compensable injury.** *Medical Journal of Australia*, 1970(Jan), Vol. 1(3), 93-100.—Reviewed the histories of 292 people referred for psychiatric assessment after compensable injury. It was found that most were suffering from neurotic disorders, notably anxiety states and reactive depressions. Hysterical reactions were found to be commonest amongst the immigrant population, the unskilled and the poorly educated. Psychoses and brain damage are mentioned. The problem of accident neurosis and its relationship to hysteria and malingering is discussed. It is concluded that many of the psychiatric and social problems of the injured have been obscured in the past, because most attention has been directed toward accident neurosis.—*Journal abstract.*

10558. Debuskey, Matthew & Dombro, Robert H. (Eds.) (Johns Hopkins U., Medical School) **The chronically ill child and his family.** Springfield, Ill.: Charles C Thomas, 1970. xvi, 203 p. \$11.50.

10559. Dodge, David L. & Martin, Walter T. (U. Notre Dame) **Social stress and chronic illness: Mortality patterns in industrial society.** Notre Dame, Ind.: U. Notre Dame Press, 1970. xxvi, 331 p. \$9.95.

10560. Etienne, M. **Psychologie de l'enfant et de l'adolescent obèses Incidences sur l'orientation scolaire et professionnelle.** [Psychology of the obese child and adolescent, as affecting school and occupa-

tional guidance.] *Bulletin de l'Institut National d'Etude du Travail et d'Orientation Professionnelle*, 1970(May), Vol. 26(3), 212-216.—Briefly discusses the psychological characteristics of obese children and adolescents, considering family backgrounds and sex differences in behavior of the latter. Maladjustment in school, if untreated, sets the stage for later problems concerning choice of occupation. If the obese adolescent is emotionally, as well as physically handicapped, his passivity may lead to a choice of a type of occupation which will further aggravate his obesity. The long-term prognosis, occupational problems, and contraindications for certain jobs of the obese, as well as the predominance of psychological factors involved in etiology and treatment, call for the team approach to management by family physician, school counselor, and guidance counselor.—*T. N. Webster.*

10561. Fagerhaugh, Shizuko Y. (U. California, School of Nursing, San Francisco) **Mental illness and the tuberculosis patient.** *Nursing Outlook*, 1970(Aug), Vol. 18(8), 38-41.—Describes contrasting perceptions of mental illness by psychiatric and tuberculosis specialists which created barriers to the management of institutionalized tuberculosis patients with behavior problems. Most of the professional workers were older, had worked in the tuberculosis field for many years, and had used specific antitubercular drugs and routine treatment. The psychiatric professionals were young and were used to working with an array of deviant behaviors and groups. Mental illness is quite ambiguous and its therapy is not specific. The psychiatrists viewed the patient's behavior as situational anxiety and felt that the staff was inept in interpersonal skills. Solutions should include inservice education programs for the TB staff, reduction of factors contributing to patient anxiety in a long-term care facility, and psychiatric consultation appropriate to the particular situation.—*B. A. Burkard.*

10562. Farberow, Norman L., Darbonne, Allen R., Stein, Kenneth, & Hirsch, Sophie. (Veterans Administration Center, Central Research Unit, Los Angeles, Calif.) **Psychological Reports**, 1970(Dec), Vol. 27(3), 935-946.—12 "uncooperative" diabetic Ss were interviewed and tested in the hospital, using a structured interview, behavior and attitude rating schedule, and the Rorschach. A general descriptive picture was derived, but subgroups also appeared, based upon the dynamics of the S in relation to the illness. In 1 subgroup, the illness played no meaningful role; in the 2nd, the illness had been integrated into defensive patterns deliberately manipulated for personal satisfaction. Different treatment procedures are suggested.—*Journal abstract.*

10563. Gay, T. J., et al. (Alfred Hosp., Victoria, Australia) **Blood alcohol concentrations upon admission to a hospital casualty department.** *Medical Journal of Australia*, 1970(Oct), Vol. 2(17), 778-781.—Determined over a period of 7 days blood alcohol concentrations in 246 18-65 yr. old patients who were admitted to the casualty ward at a Melbourne hospital. 75 Ss had alcohol in their blood, and of these, 21 had concentrations which exceeded .15 gm/100 ml. Results show the association of certain social factors with positive blood alcohol readings. The relationship of alcohol to auto accidents and other diseases is also detailed.—*Journal abstract.*

10564. Gerson, Irvin M., Friedman, Ronald, & Unterberger, Herbert. (Philadelphia State Hosp., Pa.) **Non-antagonism of antiadrenergic agents by a**

dibenzoxepine: Preliminary report. *Diseases of the Nervous System*, 1970(Nov), Vol. 31(11), 780-782.—Explores possible drug interaction between dibenzoxepine and antiadrenergic antihypertensive drugs. 10 female 63-87 yr. old hypertensive patients, stabilized and maintained on guanethidine, or methyl dopa were treated after a 1-mo observation period with doxepin, administered in divided doses 30 min. before the control doses of the antihypertensive drug was given. EKGs were performed before, during, and after therapy. Results indicate that doxepin produced no significant effect on Ss' blood pressure and did not interfere with the desired hypotensive effects of the other drugs.—*P. McMillan*.

10565. **Hoornaert, F., Pierloot, R., & Vertommen, H.** (St. Rafael U. Hosp., Louvain, Belgium) **Blood pressure responses to stress in renal patients.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 178-190.—Compared a group of 6 renal patients showing a rise in blood pressure as a reaction to the announcement of a change in the dialysis program with 11 patients manifesting no rise in blood pressure. Significant differences were found on scales of the Amsterdam Biographical Questionnaire which measured neurotic instability as manifested by the presence of functional somatic complaints and test-taking attitude and in the responses on a questionnaire filled out by the nursing staff. The tendencies which were found in the MMPI seem to point to a lesser degree of neuroticism in the reactor group, whereas their attitude towards the test-taking situation was more defensive. The reactor group was typified by the nursing staff as psychically more balanced, less neurotic, and with less neurosomatic complaints.—*Journal summary*.

10566. **Krones, Peter D.** (U. North Carolina, Chapel Hill) **Level of aspiration and the evaluation of self and others by diabetic and non-diabetic children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3870-3871.

10567. **Mandy, Stephen & Ackerman, A. Bernard.** (U. Miami, Medical School) **Characteristic traumatic skin lesions in drug-induced coma.** *JAMA: Journal of the American Medical Association*, 1970(Jul), Vol. 213(2), 253-256.—The skin lesions in patients with drug-induced coma are distinctive clinically and histologically. Early recognition of these characteristic lesions may be life saving for the comatose patient. The skin lesions are of 3 types: (a) dusky, erythematous plaques; (b) tense vesicles surmounting erythematous, indurated bases; and (c) large, tense, clear bullae surrounded by a narrow rim of erythema. They are often located over areas of pressure and follow trauma, e.g., results from grappling with restraints placed on an agitated patient. The histological study shows extensive sweat gland necrosis. 2 case studies are presented and discussed.—*Journal abstract*.

10568. **Parkes, C. Murray; Benjamin, B., & Fitzgerald, R. G.** (Tavistock Inst. of Human Relations, London, England) **Broken heart: A statistical study of increased mortality among widowers.** *British Medical Journal*, 1969(Mar), Vol. 1(5646), 740-743.—Followed up 4486 widowers, 55 yr. old and older for 9 yr. since the death of their wives in 1957. Of these 213 died during the 1st 6 mo. of bereavement, 40% above the expected rate for married men of the same age. Thereafter the mortality rate fell gradually to that of married men and remained at about the same level. The greatest increase in mortality during the 1st 6 mo. was found in the widowers dying from coronary thrombosis and other

arteriosclerotic and degenerative heart disease. There was also evidence of a true increase in mortality from other diseases, though the numbers in individual categories were too small for statistical analysis. In the 1st 6 mo. 22.5% of the deaths were from the same diagnostic group as the wife's death. Evidence suggests that this may be a larger proportion than would be expected by chance association, but there is no evidence suggesting that the proportion is any different among widows and widowers who have been bereaved for more than 6 mo. (17 ref.)—*Journal abstract*.

10569. **Passouant, P., Cadilhac, J., Baldy-Moulinier, M., & Mion, Ch.** (U. Montpellier, Medical School, France) **Etude du sommeil nocturne chez des urémiques chroniques soumis à une épuration extrarénale.** [Night sleep in chronic renal insufficiency.] *Electroencephalography & Clinical Neurophysiology*, 1970(Nov), Vol. 29(5), 441-449.—Studied the night sleep of 18 Ss in a state of chronic renal insufficiency by polygraphic recording. It was found that the sleep of chronic uremics was (a) broken up by long periods of insomnia, either grouped in the middle of the night or spread out throughout the whole night and occurring in any stage of sleep; (b) deep slow sleep was diminished; (c) fast sleep was reduced in total quantity but the proportion of fast to slow sleep was normal; (d) sleep cycles were disorganized; and (e) myoclonus and starts occurred in all stages of sleep except during that of deep slow sleep. Extrarenal purification by peritoneal dialysis or by artificial kidney improved the night sleep by regularizing the cycles, decreasing the awakenings, and increasing the deep slow sleep. The action on the myoclonus and starts was incomplete; although decreased, these paroxysms persisted in an abnormal way during sleep. The improvement in the night sleep resulting from dialysis was particularly clear in Ss submitted to periodic hemodialysis, in whom sleep approached normal. Results show a correlation between the increased blood urea and the disturbance of sleep in uremics. (29 ref.)—*English summary*.

10570. **Reisel, J. H.** (100 van Eeghenstr., Amsterdam, Netherlands) **Epidemiological and psychosomatic aspects in essential hypertension.** *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 169-177.—In essential hypertension it is possible to distinguish hypertension from complicated clinical atherosclerotic disease. The latter is prevailing in Western countries, while in non-Western countries a more "pure" hypertension is found, not leading to hypertensive heart disease. A group of 50 hypertensive executives in Holland were examined, where the typical features of the hypertensive personality could be established. Later a group of 50 hypertensive Negroes in the Netherlands Antilles were examined by means of the same methods. Notwithstanding fundamental differences in ethnic and sociocultural respects, the same psychodynamic factors and the same rigid pattern were found and may indicate the predominant significance of conflicts between passive dependency tendencies and overcompensation through aggressive impulses as a trigger for the basic pathophysiological mechanism, even in utterly different sociocultural settings. (19 ref.)—*Journal summary*.

10571. **Schipkowsky, Nikola.** (64 Patriarch Evtimi, Sofia, Bulgaria) **Iatrogenie in der Pädiatrie.** [Iatrogeny in pediatrics.] *Acta Paedopsychiatrica*, 1970(Apr), Vol. 37(4-5), 101-117.—Psychic disorders among children and their parents occasioned by the physician are in

general associated with organic damage brought about by medical procedures due to faulty diagnosis of nonexistent somatic diseases. Kanner has devoted himself to the study of children's iatrogenic diseases, and Van Krevelen has made a contribution to the study of the hazards to parents. Parents, taking the physician's role, "diagnose" perilous diseases and "prognosticate" inevitable death. They may thereby evoke anxiety neurosis of nosophobic or hypochondriac character, pitying the child for real, or usually imaginary diseases. Children become entangled in self-devised "dangers" to their health and life. (18 ref.)—G. Rubin-Rabson.

10572. Spiegel, R. (Medical Research Dept., Basel, Switzerland) **Psychologische Unterschiede zwischen akuten und chronischen Stadien von Rückenbeschwerden: Eine vergleichende Untersuchung mit dem Rorschachtest an zwei Patientengruppen mit rheumatischen Erkrankungen: Spondylitis ankylopoetica und lumbale Discushernie.** [A comparative examination of the Rorschach test in two groups of patients with rheumatic diseases: Ankylosing spondylitis and ruptured lumbar spinal disc.] *Psychotherapy & Psychosomatics*, 1969, Vol. 17(3-4), 207-216.—Presents differences in psychodynamics between acute and chronic stages of the somatization process on the basis of statistical comparison of test results. The nature of object relationships was found to constitute a distinguishing feature: whereas in the case of patients with acute intervertebral disc hernia, object relationships were still intact, those of the patient with chronic ankylosing spondylitis have been largely cast off and transferred to the S's own body-image. Some correlations between these findings and clinical knowledge and psychodynamic concepts are discussed.—English summary.

10573. Takahashi, Kazuro & Fujitani, Yoshiko. (Tottori U., Medical School, Yonago, Japan) **Somatosensory and visual evoked potentials in hyperthyroidism.** *Electroencephalography & Clinical Neurophysiology*, 1970(Dec), Vol. 29(6), 551-556.—Studied somatosensory evoked potentials (SEPs) and visual evoked potentials (VEPs) in 14 hyperthyroid patients and 45 controls. Results indicate that amplitudes of each component of the SEPs and VEPs were greater in hyperthyroid Ss than in controls. No significant changes were observed in the peak latencies of each component of the SEPs, except a slight prolongation in the latency of the initial negative wave of the VEP in hyperthyroidism. The threshold of the SEPs in hyperthyroidism showed no significant changes, but on an increase in the stimulus strength, the amplitudes of the potentials increased much more abruptly in the hyperthyroid Ss and reached a maximum at the motor threshold. The topographical distribution of the primary response of the SEP in all Ss was similar. No significant correlations were observed between the amplitude of the primary response in the SEP and each value of basal metabolic rate, ¹³¹I-uptake, and resin sponge uptake. It is concluded that the cerebral evoked potential may be useful in the diagnosis of hyperthyroidism. (French summary) (16 ref.)—*Journal summary*.

10574. Welford, A. T. (U. Adelaide, South Australia) **Mental integrity and the nature of life.** *Medical Journal of Australia*, 1970(Jun), Vol. 1(23), 1135-1138.—Raises the problem of how far maintaining the survival of patients with terminal illnesses whose mental powers are gravely impaired, competes with the medical treatment of patients who can expect to recover fully. The human

and religious consequences of defining life in terms of mental integrity are discussed, especially regarding the senile and seriously defective infants.—*Journal abstract*.

COMMUNITY SERVICES

10575. ———. **Psychiatry and the community.** *Medical Journal of Australia*, 1970(Jun), Vol. 1(23), 1131-1132.—Comments on the recently published symposium proceedings "Psychiatry and the Community." The papers suggest that it will be more economical for the community (a) to invest in the helping professions rather than large institutional buildings, and (b) to focus on outpatient care.—M. West.

10576. Crawford, Ronald L. (Yale U.) **Pathways to the psychiatrist: A study of working and lower class admissions to a community psychiatric facility.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1902.

10577. Denison, John M. (Box 40, Mt. Albert, Ontario, Canada) **An unusual social experiment to help youth in crisis (Ankh).** *Canadian Medical Association Journal*, 1971(Jan), Vol. 104(1), 15-19.—Describes the establishment and operation of a crisis intervention service in a semirural community serving a population of 75,000 within a 20-mile radius. The service developed as a community project in response to the mounting problem of drug abuse by youth. Workers are drawn from within the peer group being served, and the service is deliberately client-oriented. Significant features behind its success are described. Evaluation on a cost-effectiveness basis shows considerable saving in terms of both financial and professional time. (French summary)—*Journal abstract*.

10578. Kolb, Lawrence C. **Community mental health centers: Some issues in their transition from concept to reality.** *Hospital & Community Psychiatry*, 1968(Nov), Vol. 19(11), 335-340.—Discusses 4 issues which must be resolved by those who are bringing community mental health centers from hope to reality. These issues involve (a) effective communication with patients and their families concerning services available at a center, (b) sufficient manpower to maintain existing commitments and support projected new local services, (c) difficulty of offering mental health services limited by geographic catchment areas, and (d) sufficient psychiatrists to provide leadership to citizen groups concerned with helping to plan and direct their local mental health centers.—B. A. Burkard.

10579. Lamb, H. Richard & Mackota, Cecile. (County Mental Health Services Div., San Mateo, Calif.) **Vocational services in a community mental health program.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 315-318.—Describes the vocational services of a county health department geared to the needs of the psychiatric patient. A sheltered workshop was set up several miles from the hospital for the 10% of the clients who require this service. The special needs of the mentally ill are discussed, and the techniques needed to provide a good vocational service are detailed. Defining staff roles and understanding the concept of limited goals were 2 of the problems faced in the early operation of the program.—B. A. Burkard.

10580. Lecker, Sidney. (Montreal Children's Hosp., Mental Assessment & Guidance Clinic, Quebec, Canada) **Coping with drug abuse: II. An indigenous multidisciplinary clinic for youth.** *Canada's Mental*

Health, 1970, Suppl. No. 64, 7-12.—Describes an 18-mo-old youth clinic established because of the large numbers of alienated youth living in the city, known to have medical and psychiatric problems, but unable or unwilling to seek help from existing institutions. The main role of the clinic coordinator was to respond to the needs of the youth and coordinate these with the demands of medical and other therapeutic services. A continual revision of services occurred with an expansion of psychiatric services, and a shift in emphasis from a 1-1 model to group therapy. Utilization of the patient's community milieu in the therapeutic process was an innovative feature. Medical students and residents played a major role in planning and delivery. The response of community institutions was hesitant, but later constructive and enthusiastic. The future functions of the clinic will be divided among youth, detached workers, and medical staff with central coordination and administration by the YMCA.—*Journal summary*.

10581. Leonard, Alvin R. & King, Esmer S. (Berkeley Public Health Dept., Calif.) **Involving public health nurses in mental health care: I. Work with patients and families before and after discharge.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 321-324.—Describes a public health department program using the skills of public health nurses in community mental health. A program with a local hospital is outlined, in which the public health department is notified of admissions and discharges of patients. As a result they can pave the way for releasing patients and giving aftercare.—*B. A. Burkard*.

10582. Levinson, Daniel J., et al. (Connecticut Mental Health Center, New Haven) **The community mental health center in urban crisis.** *Journal of the Fort Logan Mental Health Center*, 1968(Fal), Vol. 5(2), 51-60.—Presents the report of a committee which examined the August 1967 racial disturbance in New Haven and the role played in it by the Connecticut Mental Health Center. An analysis of the history and functions of the Center is presented. Structural changes were considered necessary for the Center to extend its activities beyond clinical services to a more genuine involvement in the community. Possible goals, programs, and requirements for organizational change are outlined. It is suggested that the report provides a framework which may be useful to other organizations faced with similar issues.—*Journal summary*.

10583. MacKay, Mary N. & Serrano, Alberto C. (Galveston County Health Dept., La Marque, Tex.) **Involving public health nurses in mental health care: II. Crisis intervention for troubled families.** *Hospital & Community Psychiatry*, 1968(Oct), Vol. 19(10), 324-326.—Describes a program in which public health nurses work with recipients of maternal and child health who display problems that will respond to psychiatric crisis-intervention techniques. A case history illustrating how a public health nurse can work effectively with a disturbed family is included.—*B. A. Burkard*.

10584. Mickleburgh, W. E. (Community Mental Health Center, Parkside, South Australia) **Long-stay psychiatric hostels run by private enterprise in South Australia.** *Medical Journal of Australia*, 1970(Jun), Vol. 1(25), 1257-1261.—Describes a system of 21 hostels, run by private enterprise, catering for 377 people with chronic psychiatric disorders in South Australia. The service is patient-centered. The roles of private interest, government, and voluntary service agencies are exam-

ined. An analysis of the residents revealed that 2/3 suffered from psychoses and required moderate to intensive care; average age was 55 yr. Descriptions of the services and of the economy of the hostels are provided. Policies and trends resulting from 5 yr. experience in the development of the hostel system are discussed.—*Journal abstract*.

10585. O'Connor, Alice L. (California State Dept. of Social Welfare, San Francisco) **A creative living center for the mentally ill.** *Social Casework*, 1970(Nov), Vol. 51(9), 544-550.—A community based program grew out of recognition of a need for social and group activities for former mental hospital patients. No public funds were available, and requests to private sources were unsuccessful. The program was launched by services donated by social workers and space provided in a church. The center has been in operation over a year with a small but regular attendance.—*M. W. Linn*.

10586. Yurcta, A. (Psychiatric Outpatient Clinic, Lachute, Quebec, Canada) **A psychiatric home visiting service.** *Canada's Mental Health*, 1970(Nov), Vol. 18(6), 4-7.—Describes the development of a home visiting service and attempts to establish whether such visits contribute to prevention. Over a 2-yr period, 2 teams met with 41 family units, interviewing approximately 200 family members of all ages. The teams found that (a) they were accepted by the community at large as they became known, (b) home visits helped to clarify the clinical picture, (c) approximately 55% of the patients welcomed the idea of being visited, (d) complete refusal was shown by 5% of the patients, (e) clinical improvement was noted in over 70%, (f) 17% failed to respond to home visits, and (g) home visits enabled a higher proportion of persons to be treated.—*M. West*.

GERIATRICS

10587. ———. **Old age, nutrition, mental confusion.** *British Medical Journal*, 1969(Sep), Vol. 3(5671), 608-609.—In recent years more elderly people have become mentally confused, possibly caused by either a sudden bereavement, or an acute infection, e.g., pneumonia or a urinary tract infection. The patient's drug therapy should be reviewed, since the barbiturates, antidepressants, and digitalis are common causes of confusion. Inadequate nutrition might be suggested by the general appearance of the patient or by the dietary history. In most patients with mental symptoms due to B12 deficiency, changes will be found in the peripheral blood count. Dementia due to folate deficiency should be considered, if an elderly mentally disturbed patient has a history suggestive of nutritional deficiency. Potassium deficiency may occur in a patient prone to muscle weakness, apathy, and depression. However, the common causes of mental confusion are not of dietetic origin. It is concluded that causes, e.g., past history of gastrectomy, and the mental and social state of the patient must be considered.—*I. Halev*.

10588. Bower, H. M., Andrews, J. T., & Pope, R. A. (Mental Hosp., Kew, Victoria, Australia) **Dementia and cerebral blood flow.** *Medical Journal of Australia*, 1970(Jan), Vol. 1(5), 207-211.—Supports the hypothesis that dementing processes are accompanied by a decline in cortical blood flow. 10 60-70 yr. old Ss were interviewed via a questionnaire which assessed reality testing, affect, overt behavior, memory, orientation, and communication; Verbal and Performance sections of the

WAIS were also given. No correlation between degree of dementia and rate of blood flow could be established. The clinical picture of the dementia was not necessarily reflected in the degree of intellectual deficit, measured by the WAIS. Although EEG studies and postmortem plaque counts are now widely employed in an attempt to assess dementia, cerebral blood flow and cerebral rate of oxygen consumption may be more important measures of the dementing process.—*Journal abstract.*

10589. Burvill, P. W. (U. Western Australia, Perth) **Geriatric and psychogeriatric patient requirements in Perth, Western Australia.** *Medical Journal of Australia*, 1970(Jan), Vol. 1(5), 236-240.—In Perth, Western Australia, the number of elderly patients in various types of long-term care facilities is 3 times the figure advocated for Britain's needs. Reasons for this are discussed. A proposal is made for a system of categorizing elderly patients requiring long-term accommodation, placing emphasis on the patients' mobility and capacity for self-care in the ward setting, and ignoring distinctions between medical and psychiatric illness. Using this system, it is estimated that 3.8 hospital/nursing home beds/1000 of the total population in the metropolitan area are sufficient to cater for the inpatient needs of the elderly. The needs of psychogeriatric patient care in Perth are discussed. Details are outlined of a proposed psychogeriatric service based on the major general teaching hospitals, but administered as a separate division of the State Mental Health Services. (31 ref.)—*Journal abstract.*

10590. Sloane, R. Bruce & Frank, Diana. (Temple U., Medical School) **The mentally afflicted old person.** *Geriatrics*, 1970(Mar), Vol. 25(3), 125-132.—Asserts that it is more the social attitudes and mores that prevent the provision of optimal care for the emotional disturbances of old age than the lack of knowledge of what best to do. The newer social measures, e.g., Medicare may well provide the catalyst to change such attitudes and reduce hospital admissions. Varieties of mental disturbance are discussed. (18 ref.)—*Journal summary.*

10591. Sourander, L., Ruikka, I., & Rautakorpi, J. (City Hosp., Turku, Finland) **Psychological methods applied to evaluate symptomatic geriatric treatment.** *Geriatrics*, 1970(Aug), Vol. 25(8), 124-137.—Studied the performance of 49 geriatric patients by means of 3 tests—RT, sense of balance, and perception of vertical and horizontal with body tilt. Ss were treated with a combination of dicyrazine and inositol nicotinate in a double-blind study. The performance of the Ss was improved by the treatment. In particular, the sense of balance was significantly improved in both sexes.—*Journal summary.*

EDUCATIONAL PSYCHOLOGY

10592. Altschuld, James W. (Ohio State U.) **A study of an experimental training program in educational research and development: The measurement and analysis of factors predictive of graduate student success.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1610.

10593. Bracht, Glenn H. (Southern Illinois U.) **Experimental factors related to aptitude-treatment interactions.** *Review of Educational Research*, 1970(Dec), Vol. 40(5), 627-645.—It seems that the 2 major factors in the occurrence of aptitude-treatment interactions are the

nature of the alternative treatments and the selection of personological variables. To be differentially effective for various types of students, the alternative treatments should demand different abilities for successful performance. Aptitude-treatment interaction is more likely to occur when 2 personological variables have been included in the experimental design. The real test for the concept of this interaction will come as more Es use process analysis for developing alternative treatments. (5 p. ref.)—*P. D. Leedy.*

10594. Breen, Edith H. (George Washington U.) **Intrinsic and extrinsic motivation in changing students' study methods.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1886-1887.

10595. Burke, Miriam A. (U. Texas) **The institution of the consultation process within a university context.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1613-1614.

10596. Eggers, Sharon W. (U. Illinois, Urbana-Champaign) **Modification of dependent and independent behavior in a classroom setting.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2175.

10597. Fragale, Marvin J. (Wayne State U.) **A pilot study of cognitive styles of selected faculty members and students in a community college setting.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1595.

10598. Gill, Ajaipal S. (American U.) **An appraisal of Viktor E. Frankl's theory of logotherapy as a philosophical base for education.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2002-2003.

10599. Gregg, Davis W. (American College of Life Underwriters, Bryn Mawr, Pa.) **Brighter lamps for learning.** *Journal of the American Society of Chartered Life Underwriters*, 1969(Apr), Vol. 23(2), 37-40.—Describes the Adult Learning Research Center being established at Bryn Mawr. The center will seek improved learning techniques and procedures through research of the adult learning process and develop a practical output of learning tools and techniques.—*M. West.*

10600. Guyot, Y. (Ecole Normale Supérieure, Lab. of Psycho-Pedagogie, St. Cloud, France) **Espace pédagogique et relations professeur-etudiants.** [A study of staff-student relations.] *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 161-171.—The main hypothesis was that the spatial distance that the student sets between himself and his teacher (by refusing to occupy the front row of the lecture room) indicates a psychological distance, a need to stand apart from the teacher. The questionnaire method was used in an attempt to define concepts of "distance." Results indicate that "scholastic space" is valent in different parts of different affective values. 81% considered that being near the rostrum produces maximum profit from the lecture but the front row is commonly excluded. There is an "ideal" distance from the rostrum but the "fear of the lecturer" establishes a "critical distance." Group pressure inhibits those who would like to get closer to the rostrum. The thirst for human contact, the fear of isolation, the need to be seen by the teacher, and the desire not to be overlooked are frequently mentioned. It is concluded that students are motivated by various fears: fear of face-to-face contact and fear of alienation from other members of the group or of total exclusion from the group.—*L. A. Ostlund.*

10601. Holban, Ion. (Inst. of Pedagogical Science, Iasi, Romania) **Principii in elaborarea unei fișe**

psiko-pedagogice. [Principles for the development of a psycho educational record.] *Revista de Pedagogie*, 1968(Jun), Vol. 17(6), 63-73.

10602. Il'ina, V. A. **Literatura po pedagogicheskim naukam i narodnomu obrazovaniiu.** [Literature on the pedagogical sciences and popular education.] Moscow, USSR: Pedagogika, 1969. 216 p.—Presents Issue 73 in this series, covering all relevant publications in the Russian language from October to December, 1968.—I. D. London.

10603. Il'ina, V. A. (Ed.) **Literatura po pedagogicheskim naukam i narodnomu obrazovaniiu.** [Literature on the pedagogical sciences and popular education.] Moscow, USSR: Pedagogika, 1970. 204 p.—Presents Issue 74 of the series which contains listings of all the relevant Soviet literature, published in the Russian language from January to March in 1969.—I. D. London.

10604. Johnson, William C. (U. Maryland) **Teacher's statements of performance expectations and their effects on the test performance of high and low test anxious female college students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2184.

10605. Joyce, James. **Emotions and education.** *Journal of Emotional Education*, 1969(Win), Vol. 9(1), 18-24.—Traditional schools teach intellectual skills but relegate the vast area of emotional growth to the realm of extracurricular activities. The Gramercy Hill Institute, however, asserts that the ability to function emotionally is extremely important and considers the emotional education of its students to be 1 of its major goals.—*Journal summary*.

10606. Kalibán, Václav. (Ed.) **Obtížně vychovatelná mládež: K pojmu, etiologii a prevenci.** [Youth with educational problems: Concept, etiology and prevention.] Prague, Czechoslovakia: Charles U., Československá Defektologie, 1969.—H. Bruml.

10607. Kapel, David E. (Temple U., Div. of Curriculum & Instruction) **Environmental factors, student variables, and employment adjustment of male Negroes.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 333-340.—Assessed the effects on 2 selected student variables of the following environmental variables: (a) percentage of Negroes in the high schools, (b) type of community, and (c) geographical regions. 466 male Negroes who were part of the respondents and nonrespondents from Grade 12 class of 1960 in the original Project TALENT survey served as Ss. Ss were put in categories according to the regions where they attended school and further subdivided as to the character of the community where the school was located. Further subdivision was made according to Negro density. The 2 student variables were the Socio-Economic Environment Index and the General Academic Aptitude Composite. Posthigh school employment adjustment variables were developed. It is concluded that a function based on socially valued traits is more powerful than an earning-power function in discrimination.—S. R. Diamond.

10608. Luriya, A. R. (Ed.) **Novye issledovaniya v pedagogicheskikh naukakh.** [New research in the pedagogical sciences.] Moscow, USSR: Prosveshchenie, 1969. 160 p.—Presents a collection of 27 articles in the fields of pedagogy, polytechnical training, history of pedagogy, psychology, and defectology. The collection constitutes Issue 13 in this series.—I. D. London.

10609. Maas, McClella G. (U. Nebraska) **Differential**

perceptions of junior college environment: Students, staff, and community. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1546.

10610. Mandelker, Annabel V., Brigham, Thomas A., & Bushell, Don. (U. Kansas) **The effects of token procedures on a teacher's social contacts with her students.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 169-174.—Observed a group of 6 kindergartners daily during a 20-min handwriting lesson. Ss were divided into 2 groups (A and B) of 3 each. 5 conditions were imposed sequentially: (a) base line without tokens, (b) contingent tokens for Group A, noncontingent tokens for Group B, (c) contingent tokens for Group B, noncontingent tokens for Group A, (d) reinstatement of condition b, and (e) contingent tokens for both groups. It was consistently observed that the teacher's rate of social contact with higher with Ss receiving the contingent tokens than with those who received noncontingent tokens.—*Journal abstract*.

10611. Norton, Paul G. (Boston U., School of Education) **A study of how levels of achievement and anxiety toward education affect older people's participation in adult education programs.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2092.

10612. Pillan, N. P. & Narayanan, K. (Kerala U., Trivandrum, India) **A survey of educational research: The traditional method: The modified direct method.** *V.O.C. Journal of Education*, 1968(Dec), Vol. 8(3), 1-38.—Discusses the development of educational research in India. Early research was conducted solely to obtain a degree and had little relevance to practical needs. Government sponsored changes in facilities and direction provided the impetus for more practical research. Subject classification is discussed. The aim and principles of the traditional method of teaching languages are presented. This method is criticized because of the emphasis on meaning rather than on the command of the language. It is felt that the modified direct method rectifies these errors, "promotes the habit of thinking in language," and facilitates fluency in speaking, reading, and writing.—G. Steele.

10613. Pushkunov, A. I. (Ed.) **Pedagogika i shkola za rubezhom.** [Pedagogy and the school abroad.] Moscow, USSR: Prosveshchenie, 1969. 111 p.—Presents Issue 6 of a critico-bibliographical collection of extended summaries and reviews of non-Soviet publications in pedagogy and related fields.—I. D. London.

10614. Sheehan, Joan E. **A comparison of the theories of Maria Montessori and Jean Piaget in relation to the bases of curriculum, methodology, and the role of the teacher.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2267.

10615. Susskind, Edwin C. (Yale U.) **Questioning and curiosity in the elementary school classroom.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3879.

10616. Treffinger, D. J., Feldhusen, J. F., & Thomas, S. B. (Purdue U.) **The relationship between teachers' divergent thinking abilities and their ratings of pupils' creative thinking abilities.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 169-178.—The Torrance Tests of Creative Thinking (TTCT) were administered to 38 elementary school teachers and their pupils. Each teacher rated his pupils' creative thinking ability, using a 5-category, forced normal distribution procedure. When pupils' test scores were used as criteria,

substantial differences among teachers in ability to rate their pupils' appeared. Teachers' ratings of pupil creativity correlated no higher, and often significantly lower, with pupils' TTCT scores than with their IQ scores. This held true regardless of whether teachers were themselves high or low on divergent thinking. Teachers' divergent thinking scores are positively related to their pupils' scores of tests of divergent thinking. *S. M. Amatori.*

10617 Tretter, Rudolph W. (Stanford U.) Changing status space in Negro teacher-pupil interaction. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1698-1699.

ATTITUDE & ADJUSTMENT

10618 Beard, Eugene. (U. Maryland) The ethnic identity of the classroom instructor as a factor in changing anti-Negro attitudes of white college students. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1064.

10619 Bruden, Marcia, et al. (U. Kansas) Effects of teacher attention on attending behavior of two boys at adjacent desks. *Journal of Applied Behavior Analysis*, 1970(Jul), Vol. 3(1), 199-201.—Obtained base-line records of the appropriate attending behavior of 2 boys described as the most disruptive pupils in a 2nd grade classroom in a poverty area school. In Exp. I, the teacher systematically increased the amount of attention for appropriate attending in S. This resulted in a dramatic increase in his attending rate and a lesser, though significant, increase in attending behavior of S. In Exp. II systematic attention for attending was instituted for S, and was discontinued for S. This resulted in further increases in attending by S, and a reduction in attending by S. A brief withdrawal of reinforcement for attending in both Ss reduced attending levels for both. Following this reversal appropriate attending in both Ss was systematically reinforced and attending returned to high levels. *Journal abstract.*

10620 Berkley, Harold D. (Syracuse U.) The relationship of achievement and satisfaction to anticipated environmental stress of transfer students in the State University of New York. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1069-1070.

10621 Caruso, Jerry S. & Ryan, Frank J. (U. California, Riverside) Levels of cognitive functioning as related to anxiety. *Journal of Experimental Education*, 1969(Sum), Vol. 37(4), 1-20.—Investigated the relationship between levels of cognitive functioning as suggested by B. A. Mussen's *Latency of Educational Achievement, Handbook I: Cognitive Domain* and states of affective arousal as measured by test anxiety (the main principle of children's general anxiety and need for achievement). For a university sample ($N = 244$) significant negative correlations between test anxiety and knowledge (total, of specific facts) and test anxiety and comprehension were found. For a high school sample ($N = 319$) the negative correlation between test anxiety and comprehension was significant. No significant relations between test anxiety and higher levels of cognitive performance were found. Results are discussed in terms of interfering effects to task performance that test anxiety may produce when the examinee is given no information to work with and must rely essentially on memory. *Journal abstract.*

10622 Chamberlin, Charles A. (U. Arkansas) The use of personality variables and personal data in pre-

dicting student preference for a proposed set of degree requirements. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1031.

10623 Coates, Walter J. (Syracuse U.) The psychological health of homogeneously and heterogeneously grouped elementary school children. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1068.

10624 Cormier, William H. (U. Tennessee) Effects of teacher random and contingent social reinforcement on the classroom behavior of adolescents. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1615-1616.

10625 Cullen, Robert J. (Kent State U.) Achievement, ability, and self-attitude correlates of components of school satisfaction among eighth grade students. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1069-1070.

10626 Dee, George H. (Arizona State U.) The effects of parent group counseling on children with school adjustment problems. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1008.

10627 Dellas, Marie & Gaier, Eugene L. (State U. New York, Buffalo) Modes of conformity of freshman women at differently oriented colleges. *Journal of Educational Research*, 1969(Apr), Vol. 62(8), 370-374.

Compared 3 samples of female freshmen students, 1 each from a major public university; a private, sectarian girls' college, and a community college, with respect to D. Riesman's hypothesis of inner- and other-directedness. 139 Ss listed 3 each of their greatest personality assets and liabilities. No significant differences in student responses of self-perceived personality traits were revealed with respect to institution. There was a significant difference regarding their perceptions of these variables. All Ss placed a high premium on good interpersonal relations and accorded minimum emphasis to traditional character traits and achievement. Data suggest that all Ss may be other-directed with respect to group interaction. Other-directedness appears more salient in the undergraduates with their direction by mass media. The community and sectarian college samples appear to represent the other-directed character type with overlapping inner-directed traits. *Journal abstract.*

10628 Donaghy, Roila T. (Harvard U.) Factors associated with adolescent attitudes toward school and learning. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1070-1071.

10629 Dunn, Charleta J. (U. Houston) An analysis of the personal characteristics of deprived youth in a school desegregation institute. *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 289-295.—Attempted to accumulate knowledge about the relationship between desegregation and the teaching-learning process in the elementary and secondary schools and at producing a cadre of professional teachers committed to teaching in a totally desegregated school situation, through an extensive tutoring experience in human relations and educational innovation. 40 experienced teachers were chosen from among 600 who had attended a special institute on school desegregation, and 10 Negro and 10 Anglo student teachers were also chosen. 200 8-14 yr. old children from an economically deprived area, predominantly Negro, were used. 20 groups of children were formed, with a teacher-pupil ratio of 1:3 or 1:4. Students were administered the Semantic Difference

Questionnaire, the Reading Attitude Scale, and the Mathematics Attitude Scale before and after the commencement of the program. The differences found are not aligned to racial descent. All the students involved tended to have a very negative attitude toward themselves and others, and while they did not get along well with others, their disagreements were not racial.—S. R. Diamond.

10630. Flannigan, Michael W. (U. Northern Colorado) **A study of attitude changes through group processes.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2102.

10631. Friedman, Vicki S. (St. Louis U.) **The effects of sensitivity training on students at a major metropolitan university.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2102.

10632. Hamil, Thomas A. (U. Washington) **A cross-sectional examination of commitment to visual stereotypes, attitudes, and information about specific ethnic groups.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1686-1687.

10633. Harris, Edward E. (Indiana U., Indianapolis) **Personal and parental influences on college attendance: Some Negro-white differences.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 305-313.—Assessed the relevance of personal and parental influences on college attendance by employing reported influences on the decision to attend college. The total sample included 660 junior and senior college students. Respondents were asked whether their parents, some relative, or a person who helped raise them influenced their decision to enter college, and whether the decision was influenced by strong personal desires. The socioeconomic background was measured by the Duncan Socio-Economic Index. The parental educational level was ascertained. The investigations revealed that Negro Ss were more likely to attend college on the basis of personal influences. Larger proportions of reported parental influence were found among high status males and females and low status Negro males and females. Higher proportions of personal influence as contrasted with parental influence existed among Negroes. It is assumed that the relatively low status of Negroes explained these differences.—S. R. Diamond.

10634. Heilbrun, A. B. (Emory U.) **Adjective Check List correlates of social conflict problems in college students.** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 158-163.—43 male and 44 female undergraduates who requested service during the 1968-1969 academic year at the Emory University Psychological Center were the Ss in a study which sought to distinguish between clients who admitted to social alienation as a primary or secondary problem and clients who denied the importance of this problem. The investigation sought to determine whether the Adjective Check List (ACL) could be used at a 2nd level of precision (i.e., problem identification) beyond its ability to discriminate between maladjusted and adjusted students. 7 of the 8 ACL predictions were supported. Scores on scales measuring affiliation and heterosexuality and an affiliation minus succorance index differed significantly for the problem and no-problem groups, men and women. Succorance scale differences were found for women only.—S. M. Amatora.

10635. Henry, Gordon H. (U. North Dakota) **Open and closed mindedness, values, and other personality characteristics of male college students who**

served on or appeared before judiciary boards. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2106-2107.

10636. Hodgkins, Benjamin J. & Stakenas, Robert G. (Florida State U., Inst. for Social Research) **A study of self-concepts of Negro and white youth in segregated environments.** *Journal of Negro Education*, 1969(Fal), Vol. 38(4), 370-377.—Hypothesized that no significant differences would be found between segregated Negro and white Ss on a self-concept measure. 139 Negro and 100 white Ss of high school and college age attending racially segregated Southern schools completed a questionnaire on social origin and a semantic differential test of self-concept. It was found that (a) significant differences existed in self-adjustment and self-assurance in the school situation, with Negroes tending to score higher than whites; (b) when social status was controlled within race, difference was not maintained; and (c) Negro females scored higher than white females, while the higher scores of the Negro males were not significantly above that of white males. Possible explanations of the findings and implications for racial relations are discussed. S. Knapp.

10637. Kemper, Richard E. (U. Pittsburgh) **An investigation of seventh grade students' attitudes toward reading as measured by the semantic differential.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2256.

10638. LaBach, Patricia A. (Kent State U.) **Self-actualization in college students: Interrelationships of self-actualization, personal characteristics, and attitudes in subcultures of liberal arts freshmen and seniors.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1013-1014.

10639. Larkin, Ralph W. (U. California, Los Angeles) **The effects of neighborhood and organizational contexts and peer group structure and attitudes of preadolescents.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1513.

10640. Leon, Antoine. (Sorbonne, Paris, France) **Relation pédagogique et représentation de l'avenir chez des adolescents de l'enseignement technique.** [Pedagogic relation and representation of future teaching techniques of adolescents.] *Bulletin de Psychologie*, 1969-1970, Vol. 23(17-19), 1069-1081.—Reports results of a questionnaire administered to 936 14-21 yr. old students at 10 Parisian public schools assessing their attitudes and opinions toward teaching and the curricula, and gathering information regarding vacation and part-time employment, vocational goals, and similar areas of concern.—R. E. Smith.

10641. Locke, Charles K. (North Texas State U.) **Small group counseling compared with freshman orientation classes in reducing attrition of freshman junior college students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1576-1577.

10642. Lopez, Nylda. (Florida State U.) **Participation in educational and recreational activities of lower-class male adolescents in relation to occupational aspirations.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1078.

10643. Margolin, Edythe. (U. California, Los Angeles) **What do group values mean to young children?** *Elementary School Journal*, 1969(Feb), Vol. 69(5), 250-258.—Interviewed 300 kindergartners, 1st, and 2nd graders in regard to Ss' awareness of "criteria for academic achievement or for effective interpersonal

relationships in a group." It was found that structure of classroom activities, patterns of work and play, CA and MA, and quality and degree of interaction contributed to Ss' awareness of the group. Results also indicate, however, that group constraints did not begin operating until about the 2nd grade.—G. Steele.

10644. Miller, George L. (U. Michigan) **Relationships between teacher flexibility and teacher reinforcement on the attitudes and internality-externality of students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1692.

10645. Mulkey, Gwendol D. (North Texas State U.) **Opinions of children's behavior problems.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1628.

10646. Noesjirwan, Jennifer. (National Assessment of Education Project, Djakarta, Indonesia) **Attitudes to learning of the Asian student studying in the West.** *Journal of Cross-Cultural Psychology*, 1970(Dec), Vol. 1(4), 393-397.—It was hypothesized that the Asian student is more dependent on authority, less able to think independently, and more dependent on memorization. A questionnaire measuring this attitude was administered to Asian and Australian students. Of the 3 factors extracted, the 1st 2 described these attitudes and discriminated between the 2 groups.—A. Krichev.

10647. Permaul, Jane S. (U. California, Los Angeles) **Behavioral differences among selected organized student groups.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1588.

10648. Phillips, Romeo E. (Kalamazoo Coll.) **Student activities and self-concept.** *Journal of Negro Education*, 1969(Win), Vol. 38(1), 32-37.—Examined the relationship between participation in student activities and scores on a self-concept measure. 81 male and 107 female 12th graders from a suburban high school with an 80% Negro population were tested with the Osgood Semantic Differential. Ss completed an activity checklist and an evaluation of their activities. Activity advisors checked the 10% most, average, and least successful in the activities. Results indicate that (a) self-concept is significantly related to participation for boys but not for girls, (b) nonparticipants had high self-concept scores, and (c) there was no correlation between Ss selection of an activity as most helpful and advisors evaluation of their success. It is concluded that for nonparticipants variables other than activities are instrumental in the development of self-concept, and the activities most selected as helpful are those giving the participants public exposure.—S. Knapp.

10649. Ramirez, Manuel; Taylor, Clark, & Petersen, Barbara. (U. California, Mexican-American Studies, Riverside) **Mexican-American cultural membership and adjustment to school.** *Developmental Psychology*, 1971(Mar), Vol. 4(2), 141-148. Administered to 300 Mexican-American and 300 Anglo-American junior high and high school students of the lower-socioeconomic class an attitudes toward education scale and a projective technique consisting of pictures for which they constructed stories (School Situations Picture Stories Test). Results show that Mexican-Americans had expressed views toward education which were less positive than those of the Anglo-Americans. On the projective technique, Mexican-Americans scored higher on n power and n rejection and lower on n achievement than Anglo-Americans. Mexican-American males scored higher on n succorance toward females and on n aggression toward females who were domineering than

Anglo-American males. Mexican-American females scored higher on n autonomy than Anglo-American females. Findings are interpreted as being the result of differences between the value orientations of the Mexican-American and Anglo-American ethnic groups.—*Journal abstract.*

10650. Salzman, Murray. (U. Notre Dame) **Perceptions of the college environment and need dispositions as related to expressed satisfaction.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1023.

10651. Shiver, Wayman B. (U. Oklahoma) **The effectiveness of two forms of an experimental teaching unit in reducing black ninth and eleventh graders' negative interracial attitudes toward white people.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2022.

10652. Smith, Clyde R. (U. Tennessee) **An analysis of the effectiveness of a college preparatory program for the visually impaired.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1653.

10653. Thomas, Walter L. (U. Tulsa) **The initial development of the Differential Value Profile.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2119-2120.

10654. Trujillo, Gregory. (U. New Mexico) **The effect of teacher and peer expectancies on student social behavior: A study in the self-fulfilling prophecy.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1582.

10655. Varner, Earlene B. (U. Florida) **Impact of basic group encounter on self-actualization of junior college students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2120.

10656. Via, Murray E. (Claremont Graduate School & University Center) **Changes in personality characteristics and attitudes of male college freshmen.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1636.

10657. Webb, Mac C. (U. Oregon) **An investigation of anxiety and hostility perception as concomitants of test performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1093.

10658. Woznek, William S. (Syracuse U.) **Teachers' sex and student's self-concepts in grades five and six.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1158.

10659. Zahn, Jane. (San Francisco State Coll.) **Some adult attitudes affecting learning: powerlessness, conflicting needs and role transition.** *Adult Education*, 1969(Win), Vol. 19(2), 91-97.—Discusses attitudes affecting the ability or motivation of adults in the learning situation. Research findings are examined which indicate that: (a) adults with strong feelings of powerlessness fail to learn control-relevant information; (b) adults are more motivated to learn that which may increase their competence in a current situation; (c) information which conflicts with strong needs will not be learned; (d) educational programs for change will be ineffective if sufficient rationalizations have been built to defend the behavior; (e) as an adult assumes a new role, he goes through stages of vacillation, overlearning, and integration; and (f) the adult's attitude toward role-relevant learning depends upon his current stage of role mastery.—*Journal abstract.*

TESTING

10660. Beeson, Richard O. (U. Arkansas) **Immediate**

knowledge of results and test performance. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 920.

10661. Bennett, Dorothy K. (Harvard U.) **The tester and intelligence testing: An examination of protocol interpretation.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2095.

10662. Bonner, Mary W. & Belden, Bernard R. (Kansas State Teachers Coll.) **A comparative study of the performance of Negro seniors of Oklahoma City high schools on the Wechsler Adult Intelligence Scale and the Peabody Picture Vocabulary Test.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 354-358.—60 16-17 yr. old Negro senior high school students, who were not special education students, and who were normally intelligent, served as Ss. Ss were individually tested, and 1st given the WAIS test followed immediately by the Peabody Picture Vocabulary Test (PPVT). There is a positive significant correlation between the WAIS and the PPVT. The IQ estimated by use of the PPVT is somewhat lower than that estimated by the WAIS. The possibility of using PPVT to predict or estimate WAIS scores for this population of Negro seniors does exist, although the standard error of estimate is very large.—S. R. Diamond.

10663. Boyden, Joanne M. (U. Miami) **Construction of a diagnostic test in verbal arithmetic problem solving at the fifth grade level.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1504.

10664. Edwards, Thomas M. (Harvard U.) **Creativity and reflectivity testing: The effects of environment on performance.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1617.

10665. Frazier, Irene J. (Colorado State Coll.) **Relationships of local pupil mobility to reading achievement and intelligence test results of educationally disadvantaged children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1508-1509.

10666. Fitcher, Wilfred G. (U. Toronto, Ontario, Canada) **Scoring for partial knowledge in mathematics testing: A study of a modification and an extension of multiple-choice items applied to the testing of achievement in mathematics.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1619-1620.

10667. Gillespie, Patricia H. (West Virginia U.) **A study of the performance of dyslexic and normal readers on the Slosson Intelligence Test for Children and Adults.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2003.

10668. Gillingham, William H. (Michigan State U.) **An investigation of examiner influence on Weschler Intelligence Scale for Children scores.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2178.

10669. Jarrell, George R. (U. South Carolina) **A study of the effects of selected factors on the achievement test scores of disadvantaged youth.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1575-1576.

10670. Johnson, Roger E. (U. South Florida) **The validity of the Clymer-Barrett Prereading Battery.** *Reading Teacher*, 1969(Apr), Vol. 22(7), 609-614.—The Clymer-Barrett test did a better job of predicting reading readiness as measured by the Gates-MacGinitie tests than did the Metropolitan Readiness Tests. However, that is no assurance that the results would be the same in another locale or under different testing conditions. The Clymer-Barrett test does not favor either boys or girls,

however, older children did better as a group than did younger children.—P. D. Leedy.

10671. LaVigne, John A. (Columbia U.) **Differences between predicted and actual achievement test scores as an output criterion of secondary schools.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1543.

10672. Lovegrove, Malcolm N. (Soche Hill Coll. Limbe, Malawi) **The establishment of a regional testing and training centre in Africa.** *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 173-174.—Because there is a need for educational facilities and a desire to cooperate among some African nations, the United States Agency for International Development has provided funds for the establishment of a regional testing resources and training centre, for Botswana, Lesotho, Malawi, and Swaziland. The Centre will have its headquarters at the University of Malawi with a branch in Botswana. The priorities are: (a) develop and implement tests designed for pupil selection into secondary schools, (b) advise administrators of education in these countries and the 2 universities on the development and effective use of testing programs for their educational system, and (c) develop a system of testing to supplement existing Public Service selection and perform a similar function for the private sector. Fortunately, Malawi has a very favorable attitude toward modern testing procedures. For example their Primary School Learning Examination is taken by approximately 30,000 pupils at the end of 8 yr. of schooling and is used as a measure of proficiency as well as a selection device for the 3000 secondary school places in the country. However, the "traditional" verbal-type test has not been included in the battery. Further experimentation will determine whether or not an omnibus verbal intelligence test would improve prediction.—L. A. Ostlund.

10673. Merz, William R. (U. New Mexico) **A factor analysis of the Goodenough-Harris Drawing Test across four ethnic groups.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1627.

10674. Moore, Richard W. (Temple U.) **The development, field test and validation of the Scientific Attitude Inventory.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 935.

10675. Munz, David C. (U. Oklahoma) **An evaluation of perceived item-difficulty sequencing in the academic setting.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3893-3894.

10676. Norfleet, Mary A. (U. Oregon) **The Bender Gestalt as a group screening instrument for reading readiness.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1083-1084.

10677. Novick, Melvin R. & Jackson, Paul H. (American Coll. Testing Program, Iowa City, Ia.) **Bayesian guidance technology.** *Review of Educational Research*, 1970(Oct), Vol. 40(4), 459-494.—Discusses the use of educational tests in guidance services as seen in the light of modern developments in statistical theory and computer technology. Bayesian analyses are described for 2 important new models: the classical test theory model, and those Bayesian application which are directly applicable to comparative guidance services. Bayesian methods are surveyed in the analysis of variance components. A section on implications for test construction methodology is included. (3 p. ref.)—P. D. Leedy.

10678. Post, Joseph M. (U. South Carolina) **The**

effects of vocalization on the ability of third grade students to complete selected performance subtests from the Wechsler Intelligence Scale for Children. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1579.

10679. Raffini, James P. (Northern Illinois U.) The relationship between resultant achievement motivation and college student examination performance. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1085-1086.

10680. Sperling, Leo. (U. Connecticut) The effect of differential test environment on group testing scores of disadvantaged students. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1090.

10681. Wittmaier, Bruce C. (U. Rochester) Test anxiety, mood and behavior. *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3858.

10682. Woods, Elinor M. (Boston Coll.) Recent applications of computer technology to school testing programs. *Review of Educational Research*, 1970(Oct), Vol. 40(4), 525-539.—This review contains a summary of the principal applications of computer technology to school testing programs reported during the 5-yr period ending December 1968. Computer applications of the past seem to augur for the future not so much the recording of sets of numbers on students' performances, but rather a dynamic procedure of "flashing red lights" which indicate when certain students seem to be in particular types of danger. Rather than assessing how much a student knows, school testing programs will focus on a procedure which identifies what missing skills or concepts are interfering with a student's school progress.—P. D. Leedy.

SPECIAL EDUCATION

10683. Gregersen, Gayle F. (U. Utah) Behavior modification training center: An experimental program. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2180-2181.

10684. Meissler, George R. (Catholic U. of America) A correlation of the Slosson Intelligence Test and the Wechsler Intelligence Scale when administered to atypical children. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2191.

10685. Miller, Ray G. (St. Louis U.) Hyperactivity, self-concept, and achievement. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2014-2015.

10686. Schere, Richard A. (New York U.) Differential reinforcement with exceptional children. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1088.

Gifted

10687. Nguyen, Gao H. (U. California, Berkeley) Reconstruction in creativity: A unified conception of the creative person. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2194.

10688. Pace, Warren J. (American U.) The academic effects of assigning gifted students to special centers in the Fairfax County schools. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 936.

Remedial Education

10689. Blau, Harold; Schwalb, Eugene; Zanger,

Eugene, & Blau, Harriet. (Long Island Reading Inst., Jamaica, N.Y.) Developmental dyslexia and its remediation. *Reading Teacher*, 1969(Apr), Vol. 22(7), 649-653, 669.—Summarizes findings in 12 individuals with developmental dyslexia and 1 history in detail. Results suggest that (a) developmental dyslexia is demarcated from other reading problems, (b) the possibility exists that learning to read may be obstructed instead of helped by the uncritical and rigid incorporation of the visual modality at all times in the learning pattern of every individual; and (c) modality blocking suggests that there may be more opportunities for the specific treatment of reading and other deficiencies than have been suspected.—P. D. Leedy.

10690. Evans, James R. (Polk State School & Hosp., Pa.) Auditory and auditory-visual integration skills as they relate to reading. *Reading Teacher*, 1969(Apr), Vol. 22(7), 625-629.—Impaired auditory acuity, especially for higher frequencies, appears to be somewhat associated with retardation in reading. Auditory discrimination abilities may be particularly important in development of a slight vocabulary. There seems to be enough evidence to warrant attention to auditory functions in remedial or readiness classes. Correlations between various auditory skills and reading achievement do not, however, indicate causal relationships.—P. D. Leedy.

10691. Fried, Gloria E. (Trenton Public Schools, N.J.) A learning center approach to language improvement. *Reading Improvement*, 1970(Fal), Vol. 7(2), 51-53.—Describes a learning center where the key emphases were language and experience. 92 2nd graders with reading deficiencies were Ss. The learning center was planned around 3 important language arts emphases: conversation, storytelling, and the language-experience arts. Paraprofessional assistance was utilized as well as team teaching. Early results evaluated by individual interview and standardized test achievement indicate that the center is doing an exceptional job in meeting the reading deficiencies of the pupils.—P. D. Leedy.

10692. Holcomb, Larry W. (U. Oregon) The effects of hypnosis on the reading remediation of seventh grade boys. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2007-2008.

10693. Hunsaker, Don E. (U. Oregon) The effects of hypnosis on the reading remediation of seventh grade boys. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1075-1076.

10694. Krippner, Stanley. (Maimonides Medical Center, Bronx, N.Y.) Reading improvement and its correlates. *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 727-731.—Investigated the relationship of certain variables to improvement in a remedial program. Over a 3-yr period, 3 summer reading clinics were held at a diagnostic center. California Reading Test (Form X or W) was administered to children during their 1st day at the clinic while an alternate form was administered on the last day. 10 additional variables were correlated with the improvement noted. During the 1st year of the clinic, 2 significant correlations were observed between reading improvement and total percentile on the Mental Health Analysis and between reading improvement and the WISC Verbal IQ. During the 2nd year, remediation strategies were shifted and a significant relationship emerged with WISC Performance IQ. For the 3rd year, remediation strategies again shifted and another significant relationship with the Mental Health Analysis was

noted. It was found that attention to low verbal intelligence and to poor mental health appeared to reduce the relationship between these factors and reading improvement. A follow-up analysis of results is described. (22 ref.)—*Journal abstract*.

10695. Linder, Ronald & Fillmer, Henry T. (U. South Florida) **Auditory and visual performance of slow readers.** *Reading Teacher*, 1970(Oct), Vol. 24(1), 17-22.—Attempted to determine the comparative effectiveness of auditory, visual, and simultaneous auditory-visual presentations in 2nd grade Negro boys who were poor readers. A rotation design was devised which balanced all combinations and sequences of task, modality, and subject. Individual children in this study did demonstrate a preference for 1 modality over another. Not all pupils may be expected to learn more effectively from 1 single type of presentation to the exclusion of the other.—P. D. Leedy.

10696. Loiry, David A. (U. Alabama) **Reinforcer effectiveness and the performance of academically retarded readers on a word recognition task.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3871.

10697. McCrummen, Robert A. (Baylor U.) **A study of remedial readers from deprived areas in Waco, Texas.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1079-1080.

10698. McLees, Martha P. (U. South Carolina) **The effectiveness of activities designed to improve basic perceptual-motor patterns for increasing achievement among seventh grade remedial reading pupils.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2190.

Sensory & Physical Handicaps

10699. Bacher, James R. (U. Pittsburgh) **Self-concept of academic ability and academic performance among deaf adolescent students in residential and nonresidential schools.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1100.

10700. Cordier, Jean. (Free U., Brussels, Belgium) **Vers l'ortho pédagogie.** [Special education teaching-linguistic.] *Revue Belge de Psychologie et de Pédagogie*, 1970(Mar), Vol. 32(129), 1-6.—Formerly the task of special education for handicapped children involved only learning a language and elementary reading skills. However, recent improvement of medical, psychological, and teaching techniques indicate that many additional services can be rendered. This article is a plea for greater emphasis on and expansion of special education. Included are the historical background, milestones, movements, improvements, etc. The need now is to create a chair at the university of special education teaching because the training of specialists should precede the development of new schools.—L. A. Ostlund.

10701. Kump, Roy. (Arkansas Enterprises for the Blind, Little Rock) **College preparation of blind prospective college students.** *New Outlook for the Blind*, 1968(Nov), Vol. 62(9), 286-288.—Demonstrated the value of college preparation for blind high school graduates by employing a research design of 2 groups (N = 102). The experimental group had 10 wk. college preparation, the control group had none.—J. Canady.

10702. McGuinness, Richard M. (Columbia U.) **A descriptive study of blind children educated in itinerant teacher, resource room, and special school**

settings. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 973.

10703. Meighan, Thomas. (Catholic U. of America) **An investigation of the self concept of blind and partially seeing adolescents and of the relation of their self concepts to academic achievement in language and paragraph reading.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2191.

10704. Moore, Mary E. (U. Pittsburgh) **Developing body image and skills of orientation, mobility and social competence in preschool multiply handicapped blind children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2219.

10705. Morse, John L. (Boston, U., School of Education) **The adaptation of a non-verbal abstract reasoning test for use with the blind.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2113.

10706. Schowe, Ben M. (Ohio State U.) **Education of the deaf in the sixties: A description and critique.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1652-1653.

10707. Sharp, Elizabeth Y. (U. Arizona) **The relationship of visual closure to speechreading among deaf children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2198.

10708. St. Peter, Francis E. (U. Northern Colorado) **A comparative study of the effects of group pressure on the conformity responses of deaf and hearing students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2220.

10709. Zakia, Richard D. (U. Rochester) **Finger-spelling as a visual sequential process.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2201.

Mental Retardation & Learning Disorder

10710. Adams, Kela O. (Indiana U.) **The effects of adapted physical education upon the social adjustment and motor proficiency of educable mentally retarded girls.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1053.

10711. Ashurst, Donald I. (U. Southern California) **Social system and psychological models in the labeling of children as educable mentally retarded.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1099-1100.

10712. Axelrod, Saul. (Florida State U.) **Comparison of individual and group contingencies in the special class.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2212-2213.

10713. Baker, Bruce E. (Boston U., School of Education) **The effectiveness of parent counseling with other modalities in the treatment of children with learning disabilities.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2166-2167.

10714. Brady, Richard C. (U. Southern California) **Effects of success and failure on impulsivity and distractibility of three types of educationally handicapped children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2167-2168.

10715. Brown, Saul L. (U. Southern California, Medical School) **Coordinating professional efforts for children with school problems.** *Children*, 1968(Nov), Vol. 15(6), 214-218.—Describes a set of expectations for basic procedure in the areas of mutual effort by professional persons in the fields of special education, clinical psychology, clinical social work, and psychiatry,

in behalf of children with learning and behavior problems.—*Journal summary*.

10716. Bryant, Dallas H. (U. Northern Colorado) **The developmental test of visual-motor integration: Norms for mentally retarded children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2214.

10717. Buktenica, Norman A. (George Peabody Coll.) **Perceptual screening: Toward identification, prediction and prevention of reading disabilities.** *Bulletin of the Orton Society*, 1970, Vol. 20, 72-80.—Describes 3 approaches to diagnosing reading disabilities: medical-neurological, sociopsychological, and psychophysiological. Perceptual developments were advanced as a key to acquisition of reading skills. The adequacy of these various screening procedures was described as less than ideal, and alternative techniques proposed. It is suggested that a study of the modality concept might facilitate the identification and correction of the reading disability. It is concluded that while it is accepted that there exists an optimal period for perceptual development of reading skills, it has not been established which is more beneficial (a) directing instruction to the weak perceptual area; or (b) strengthening the healthy, developing perceptual area.—C. O'Donnell.

10718. Byrd, James L. (Catholic U. of America) **Educable mentally retarded children's concepts of justice: A comparison with the Piaget data.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2169-2170.

10719. Elliott, Raymond N. (Pennsylvania State U.) **Meaningfulness in school tasks for EMR children.** *Journal of Special Education*, 1970(Spring), Vol. 4(2), 189-197.—Investigated the influence of meaningfulness on the acquisition and retention of a school-like task by educable mentally retarded and normal children. Retarded Ss and normals matched for CA and MA were given either a meaningful or nonmeaningful task to learn. Original learning and retention after 30 days were measured. Results indicate that (a) meaningfulness increased performance in original learning for all groups, (b) meaningfulness was more important for retardates than for normals matched for CA in original learning, and (c) retardates did significantly better in the retention task with high meaningfulness than normal Ss matched for MA. It is suggested that the classroom teacher can facilitate learning for both retardates and normals by incorporating familiar cues into the material to be learned. (27 ref.)—L. M. Glidden.

10720. Fisher, Kirk L. (Pennsylvania State U.) **Effects of a structured program of perceptual-motor training on the development and school achievement of educable mentally retarded children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1618.

10721. Frair, Cheryl M. (Utah State U.) **Behavioral modification of trainable mentally retarded children.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3885-3886.

10722. Friedenber, Harold L. (316 E. Grace St., Richmond, Va.) **Dyslexia! How come you do me like you do?** *Journal of the American Optometric Association*, 1970(Feb), Vol. 41(2), 158-161.—Attempts to clear up some of the existing confusion by citing the concepts advanced by various authors who approach the subject from different viewpoints and by expressing ideas and concerns about the child who has been labeled dyslexic. The need for interdisciplinary cooperation and understanding is emphasized.—*Journal abstract*.

10723. Grzynkiewicz, Wineva. (Marquette U.) **A critical study of methods of teaching children with learning disabilities.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1101-1102.

10724. Grzywak-Kaczyńska, Maria & Walesa, Czesław. **Wpływ uczenia na przyspieszenie rozwoju zdolności logicznych u dzieci.** [Influence of teaching on the acceleration of the development of logical faculties by children.] *Roczniki Filozoficzne: Annales de Philosophie*, 1969, Vol. 17(4), 79-97.—Describes learning as being either logical, mechanical, or based on trial and error: the theoretical assumption developed by Jean Piaget served as a basis for this assertion. 196 4-7 yr. old normal children and 45 retarded pupils in the 1st and 2nd grades of a public school served as Ss. Ss were divided into a basic group, which was to be taught, and a control group, which was not to be taught. Ss were taught daily in groups of 5 for 6 days in 20-min lectures. All Ss were tested at the beginning and end of the experiment and a mo. later. After completion of teaching, all basic group Ss had made statistically significant progress. Certain minimal differences appeared in the disadvantaged 4-yr-old Ss. It is concluded that in addition to the training, the level of maturation is equally important. (English summary)—I. Holowsky.

10725. Hall, Stacy L. (U. Oklahoma) **Differential test performances of mentally retarded and normal children of the same mental age.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2216.

10726. Hannaford, Alonzo E. (U. Northern Colorado) **The effects of incentive type and examiner presence on the performance of motor and cognitive tasks by educable mental retardates.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2217.

10727. Haugen, David M. (U. Oregon) **The effectiveness of a short-term training program of certain language skills of educable mentally retarded children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1102.

10728. Heintz, Paul. (Columbia U.) **The relationship between teacher expectation of academic achievement and current school achievement of educable mentally retarded pupils in special classes.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1687.

10729. Knight, Octavia B. (North Carolina Coll.) **The self concept of Negro and white educable mentally retarded boys.** *Journal of Negro Education*, 1969(Spring), Vol. 38(2), 143-146.—Investigated differences in self-concepts of 40 educable mentally retarded (EMR) Negro boys and 43 EMR white boys in special classes matched for IQ, MA, CA, and socioeconomic status. Ss stated 3 things they liked best, 3 things they did not like about themselves, and how well they liked themselves. Responses did not reveal any significance. Analysis of the variables of the mothers' and fathers' education and fathers' occupation did not reach significance. Societal expectations as a factor accounting for the results are discussed.—S. Knapp.

10730. Mann, Philip H. (U. Miami) **Modifying the behavior of Negro educable mentally retarded boys through group counseling procedures.** *Journal of Negro Education*, 1969(Spring), Vol. 38(2), 135-142.—Examined the effect of group counseling on the self-concept, anxiety, academic performance, deportment, and attendance of educable mentally handicapped boys with attention to the variables of age, IQ, and race. 36 9½-14 yr. old boys, 12 white and 24 Negro, with IQs of

56-80 were tested with the Children's Self Concept (CSC) scale, the Way I Feel About Myself (WIFAM) scale, the CMA scale, the WISC, and rated in academic performance, attendance, and deportment by their teachers. 18 Ss were divided into 3 racially mixed subgroups for 12 1-hr counseling sessions, while the control group had a study session. Results show (a) improved self-concept on the CSC scale, but not on the WIFAM scale, (b) reduction of anxiety, (c) improvement in deportment, (d) academic improvement, and (e) no significant difference in attendance. Age and IQ were not significant. Negroes showed greater gains than whites in reading, attendance, and reduction of anxiety. It appears that early counseling of Negro children might reduce the number of placements in special classes. (23 ref.)—S. Knapp.

10731. Marco, Millicent L. (Rutgers State U.) **Cognitive patterns of children with subnormal intelligence as they are related to associative memory, school achievement, and race.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2189.

10732. McFarland, Frances W. (U. Pacific) **An investigation of seriation and perception in the structure and function of intellect in the educable mentally retarded.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2189-2190.

10733. Miller, Charles K. (Temple U.) **The relationship between Piaget's conversation tasks and selected psycho-educational measures.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1081.

10734. Mooney, Thomas J. (Syracuse U.) **A study of the efficacy of the administrative placement of educable mentally retarded children in various educational settings when compared on a self concept scale.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 975.

10735. Newman, David. (New York U.) **The effects of perceptual training, age and intelligence on the reading achievement of special class children enrolled in learning disability classes.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1083.

10736. Patrinoakou, Elpis D. (Catholic U. of America) **A study of the effect of motor perceptual training on cognitive abilities in slow learning children with implications for educational planning.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2220.

10737. Rodgers, Denis. (U. Toronto, Ontario, Canada) **An investigation of the auditory memory abilities of Grade 2 retarded-underachieving readers and competent-achieving readers under conditions of reinforcement and non-reinforcement.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2196.

10738. Schilit, Jeffrey. (Ohio State U.) **Attitudes of coaches and educable mental retardates toward the retardates' participation in interscholastic athletic competition.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1652.

10739. Schleicher, Kurt W. (U. Virginia) **The effect of parent education program on the self-concept, achievement, and behavior of educable mentally retarded Negro pre-adolescents.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1568.

10740. Springfield, Herschel L. (U. Northern Colorado) **A comparison of multisensory approaches in a rote verbal paired-associate learning task with educable mentally retarded children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2221-2222.

10741. Wagner, Rudolph F. **Secondary emotional reactions in children with learning disabilities.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 577-579.—A. M. Cawley.

10742. Waltzer, Bernard. (Rutgers State U.) **Comparison of institutionalized mongoloids, public school mongoloids and public school undifferentiated moderate retardates for three emotional factors.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1091.

10743. Woodson, Doris A. (Catholic U. of America) **The behavioral and academic achievement variations related to three different administrative class structures for children with learning disabilities.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2222-2223.

Emotional Disorder

10744. Glavin, John P. & DeGirolamo, Grace. (Temple U.) **Spelling errors of withdrawn and conduct problem children.** *Journal of Special Education*, 1970(Spr), Vol. 4(2), 199-204.—Performed 2 studies analyzing the spelling errors of emotionally disturbed children. In Study I, disturbed children and normals were given spelling tests. Errors were categorized into external errors (additions and omissions of letters, phonetic errors, and substitutions and reversals of letters) and internal errors (words refused or not completed, and unrecognizable spelling). Results show that adjustment class Ss made more internal errors than normals. Study II used conduct problem children, withdrawn children, and normals. Adjustment class Ss made significantly more total and external errors of omission and substitution than regular class Ss. Results approached significance for internalized errors of words refused, and unrecognizable spelling for the adjustment class Ss. Within the adjustment class, the withdrawn Ss made significantly more unrecognizable spelling words, while the conduct problem Ss made significantly more refusals. (18 ref.)—L. M. Glidden.

10745. Heuchert, Charles M. (U. Michigan) **A follow-up of fifty-three former patients of children's psychiatric residential treatment center who have returned to a public school setting.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2217.

10746. Jackson, Joyce T. (U. Minnesota) **Teacher influence and classroom behavior of emotionally disturbed students in regular classes of a junior high school.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1102-1103.

10747. Keddington, John B. (U. Utah) **Development and evaluation of a program to improve classroom behavior of emotionally handicapped children through parental social reinforcement.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2184.

10748. Rickard, Henry C., Clements, Carl B., & Willis, Jerry W. (U. Alabama) **Effects of contingent and noncontingent token reinforcement upon classroom performance.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 903-908.—Exposed 5 boys attending a therapeutic summer camp to 1½ hr. of programed instruction in mathematics/day for 28 days. Following an 8-day base-line period during which no tokens were given, the awarding of tokens was made contingent upon classroom productivity. After 10 days of contingent reinforcement, Ss received noncontingent tokens for 3 days after which for 7 days tokens were again contingent upon classroom

performance. The token-incentive program was effective in controlling classroom productivity. Results from the Iowa Test of Basic Skills, a standard achievement test, indicate concurrent academic gains in arithmetic but no gains in a subject (language) in which no instruction was received.—*Journal abstract*.

10749. Robarge, Arthur J. (U. Connecticut) **The effects of social reinforcement and competition on the motor performance of emotionally disturbed and normal children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1104.

10750. Saunders, Bruce T. (U. Connecticut) **Modification of emotionally disturbed behavior in the elementary school child through the manipulation of classroom seating arrangements.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1088.

COUNSELING & GUIDANCE

10751. Akers, Stephen J. (Purdue U.) **An analysis of student academic and personal concerns and awareness of counseling services at Purdue University.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1570.

10752. Backus, Laurence D. (U. Arizona) **Irritation-tolerance as a screening device for the selection of counselor trainees.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1004.

10753. Barlow, Daniel L. (Arizona State U.) **The relationship between the counselors' inferred self-perceptions of students and the same students' scores on the Sixteen Personality Factor Questionnaire.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1570.

10754. Barnes, Keith D. (Ohio State U.) **The school counselor preferences of senior high school students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1571.

10755. Bartelt, Claudia A. (U. California, Berkeley) **The relation between field articulation, locus of control and subjective probability of success.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1571.

10756. Carpentier, James P. (Arizona State U.) **The maintenance of a specified verbal response set through verbal conditioning among counselor trainees.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2098-2099.

10757. Church, Gary T. (U. Florida) **Effects of individual counseling and video-model individual counseling on the accuracy of self-ratings of ninth-grade students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2099-2100.

10758. Church, Sterling R. (Arizona State U.) **The effects of an academic rehabilitation program on college academic probation students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1571-1572.

10759. Crowley, Thomas J. (U. Massachusetts) **The conditionability of positive and negative self-reference emotional affect statements in a counseling type interview.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2100-2101.

10760. Culp, William H. (West Virginia U.) **Changes in behavior and attitude as a result of receiving direct feedback and participating in group counseling.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1007.

10761. Danish, Steven J. & Kagan, N. (Southern Illinois U., Counseling & Testing Center) **Measurement of affective sensitivity: Toward a valid measure of interpersonal perception.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 51-54.—Evidence from former experimental and field studies suggests that the Affective Sensitivity Scale reflects personal growth in interpersonal sensitivity. The instrument was responsive to experiences of an intensive nature (a T-group laboratory), and to experiences of less intensity but of longer duration (year-long National Defense Education Act Counseling and Guidance Institutes). However, scores on the instrument did not change significantly as a result of retesting with 65 17-60 yr. old volunteers or a placebo treatment. If differential experiences were involved, the instrument reflected different amounts of change among different groups. This suggests that the Scale which attempts to measure affective sensitivity may meet some of the necessary conditions to measure personal growth in counselor training programs, T-group experiences, or other planned experiences designed to improve interpersonal sensitivity.—*Journal abstract*.

10762. Davis, Jerry L. (U. Wisconsin) **Actions taken on counselors' suggestions as reported by four groups of academically superior high school students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1573.

10763. Davis, LaMyra H. (U. North Carolina, Greensboro) **The effects of group counseling for vocational choice upon adolescents' expressed occupational preference.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1007.

10764. Denison, Walter M. (U. Virginia) **A study of three interest inventories currently in use at Central Virginia Community College.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 996-997.

10765. Dietz, Siegfried C. (Arizona State U.) **Counselor job satisfaction and colleague perceptions of the ASCA role and function recommendations.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1573-1574.

10766. Domenichetti, Madonna. (Catholic U. of America) **Work values in adolescence as a function of vocational maturity.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1574.

10767. Earley, John R. (Purdue U.) **Some philosophical contributions to counselor education.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1574-1575.

10768. Funke, Thomas M. (U. Michigan) **The effectiveness of individual and multiple counseling approaches on the academic self-concept of older elementary school children with social, emotional, and learning problems.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2103.

10769. Gilbert, Thomas E. **Self-regard, maladjustment, and creative potential among college counselees, creatives, and normals.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2177.

10770. Gilbreath, Stuart. (San Diego State Coll.) **Comparison of responsive and nonresponsive underachievers to counseling service aid.** *Journal of Counseling Psychology*, 1971(Jan), Vol. 18(1), 81-84.—Compared 30 college male underachievers who were motivated to respond to an offer of counseling service aid but did not receive counseling to a comparable group of underachievers who also were offered counseling but who did not respond. Results show that motivated Ss,

although they received no counseling, achieved significantly higher grades than nonmotivated Ss for both winter ($p < .10$) and spring ($p < .05$) academic terms. —*Journal abstract.*

10771. Golden, Robert. (Boston U., School of Education) **Student counselor attitude change as related to perception of the supervisory relationship.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2104.

10772. Hall, Gwendolyn L. (East Texas State U.) **An investigation of the counselor-counsee verbal interaction within the secondary school counseling interview.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2104-2105.

10773. Heffernon, Andrew W. (U. California, Berkeley) **The effect of race and assumed professional status of male lay counselors upon eighth grade black males' perceptions of and reactions to the counseling process.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1575.

10774. Henton, Comrade L. (U. Nebraska) **Change of college and department affiliation by university students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1622.

10775. Hess, Tyler. (U. Virginia) **A comparison of group counseling with individual counseling in the modification of self-adjustment and social adjustment of fifteen year old males identified as potential dropouts.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 998-999.

10776. Hubbard, William C. (U. Miami) **The actual and ideal roles of the secondary school counselor as perceived by graduate students and professors of school administration, counseling, and teaching.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1541.

10777. Hubele, Glen E. (U. Illinois, Urbana-Champaign) **An investigation of personality characteristics of counselors, administrators, teachers and "non-helping" professionals.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2108.

10778. Janssen, Jan W. (West Virginia U.) **The relative effectiveness of students at several college levels to lead small groups of low-achieving freshmen in academic adjustment counseling.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1012.

10779. Janzen, Frederick V. (U. Utah) **Client-counselor perceptual congruency as measured by the interaction scale.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2183-2184.

10780. Knight, James H. (U. North Carolina, Chapel Hill) **The interpersonal values and aspiration levels of Negro seniors in totally integrated and segregated Southern high schools.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2110.

10781. Leung, Paul. (Arizona State U.) **The comparative effects of training in internal and external concentration upon two counseling behaviors.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2111.

10782. Luzzi, Matthew H. (Boston U.) **A study of the relationship of self-acceptance and social values to effectiveness of male rehabilitation counselor trainees.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2111.

10783. MacDonald, W. Scott; Gallimore, Ronald, & MacDonald, Gwen. (U. Hawaii) **Contingency coun-**

seling by school personnel: An economical model of intervention. *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 175-182.—Investigated the feasibility of utilizing currently available school personnel as the behavior analysts in an attendance counseling program. An attendance counselor contacted adults (mediators) who controlled reinforcers for 6 9th grade male chronic nonattenders (targets); agreements (deals) were made between mediators and targets that reinforcers would be provided, contingent on school attendance. Absence of the Attendance Counselor from school for a 2-wk period constituted a reversal condition, after which the deals were reinstituted. Results show a significant increase over base line in school attendance during the time in which deals were in effect. Study 2 involved 20 high school chronic nonattenders for whom deals were arranged as in Study 1 (contingency counseling), and 15 high school nonattenders provided more traditional attendance counseling (contact counseling). Contingency counselors achieved results similar to those achieved in Study 1. An experienced contact counselor did not achieve improved school attendance among her group.—*Journal abstract.*

10784. Mattie, Edward C. (Catholic U. of America) **Personality factors in the discrimination of medical, surgical and obstetrical specialists.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2189.

10785. McCary, Patrick, W. (Michigan State U.) **The effects of small self-understanding groups on the self-concept and anxiety level when group composition has been varied.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2112.

10786. McLain, Katharine J. (Boston U., School of Education) **Measuring the interests of adolescents by means of "The Word Association Interest Test."** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2112-2113.

10787. McNeely, James B. (Purdue U.) **Discriminant function analysis of measured characteristics of male undergraduates in short term, educational-vocational counseling.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1577.

10788. Miller, David. (State U. New York, Albany) **The effects of immediate and delayed audiotape and videotape playback of group counseling.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3872.

10789. Murchie, Harry H. (U. Maine) **A comparative analysis of elementary school counselor and secondary school counselor sub-roles in the counseling interview.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1579.

10790. Palm, Harold J. (Arizona State U.) **The differential effects of verbal conditioning upon dominant and submissive college students in a counseling setting.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2114.

10791. Payne, Billy F. (U. Houston) **The effects of group counseling upon the self concept of disadvantaged elementary school students.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1019-1020.

10792. Pazandak, Carol H. (U. Minnesota) **A role test of counseling behaviors.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2114-2115.

10793. Platt, John M. (U. Arizona) **Efficacy of the Adlerian model in elementary school counseling.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2115.

10794. Pyle, Robert L. (United States International U., San Diego, Calif.) **Effect of the Grossmont District drug policy on attitudinal and overt response of secondary students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2115-2116.
10795. Quattlebaum, Rebecca F. (U. Alabama) **A study of the effectiveness of nondirective counseling and play therapy with maladjusted fifth grade pupils.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1580.
10796. Quinn, Alvin W. (U. Colorado) **An assessment of selected personality characteristics in able adolescent science students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2195.
10797. Rogal, Richard A. (U. Southern California) **Group counseling for counselors: Its effect upon the growth of behavior cognition and its relationship to counselor effectiveness.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1022.
10798. Rohila, Pritam K. (U. Oregon) **Multivariate relationships between personality and vocational interests.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1022.
10799. Sakata, Robert. (Kent State U.) **Nonverbalized feelings: Their relevance to the counseling relationship.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2116-2117.
10800. Selinger, Armand W. & Stafford, Newton B. (United States International U., San Diego, Calif.) **Identification of creatively gifted students in a typical senior high school population.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2197.
10801. Sullivan, James W. (Temple U.) **The development of a vocational interest maturity key and its relationship to intelligence in adolescent boys and girls.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1027.
10802. Tarasuk, Paul E. (U. North Dakota) **A study of the perceptions of frequently and infrequently counseled senior students in five high schools for military dependents.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2119.
10803. Taylor, Theodore D. (Oregon State U.) **Effects of group counseling on self concept and academic achievement of selected high school sophomore health classes.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1582.
10804. Tenenbaum, Samuel. (Long Island U.) **School grades and group therapy.** *Mental Hygiene*, 1970(Oct), Vol. 54(4), 525-529.—Describes group therapy sessions with 9 undergraduates who were on academic probation. A maximum of 10 75-min sessions were held in which the therapist never mentioned grades or probation, resulting in removal of probational status in all Ss for that semester, and even higher standing during the following semester.—A. M. Cawley.
10805. Toth, Matthew A. (Ohio U.) **The use of counselor interview behaviors to determine the effect of the practicum for counselor trainees.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1028.
10806. Watson, Patricia A. (Marquette U.) **Residence hall student counselors: The blurred image.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1583.
10807. Wolfe, Lawrence A. (U. Wisconsin) **A comparison of the effectiveness of teaching basic interviewing skills by three group methods: Modeling with role playing, role playing, and discussion.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1029-1030.

PERSONNEL

10808. Burrello, Leonard C. (Syracuse U.) **The development and validation of the behavior preference inventory based upon Rotter's social learning theory for use with special education administrators.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 948.
10809. Channell, Ralph R. (U. Utah) **The use of situational projective picture test for evaluating the role playing dimensions of educational administrators.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2036-2037.
10810. Cline, Ellis W. (U. Florida) **Confirming behavior of school executives.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1067.
10811. Eells, Mary A. (U. Rochester) **The effect of bargaining upon attitudes and their relationship to bargaining outcomes in a game theory model.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1532-1533.
10812. Ellenberg, Norman L. (New York U.) **The relationship of personal value systems and administrative orientations of selected elementary school principals.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2044.
10813. Glasgow, Ann D. (Catholic U. of America) **The self-perceptions of leadership behavior of the black secondary school principal.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2050.
10814. Gordon, Billy K. (U. Kentucky) **Dogmatism, philosophy, and leader behavior of school administrators.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2051-2052.
10815. Green, Frank. (United States International U., San Diego, Calif.) **The effects of a task-encounter workshop on the administrative staff of a public school system.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2180.
10816. Greenberg, James D. (U. Connecticut) **Attitudes of Connecticut educators toward specific issues in the area of sex education.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 928.
10817. Iannone, Ronald V. (Syracuse U.) **A study of factors related to principals' job satisfactions and job dissatisfactions.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 965.
10818. Johnson, Donald L. (U. Maryland) **The relationships between human relations training for educational administrators and changes in their leader behavior.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1541.
10819. Kokovich, Steve. (Ohio U.) **A study of the relationship between perceptions of leader behavior and certain dimensions of teacher morale.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 969.
10820. Long, Dan F. (U. Texas) **An investigation of changes in the perceptual systems of interns in educational administration.** *Dissertation Abstracts*

International, 1970(Oct), Vol. 31(4-A), 1545.

10821. Merrill, Peter P. (Syracuse U.) **A study concerning the job satisfaction of elementary teachers and principals.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1547-1548.

10822. Newbold, Joseph. (Temple U.) **Job perceptions of creative and non-creative secondary school principals.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1549-1550.

10823. Phillips, William H. (U. New Mexico) **A comparison of the attitudes of rural and urban New Mexico educators toward negotiations, sanctions, traditionalism, and progressivism in education.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1517.

10824. Smead, William H. (Purdue U.) **Relationships between the political liberalism-conservatism tendencies of school administrators and their leader behavior as perceived by selected central office personnel.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1553-1554.

10825. Swisher, J. D. (Pennsylvania State U.) **Counselors in conflict.** *School Counselor*, 1970, Vol. 17(4), 272-279.—The study involved 28 schools and 1450 teachers, 50 administrators, and 67 counselors. All Ss completed a variety of questionnaires. A random sampling of 550 teachers, administrators, and counselors was personally interviewed by trained researchers. The 4 distinct and separate hypotheses tested were: there will be no significant differences in the (a) frequency of conflicts between the most professional and the least professional counselors as reported by teachers, administrators, and counselors; (b) intensity of conflicts between the most professional and the least professional counselors as reported by teachers, counselors, and administrators; (c) reactions to conflicts between the most professional and the least professional counselors as reported by teachers, counselors, and administrators; and (d) most professional and the least professional counselors in the types of conflicts in which they were involved. Based on the findings, the null hypothesis can be rejected at the .05 level in a, but cannot be rejected in b, c, and d.—S. M. Amatora.

Teachers & Teacher Training

10826. Acheson, Elizabeth. (Temple U.) **Responses of teachers to pupils' dependent behavior and the reactions of pupils to these responses.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1063.

10827. Allen, Dorothy C. (U. Arizona) **Noise tolerance categories and aspects of teaching.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 1986.

10828. Allen, Howard E. (U. Tennessee) **Professional responsibility and teaching effectiveness in selected community colleges.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1501.

10829. Andrew, Barbara. (U. Southern California) **A comparison of the attitudes of outstanding college teachers and a non-selected group toward four psychological variables.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2122.

10830. Austad, Charles A. (U. Texas) **Personality correlates of teacher performance in a micro-**

teaching laboratory. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1611.

10831. Baggs, Evelyn D. (George Washington U.) **Training the teacher of emotionally disturbed epileptic children in a residential treatment center.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1653-1654.

10832. Barach, George J. (Wayne State U.) **A study of the attitudes of teachers of visually handicapped children in Michigan and Ohio relating to professional preparation needs in the area of orientation and mobility.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1647-1648.

10833. Beck, Louis L. (United States International U., San Diego, Calif.) **Evaluating an integrative approach to the teaching-learning act: Basic encounter, behavioral objectives, and interaction analysis.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2224.

10834. Belt, Gordon A. (Wayne State U.) **A study of the changes in personality variables and attitudes of students in an education class.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1654-1655.

10835. Bensley, Marvin L. (United States International U., San Diego, Calif.) **Value enhancement for children through non-directive inservice teacher training.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2224-2225.

10836. Blank, Logan F. (Michigan State U.) **Relationship between student instructional ratings and student-faculty psychological types.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2123-2124.

10837. Borg, Walter R., Kallenbach, Warren; Morris, Merva, & Friebe, Allen. (Far West Lab. for Educational Research & Development, Berkeley, Calif.) **Videotape feedback and microteaching in a teacher training model.** *Journal of Experimental Education*(Sum), Vol. 37(4), 9-16.—Attempted to determine the effectiveness of the minicourse model in changing student teacher behavior and to estimate the effects of the microteaching format and use of videotape feedback within this model. Feedback and practice in the microteaching format were manipulated with 4 groups of student teachers while a 5th group served as control (N = 17, 16, 15, 17, 14, respectively). 11 behaviors were scored for the 4 treatment groups on pre- and postcourse videotapes. 18 of the resulting comparisons were significant beyond the .01 level and 3 beyond the .05 level in the desired direction. 3 of the 11 control group gains were significant ($p < .05$). Treatment groups that did not receive videotape feedback and did not practice in the microteaching format were not significantly different from groups that did.—*Journal abstract*.

10838. Bowser, Robert A. (Pennsylvania State U.) **The effectiveness of a self-study guide in changing teachers' perceptions.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1657.

10839. Brashers, Elizabeth F. (U. Tennessee) **Attitudes of student teachers in team teaching and self-contained classrooms.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1657-1658.

10840. Burk, Donald D. (U. Minnesota) **Personality characteristics of student teachers and their supervisors.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1111.

10841. Carter, Vertie L. (North Texas State U.) **Anxieties of white and Negro elementary and**

secondary student teachers in biracial participation. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1658-1659.

10842. Castek, John E. (U. Nebraska) **Changes in attitudes, philosophical views, and knowledge of secondary education during student teaching.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1659.

10843. Coleman, Clayton L. (Columbia U.) **Teacher participation as a determinant of teacher attitudes toward faculty meetings.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1529.

10844. Cooper, Harold F. (U. Massachusetts) **Behavior and attitude in regard to a performance evaluation criterion in the academic organization.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1380.

10845. Couch, Jerry D. (U. Arkansas) **Prospective high school teachers' self concepts as reflected by the Tennessee Self Concept Scale at the University of Arkansas.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1113.

10846. Doyle, James R. (Wayne State U.) **The relationship of direct and indirect teaching to accurate perceptions of student personality and temperament characteristics.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1506-1507.

10847. Evans, Thomas P. (Oregon State U.) **Teacher verbal and nonverbal behaviors and their relationship to personality.** *Journal of Experimental Education*, 1969(Fal), Vol. 38(1), 38-47.—Attempted to develop a reliable category system for systematic observation of teacher behaviors. A category system was developed in an inductive manner. Teachers behaviors were encoded from video tape recordings onto a data record using 10-sec time intervals. Video tape recordings of 8 biology teachers were analyzed. The Guilford-Zimmerman Temperament Survey was administered. The behavioral and personality data were correlated using nonparametric statistics. The instrument met the stated definition of a reliable category system. Significant positive correlations were found between the behavioral and personality data, but there were less than one would expect to find by chance alone.—*Journal abstract*.

10848. Fish, Enrica. (U. Minnesota) **The relationship of teachers' assigned marks to tested achievement among elementary grade, racially divergent, lower socio-economic status boys and girls.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 926.

10849. Foster, Stephen F. (U. Illinois) **Attitudes, self acceptance, self descriptions and student teaching success.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1072.

10850. Fulmer, John L. (Auburn U.) **An investigation of the variability of attitudinal response of the informal structure to a pre-designed indoctrination of select group opinion leaders.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2047.

10851. Gallagher, Betty. (State University Coll., Buffalo) **Teachers' attitudes and the acceptability of children with speech defects.** *Elementary School Journal*, 1969(Feb), Vol. 69(5), 277-281.—Investigated the effect of teachers' attitudes on the responses of 640 1st graders to "the defective articulation of a child their own age." Results indicate that Ss "accepted the speech-defective boy most readily when no attitude was expressed, less readily when the favorable attitude was

expressed, even less readily when the attitude was neutral, and least readily when the attitude was unfavorable."—G. Steele.

10852. Grant, Barbara M. (Columbia U.) **A method for analyzing the non-verbal behavior (physical motions) of teachers of elementary school language arts.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1685-1686.

10853. Green, Paul F. (U. Massachusetts) **A participant-observer evaluation of an inservice teacher workshop.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1536.

10854. Hankinson, Oscar H. (U. Wisconsin) **Expectations for and behaviors of pupils in culturally different schools.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1538.

10855. Hedges, Lowell E. (Ohio State U.) **The feasibility of using videotape techniques in pre-service teacher education in agriculture.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1664.

10856. Hovsepian, Paul N. (Wayne State U.) **An analysis of selected factors promoting changes in the role of the teacher.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1664-1665.

10857. Inglis, Joan D. (U. Toledo) **The effect of a professional laboratory experience on the attitudes of student teachers toward children and teaching.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1666.

10858. Jacobs, John F. (U. Florida) **Teachers expectancies: Their effect upon peer acceptance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1076.

10859. Lemlech, Johanna S. (U. Southern California) **Affective involvement in inquiry methodology, using role-playing, in teacher education.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2232-2233.

10860. Lumpkins, Bobby G. (North Texas State U.) **The relationship between experienced elementary school teachers' role-preferences and their attitude toward behavior problems of children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1625.

10861. McAdams, Charles D. (East Texas State U.) **A comparison of behavior patterns of music teachers in selected universities utilizing interaction analysis and the Fundamental Interpersonal Relations Orientation—Behavior Scale.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2130-2131.

10862. McKnight, Philip C. (Stanford U.) **Behavioral responsiveness of teachers in verbal interactions with students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1670.

10863. Musella, Donald. (Ontario Inst. for Studies in Education, Toronto, Canada) **Perceptual-cognitive style as related to self-evaluation and supervisor rating by student teachers.** *Journal of Experimental Education*, 1969(Spr), Vol. 37(3), 51-55.—Attempted to provide additional information related to 5 hypotheses concerning (a) the relationship between dogmatism and self-evaluation in teaching, and (b) the relationship between dogmatism and the evaluation of supervising personnel. A review of the literature and of previous work in this area produced hypotheses related to differences between open- and closed-minded student teachers and their rating and description of themselves and of their supervising teachers. Results support the hypotheses and indicate that the rating of one's teaching,

which may be considered a manifestation of the evaluation of self in total, and the rating of one's superordinates are, in some respects, a function of the perceptual-cognitive style of the rater. (29 ref.)—*Journal abstract*.

10864. Norsted, LeRoy V. (U. Minnesota) **Personality factors of teachers and the acceptance of audio-visual instructional media relative to classroom instruction.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2018.

10865. Osborne, Gerald E. (Purdue U.) **The relationships between sensitivity training, self-perception and student teaching behavior in a program for elementary education student teachers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1630.

10866. Osman, Mohammed K. (U. California, Los Angeles) **Sudanese teachers' attitudes toward educational change: The human factor impact on policy-implementation.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1515-1516.

10867. Peters, William. (U. Minnesota) **Perceptual agreement of social studies teachers and professional geographers on aspects of a cognitive geographic paradigm.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 937.

10868. Pohl, Randolph G. (U. Illinois, Urbana-Champaign) **Teacher nomination of intellectually gifted children in the primary grades.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2237.

10869. Schluck, Carolyn G. (U. Minnesota) **Predicting teaching style using the MMPI.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1089.

10870. Shapiro, Barbara. **Teacher debriefing.** *Journal of Emotional Education*, 1969(Sum), Vol. 9(3), 102-107.—Teachers, students, parents, and administrators of Gramercy Hill Institute participate in daily debriefing sessions at which they: (a) discuss new experiences in education; (b) evaluate problems encountered during the day; (c) determine future directions; and (d) explore questions, e.g., what is the process of education and how should emotional awareness be integrated into the curriculum.—*Journal abstract*.

10871. Sharpe, Joseph D. (U. Mississippi) **The relationship between teaching distance and each of scholastic achievement, social acceptance and teacher attitudes in selected fifth grade classes.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 939.

10872. Sherman, Lillian L. (New York U.) **Movers and perseverers in education: An investigation of interests, values, personality factors, self-actualization, need satisfaction and job satisfaction among movers into counseling and into administration and among perseverers in teaching.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1023-1024.

10873. Siemankowski, Francis T. (State U. New York, Buffalo) **An auto-paced teaching process in physical science for elementary teacher preparation.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1646-1647.

10874. Stevenson, Warren A. (U. California, Los Angeles) **Authoritarian and egalitarian attitudes of classroom teachers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1556.

10875. Sweely, Harry D. (U. Maryland) **The effect of the male elementary school teacher on children's**

self-concepts. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1090.

10876. Turner, Richard L. & Denny, David A. (Indiana U.) **Teacher characteristics, teacher behavior, and changes in pupil creativity.** *Elementary School Journal*, 1969(Feb), Vol. 69(5), 265-270.—Presents a model for studying teaching using 5 teacher characteristics, 7 teacher behaviors, and 4 pupil characteristics. Statistical analysis of results from the Characteristics Schedule and the Denny-Rusch-Ives Classroom Creativity Observation Schedule indicated a "tendency for each of the teacher characteristics, except stability, to be related to a particular measure of pupil creativity and to a restricted number of teacher classroom behaviors."—G. Steele.

10877. Vander Velde, Philip B. (Michigan State U.) **A philosophical analysis of the theoretical assumptions of the perceptual psychology of Arthur Combs as it relates to the education of teachers.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1154.

10878. Wade, Theodore E. (U. Nebraska) **A study of secondary school science teachers' perceptions of programed instruction.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1520.

10879. Weinhold, John D. (Ball State U.) **An attempt to measure the scientific attitudes of elementary school teachers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1647.

10880. Willie, Reynold. (U. Minnesota) **An investigation of attitudes and values held by elementary student teachers.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1093.

10881. Yura, Helen. (Catholic U. of America) **Faculty perceptions of behavior indicating leadership potential of baccalaureate nursing students.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-B), 1366-1367.

SCHOOL LEARNING & ACHIEVEMENT

10882. Allen, Harvey A. (U. North Carolina, Chapel Hill) **A study of social factors related to the educational achievement of elementary school students in a rural county in North Carolina.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 1986-1987.

10883. Armstrong, Nolan A. (Indiana U.) **The effect of two instructional inquiry strategies on critical thinking and achievement in eighth grade social studies.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1611.

10884. Baker, Eva L. (U. California, Los Angeles) **Effects on student achievement of behavioral and nonbehavioral objectives.** *Journal of Experimental Education*, 1969(Sum), Vol. 37(4), 5-8.—Conducted an experiment in the field of social science where 1 of 3 lists of objectives—1 list nonbehavioral, the other 2 behavioral—was randomly assigned to 18 experienced participating high school social studies teachers who were instructed to teach objectives in their classes. Unit sampling was used and 18 classrooms were involved. Students were measured, using a form of item sampling, on the acquisition of the 5 skills stated in the behavioral objectives as well as on 18 transfer skills. Teachers' faulty understanding of objectives, indicated by their inability to provide relevant classroom practice and to identify, when asked, test items measuring given objectives, may

have accounted for lack of differences.—*Journal abstract*.

10885. Beavers, Elizabeth C. (U. Oklahoma) **The effects of certain anxiety-producing techniques on achievement testing and motivation in high school geometry classes.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1065.

10886. Benson, Shirley K. (U. Southern California) **The effects of monetary rewards on reading level, attitude toward reading, and self-concept of ability and school achievement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1612.

10887. Berretta, Shirley. (U. Southern Mississippi) **Self-concept development in the reading program.** *Reading Teacher*, 1970(Dec), Vol. 24(3), 232-238.—Of all the areas of personality correlated with reading achievement, 1 factor, self-concept, is particularly useful for reading teachers. Research supports the idea that an adequate self-concept is an important component of successful reading. Ways in which self-concept may be developed are discussed and it is concluded that "self concept is as much a factor in reading success as intelligence or mastery of basic skills. A program integrating reading instruction and development of positive self perceptions . . . offers the promise of meeting individual needs for learning and for good emotional development."—P. D. Leedy.

10888. Bizinkauskas, Peter A. (Boston U., School of Education) **An evaluation of the effectiveness of tape recorder note-taking versus written note-taking versus rereading as a study technique.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 1991.

10889. Bland, Rosa B. (U. Virginia) **Relation of auditory discrimination to reading achievement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1655-1656.

10890. Buckland, Pearl R. (U. Minnesota) **The effect of visual perception training on reading achievement in low readiness first grade pupils.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1613.

10891. Caplin, Morris D. (Queens Coll., City U. New York) **The relationship between self concept and academic achievement.** *Journal of Experimental Education*, 1969(Spring), Vol. 37(3), 13-16.—Hypothesized that white and Negro children, attending a de facto segregated school have less positive self-concepts than do children attending desegregated schools, and that there is a significant positive relationship between self-concept and academic achievement. 60 children from the intermediate grades of elementary schools in a small city in New Jersey were matched on the basis of age, grade, sex, race, intelligence, and socioeconomic status. Analyses of variance were computed on the scores obtained from the self-report instrument administered and correlations between these scores and achievement scores were calculated. It was found that children attending the de facto segregated school had less positive self-concepts. There was also a significant positive relationship between self-concept and academic achievement. (17 ref.)—*Journal abstract*.

10892. Carlson, Ralph O. (Washington State U.) **Role concepts of college students and their influence on academic achievement.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1005.

10893. Carter, Heather L. (U. Maryland) **A study of the ability of primary school children to generalize behavioral competencies acquired in science to**

other content settings. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1067.

10894. Clark, D. Cecil. (U. Washington) **Competition for grades and graduate-student performance.** *Journal of Educational Research*, 1969(Apr), Vol. 62(8), 351-354.—Compared 2 classes (N=49 and 59) of graduate students in education on 2 criteria: research papers (R) and examination scores (E). Class A competed for grades on R but not on E. Class B was not allowed to compete for grades on either criterion. On R, Class A performed at a significantly higher level than Class B; on E, both classes performed at the same level. Students in Class A performed at a higher level on R than they did on E. Results suggest that performance among graduate students is significantly higher under conditions in which they compete for grades than under conditions in which there is no competition for grades. (16 ref.)—*Journal abstract*.

10895. Collins, Margaret A. (U. Rochester) **An investigation of the influence of interpersonal compatibility on pupil achievement and teacher and pupil perceptions of the relationship.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1614-1615.

10896. Conley, Betty L. (Rutgers State U.) **Some effects of social class and parental control methods on egocentric cognitive orientation and school achievement.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1069.

10897. Cook, James M. (U. Maryland) **Learning and retention by informing students of behavioral objectives and their place in the hierarchical learning sequence.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1112.

10898. Curtis, John T. (Purdue U.) **Inventoried interests as related to persistence and academic achievement in an engineering program.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1572-1573.

✓ 10899. Dent, Paula A. (Wayne State U.) **Creativity in inner-city children, in relation to aptitude, achievement, and background.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1682-1683.

10900. Deo, Pratibha & Sharma, Sagar. (Panjab U., Chandigarh, India) **Self-ideal discrepancy and school achievement.** *Adolescence*, 1970(Fal), Vol. 5(19), 353-360.—700 adolescents in India were given a self-concept inventory from which self-ideal discrepancy scores were correlated with a measure of achievement. A curvilinear relationship was found indicating that low achievement was associated with both self-content and self-rejection. —A. B. Warren.

10901. Follman, John; Miller, William, & Hernandez, David. (U. South Florida) **Factor analysis of achievement, scholastic aptitude, and critical thinking subtests.** *Journal of Experimental Education*, 1969(Fal), Vol. 38(1), 48-53.—Conducted principal components factor analysis and Kaiser varimax rotation on a correlation matrix of 22 subtests of a scholastic achievement test, a scholastic aptitude test, 2 critical thinking tests, a logical reasoning test, and a problem solving test. Ss were 283 disadvantaged Negroes, 250 disadvantaged integrated Negroes and whites, and 279 nondisadvantaged whites in the 9th grade. 4 factors were rotated. The largest rotated factor accounting for 50% of the variance was a scholastic achievement test and aptitude test factor. The 2nd factor accounting for 21% of the

variance was a Watson-Glaser critical thinking appraisal factor. The 3rd factor accounting for 20% of the variance was primarily a Cornell critical thinking test factor.—*Journal abstract.*

10902. Geer, Charles E. (U. Texas) **An analysis of the effect of training and opportunity to provide feedback to teachers on pupil achievement of specific objectives in elementary school science.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1510.

10903. Gillion, Hanna E. (U. Alabama) **The relationship between perceptual-motor ability and academic achievement of certain disadvantaged rural Negro children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1601.

10904. Glynn, Edward L. (U. Toronto, Ontario, Canada) **Self-determined and externally-determined token reinforcement schedules in classroom learning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1620.

10905. Goossens, Gérard. (Forest-Brussels Medico-Psycho-Pedagogical Centre, Belgium) **Tu as choisi ce beau métier d'étudiant....** [You have chosen the noble profession of student.] *Revue Belge de Psychologie et de Pédagogie*, 1970(Mar), Vol. 32(129), 26-30.—This personal document exhorts the student to work and study so that he may succeed. Various ideas, skills, and procedures are mentioned. It is a "do-it-yourself" orientation to academic success.—*L. A. Ostlund.*

10906. Gosciowski, Francis W. (Kent State U.) **The effect of expectancy reinforcement on arithmetic achievement, self-concept, and peer-group status of elementary school children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2179-2180.

10907. Grove, Paul W. (Pennsylvania State U.) **Effect of varied-sized classes in an eleventh grade United States History course.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1537.

10908. Halpern, Stefanie J. (New York U.) **Achievement and home environment of Negro children from urban depressed areas: An investigation of the relationship between higher and lower achievement in parochial school and selected aspects of home, community and school environment.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1074-1075.

10909. Harris, Marilyn E. (U. Michigan) **An interaction learning model for improving the inter-generational relationship in the teaching-learning process.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1620-1621.

10910. Heald, Harlan M. (U. Nebraska) **The effects of immediate knowledge of results and correction of errors and test anxiety upon test performance.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1621-1622.

10911. Heffernan, Matthew M. **Learning patterns of selected groups in junior and senior high school.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2105-2106.

10912. Hermann, G. (New South Wales Dept. of Technical Education, Educational Research Section, Sydney, Australia) **Learning by discovery: A critical review of studies.** *Journal of Experimental Education*, 1969(Fal), Vol. 38(1), 58-72.—States that results of discovery learning experiments are conflicting and often insignificant, but tend to favor discovery learning

methods compared to other teaching methods. However, many results are suspect due to limitations in experimental design and analysis, as is demonstrated in a critical analysis of the studies. Also, direct comparison of experimental findings is difficult due to differing ideas concerning the nature of discovery learning. It is concluded that progress in this field will be limited until the experimental methodology is improved, and until acceptable operational definitions of discovery learning variables are used. Some relevant proposals are briefly discussed. (36 ref.)—*Journal abstract.*

10913. Hill, Louis E. (Syracuse U.) **A study of levels of conceptual functioning and their relationship to student achievement and student perception of teachers.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1003.

10914. Holmes, David S. (Educational Testing Service, Princeton, N.J.) **Conscious self-appraisal of achievement motivation: The self-peer rank method revisited.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 23-26.—Describes 2 studies with 41 and 20 undergraduates, respectively, on the self-peer rank of need for achievement (*n Ach*) and correlation with academic success. It was found that (a) when Ss use their peers as reference points, they are able to give self-reports of their levels of *n Ach* which are predictive of academic success; (b) these judgments of motivation are independent of achievement-success information; (c) when Ss are given a common standard, the level of accuracy of the predictions is higher than reported previously; and (d) the correlations between judgments of motivation and measures of performance are relatively independent of correlations between measures of ability and measures of performance. It is concluded that *n Ach* is not, as traditionally considered, an unconscious characteristic and that the self-peer rank method may be a useful adjunct to assessment procedures.—*Journal abstract.*

10915. Jackson, Bill G. (Texas A & M U.) **Pupil achievement as affected by selected activities of Title I Elementary and Secondary Education Act of 1965.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 965-966.

10916. Jenkins, Kenneth D. (U. Miami) **The relationship among selected pupil personality characteristics, relevant pupil perception, and failure in a nongraded secondary school.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1512.

10917. Johnson, Linden K. (U. Nebraska) **The relationships between selected characteristics of sixth grade Negro pupils attending disadvantaged area schools and Negro pupils who have moved from disadvantaged area schools and now are attending schools, located in adjacent areas.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1542.

10918. Katz, Irwin; Atchison, Calvin O., Epps, Edgar G., & Perry, Aubrey. (City Coll., City U. New York) **Factors affecting response to white intellectual standards at two Negro colleges.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 995-1003.—Describes 2 experiments on the effects of the race of an E and objective probability of success (*P*) on southern Negro college students' performance at cognitive tasks that were defined as mental tests with white norms. The tasks were arithmetic and digit-symbol substitution. The hypothesis was that Ss (*N* = 230) would perform better

with a Negro tester when P_1 was low or medium, but as well or better with a white tester when P_1 was high. The prediction was confirmed in Exp. I, which was carried out at an academically nonselective institution. Exp. II was a replication at an academically more selective institution where Ss responded more favorably to the white tester in all P_1 conditions. Individual differences in general success-failure orientation were not related to performance.—*Journal abstract.*

10919. Keim, Richard P. (Temple U.) **Visual-motor training, readiness, and intelligence of kindergarten children.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1076-1077.

10920. Krajewski, Frank R. (Michigan State U.) **A study of the relationship of an overseas-experienced population based on sponsorship of parent and subsequent academic adjustment to college in the United States.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1372-1373.

10921. LaBelle, Thomas J. (U. New Mexico) **Attitudes and academic achievement among male and female Anglo and Spanish American fifth grade students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1624.

10922. Lamal, Peter A. (U. Wisconsin) **An extension of modeling principles to elementary school settings.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1624-1625.

10923. Leibert, Robert E. & Sherk, John K. (U. Missouri, Kansas City) **Three Frostig visual perception sub-tests and specific reading tasks for kindergarten, first, and second grade children.** *Reading Teacher*, 1970(Nov), Vol. 24(2), 130-137.—Attempted to determine the validity of certain statements about visual-perceptual performance characteristics of kindergarten through 2nd grade children. Little evidence was found to support Frostig's contention that (a) specific relationships exist between performance on the Marianne Frostig Developmental Test of Visual Perception employed in this study and reading performance, and (b) that "normal" visual-perceptual development as measured by Frostig's subtests must occur as a prerequisite to "normal" ability to learn to read.—*P. D. Leedy.*

10924. Macritchie, Cynthia G. (Clark U.) **Effects of anxiety on performance among college students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1626.

10925. Marchiony, Joseph A. (Columbia U.) **Inter-relationship of socioeconomic status and sex on school achievement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1513.

10926. Markle, Nancy R. (Stanford U.) **Differential response to instruction designed to call upon spatial and verbal aptitudes.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1626-1627.

10927. Maxwell, Thomas H. (U. Rochester) **An experimental investigation of the effect of overt classroom responding on achievement and retention.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1627.

10928. Mayfield, Lela S. (West Virginia U.) **An investigation of factors affecting reading rate.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2012.

10929. Miller, George E. (U. Maryland) **A computer-assisted experiment on the process of learning and problem solving under the condition of goal-**

direction. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1081-1082.

10930. Montgomery, Mary A. (U. Pittsburgh) **An investigation of students who succeed academically and those who do not succeed academically in a community college.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1578.

10931. Mueller, Ernest H. (U. Virginia) **The relationship between teacher turnover and student achievement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1628.

10932. Neidt, Charles O. & Hedlund, Dalva E. (Colorado State U.) **Longitudinal relationships between cognitive and affective learning outcomes.** *Journal of Experimental Education*, 1969(Spr), Vol. 37(3), 56-60.—Investigated the longitudinal covariation of attitude toward subject matter and achievement during a course in general psychology. 5 measures of attitudes toward psychology and 5 measures of achievement were obtained at intervals of 20% through the course. Ss included 866 undergraduates. Data indicate a consistent improvement in achievement throughout the course but relatively little change in attitudes. It is concluded that the cognitive and affective outcomes are independent of each other.—*Journal abstract.*

10933. Nelson, Joan B. (U. Pittsburgh) **The effect of visual-auditory modality preference on learning mode preference in first grade children.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2219-2220.

10934. Neufeld, Gerald G. (U. California, Berkeley) **How personality, foreign language aptitude, and anomie relate to foreign language acquisition.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1651-1652.

10935. Rasheed, Robert N. (Auburn U.) **The relationship between factors of personality and academic achievement in a programmed learning situation among college students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1646.

10936. Santmire, Toni E. (U. Rochester) **An investigation of the role of student conceptual level and teacher-radiated environment in achievement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1632.

10937. Sutton, Marjorie H. (Hillsdale Coll.) **Children who learned to read in kindergarten: A longitudinal study.** *Reading Teacher*, 1969(Apr), Vol. 22(7), 595-602, 683.—It was shown that children who achieved a measure of reading ability in kindergarten had a continuing and increasing reading advantage over their classmates throughout the primary grades. This was the experience of both teachers and parents of the children and was manifested in their increased demand for books. The kindergarten reading experiences in this study were presented only during the 2nd semester and were limited to 15 min/day.—*P. D. Leedy.*

10938. Thomas, Russell E. (Purdue U.) **Discriminant function analysis of probationary and non-probationary students' measured values, personality needs, and socio-economic background factors.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1589-1590.

10939. Wangler, David G. (U. New Mexico) **Conceptual systems, attitudes toward and achievement within the school.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1376.

10940. **Weiner, Bernard.** (U. California, Los Angeles) **Thoughts and actions associated with achievement motivation.** *Irish Journal of Education*, 1969(Win), Vol. 3(2), 105-116.—Presents an overview of prior research in the area of achievement motivation. Recent findings in studies with undergraduates and student teachers are presented which suggest that beliefs concerning the causes of success and failure may mediate between the level of achievement, needs, and behavior. The disparate consequences of attributing an outcome (success or failure) to effort as opposed to ability are discussed. (20 ref.)—*Journal abstract.*

10941. **Wells, Twyla T.** (U. California, Los Angeles) **The effects of discrimination upon motivation and achievement of black children in urban ghetto schools.** *American Behavioral Scientist*, 1969(Mar), Vol. 12(4), 26-33.—Cites as discriminatory the white middle-class orientation and expectations of public school systems across the country. Because cultural differences are seen as deficiencies, black children are expected to achieve less and thus become the victims of a self-fulfilling prophecy. IQ and achievement test scores are given a rigid significance, setting limits on the child at an early age; little is done to motivate the child beyond what is considered his highest level of achievement. Such children feel antagonism toward the school and the teachers who have imposed perpetual failure and inferior capability on him. The black child in a ghetto school not only has to face teacher attitudes, but also the deteriorated state of the school itself.—*M. West.*

10942. **Wethington, Charles T.** (U. Kentucky) **A study of the relationships between attitude toward English and several selected variables.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1637-1638.

10943. **Whisenton, Joffre T. & Lorre, M. Ray.** **A comparison of the values, needs, and aspirations of school leavers with those of non-school leavers.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 325-332.—196 boys and 190 girls in the Grade 9 class of a large Southern urban Negro high school served as Ss. The measuring instruments administered to all Ss were the Whisenton Belief Scale, Whisenton's Academic Level of Identifying Figures, Sims Fields-of-Study Motivation Record, and the Stern Activities Index. 9 mo. later, when it was ascertained that 42 girls and 36 boys had dropped out, statistical comparisons were made between dropout and continuing Ss. It was determined that the dropouts tended to have a more fatalistic view on life and identify with glamorous figures in the entertainment and sports world. The continuing male Ss differed from the dropout male in motivation, while the females were not differentiated.—*S. R. Diamond.*

10944. **Whitman, James R.** (Veterans Administration Hosp., Tacoma, Wash.) **Free recall of verbal material in the classroom as a function of method of presentation and method of practice.** *Journal of Experimental Education*, 1969(Sum), Vol. 37(4), 78-81.—Varied order in which stimuli were presented, and practice instructions for 182 undergraduates receiving classroom practice on a free recall task with lists of nonsense words. The order within the list was a critical factor for the 2 levels of task difficulty used. Ss who studied the list gave more correct responses than did those who copied the list with the difficult material only. Ss then received additional practice with a 2nd list. No facilitation in the free recall of the 2nd list, attributable

to the conditions which facilitated the learning of the 1st list, was found.—*Journal abstract.*

10945. **Williams, Lillie E.** (Arizona State U.) **The relationships between dogmatism, academic adjustment, and grade point averages for American Indian college students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2028.

Prediction

10946. **Behring, Daniel W.** (Ohio U.) **Adaptive functioning: A rationale for the prediction of achievement in nursing education.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1065.

10947. **Bryan, Clifford E.** (Western Michigan U.) **Forecasting high school dropout: A social-psychological approach.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1899-1900.

10948. **Cocking, Walter W.** (Boston U., School of Education) **A study of selective predictive factors of academic performance of ninth grade students.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1005-1006.

10949. **De Beruff, Ellen.** (U. Maryland) **The prediction of success in master's and doctoral programs.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1033.

10950. **Duffett, John W.** (U. Pittsburgh) **The influence of Stanford-Binet items on traditional measures in estimating first grade reading success in a selected population.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1683.

10951. **Ellakany, Farouk A.** (Iowa State U.) **Prediction of academic achievement of foreign students at Iowa State University 1969-1970.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1575.

10952. **Flaherty, Mary J.** (U. Toronto, Ontario, Canada) **The prediction of college level academic achievement in adult extension students.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 997.

10953. **Froiland, Donald J.** (Marquette U.) **Parental attitudes: A prediction of academic achievement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1618-1619.

10954. **Gaines, Michael R.** (U. Washington) **An empirical study of the relationships of selected personality variables to accounting performance.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 869.

10955. **Goodstein, H. A., Whitney G., & Cawley, J. F.** (Temple U.) **Prediction of perceptual reading disability among disadvantaged children in the second grade.** *Reading Teacher*, 1970(Oct), Vol. 24(1), 23-28.—Administered achievement tests to 108 children at the beginning of second grade. The findings of the study indicate that the Metropolitan Readiness Test total score appears to offer the most potential for adequate discrimination among failing and adequate readers. The low correlations of IQ to perceptual reading achievement and the finding that low-IQ children who fail in reading on related psychoeducational tasks reinforce a conclusion that IQ is not the primary determiner of skill acquisition or nonacquisition in reading. Many prediction instruments are not sensitive enough to separate chance performance from actual performance of disadvantaged children.—*P. D. Leedy.*

10956. **Hall, Joseph C.** (Temple U.) **A comparative**

study of selected measures of intelligence as predictors of first-grade reading achievement in a culturally disadvantaged population. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1074.

10957. Hills, John R. & Stanley, Julian C. (Florida State U.) **Easier test improves prediction of black students' college grades.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 320-324.—3 predominantly Negro, 4-yr, coeducational, public colleges in a Southern state provided the data. All the applicants were required to submit Scholastic Aptitude Test (SAT) scores when applying for admission. The students were given the similar but easier Level 4 of the School and College Ability Test (SCAT) during the orientation program in their freshman year. This test was designed for Grades 6-8. The 2 subtests of the SCAT are shown to predict freshman year grades in the colleges studied significantly better than did the SAT, which was too difficult for many of the enrolled freshmen. Relative improvement in prediction lessened when high school grade average became a joint predictor, apparently because the high school grades of students who scored low on SAT supplied some of the missing intellectual components. —S. R. Diamond.

10958. Kubiniec, Cathleen. (State U. New York, Buffalo) **The construct validity of phenomenal self and phenomenal environment variables: Dimensionality of self concepts and relative efficacy of dimensions in predicting relative academic success.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2185-2186.

10959. Lessler, Ken; Schoeninger, D. W., & Bridges, Judith S. (205 Northwestern Mutual Bldg., Chapel Hill, N.C.) **Prediction of first grade performance.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 751-756. —Studied prediction in 3 schools, each representing a different socioeconomic level. In each school 3 predictors, the Lee-Clark Reading Readiness Test (LCRRT), the Bender Gestalt Test, and the Peabody Picture Vocabulary Test were administered to 154 1st grade children and used to predict performance on the California Reading Test and teachers' ratings administered later in the year. The LCRRT was the best single predictor in all 3 schools, correlations ranging from .51-.64 with the Reading Test and .42-.66 with teachers' ratings. The Bender and Peabody did not predict a significant amount of variance in the criteria not already accounted for by the LCRRT. Prediction of adequate or inadequate performance for individual Ss using a cutting score on the LCRRT and adequate-inadequate distinctions on the 2 criteria showed the LCRRT to predict failure correctly 73-89% of the time. Prediction was improved in the lowest class school by lowering the LCRRT cutting score, indicating the possible need for different cutting scores for children of different socioeconomic backgrounds. —*Journal abstract.*

10960. Livo, Norma J. (U. Colorado, Denver) **Reading readiness factors and beginning reading success.** *Reading Teacher*, 1970(Nov), Vol. 24(2), 124-129, 163. —With the existing state of knowledge concerning reading readiness, it is suggested that a good reading test coupled with wise teacher judgment, good classroom atmosphere, and individualized teaching for special needs of the pupils would combine to produce an efficient and effective set of factors in the assessment of readiness for beginning reading and prediction of success in beginning reading. —P. D. Leedy.

10961. Nash, John M. (Boston U., School of Education) **Prediction of academic achievement of women at a private junior college through use of certain intellectual and family relationships measures.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2113-2114.

10962. Patton, William F. & Edwards, Elizabeth. (U. Texas, Medical School, Galveston) **School readiness skills, personality characteristics and peer popularity of kindergarten children.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 689-690. —Explored the relationships between teacher ratings of school readiness skills, personality characteristics of kindergartners, and children's popularity among their peers. School readiness was related to positive personality growth and peer popularity in 11 boys and 9 girls enrolled in a private kindergarten. Improvement over the school year in academic and personality ratings by the teacher were highly correlated. It is concluded that this study provides additional evidence of the relative importance of intellectual, affective, and personality variables in the prediction of academic achievement. —*Journal abstract.*

10963. Pickering, Charles T. (Ohio U.) **A study of intellectual abilities of culturally disadvantaged children as predictors of achievement in reading, mathematics, and listening in grade one.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1085.

10964. Shouksmith, George. (Queen's U., Belfast, Ireland) **Validity studies with a test of high-level reasoning.** *Irish Journal of Education*, 1969(Win), Vol. 3(2), 117-122. —Employed a measure of high-level reasoning, the Canterbury Reasoning Test (CRT), in 2 studies, aimed at establishing its construct and predictive validity. Data from a factorial study with 50 undergraduates provides evidence for the construct validity of the test as a measure of 2 basic aspects of high-level reasoning: (a) logical reasoning, and (b) pure associative reasoning. A practical study carried out for the New Zealand Forest Service, using 39 forester cadets, suggests that the CRT has some validity as a predictor of success in university studies. —*Journal abstract.*

10965. Titus, H. Edwin. (Muskogum Coll.) **The use of peer nominations as a predictor of academic success in college.** *Journal of Experimental Education*, 1969(Sum), Vol. 37(4), 63-66. —Investigated the peer nomination technique as a predictor of academic success among 252 members of a college freshman class. Nomination forms were administered at the end of orientation week before Ss had attended any classes, after 5 wk. of classes but before any grades had been officially released, and after 11 wk. of classes and after midterm grades had been released. The technique provided scores which were reliable and which were valid against a grade point ratio criterion. The peer nomination scores were shown to tap variance independent of Scholastic Aptitude Test scores and, therefore, their applicability was suggested in academic counseling as a predictor to identify students who may face academic difficulties. —*Journal abstract.*

Overachievement & Underachievement

10966. Bright, George M. (Medical Coll. of Virginia, Adolescent Medicine) **The adolescent with scholastic failure.** *Bulletin of the Orton Society*, 1970, Vol. 20, 59-65. —Proposed that most scholastic failures of teenagers in school is related to psychosomatic, rather than

organic causes. A thorough battery of psychological and achievement tests should be administered. The physician was encouraged to draw historical information from teachers, parents, and guidance counselors, and to interview the student alone. Common causes of academic problems are outlined. Poor student-teacher relationships, intellectual deficiency, specific language disabilities like dyslexia might have been hidden causes of failure in school. True concern for the patient may spur the student's confidence to enable him to higher achievement in school.—C. O'Donnell.

10967. Hartman, Robert S. (U. Miami) **The effects of experimentally induced cognitive dissonance on the grade point average of selected underachievers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1621.

10968. Joyce, John F. (U. Rochester) **An investigation of some personality characteristics of achieving high school students from lower socioeconomic environments.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1623.

10969. Kipnis, David & Resnick, Jerome H. (Temple U.) **Experimental prevention of underachievement among intelligent impulsive college students.** *Journal of Consulting & Clinical Psychology*, 1971(Feb), Vol. 36(1), 53-60.—64 impulsive freshmen with Scholastic Aptitude Test scores of 1000 or more were assigned to 1 of 4 conditions: (a) paid counseling—Ss were paid each time they attended a weekly counseling session; (b) paid math—Ss were paid for passing a weekly math quiz; (c) paid control—Ss were paid weekly with no contingent effort required; and (d) unpaid control—there were no experimental interventions. 64 nonimpulsive freshmen served as controls in each of the 4 conditions. Results were that paying Ss to attend counseling sessions significantly improved their final grades. Paying Ss to study mathematics was only effective among the brighter impulsive students. It is concluded that both treatment conditions forced impulsive Ss to pay attention to their school progress on a continuing basis. (20 ref.)—*Journal abstract*.

10970. Thompson, Carolyn S. (Arizona State U.) **The effect of selected painting experiences on the self-concept, visual expression and academic achievement of third and fourth grade underachievers.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1634-1635.

CURRICULUM & PROGRAMS

10971. Almy, Millie, et al. **Logical thinking in second grade.** New York, N.Y.: Teachers Coll. Press, 1970. xiii, 216 p. \$2.95(paper).

10972. Altman, Irvin H. (U. California, Los Angeles) **Teacher-student interaction in inner-city and advantaged classes using the science curriculum improvement study.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1676.

10973. Archer, Lorene S. (East Texas State U.) **The effect of an eight weeks summer program on preschool readiness in Longview public schools.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 1987.

10974. August, Irwin. (New York U.) **A study of the effect of a physical education program on reading readiness, visual perception and perceptual-motor**

development in kindergarten children. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2212.

10975. Blaney, John P. & McKie, Douglas. (U. British Columbia, Vancouver, Canada) **Knowledge of conference objectives and effect upon learning.** *Adult Education*, 1969(Win), Vol. 19(2), 98-105.—Investigated whether knowledge of instructional objectives in an adult education program assists the participants to attain these objectives. Before the conference, 60 volunteer public school administrators were divided into 3 groups: Group A was provided with the instructional objectives in behavioral form; Group B with a general orientation to the program; and Group C with a pretest (in order to determine whether there was a change in the behavior under consideration during the conference). Upon the conclusion of the conference, all groups were given a posttest. The hypothesis was upheld at the .05 significance level. Additional hypotheses are suggested concerning ways in which adult educators may usefully employ behavioral objectives in program planning and administration. (15 ref.)—*Journal abstract*.

10976. Brunelle, Eugene A. (State U. New York, Buffalo) **Creative intelligence and the freshman English problem.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2365.

10977. Conrad, Robert J. (U. Utah) **A study of the relationship between lesson planning and teacher behavior in the secondary classroom.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1680.

10978. Davitt, Robert J. (State U. New York, Buffalo) **Using computer based resource guides to teach the skills of listening.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1682.

10979. De Priest, Jeanette M. (Arizona State U.) **The effects of reading aloud to children on fantasy ability.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 1997.

10980. Durst, Wesley N. (U. Nebraska) **The ninth grade physical science programs and appraisal of achievement, understanding, and vocational interest developed through three different physical science curriculums in Lincoln schools.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1507.

10981. Edwards, Joseph & Stern, Carolyn. (Child Guidance Center, Youngstown, O.) **A comparison of three intervention programs with disadvantaged preschool children.** *Journal of Special Education*, 1970(Spr), Vol. 4(2), 205-214.—Investigates 2 different structured language programs counteracting the language deficiencies of disadvantaged children. Either the University of California Preschool Language Program or the Readiness for Language Arts Program was administered to 4 yr. olds participating in Head Start. 2 control groups were used. The placebo group had special activities, e.g., listening to songs, poems, and stories, and participating in group games and coloring. The normal control group had a regular Head Start program with no intervention other than pre- and posttesting. All Ss were pre- and posttested with the Peabody Picture Vocabulary Test, the Preschool Inventory, the Gumpgookies: A Test of Motivation to Achieve, the BRL-Concepts Test, the Visual Discrimination Inventory, and the Early Childhood Language Tests for Four-Year-Olds. Results indicate little difference between treatment groups, with both groups scoring higher on a number of tests than control groups. Subjective evidence indicates that Ss liked the University of California program better than

the Readiness for Language Arts. (31 ref.)—L. M. Glidden.

10982. Fisher, David H. (Louisiana State U.) Effects of two different types of physical education programs upon skills development and academic readiness of kindergarten children. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1600-1601.

10983. Gross, Morris B. (128 W. Walnut St., Long Beach, N.Y.) Reasoning ability of Hebrew parochial school students. *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 837-838.—Studied whether Talmudic students are superior reasoners as a result of the massive effort and time devoted to Talmudic training. 2 10th and 2 7th grade groups, 1 each from the Hebrew parochial schools and public schools, were compared on 6 reasoning tests. As both parochial groups were significantly superior, it is concluded that Talmudic methodology may permeate the complete Hebrew parochial school, that syllogistic and inductive techniques may be taught without formal study of the Talmud.—*Journal abstract*

10984. Gupta, Willa & Stern, Carolyn. (U. California, Los Angeles) Comparative effectiveness of speaking vs. listening in improving spoken language of disadvantaged young children. *Journal of Experimental Education*, 1969(Fal), Vol. 38(1), 54-57.—Tested the hypothesis that children who repeat sentences aloud will acquire greater facility in forming similar sentences on their own than those who only listen to the spoken sentences. 40 disadvantaged 43-55 mo. old Negro children served as Ss. Identical sequences of 5 15-min. daily lessons plus 2 days of testing were presented under 2 treatment conditions, speaking and not-speaking. By analysis of covariance a significant difference was found ($p < .01$) favoring the speaking group. This difference was attributable to scores on the verbalization subtest, as both groups demonstrated equal facility in identification. A transfer task with verbalization to entirely different pictures produced similar significant treatment effects ($p < .01$).—*Journal abstract*

10985. Hampton, Gerald E. (Columbia U.) The effects of manipulating two types of feedback, knowledge of performance and knowledge of results, in learning a complex motor skill. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1601-1602.

10986. Heffler, James A. (Houston) An evaluation of a summer preschool program for live- and six-year-old culturally deprived children in the Lamar Independent School District of Texas. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1539-1540.

10987. Houston, Samuel R. & Bentzen, Mary M. (Colorado State Coll.) Teaching effectiveness in culturally deprived junior high mathematics classes. *Journal of Experimental Education*, 1969(Fal), Vol. 38(1), 73-78.—Investigated the extent to which a policy existed regarding the evaluation by a team of 4 evaluators from the Center for Study of Evaluation of Instructional Programs of 13 teachers participating in an experimental mathematics program at 3 demonstration math centers in 3 junior high schools located in culturally disadvantaged areas of a large Southern California district. The investigators used a modified form of the judgment analysis technique to capture the policy. Results indicate that the subset of predictor variables identified as teacher characteristics contributed significantly to the group

policy while another subset of predictor variables which were essentially pupil characteristics failed to make a significant contribution to the policy expressed by the evaluators.—*Journal abstract*

10988. Incerto, Richard A. (Boston U., School of Education) Impact of a cultural and educational enrichment program on the sense of identity of economically disadvantaged adolescents from an urban area. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2496.

10989. Jacobs, Sylvia H. (U. Texas) Parent involvement in Project Head Start. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1649-1650.

10990. Krown, Sylvia. (Hebrew U., Jerusalem, Israel) Preschool programs for disadvantaged children. *Children*, 1968(Nov), Vol. 15(6), 236-239.—Presents observations on current preschool education programs and methods of dealing with "social and educational problems of culturally deprived children" in the United States, and examines their relevance to Israeli programs. Data is drawn from observation, literature, and experience. The problems of definition of goals and policies, changing methods, cognitive learning vs. affective relating, discovery vs. directed training, teacher-child relationships, free imaginative play vs. structured cognitive learning, and group size are examined. Project Headstart and programs attempting to stimulate intellectual development in infants and very young children are discussed. It is concluded that an eclectic approach could best be applied in Israel.—G. Steele.

10991. Kuzma, Kay J. (U. California, Los Angeles) The effects of three preschool intervention programs on the development of autonomy in Mexican-American and Negro children. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1623-1624.

10992. Larsen, Janet S. (U. Florida) A study of the intelligence and school achievement of children previously enrolled in Project Head Start. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1014-1015.

10993. Lindsey, Clyde H. (Louisiana State U.) Effects of health and physical education instruction on East Baton Rouge Parish elementary school children. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1604.

10994. Malloy, Ann. (U. Montana) A study of creative activities in fifteen classrooms, grades four and six, Anaconda, Montana. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1691.

10995. Matulis, Robert S. (U. Florida) A survey of the understandings of selected concepts of logic by 8-18-yr-old students. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1079.

10996. Miller, L. Keith & Schneider, Richard. (U. Kansas) The use of a token system in Project Head Start. *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 213-220.—Attempted to develop a practical and effective method for teaching the beginning elements of hand-writing in a Head Start program by reinforcing responses which gave children access to a variety of activities normally available in the preschool classroom. Tokens were presented for correct responses and then used to select reinforcers, e.g., snacks and access to a variety of play activities. In an experimental evaluation of the token system used with 22 4-5 yr. old children, it was found that responding was maintained as long as access to the reinforcing activities was contingent

upon responding. When reinforcement was no longer contingent upon responding, virtually no responding occurred. Informal observations suggested that the token system had several unanticipated effects: vocabulary and ability to understand instructions improved; a favorable attitude toward school developed; and ability to play cooperatively with other children increased. It is concluded that the token system is a practical and effective method for teaching beginning writing skills, and has other desirable effects.—*Journal abstract.*

10997. Pascal, Charles E. (U. Michigan) **Offering course options: Personality, option preference, and course outcomes.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2194.

10998. Peters, John M. (North Carolina State U., Raleigh) **Internal-external control, learning, and participation in occupational education.** *Adult Education*, 1969(Fal), Vol. 20(1), 23-43.—Investigated the effect of internal-external control on retention of control-relevant vs. noncontrol-relevant information, and differences among internal and external prison inmates in their participation in occupational education programs. Results of a 2 × 3 factorially designed experiment with 216 and 169 inmates support the thesis that internal Ss retain more information than external Ss. However, the hypothesis that this difference depends on the perceived relevancy of such information to control is not supported by the data. A greater proportion of internal Ss participated in occupational education programs than did external Ss. It is concluded that a person can be described as possessing a generalized expectancy of control or lack of control over his environment, and that this characteristic can affect his willingness to learn information or engage in activities that could reasonably be expected to increase his chances of control over his environment, e.g., preparation for employability.—*Journal abstract.*

10999. Philbrick, Barbara B. (Purdue U.) **Self-concept and its relation to selected movement performances of 4th grade girls.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1605.

11000. Scarr, Sandra. (U. Pennsylvania) **Needed: A complete head start.** *Elementary School Journal*, 1969(Feb), Vol. 69(5), 236-241.

11001. Shochat, Elimelech. (U. Massachusetts) **A study of the relationship between specified personality traits and body-cathexis of male participants and non-participants in high school athletics.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2079.

11002. Slaughter, Charles H. (Santa Paula School District, Calif.) **Cognitive style: Some implications for curriculum and instructional practices among Negro children.** *Journal of Negro Education*, 1969(Spring), Vol. 38(2), 105-111.—Attempts to bridge the information gap between educators and researchers and make some specific recommendations for changes in curriculum and instructional practice for culturally disadvantaged youth in general and Negro children in particular. Findings with lower-class youth indicate that there is a high responsiveness to social reinforcement, and that fatherless youth and all Negro youth tend to show passive, field-dependant personalities. Research indicates that the teacher should specify tasks, organize the experience, provide reinforcement or feedback on performance, and encourage abstraction of performance into language. Inquiry training involves a film strip which demonstrates

a scientific phenomena, requires observation, theorization, active participation, and provides constant positive reinforcement. The method is deemed of value in developing these cognitive skills. Male primary teachers are noted as being a potential source of positive role identification which may result in fewer school adjustment and behavior problems. (16 ref.)—S. Knapp.

11003. Smith, Shirley A. (U. New Mexico) **A study of the influence of a motivational device on the gross motor performance of adolescent females.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1060.

11004. Van den Daele, Leland D. (U. Illinois) **Preschool intervention through social learning for disadvantaged children.** *Journal of Negro Education*, 1970(Fal), Vol. 39(4), 296-304.—Designed an intervention program to provide the disadvantaged male with a competent model, a set of appropriate roles, and an opportunity for positive, role-derived interaction. 16 3-4 yr. old children from low-income families were used. Ss were divided into 2 groups and a male model, 1 Negro and 1 white, assigned to each group. Ss were taken through an array of role play procedures. There was also positive verbal and physical interaction with the child in the context of imitative play. The program continued for 25 wk. during which each model interacted with his group 2 hr/day, 3 days/wk. The models changed groups after 12 wk. The Peabody Picture Vocabulary Test, selected cards from the Children's Apperception Test, and the Decision-Making Interview were administered to the children at 5-wk intervals. Results show significant cognitive, affective, and ego gains.—S. R. Diamond.

11005. Vázquez, Librado K. (U. Oregon) **An experimental pilot bilingual model school for transient Mexican-American students.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1636.

11006. Warsh, Herman E. (Wayne State U.) **Behavior modification of adult illiterates and functional illiterates who learned to read.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1002.

11007. Wills, Keith C. (Texas A & M U.) **Effect of different methods of instruction and practice on skill acquisition of a motor task.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1609.

11008. Young, James H. (State U. New York, Buffalo) **The use of a computer-based resource guide to pre-plan a unit of instruction and to develop student attitudes toward mathematics.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1700.

11009. Zbaracki, Richard J. (U. Nebraska) **A curriculum design based on cognitive psychology for teaching narrative and dramatic literature in the secondary school.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1700.

Teaching Methods & Teaching Aids

11010. Abraham, Eugene C. (U. Pennsylvania) **The effects of post-laboratory discussions in science on selected inquiry skills judged to be components of creativity.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2205.

11011. Anderton, Ray L. (U. Colorado) **A study of the effect of a time-compressed tape-slide instructional program upon the learner.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1064.

11012. Balson, Maurice. (Monash U., Clayton, Victoria, Australia) **Educational technology in Australia:**

Needed: A technology of instruction. *Educational Technology*, 1969(Nov), Vol. 9(11), 10-12.—Reports that although there is considerable use of the instrumentation aspects of educational technology in Australia, the communication media have not been used effectively. TV has been used in the minor role of enrichment, no attempt has been made to produce films concerned with producing a change in behavior, and computer assisted instruction has concentrated on the properties of the medium rather than the program. It is concluded that "the provision of sophisticated instruments of communication has not been matched by an adequate technology of instruction." Attempts to remedy the situation are noted.—S. Knapp.

11013. Berg, A. I. (Ed.) *Primenenie EVM v uchebnom protsesse*. [Computer application in the educational process.] Moscow, USSR: Sovetskoe Radio, 1969. 248 p.—Presents a collection of 25 papers on various problems concerning the application of computer techniques in directing teaching and the educational process, read at a 1968 seminar held in Kiev.—I. D. London.

11014. Billey, John E. (West Virginia U.) **An experimental analysis of the lecture method with the use of "advance organizers."** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1066.

11015. Bjerstedt, Ake. (School of Education, Malmö, Sweden) **Educational technology in Sweden: Systematic approaches to learning.** *Educational Technology*, 1969(Nov), Vol. 9(11), 48-51.—Describes the general characteristics of educational technology in Sweden, emphasizing the role of the National Board of Education and its Bureau for Research and Development as a central evaluation agency to insure quality of programs and as a source of funds for research centers developing materials-and-methods systems. Research and development projects, educational centers, publications, and researchers are briefly described and noted.—S. Knapp.

11016. Brown, Donna J. (Ohio State U.) **Toward a methodology for improving vocabulary development of low-income children.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1505.

11017. Carlson, Roger L. (Colorado State Coll.) **A comparison between the teaching effectiveness of a large-group lecture and a large-group discussion when evaluating the cognitive and affective domains.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1642-1643.

11018. Chrisman, Joseph P. (North Texas State U.) **A study of the effectiveness of four instructional techniques of teaching arc welding at the university level.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1595.

11019. Clift, Virgil A. (New York U.) **Curriculum strategy based on the personality characteristics of disadvantaged youth.** *Journal of Negro Education*, 1969(Spring), Vol. 38(2), 94-104.—Describes 44 factors of personality, 72 factors of cognitive function, and 53 factors in relation to educational values which may be encountered in teaching disadvantaged youth. It is suggested that teachers learn to recognize these problems and traits, state class objectives which most relate to the student, and organize their classes to enable the achievement of the objectives.—S. Knapp.

11020. Cohen, Louis S. (U. Minnesota) **An investigation of the effectiveness of certain scheduling**

procedures on mathematical achievement of junior high school pupils. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 1995.

11021. Costa, Arthur L. (U. California, Berkeley) **An investigation of some relationships between teacher attitudes and in-service in inquiry.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1660.

11022. DiBiasio, Guy N. (Boston U., School of Education) **Evaluating the effect of special lessons on the divergent thinking abilities of junior college students.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2248.

11023. Dunbar, Robert E. (Washington U.) **An experimental study of the differential effects of certain hierarchically ordered stimulus questions upon subsequent task involvement.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1616-1617.

11024. Duren, Lowell R. (Ohio State U.) **An adaptation of the Moore method to the teaching of undergraduate real analysis: A case study report.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1683-1684.

11025. Dwyer, Francis M. (Pennsylvania State U.) **The effect of stimulus variability on immediate and delayed retention.** *Journal of Experimental Education*, 1969(Fal), Vol. 38(1), 30-37.—Investigated the effectiveness of 8 types of visual illustrations used to complement oral instruction and attempted to evaluate the instructional value of black and white vs. colored visual illustrations. 262 12th graders were randomly assigned by class to 1 of 9 treatment groups, achievement being evaluated in terms of 5 criterion tests designed to measure specific educational objectives. Comparisons among the treatment groups yielded significant differences on tests measuring different educational objectives. Results indicate that some types of visuals are more effective than others in facilitating student achievement of specific educational objectives. Analyses also indicate that the addition of color in specific types of illustrations is an important instructional variable.—Journal abstract.

11026. Fischer, Barbara B. & Fischer, Louis. (U. California, University Elementary School, Los Angeles) **Toward individualized learning.** *Elementary School Journal*, 1969(Mar), Vol. 69(6), 298-303.—Describes the formation of class groups and individual placement in a move toward individualized instruction characterized by nongrading and team teaching. A case study of 3 teachers working with 75 9-12 yr. old pupils is presented, including parental counseling, student evaluation, and examples of individual placement.—G. Steele.

11027. Gray, William L. (U. Maryland) **The effects of an integrated learning sequence on the acquisition and retention of mathematics and science behaviors in grade five.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2004.

11028. Green, Kinsey B. (U. Maryland) **Dissonance as a teaching strategy.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1137-1138.

11029. Heitzman, Andrew J. (U. Pittsburgh) **The effects of a token reinforcement system on the reading skills learnings of migrant primary school pupils.** *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2181-2182.

11030. Himmel, Clark E. (U. Illinois, Urbana-Champaign) **A critical review and analysis of self-directed learning methods utilized in the teaching of**

undergraduate psychology courses. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2182-2183.

11031. Hollingsworth, Paul M. (U. Nevada) **An experiment with the impress method of teaching reading.** *Reading Teacher*, 1970(Nov), Vol. 24(2), 112-114, 187.—Describes the impress method as a unison reading process in which the child and the teacher read aloud, simultaneously. The impress technique for teaching reading was found in this small research study to be ineffective when using the EFI Wireless System with children in a 4th grade classroom. It is hypothesized that in order for improvement to take place through the impress method, there must be the personal involvement by the teacher and 1 child reading together, rather than the teacher merely monitoring the taped program. The technique may be more useful with remedial readers than with normal classroom use.—P. D. Leedy.

11032. Husband, David D. (Purdue U.) **Analysis of certain components of the audio-tutorial system of teaching.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1643-1644.

11033. Ibrahim, Aziz T. (State U. New York, Buffalo) **A computer-assisted instruction program for teaching the concepts of limits in freshman calculus: A comparative study.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1689.

11034. Kilpatrick, Maris S. (Columbia U.) **The language of instructors teaching methods in science for the elementary school with an exploratory study of the relationship between selected behavior of these instructors and their students' perception of their behavior.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1512-1513.

11035. Kulkarni, S. S. **Educational technology in India: Education and national development.** *Educational Technology*, 1969(Nov), Vol. 9(11), 28-32.—Discusses the use of radio, film, and TV in school and adult education in India, and outlines 6 pilot studies in programed learning. Problems in creating a positive attitude toward educational technology are noted.—S. Knapp.

11036. Lippmann, Glenda K. (U. Texas) **Personality correlates of differential performance and satisfaction in self-directed vs. teacher-directed instructional strategies.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1119-1120.

11037. Long, George R. (Purdue U.) **A study on the preparation of an audio-tutorial minicourse.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1690-1691.

11038. Lowry, Heath W. (U. of the Pacific, University Reading Clinic) **A paradigm: Current approaches and programs in reading.** *Reading Teacher*, 1970(Nov), Vol. 24(2), 120-123.—States that contemporary reading instruction is probably as complex in theory and structure as any single area of elementary curriculum. An attempt is made to plot the basic levels of a schema to show as clearly as possible the (a) modalities of learning through which reading takes place, (b) the strands of a methodology of reading instruction, (c) the current approaches to the teaching of reading, and (d) the administrative schedules by which the instructional program is implemented.—P. D. Leedy.

11039. MacAdam, Millard N. (U. Southern California) **A comparison of antonymically sequenced stimuli and nonantonymically sequenced stimuli when used to develop word meanings with begin-**

ning kindergarten children. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1078.

11040. McLeish, John. (Cambridge Inst. of Education, England) **The lecture method.** *Cambridge Monographs on Teaching Methods*, 1968, No. 1, 60 p.—Examines experimental work on student retention of lecture materials, student attitudes, and the improvement of lectures. General philosophical critiques of the lecture method are discussed. It is concluded that although the lecture method may be justified, the lecture system—compulsory daily lectures unleavened by tutorial discussion, seminars, or workshops—has little positive value and several negative aspects. (9 p. ref.)—S. Knapp.

11041. Muller, Douglas G. (U. New Mexico) **A transfer of paired-associates learning approach to reading acquisition.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1629.

11042. Myers, William A. (Veterans Hosp., Minneapolis, Minn.) **Operant learning principles applied to teaching introductory statistics.** *Journal of Applied Behavior Analysis*, 1970(Fal), Vol. 3(3), 191-197.—Promised a grade of A to an introductory statistics class for meeting a set of contingencies: (a) no work outside of class (except by request), (b) near-perfect performance on exams following each unit of work in a programed text, (c) correction of all exam errors, (d) self-pacing of work, and (e) the chance to finish the course early. A grade of incomplete was given otherwise. Correlations among performance measures failed to show any meaningful relationships between time taken to finish the course, errors made on exams, and errors made in the programed text. Responses to a 5-part questionnaire were overwhelmingly favorable to the course, but did not vary as a function of GPA, time taken to finish the course, or number of errors made on exams. The uniformly high level of performance, the students' lack of interest in social contact with the instructor during class, and the absence of dropouts are all attributed to the contingencies employed, chief among which were self-pacing, frequent nonpunitive exams, and a guaranteed grade of A for near-perfect work at every stage.—*Journal abstract.*

11043. Oguri, Mitsugu. (Keio U., Center for the Science of Learning, Tokyo, Japan) **Educational technology in Japan: Attention to "technology."** *Educational Technology*, 1969(Nov), Vol. 9(11), 36-37.—Reports that teaching machines have surpassed software in the degree and rate of development in Japan. 3 major obstacles to the progress of programed learning are noted: (a) the difficulty of programming subject matter for teachers who are too busy to devote many hours to it; (b) the incompatibility between the programed instruction principle of allowing students to progress at their own speed, and the present seniority-type class and grade systems; and (c) opposition from teachers who argue that programming does not cultivate real thinking ability in students. It is concluded that "there is a need for more fundamental research on programming and the use of audiovisual facilities. How to fit programed instruction into the educational system as a whole is another major problem to be solved in the near future."—S. Knapp.

11044. Oliner, Pearl M. (U. California, Berkeley) **A behavioral approach to human communication and meaning.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1629-1630.

11045. Passi, Sneh L. (State U. New York, Buffalo) **An examination of the cognitive processes fostered**

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by the content of selected elementary school mathematics series. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1516.

11046. Phillips, George O. (U. Pennsylvania) The relative effectiveness of three instructional approaches upon the reading, study habits and attitudes, and academic performance of disadvantaged black college freshmen. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1084-1085.

11047. Sanger, Emanuel. (New York U.) An investigation of interventional stimulation and the acquisition of readiness for kindergarten children. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1087-1088.

11048. Schnur, James O. (State U. New York, Buffalo) A study of programed instruction and teacher-taught modes and initial long division achievement of children classified according to their conceptual tempos. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1696.

11049. Stranges, Joseph F. (Ohio State U.) A comparative study of the open and the closed-minded students' preferences for lecture or discussion methods. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1698.

11050. Taris, Louis J. (Boston U., School of Education) Subliminal perception: An experimental study to determine whether a science concept can be taught subliminally to fourth grade pupils. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2199.

11051. Thomas, Tanya J. (U. Utah) Instructor-directed and child-directed sequences in creative mask production for disadvantaged preschool children. *Dissertation Abstracts International*, 1970(Nov), Vol. 31(5-A), 2199.

11052. Tira, Daniel E. (Ohio State U.) An introduction to the theory and application of the product-moment family of correlations via a computer assisted instructional system. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1635.

11053. Wall, Abdul J. (U. California, Los Angeles) Adult education in Iraq: A comparative study of the verbal method and audio-visual techniques in the learning process. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1001-1002.

11054. Wynroth, Lloyd Z. (Cornell U.) Learning arithmetic by playing games. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 942-943.

11055. Wood, Forrest. (U. Southern Mississippi) Why the "real" world? *Southern Quarterly*, 1969(Oct), Vol. 8(1), 91-98.—Examines the philosophical aspects of choosing between the ordinary sense world and a hallucinatory l induced by drugs. It is felt that both worlds are real in the sense that the individual is receiving data in both and not creating it. "The difference between the 2 worlds lies in the interpretation of the data." The nature of the usefulness of the interpretation, the nature of man, and the nature of the relation of man to society are examined. Reasons for preferring a life of fully developed sense experience in the ordinary sense world are discussed. It is concluded that the hallucinatory world serves as a substitute for a "creative and mature emotional life" to those people who have failed to develop a satisfying emotional life on their own.—G. Steele.

11056. Brown, Rex V. (U. Michigan) Research and the credibility of estimates: An appraisal tool for executives and researchers. Boston, Mass.: Harvard Business School, Div. of Research, 1969. xvii. 257 p. \$9.

11057. Bureš, Z. (Charles U., Inst. of Psychology, Prague, Czechoslovakia) Industrial psychology in Czechoslovakia. *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 149-153.—Industrial psychology in Czechoslovakia began in 1921 when the Central Psychotechnical Institute was created. However, little progress was made during the years 1938-1958 because of the Nazi occupation, and because during the postwar period, industrial psychology was considered as incompatible with a socialist society. The first conference of Czechoslovak psychologists since the war was held in 1957. Industrial psychology is conceived in a general manner as concerning all aspects of professional activities. It is developed under the following headings: (a) university teaching and research, (b) institutes of applied research which are part of governmental services, (c) production businesses and particularly in personnel departments, and (d) popular courses organized for leaders. Several psychological reviews are published in Czechoslovakia and an increasing number of books in industrial psychology have appeared.—L. A. Ostlund.

11058. Croke, Paul V. (Rensselaer Polytechnic Inst.) Research-on-research: I. The management planning and control of research. II. The attitudes of industrial research scientists. *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3901.

11059. Groppoșilă, Marius. (Inst. of Pedagogical Science, Bucharest, Romania) Laboratorul de psihologie și pedagogie industrială. [The Laboratory of Industrial Psychology and Pedagogy.] *Revista de Pedagogie*, 1968(Jun), Vol. 17(6), 81-86.

11060. Kalt, Neil C. (U. Illinois) The temporal resolution of inequity: An exploratory investigation. *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3903.

11061. Meyer, G. Dale. (U. Iowa) Determinants of collective action attitudes among hospital nurses: An empirical test of a behavioral model. *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 904.

11062. Sipoš, I. & Hvizdoš, L. (Slovak Academy of Sciences, Inst. of Experimental Psychology Bratislava, Czechoslovakia) Rozhlasová a podniková anketa o vybraných otázkách průmyslové ekonomiky a sociální psychologie. [Special investigation of select questions of industrial economics and social psychology.] *Psychologie v Ekonomické Praxi*, 1968, No. 1, 22-28.—Describes an investigation under the auspices of periodic broadcasts of Czechoslovak radio into problems from various spheres of economic and social psychology in industry. The audience telephoned their questions during the broadcast and the numbers of calls increased from 145-1000 in the last session, indicating considerable listener interest. Results were analyzed and compared with the answers of the control group of 3376 persons in a textile factory. Final results are compared with those reached in other parts of the world. (Russian & German summaries)—English summary.

11063. Tscheulin, D. & Rausche, A. (U. Würzburg,

Inst. of Psychology, W. Germany) **Beschreibung und Messung des Führungsverhaltens in der Industrie mit der deutschen Version des Ohio-Fragebogens.** [Description and measurement of leadership behavior in industry with the German version of the Ohio questionnaire.] *Psychologie und Praxis*, 1970(Apr), Vol. 14(2), 49-64.—The usefulness of the Foreman Behavior Description Questionnaire in a German translation was tested in 2 samples ($N_s = 81$ and 102) by factor and item analysis. As in the American version, the 2 dimensions Consideration and Initiating Structure were statistically independent. The factorial similarity of the 2 versions justifies the use of the German version.—R. F. Wagner.

VOCATIONAL CHOICE & GUIDANCE

11064. Clemens, B. T. (Purdue U.) **Engineers' interest patterns after thirty-one years: Implications for SVIB scale revision?** *Measurement & Evaluation in Guidance*, 1970, Vol. 3(3), 152-157.—Multiple discriminant function analysis was used to investigate the interest patterns of 229 engineers who were administered the SVIB as freshmen in 1935 and were retested in 1966. A 3rd group consisted of 210 freshmen who completed the SVIB in 1966 and had persisted in engineering for 2 yr. Statistically significant differences existed among the 3 groups for the Engineering scale. Based on data from the 40 SVIB variates, the multiple discriminant analysis yielded an equivalent F value of 13.63 ($p < .001$). Each of the 3 groups occupied a distinct graphic field, with no overlapping of 68th centours and minimal dispersion of 95th centours. It is concluded that the Engineer scale on the SVIB is no longer adequate as a measure of engineers' interests.—S. M. Amatora.

11065. Di Fiore, E. & Renda, S. (Work Psychology Center, Palermo, Italy) **Etude sur l'applicabilité de quelques tests en orientation professionnelle.** [Study of the applicability of several tests in vocational guidance.] *Bulletin de Psychologie Scolaire et d'Orientalion*, 1969(Dec), Vol. 18(4), 257-271.—Administered the Raver 1938 Progressive Matrices (PM38) Test, the Revised Minnesota Paper Form Board (MPFB) Test, an observation capacity (OC) test, a task performance (TP) test, and a number operations (NO) test to 1560 apprentices and college students. Statistically significant differences in performance were noted in relation to (a) age only for the OC, TP, and NO; (b) length of schooling for all tests; and (c) sex only for the MPFB and NO. When the 5 tests were administered to 200 apprentices of homogeneous age and years of schooling, with results of each test correlated against the others in all possible combinations, coefficients showed that the PM38 correlated highly with the MPFB and the TP. Also, the number of aptitudes revealed by this battery is limited, the latter lacking factors, e.g., intelligence structure, Factor M, Factor W, and the mechanical factor; these factors, added to the battery, increase its usefulness as to prognosis of performance and profiling of intellectual qualities. Batteries used in vocational guidance should be changeable, taking into account age, education level, and sex, and constructed more economically by avoiding the inclusion of tests correlating highly among themselves.—T. N. Webster.

SELECTION & PLACEMENT

11066. Griffith, William & Jackson, Thomas. (Kansas State U.) **Influence of information about ability and**

non-ability on personnel selection decisions. *Psychological Reports*, 1970(Dec), Vol. 27(3), 959-962.—Investigated the influences on simulated personnel selection decisions of a job applicant's intellectual ability and the degree to which his opinions agreed with those of an evaluator in a factorial experiment using 78 undergraduates. Both variables significantly ($p < .01$) influenced recommendations to hire or not hire the applicant. Results are discussed with respect to the influence of valid and invalid job-success predictors on selection decisions.—*Journal abstract.*

11067. Jones, Robert H. (U. Oregon) **Sex prejudice: Effects on the inferential process of judging hireability.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 1013.

11068. Lacks, Patricia B. & Powell, Barbara J. (Malcolm Bliss Mental Health Center, St. Louis, Mo.) **The Mini-Mult as personnel screening technique: A preliminary report.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 909-910.—Investigated the relationship between the standard MMPI and the 71-item Mini-Mult Test in 20 male and 20 female applicants for a psychiatric attendant position. 4 significant differences were found. It appears that the Mini-Mult is reliably related to the MMPI and might be used to screen certain populations.—*Journal abstract.*

11069. Siskind, George. (Larue D. Carter Memorial Hosp., Indianapolis, Ind.) **Note on level of aspiration as a selective device for psychiatric aides.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 874.—Describes the testing of 12 aides which shows congruence with earlier results. 2 different combinations of estimate and performance on the Cassels Level of Aspiration Test discriminated between above and below average aides at $p = .01$. Caution in use of the test is suggested because of differences in aide populations. It is suggested that level of aspiration tests merit more attention as assessment and selective techniques.—*Author abstract.*

11070. Spencer, George H. (Arizona State U.) **Perception of qualifications which are determinant in the selection of the first-level field sales manager from the ranks of the salesmen.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 874.

TRAINING

11071. Gendre, Francis. **Validation d'une batterie de sélection pour les cours de formation professionnelle des adultes.** [Selection battery for adult professional formation courses.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Oct), Vol. 17(4), 263-268.—Attempted to organize a selection of candidates with aptitudes for construction, mechanical, and electrical work to undertake a 6-mo specialization course in the cited fields. Construction and metallurgical experiments conducted on people with possible aptitudes in these departments are outlined. It is concluded that although the results at times exaggerate the qualifications, the experiment is generally satisfactory.—I. Sirotin.

11072. Hill, Leonard R. (U. Nebraska) **A comparative study on immediate and delayed reinforcement on programmed instruction with hard-core unemployed subjects.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1622.

11073. Keir, Jack C. & Jaeger, Robert G. (Temple U.) **The engineering of learning.** *Journal of the American*

Society of Chartered Life Underwriters, 1969(Jan). Vol. 23(1), 48-55.—Presents a simplified explanation of programed learning techniques, including (a) the linear or straight line or Skinnerian program, and (b) the branching or Crowderian program. How learning is engineered, feedback, and the management of learning are discussed. Emphasis is placed on the development and use of programed learning in the field of life insurance. The new agent can be exposed to realistic selling situations through programed tapes, and "the experienced professional can continue his education relative to the more sophisticated aspects of pension plans and profit sharing plans through a tape recorder at home or a programed text on the train." It is concluded that the favorable response and apparent successful learning achieved by users suggest positive future possibilities.—*M. West*.

11074. Stern, Hervey W. & Aiken, Edwin G. **Training feedback study of the sonar technician intermediate electronics course.** *U.S. Naval Personnel Research Activity Research Report*, 1969(Sep), No. SRR 70-2, 116 p.—Examined the relevance and sufficiency of the sonar technician A-2 course to determine its appropriateness to the follow-on series of C courses. The A-2 course was designed to provide the theoretical background necessary for maintenance training on various sonar and fire control systems at the C level. A complete inventory of course objectives was presented to both A-2 and C school instructors for ratings made in terms of instructional goals (A-2 instructors) or required training level upon entrance to a given C school (C school instructors). The theoretical content was adequate, but certain areas had low commonality between C schools. Further knowledge and performance testing of A-2 graduates was conducted. Ss' theoretical knowledge in these key areas was generally superior to that required in the following courses. Performance testing indicates an inadequate training level for proper test equipment usage and soldering techniques. Specific course deficiencies are discussed and appropriate changes recommended.—*Journal abstract*.

11075. Tucker, Michael F. (U. Utah) **An experimental investigation of human relations laboratory training among disadvantaged Job Corpsmen.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3904.

11076. Warren, William H. (Purdue U.) **The effect of two reinforcement strategies upon the learning of an intellectual task.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1598.

TASK & WORK ANALYSIS

11077. Chadwick-Jones, J. K., Sheppard C., & Carceller, A. (University Coll., Cardiff, Wales) **Search strategies used by process operatives in continuous-flow technology: Performance and learning.** *Perceptual & Motor Skills*, 1970(Dec), Vol. 31(3), 775-785.—Observed 12 process operatives during 96 hr. on a continuous process for electrolytic treatment of steel. Results allowed decision points to be specified and flow charts to be devised for operatives' tasks. The content analysis was accompanied by an examination of the frequency distribution of job activities, giving a comparison of numbers of interpersonal, intrateam activities to man-machine activities, and testing the possibility of consistent patterns. Findings suggest an approach to

training, with emphasis on the similarity between maintenance, repair, and process monitoring tasks. (20 ref.)—*Journal abstract*.

11078. Davies, D. R. (U. Leicester, England) **Monotony and work.** *Science Journal*, 1970(Aug), Vol. 6(8), 26-31.—Surveyed work experiments to study the effects of certain variables which tend to hamper the efficiency of the S. Differences in temperament greatly alter the amount of errors found in inspection tasks. It is noted that often in assembly line type situations individual differences between workers is wrongly minimized. The effects of knowledge (KR) were also studied. 1 explanation suggests that KR builds up a set of expectancies. A 2nd theory proposed that KR acted as an incentive which motivated the S to pay closer attention to the task. KR was shown to affect the level of arousal. The effects of rest were also discussed. It is concluded that the single variable which bears the greatest relation to deterioration in efficiency in vigilance tasks is temperament.—*C. O'Donnell*.

11079. Graham, Ben S. (U. California, Los Angeles) **Career mastery: A study of growth and decline of occupational identity among air traffic controllers at Los Angeles International Airport.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3902-3903.

PERFORMANCE & JOB SATISFACTION

11080. Barrett, Charles F. (State U. New York, Buffalo) **An empirical analysis of learning curves.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1493.

11081. Fassina, Annie & Petit, R. **Connaissance des critères d'évaluation du travail et réussite en atelier dans des formations professionnelles aux métiers de la mécanique.** [Knowledge of evaluation criteria of work and job success in the professional education of the mechanical trades.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Jul), Vol. 17(3), 115-130.—Hypothesizes that a link exists between knowledge of evaluation criteria and work performance. 199 adults (machine operators, welders, plumbers, and drill-press operators) were placed in 1 of 2 groups. Group A was involved in planning criteria for evaluation of work; Group B was not. Evaluatory criteria were categorized under 3 headings—precision, speed of routine task completion, and quality control of the finished product. Results confirm the hypothesis. (English summary)—*B. A. Stanton*.

11082. Gavin, James F. (New York U.) **Ability, effort and role perception as antecedents of job performance.** *Dissertation Abstracts International*, 1970(Feb), Vol. 30(8-B), 3901-3902.

11083. Hall, Douglas T. & Lawler, Edward E. (Yale U.) **Job characteristics and pressures and the organizational integration of professionals.** *Administrative Science Quarterly*, 1970(Sep), Vol. 15(3), 271-281.—Examined job characteristics (wide range of projects, independent budget, job challenge, and direct customer responsibility) and 3 job pressures (time, financial responsibility, and quality) in 22 research and development laboratories, as possible correlates of organizational effectiveness and the need satisfactions and job involvement of researchers in the laboratories. Job challenge and responsibility for dealing with customers were related to quality pressure and financial responsibility pressure. Job challenge was also related to

need satisfaction. Quality pressure, a professional concern, and financial responsibility pressure, an organizational concern, were both related to organizational performance. Quality pressure was also related to job involvement, so that this pressure was functional for both the individual and the organization. Financial responsibility pressure was seen as the professional's adaptation to organizational values. (35 ref.)—*Journal abstract*.

11084. Kingston, Carmela; Winikur, David, & Chansky, Norman. (Temple U.) **Attitude toward work of prospective female clerical workers.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 752.—Administered 6 statements purporting to indicate degrees of attitude toward work to 132 high school girls enrolled in office practice courses. Items were administered by the paired comparison technique. Order among the items and scale properties corresponding to Thurstone's Case III Model were shown.—*Author abstract*.

11085. Stintzi, Vernon L. (U. Washington) **The relationships between the need for responsible work and job satisfaction of new college graduates.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1443.

11086. Wilson, Ernest F. (Duke U.) **A study of predictors and academic success of graduate students of the Resident School of Engineering (AFIT) as the predictors of post graduation job effectiveness.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1639.

MANAGEMENT & ORGANIZATION

11087. Bass, Bernard M., Cooper, Robert, & Haas, John A. (Eds.) (U. Rochester) **Managing for accomplishment.** Lexington, Mass.: Heath Lexington, 1970. x, 317 p. \$12.50.

11088. Carroll, Stephen J. & Tosi, Henry L. (U. Maryland) **Goal characteristics and personality factors in a management-by-objectives program.** *Administrative Science Quarterly*, 1970(Sep), Vol. 15(3), 295-305.—Correlated characteristics of goals established in a management-by-objectives program to criteria hypothesized to represent success of the program. 129 managers answered mailed questionnaires. Correlations were calculated after personality and job factors were held constant. Data indicate that establishing clear and important goals produced favorable results. Difficulty of goals and establishing goal priorities were positively correlated with criteria of success for managers with high self-assurance, maturity, and experience. Subordinate influence over goals was not an important goal characteristic. (43 ref.)—*Journal abstract*.

11089. Gordon, Leonard V. & Kikuchi, Akio. (State U. New York, Albany) **The measurement of bureaucratic orientation in Japan.** *International Review of Applied Psychology*, 1970(Oct), Vol. 19(2), 133-140.—Describes the preparation of a Japanese form of the Work Environment Preference Schedule (WEPS) and presents some preliminary data relevant to its validity in that culture. The items were translated and given to a wide range of Japanese students. The results were submitted to factor analysis. Correlations between the results on the Japanese form of WEPS and the values measured on the survey of personal values indicated that individuals who are characterized by a stronger bureaucratic orientation are inclined to attribute a higher

value to conforming behavior and a weak value upon treating others with consideration, when there is a necessity for making rapid decisions. These results agree with (a) conclusions of the theory of bureaucracy, (b) results of American researchers upon bureaucratic organizations, (c) relationships observed on American scales, and (d) research utilizing the same inventory of values. The WEPS results obtained indicated appreciable differences between college students and groups of workers in both sexes but not between students or between workers. There was a significant correlation between scores on WEPS and age. Further, those who obtained high scores on the WEPS have a tendency to feel themselves more secure and to think that their companies offer them greater possibilities of promotion. This final result is interesting from the viewpoint of the recent increase in industrial mobility in Japan.—*L. A. Ostlund*.

11090. Lester, Clarence N. (Florida State U.) **Selected personal and environmental factors influencing conformity or non-conformity to organizational norms in the Virginia Cooperative Extension Service.** *Dissertation Abstracts International*, 1970(Sep), Vol. 31(3-A), 999.

11091. Livečka, E. (Inst. of Heavy Industry, Prague, Czechoslovakia) **Předpoklady pro aplikaci programovaného učení při výuce řidičích pracovníků.** [Application of programmed teaching in courses for managers.] *Psychologie v Ekonomické Praxi*, 1968, No. 1, 13-21.—Deals with possibilities and methods of the application of programed teaching to the instruction of managers. Pedagogic aspects of some themes, e.g., the definition, content, and methods of teaching are discussed. Special attention is devoted to the programed teaching text and the teaching machine. Results of preliminary investigations of programed learning and hypotheses on types of programs used are described. (Russian & German summaries)—*English summary*.

11092. Rossel, Robert D. (Southern Illinois U.) **Instrumental and expressive leadership in complex organizations.** *Administrative Science Quarterly*, 1970(Sep), Vol. 15(3), 306-316.—Investigated instrumental leadership (production goals) and expressive leadership (employee relations) among managers and supervisors in 8 production organizations that varied in required labor commitment. Managers and supervisors responded differently to situations necessitating high required labor commitment. For managers, the higher the required labor commitment the more instrumental the leadership orientation; for supervisors, the opposite situation existed. (22 ref.)—*A. J. Kubany*.

11093. Wieland, George F. (Vanderbilt U.) **Note on interdependent contacts and coordination in organizations.** *Psychological Reports*, 1970(Dec), Vol. 27(3), 747-751.—Examined correlations between the extent of interdependent contacts and the adequacy of organizational coordination in a nationwide sample of 43 hospitals. No direct relationship was found, although an indirect positive relationship mediated by organizational strain was found as expected. It is suggested that further work be carried out on the apparent strain-reducing effects of interdependent contacts.—*Journal abstract*.

SPECIAL ENVIRONMENTS

11094. Bergeron, Hugh P. (National Aeronautics & Space Administration, Langley Research Center, Va.)

Investigation of motion requirements in compensatory control tasks. *IEEE Transactions on Man-Machine Systems*, 1970(Jun), Vol. MMS-11(2), 123-125.—Constructed tests consisting of 1- and 2-axis closed-loop tracking tasks, with and without motion, to define some areas where motion cues are beneficial. Tests were made with reduced scaling on the motion input to investigate the minimum requirements of motion cues in those tests where motion was found to be of assistance. Ss were 4 test pilots and 4 engineers, all with extensive tracking task experience. For the set of conditions tested, little or no difference in the measurement criteria was observed in the single-axis motion/no motion runs. Similar results were obtained when comparing 2 single-axis tests with different pitch orientation. The 2-axis tests, which consisted of pitch and yaw and pitch and roll, however, did produce a difference in the error measurements in the motion/no motion comparison. A decrease in normalized tracking error and an increase in closed-loop system frequency were observed when motion was added. Tests were also run, in pitch and yaw only, in which the scale of the motion input was reduced. These tests were performed by the S in sequence starting with no motion all the way to full motion and back down to no motion. Each motion scale condition constituted a test. The normalized tracking error remained constant for full, $\frac{1}{2}$, and $\frac{1}{4}$ motion scaling, but increased with a further reduction in motion scaling.—*Journal abstract*.

11095. Dushkov, B. A. *Dvigatel'naya aktivnost' cheloveka v usloviyakh germokamery i kosmicheskogo poleta*. [Human motor activity in the hermetic chamber and in space flight.] Moscow, USSR: Meditsina, 1969.—Presents a physiological analysis of the changes in motor activity, exhibited by astronauts in flight and in training. The basic viewpoint is 1 which regards the "adaptation of man to work activity as the formation of a complex reflex and biodynamic structure in accordance with the law [governing] the concentration of muscular forces and nervous excitation." Measures to "rationalize the regime of motor activity" for astronauts, based on a neurogenic theory of fatigue proposed by the author are suggested.—I. D. London.

11096. Schmidt, Ingeborg. (Indiana U., Div. of Optometry) **Visual problems when walking on the moon.** *Journal of the American Optometric Association*, 1970(Jan), Vol. 41(1), 46-49.—Presents a few of the visual problems which come to mind when contemplating the different optical environment encountered by the moon walker. Many laws of vision established in the laboratory could be applied directly to the vision on the moon's surface, e.g., of visual acuity, color vision, and others, if, the absorption, reflection, and distortion caused by the space helmet visor did not have to be considered. On the other hand, the moon represents an ideal huge laboratory for experiments on physiological optics with its distance vision undisturbed by an atmosphere, with areas illuminated by a source of fairly constant intensity and constant color temperature near to standard illuminant C, or also if desirable, with perfectly darkened areas. Moreover, the working time is unlimited, since a lunar day lasts approximately 14 terrestrial days.—*Journal summary*.

mation sensitivity and the sequence of psychological states in the brand choice process. *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1438.

11098. Oshikawa, Sadaomi. (U. Washington, School of Business Administration) **Can cognitive dissonance theory explain consumer behavior?** *Journal of Marketing*, 1969(Oct), Vol. 33(4, Pt. 1), 44-49.—Asserts that published findings in support of the cognitive dissonance theory are equivocal, and fail to show that cognitive dissonance is the only possible cause of observed dissonance-reducing behavior. Experimental evidences are examined and their weaknesses pointed out. Suggestions regarding the circumstances under which dissonance reduction may be useful in increasing the repurchase probability of a purchased brand are presented.—*Journal abstract*.

11099. Tsukahara, Theodore. (Claremont Graduate School & University Center) **The behavioral foundations of the theory of consumer choice under uncertainty.** *Dissertation Abstracts International*, 1970(Oct), Vol. 31(4-A), 1499.

ENGINEERING PSYCHOLOGY

11100. Burgess, W. A., Hinds, W. C., & Snook, S. H. (Harvard School of Public Health, Boston, Mass.) **Performance and acceptance of respirator facial seals.** *Ergonomics*, 1970(Jul), Vol. 13(4), 455-464.—Modified 3 respirator full face masks with different peripheral seal designs (flat, inner flap, and pneumatic) to permit study of the facial seal component. 12 healthy undergraduates completed a 3-hr test session on each mask. The 1st $\frac{1}{2}$ of each session was devoted to a study of leakage at 5 seating forces, and the 2nd $\frac{1}{2}$ to a comfort study of the same mask under the same forces. To test for differences in leakage for a given seating force, a uranine aerosol test was used to challenge the integrity of the facial seal and permit quantitative measurement of percent leakage. Differences in apparent seating force (and therefore comfort) between designs were studied utilizing a psychophysical technique. A suggested physiological correlate of comfort, galvanic skin potential, was also measured during the 2nd $\frac{1}{2}$ of the session. Significant differences were noted in the performance of 1 of the 3 masks as demonstrated by the leakage tests. The psychophysical evaluation did not reveal significant differences between the masks; however, significant differences were revealed by the galvanic skin potential measurements. (French & German summaries)—*Journal abstract*.

11101. Chapanis, A. (Johns Hopkins U.) **Plenary discussion: Relevance of physiological and psychological criteria to man-machine systems: The present state of the art.** *Ergonomics*, 1970(May), Vol. 13(3), 337-346.—Discusses the view that ergonomics seems to be more physiologically oriented than human factors engineering, its American counterpart, citing support from the literature and recent conference papers. Several possibilities are adduced to account for this divergent emphasis placed on the use of physiological and psychological criteria. More serious than such differences is that it is not immediately apparent how most criteria used in ergonomic and human factors research relate to the criteria that are used for the design and evaluation of systems. A viable technology requires the ability to show the relationship between the criteria used in experimental work and those used in the

ADVERTISING & CONSUMER PSYCHOLOGY

11097. O'Brien, Terrence V. (Columbia U.) **Infor-**

practical world. (French & German summaries)—*Journal abstract*.

11102. Křivohlavý, J. (Medical Inst. Prague, Czechoslovakia) **Systémové inženýrství, inženýrská psychologie a psychologie práce.** [System engineering, engineering psychology, industrial psychology.] *Psychologie v Ekonomické Praxi*, 1968, No. 1, 5-12.—Describes system engineering as 1 of the means towards the realization of modern trends in technology. The development from machine to system engineering is described, and the concept of the system of new engineering and the system with the human factor is explained. The significance of engineering psychology increases with the position of man in modern systems. Man as the informative and energetic subsystem is emphasized. The complex solution of the working man and his problems belongs in the sphere of the industrial psychology. (Russian & German summaries)—*English summary*.

11103. Kuttan, Appu & Robinson, Gordon H. (U. Puerto Rico) **Models of temporal motor responses: Stimulus, movement, and manipulation information.** *IEEE Transactions on Man-Machine Systems*, 1970(Jun), Vol. MMS-11(2), 126-128.—Developed quantitative models of human motion relating RT, movement time, and manipulation time to stimulus, movement, and manipulation information. Response surface methodology, a statistical design and modeling technique, was used. Linear models relating time to information seem appropriate, and no significant interactions were uncovered.—*Journal abstract*.

11104. Sperandio, J. C. **Une étude expérimentale de transmission d'informations par clavier et écran d'affichage.** [An experimental study of transmission of information via computer and keyboard screen.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Jul), Vol. 17(3), 191-203.—Describes experiments concerning the real time-relationship between an operator and a computer within the framework of air traffic control operations. (15 ref.)—*English summary*.

11105. Sperandio, J. C. & Bissieret, A. **Facteurs humains dans l'étude des dispositifs d'entrée d'informations.** [Human factors in the study of information entry contrivances.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Oct), Vol. 17(4), 269-294.—Surveyed the problems posed by human "feeding" of information into machines and their "compatibility." Several methods are illustrated involving standard, numerical, and coded keyboards as well as visual and audio controls. The importance of speed and precision in operation of such contrivances are stressed and auxiliary gadgets, e.g., the rolling ball, light pen, and others, designated to speed up the operation are enumerated. It is concluded that total accuracy and precision on the part of contrivances is still uncertain and that this factor can be determined only after a thorough analysis of the operating instrument and the importance of each of its functioning parts. (63 ref.)—*I. Sirotnin*.

Displays & Controls

11106. Bernotat, Rainer K. **Rotation of visual reference systems and its influence on control quality.** *IEEE Transactions on Man-Machine Systems*,

1970(Jun), Vol. MMS-11(2), 129-131.—Electronic displays pose large human-engineering possibilities and new problems. 1 special aspect is the rotation of the display reference system. The human operator is unable to compensate for rotation; thus, errors increase considerably at 90 and 270° rotation angles. 30 inexperienced male Ss aged 20-35 yr. tracked 1 of 3 displays for 10 min. at a constant rotation angle. Each S took part in only 1 test run to avoid transfer problems. A new action display indicating the stick signal to the control system compensated for the rotation effect.—*Journal abstract*.

11107. Bissieret, André. **Les facteurs humains dans le développement d'un système hommes-calculateur.** [Human factors in the development of an automated system.] *Bulletin du Centre d'Etudes et Recherches Psychotechniques*, 1968(Jul), Vol. 17(3), 153-169.—Discusses problems encountered in the real time relationship between operators and a computer during the developmental phase of an automated system of regional air traffic control. Explains the transition to a new phase of automatic control through the use of computers in an important function of the system: coordination. Outlines the human factor studies conducted for the purpose of providing new working methods and evaluating the effectiveness of such methods. Particular stress is placed on the cooperation of psychologists with engineers and operators. (15 ref.)—*English summary*.

11108. Chambers, J. B. & Stockbridge, H. C. (Army Personnel Research Establishment, Farnborough, England) **Comparison of indicator components and push-button recommendations.** *Ergonomics*, 1970(Jul), Vol. 13(4), 401-420.—Designed 4 consoles identical in every respect except for the display and control components used in their construction. 2 levels of illumination were employed. 16 19-50 yr. old fit male Ss were tested. Ss responded to signals presented in a predetermined order by operating a control, e.g., a push button or key. RTs were taken using a simple time event recorder producing 5-hole punched paper tape output. A note was taken of errors of operation. Some 30,000 RTs were taken and analyzed using a 5-factor analysis of variance computer program. A similar rank order of the components was found for speed of response and accuracy of operation. Within the limits of the experiment a transilluminated push button was operated with the lowest RT and with least error. Factors affecting the design of push button controls and their associated displays are discussed. (French & German summaries) (34 ref.)—*Journal abstract*.

11109. Vartabedian, Allen G. (Bell Telephone Lab., Holmdel, N.J.) **Human factors evaluation of several cursor forms for use on alphanumeric CRT displays.** *IEEE Transactions on Man-Machine Systems*, 1970(Jun), Vol. MMS-11(2), 132-137.—Investigated cursor form and cursor blink rate in terms of their effects on operator search time in finding the cursor in a random location and their effects on tracking the cursor as it is moved between fixed random locations. 6 cursor forms at 5 alternation rates were examined. The cursor forms were box, underline, cross, diamond, blinking, and wiggling cursors. Alternation rates were 0, 2, 3, 5, and 6 Hz. Ss were 12 task-naïve females ages 20-26. Based on results and additional criteria about the use of CRT displays, it was determined that, of the cursors examined, a box cursor around each graphic character blinking at 3 Hz. is most effectively searched and tracked. Subjective evaluations support this finding.—*Journal abstract*.

DRIVING & SAFETY

11110. Altman, James W. (Datagraphics, Inc., Allison Park, Pa.) **Behavior and accidents.** *Journal of Safety Research*, 1970(Sep), Vol. 2(3), 109-122.—Attempts to identify the potential for unsafe behavior. Techniques for identifying potentially unsafe behavior through systematic analysis of error-likely situations, considerations in the engineering of tasks for safe performance, and the role of reinforcement schedules in learning safe and unsafe performance are discussed. Transfer of training principles having greatest relevance to safe performance are presented, particularly those relating to stimulus similarity, response similarity, and stimulus-response bonding. Some of the sources of conflicting reinforcement that can erode safe performance are identified as (a) conflict between speed and safety of performance, (b) discontinuities in communication from 1 organizational level to another, and (c) the drive to create tension for the enjoyment of its release. The difficulties of comparing safe performance from 1 context to another is discussed, emphasizing the need for a stable frame of reference and making some preliminary suggestions. —*Journal abstract.*

11111. Balla, John I. & Moraitis, S. (Prince Henry's Hosp., Melbourne, Victoria, Australia) **Knights in armour: A follow-up study of injuries after legal settlement.** *Medical Journal of Australia*, 1970(Aug), Vol. 2(8), 335-361.—Reviewed a group of 82 patients, all of Greek origin and suffering back or neck injuries from industrial or traffic accidents. In most cases the injuries were relatively mild, yet they produced a large variety of symptoms. The clinical features were to a large extent based on a mixture of organic and psychological causes, as well as social disturbances, owing to the particular cultural background of Ss. Legal proceedings were generally regarded as complicating factors and, at times, adversely influenced prognosis. A settlement of the legal matters, however, had little or no influence on most Ss and their symptoms persisted unaltered. No specific treatment was found to be particularly useful, but it was considered that surgery was contraindicated in most cases. Females, and those patients with severe psychological disturbances, would seem to have a poor prognosis. —*Journal abstract.*

11112. Kibrick, Eleanor & Smart, Reginald G. (Addiction Research Foundation, Toronto, Ontario, Canada) **Psychotropic drug use and driving risk: A review and analysis.** *Journal of Safety Research*, 1970(Jun), Vol. 2(2), 73-85.—Reviews studies of the incidence of psychotropic drugs in general populations, in samples of drivers, and samples of accident drivers. Investigations have varied in terms of drugs studied, reliability of data collection procedures, and criteria for choosing sample populations. This variability plus lack of replicative investigations makes the generation of conclusions tentative at this time. The studies cited show that 35-50% of the general population risk driving after drug use at least once/yr and suggest that 11-15% of accident drivers have taken a psychotropic drug prior to their accident. Psychotropic drug use is most likely to be found among certain drinking driver groups, especially the fatally injured. It is indicated that the veracity of drivers' statements about drug use is very low and drug use estimates derived from questioning are probably very conservative. Further research is recommended in

associating the use of psychotropic drugs with driving errors or with responsibility for accidents. (58 ref.) —*Journal abstract.*

11113. Kraus, A. S., Steele, R., Ghent, W. R., & Thompson, M. G. (Queen's U., Kingston, Ontario, Canada) **Pre-driving identification of young drivers with a high risk of accidents.** *Journal of Safety Research*, 1970(Jun), Vol. 2(2), 55-66.—Compared interview data on background characteristics between 205 drivers under age 21 recently in accidents vs. matched controls. Factors which were significantly more frequent in the accident group are: (a) failed 1 or more grades in or before Grade 8, or had been in a vocational high school course; (b) became a regular cigarette smoker at or before age 16; (c) had 1st full-time employment exclusive of school vacation time at or before age 17 and before obtaining a driving license; and (d) had been charged with a criminal offense. Ss who had been in a 1-vehicle accident showed still higher frequencies of these factors. The frequency of probable responsibility for a 1st accident within 6 mo. of receiving a drivers license was strikingly higher in those with these risk factors than in other accident cases, but these 2 groups had similar proportions with 2 or more accidents. Preventive implications are discussed. —*Journal abstract.*

11114. Kunkel, Eberhard. (Medico-Psychological Inst. of Technology, Mainz, W. Germany) **Reaktionsverhalten und Fahrtauglichkeit: Sammelreferat.** [Reaction behavior and driving fitness: A review.] *Zeitschrift für experimentelle und angewandte Psychologie*, 1970, Vol. 17(3), 488-536.—Some apparent contradictions were encountered in the review of research on driving ability and reaction performance which could, however, be cleared by a distinction between simple and multiple reaction tests. Multiple reaction tests have a close correlation to driving performance and are useful in predicting driving ability. (English & French summaries) (66 ref.) —*W. J. Koppitz.*

11115. Parker, Neville. (97 Wickham Terrace, Brisbane, Queensland, Australia) **Accident neurosis.** *Medical Journal of Australia*, 1970(Aug), Vol. 2(8), 362-365.—Briefly presents factors which may be involved in the etiology of accident neurosis: "the solicitor who sees his function as obtaining the highest possible damages, the neurologist who has to... exclude every possible organic basis for symptoms, and the physician who overtreats...." Conclusions are based on 100 cases of accident neurosis referred by solicitors. Illustrative anecdotes are presented. —*M. West.*

11116. Schuster, Donald H. (Iowa State U.) **Follow-up evaluation of the performance of driver improvement classes for problem drivers.** *Journal of Safety Research*, 1969(Jun), Vol. 1(2), 80-87.—Evaluated the effectiveness of a driver improvement class in California by comparing the subsequent driving records of 265 (12 female) drivers who attended the voluntary 18-hr class vs. the 405 (9 female) drivers who did not. All Ss had a 1-hr improvement interview with the Department of Motor Vehicles. Moving violation and driving accident rates were cut in 1/2 in the follow-up period for all Ss, but were still worse than that of the average California driver. The record of Ss who attended the class was comparable to that of the Ss who had the 1-hr interview alone. The influence of variables, i.e., license restriction and driving experience, is considered and suggestions made as to the type of driver who would

benefit by driver improvement classes.—*Journal abstract.*

11117. Tesser, Abraham & Grossman, Narvin. (U. Georgia) **Fate orientation as a correlate of driver knowledge.** *Journal of Safety Research*, 1969(Jun), Vol. 1(2), 74-79.—Administered 2 measures of fate vs. responsibility orientations to 51 male and 67 female undergraduates: Rotter's Internal-External Control Scale (I-E) and a specially constructed scale for fate orientation with respect to driving (FRD). The 2 scales had a low but significant correlation with each other (r all Ss = .22). The FRD correlated significantly as predicted with useful driving knowledge, but the I-E did not. The

relationship between the FRD and useful driving knowledge could not be accounted for by some 3rd variable for females ($r = .32$); but for males, when exposure to a driver education course was partialled out, the relationship was not significant ($r = .11$). The I-E correlated significantly with the number of accidents with the number of accidents with which the respondent was charged for a violation ($r = .23$ all Ss) as did the FRD for males ($r = .48$). Results suggest that individuals may have a fate orientation toward a particular activity, i.e., driving, while not being particularly fate oriented in general, and vice versa.—*Journal abstract.*

Brief Subject Index

This index supplements the classification of abstracts given in the Table of Contents, and is designed to lead the reader to subjects that are more specific than the general categories of the classification. When many abstract numbers are listed under a heading, the reader may simplify his task by matching the numbers found under the two or more headings that specify his particular interest.

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